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- Resource has been updated with additional information and links
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| Table B: | Hearing |
| Table C: | Fine Motor |
| Table D: | Communication |
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14. Use of Scribe
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  Computer-based Testing
  The Role of Computer Technology
  Technology for Students with a Disability
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Assessing Student Proficiency with Technology Features
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  Example: Elementary Technology Literacy Guide – Plano, Texas
  Example: Common Core State Standards k:12 Technology Skills Scope and Sequence

References for the Technology Section

The contents of this manual were developed under a grant from the U.S. Department of Education. However, those contents do not necessarily represent the policy of the U.S. Department of Education, and you should not assume endorsement by the Federal Government.
Acknowledgements

The 9th Edition of the *Colorado Instructional Accommodations Manual* is aligned with the work of:

**The Council of Chief State School Officers (CCSSO), 2011 Edition** *Accommodations Manual: How to Select, Administer, and Evaluate the Use of Accommodations for Instruction and Assessment of Students with Disabilities*; and a contributing report, *Improving Accommodations Outcomes: Monitoring Instructional and Assessment Accommodations for Students with Disabilities* (Christensen, Thurlow and Wang, June 2009) However, additions have been made for Colorado state policy and procedures.

The Council of Chief State School Officers is a nonpartisan, nationwide, nonprofit organization of public officials who head departments of elementary and secondary education in the states, the District of Columbia, the Department of Defense Education Activity, and five U.S. extra-state jurisdictions. CCSSO provides leadership, advocacy, and technical assistance on major educational issues. The Council seeks member consensus on major educational issues and expresses their views to civic and professional organizations, federal agencies, Congress, and the public. Visit CCSSO’s website for more resources: [http://www.ccsso.org](http://www.ccsso.org)

**Assessing Special Education Students (ASES)**
**State Collaborative on Assessment and Student Standards (SCASS)**

The State Collaborative on Assessment and Student Standards, Assessing Special Education Students ASES SCASS group addresses the inclusion of students with disabilities in large-scale standards, assessment, and accountability systems and the effects of these systems on related educational reform efforts. Throughout this 2015-16 edition of the *Colorado Instructional Accommodations Manual*, attention has been given to addressing issues related to providing accommodations on technology-based platforms. Educators are strongly advised to evaluate and implement computer-based instruction for students since the new generation of state assessments now include online delivery.

*With sincere thanks to the following CDE staff for their support and contributions:*

- **Tanni Anthony**, Visual Impairment/Deaf-blind
- **Gina Quintana**, Significant Support Needs/Deaf-blind
- **Ruth Mathers**, Deaf Education
- **Jill Marshall**, Specific Learning Disability
- **Alyssa Pearson**, Accountability and Data Analysis
- **Standards and Instruction**, Content Area Specialists
- **Fran Herbert**, Culturally and/or Linguistically Diverse
- **Jacquelin Medina**, Gifted Education
- **Linda Tegtmeier**, Secondary Transition
- **Brooke Carson**, Autism Spectrum Disorder
- **Tami Cassel**, Speech and Language
- **Heather Hotchkiss**, Brain Injury
- **Julia Wigert**, School Psychology
- **Maureen Melonis**, Assistive Technology
- **Kathy Patrick**, Health and Wellness
- **Tesia Swanstrom**, Program Assistant
- **Kelli Roark**, Webmaster
**Purpose**

**CDE Contacts**

The guidance in this manual applies to the instruction of students with documented needs, including students with a disability, who receive instruction based upon the Colorado Academic Standards and participate in large-scale assessments.

For questions related to these topics:
- Colorado Academic Standards and Extended Evidence Outcomes/Extended Readiness Competencies
- Standards-aligned IEPs for students on grade-level and alternate standards
- Instructional accommodations and adaptations for students with a disability
- Participation requirements for alternate standards and assessments
- DLM Professional development for instruction- English language arts and mathematics

**Please contact Linda Lamirande**
Accommodations & Assessment Specialist
Exceptional Student Services Unit
lamirande_l@cde.state.co.us
303-866-6863

For questions related to the topics listed below:

**Colorado Measures of Academic Success (CMAS) Assessment Accommodations**
- English Language Arts and Mathematics (PARCC)
- Science and Social Studies

**Colorado Alternate (CoAlt) Assessment**
- English Language Arts and Mathematics (DLM)
- Science and Social Studies

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Introduction

The purpose of the *Colorado Instructional Accommodations Manual: A Guide to the Selection and Implementation of Accommodations for Students with a Disability* is to

- provide decision-making guidance for all types of educational teams, the personnel of which may include administrators, general education teachers, special education teachers, gifted education educators, school psychologists, speech and language pathologists, related service personnel, and para-educators who are working in collaboration with families to design and provide effective educational plans for students

- set forth participation guidelines for students who have a significant cognitive disability to receive instruction based on alternate academic achievement standards and be evaluated with alternate academic achievement standards

- offer suggestions and resources for instructional adaptations based on student characteristics which are intended to provide access to the general curriculum for all students who have a documented need, including students with a disability

The use of accommodations moves us one step closer to ensuring that EVERY student in Colorado has a fair and equal opportunity to learn by receiving standards-based instruction and to demonstrate mastery.
Accommodations for Use during Classroom Instruction and Classroom / District Assessment

Responsibilities of Educational Teams
In the State of Colorado, all students who have a documented need, including students with an identified disability, can be afforded an appropriate instructional accommodation. In order to preserve test validity, not all instructional accommodations are allowable for use on state summative assessments. However, that is not a valid reason for an educator to refrain from using an effective accommodation during initial instruction. As the student becomes proficient, the use of some accommodations may be used with lessening frequency.

All accommodations used for assessment must be used routinely in instruction and evaluated periodically for effectiveness.

The stipulations for providing an accommodation are:
- the determination of need for a student must be made on an individual basis
- accommodations are documented in a formal plan
- accommodations are evaluated regularly for effectiveness
- the accommodation is routinely used for both instruction and assessment according to the guidelines set forth in this manual

Documenting Decisions in a Formal Plan
Educational teams have the decision-making responsibility and authority to select instructional academic achievement standards and appropriate accommodations for assessments based on evidence provided by educational, medical and/or mental health professionals. Various types of teams may be assembled to consider a student’s educational needs. All decisions will be made and documented in a formal plan according to applicable local, state, and federal guidelines.

The role of the educational team is to thoughtfully determine and document appropriate accommodations needed for instruction and assessment. The title, function, policies, and procedures of these educational teams will be defined by the district, and for some students, in accordance with state and federal law.

Formal educational plans may be referred to by different names in some districts and may include, but are not limited to:

- **English Language Acquisition (ELA) Plan** – developed for students who have a native or home language other than English
- **Individual Literacy Plan (ILP)** - provides in-school instructional time for the development of the pupil’s reading readiness or literacy and reading comprehension skills
- **Intervention (RtI) Plan** – a plan to target specific skills that require remediation
- **Advanced Learning Plan (ALP)** - a plan developed to determine and monitor individual gifted education programming that includes academic and affective goals and post-secondary/career readiness
- **School or district document** kept in the student’s cumulative record
- **Section 504 Plan / Individual Accommodation Plan (IAP)**

Students who are served under Section 504 of the Rehabilitation Act of 1973 will have a 504 Plan or Individual Accommodation Plan (IAP), as defined by district policy and procedure.
• **READ Plan** - addresses the reading instruction needs of all K-3rd grade students who are found to have a Significant Reading Deficiency (SRD)

• **Individualized Education Program (IEP)**

Students who are referred, evaluated and determined to be eligible using established eligibility criteria to receive special education services (IDEA) will have an Individualized Education Program (IEP) developed by an IEP Team.

**Note:** Only students who are eligible to receive special education services, have an IEP, and meet participation requirements as a student with a significant cognitive disability qualify to receive instruction based on alternate academic achievement standards (EEOs) and take alternate assessments based on alternate achievement standards. All other students receive instruction based upon the grade-level academic achievement standards and take assessments based on grade-level academic achievement standards, with or without accommodations.

All educational teams will develop a formal plan that documents the student’s qualification and need for an accessibility feature and/or accommodation and states how the accommodation will be implemented during instruction and assessment. (The plan may not simply be a teacher’s lesson plan book.) The decisions made regarding accommodations must be transparent and designed by a team of educators, including the parents. Parents may sign the formal plan in order to show they are aware of the need, benefit and consequences of their student receiving an accommodation.

**Prerequisite Considerations:**
- Has the student had access to grade-level content?
- Has the student had evidence-based instruction?
- Was instruction provided by a highly qualified teacher?

Evidence-Based Instruction has been defined as “the integration of professional wisdom with the best available empirical evidence in making decisions about how to deliver instruction” (Whitehurst, 2002, slide 2). At its core, evidence-based instruction simply means that the program, methodology, and/or practice have records of success. In other words reliable and valid evidence indicates that the intervention works. [http://www.reed-institute.com/Article2Evidence-Based.pdf](http://www.reed-institute.com/Article2Evidence-Based.pdf)

If the answer to any of the guiding questions is “No,” then the educational team should address access considerations, continue to apply grade-level achievement standards and appropriate accommodations, and evaluate response to intervention. If the answer to all three questions is “Yes”, then consider the guiding questions and procedures outlined below.

**Considerations for Instructional Accommodations**

To ensure that all students are engaged in standards-based instruction, the members of every educational team shall be guided by applicable state and federal policies. Furthermore, the team should consider the following:

- What are the student’s characteristics as a learner?
- How can access to grade-level standards be ensured regardless of a disability or language barrier?
- What types of instructional tasks are expected of the student in order to demonstrate proficiency in grade-level content?
- Is there a consistent “golden thread” or supporting body of evidence that connects the student’s characteristics and needs with accommodations? Are accommodations documented in a formal plan or standards-aligned IEP, which serves as a foundation for classroom instruction and assessment?
- Does the student really NEED the accommodation?
- Remember, the educational goal is for students to have access to tools which allow them to produce work independently. Accommodations are not intended for convenience or just “to do better.”
- Does the student demonstrate willingness to consistently use the accommodation?
Educational Team Considerations for Instructional Accommodations

Student Characteristics
What are the characteristics of the student?
Has the student indicated preference in using an accommodation?
Has a parent or other staff member had input on accommodations?
Does the student need or use the same accommodations for classwork as on class assessments?

Classroom Instruction and Assessment Tasks:
What instructional tasks are required of students?
Are there barriers for the student in showing progress or achievement in what an assignment or assessment is designed to measure with regard to the standards?
Are instructional tasks the same as classroom assessment tasks in type and purpose?
Are there accommodations that could facilitate access to the general curriculum for instruction?
What accommodations are needed for state assessment?

Classroom Accommodation Policy:
Consistency with IEP
Are accommodations documented in the student’s IEP being provided, routinely used, and evaluated for both instruction and assessment?
Are the accommodations included in a standards-based IEP consistent with the student’s designated academic achievement standard?
Guidelines for Determining Eligibility for Accommodations

Culturally and/or Linguistically Diverse Learners

When learners who are Culturally and/or Linguistically Diverse (CLD) are referred for special education evaluation, it is necessary to use caution so as not to discriminate because of language or cultural differences.

As a child moves through the Special Education referral process, this CDE Fast Facts document provides a framework for considering the relationship of culture and language to a possible disability:

Critical Questions Regarding the Special Education Process for Culturally and/or Linguistically Diverse Learners (pdf) http://www.cde.state.co.us/cdesped/ta_criticalquestionscld

Resources for Learners who are Culturally and/or Linguistically Diverse (CLD) Suspected of Having Educational Disabilities:

- For more information related to English Learners, please see the CDE Language, Culture and Equity webpage: www.cde.state.co.us/cde_english/elau_pubsresources.htm
- Can-Do Descriptors for WIDA Levels of English Language Proficiency

Students Identified as Gifted Who Have a Disability

Gifted students with disabilities are at-risk because their educational and social/emotional needs often go undetected. The resulting inconsistent academic performance can lead educators to believe twice-exceptional students are not putting forth adequate effort. Hidden disabilities may prevent students with advanced cognitive or creative abilities from developing their academic, arts, or leadership area of strength. The frustrations related to unidentified strengths and disabilities can result in behavioral and social/emotional issues.

When lessons and assignments promote concept learning, higher order thinking skills and offer multiple ways to demonstrate learning, twice-exceptional students (2x) are more likely to demonstrate performance in strength areas.

A collaborative effort between classroom teachers, special educators, gifted educators, and parents is needed to program for twice-exceptional students and implement instructional strategies to meet their diverse needs. It is essential that the disabilities are identified early so appropriate interventions can be provided at optimum times. Unfortunately, the struggles of many twice-exceptional students go unnoticed for many years, resulting in learning gaps and undeveloped potentials.

For information and ideas for accommodations and differentiated instructional strategies for 2X Students, visit the CDE Gifted Education website.

Students Identified as Gifted

For students identified as gifted, there are a small number who may significantly struggle with learning commensurate with their ability. It is important to recognize that significant learning difficulties may exist in gifted students. The student may display one or more skill weaknesses compared to strengths or ability. A few gifted students require a 504 Plan or may have difficulties like, sensory integration, auditory or visual processing, dyslexia, autism spectrum manifestations and intense social-emotional needs. These gifted students may or may not be on grade level, yet are at-risk for school failure. Given these issues, the gifted student may not be determined with a federally named disability, yet the learning difficulty interferes with learning. It is the determination of the ALP Team, including parental engagement, and other appropriate professionals as invited by the team to determine if the issue interferes with learning and requires accommodations in the advanced learning plan. See SLD Topic Brief – GT and SLD.
Students with a Disability Served Under Section 504 of the 1973 Rehabilitation Act

Section 504 provides certain rights to individuals with disabilities and protection against discrimination in federally funded programs and activities. Section 504 states the following:

No otherwise qualified individual with a disability ... shall, solely by reason of her or his disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance ...29 U.S.C. § 794(a).

In school settings, Section 504 legislation guarantees and protects a student with a disability who may not otherwise demonstrate evidence of educational need for specialized instruction. Students served under Section 504 have a formal plan, but do not have an IEP developed for the provision of services under Special Education (IDEA). However, these students are still considered to be individuals with disabilities and are entitled to necessary accommodations to lessen the impact of the disability in educational settings. The legal definition of a student with disabilities is much broader under Section 504 than it is under IDEA. An important part of the 504 Plan developed by a school for a student with a disability is often the documentation of accommodations that the student can utilize during instruction and on assessments.

For more information on Section 504, [http://www.cde.state.co.us/spedlaw/rules](http://www.cde.state.co.us/spedlaw/rules)

- Section 504 is enforced by the Office for Civil Rights (OCR). OCR can be contacted by calling (303) 844-5695.
- The School District is responsible for the implementation of Section 504. For more information contact the Section 504/ADA Coordinator for your District.

Special Education Eligibility Criteria for Disability Categories

House Bill 11-1277 amended the Exceptional Children’s Education Act (ECEA) to align Colorado’s disability categories with corresponding federal terms, requirements and/or terminology used in the field. The legislation was passed in May 2011. The State Board of Education (SBE) adopted the definition changes into ECEA Rules on September 12, 2012, following stakeholder work and two public-comment periods. The new disability category and eligibility language went into effect on October 30, 2012. Following separate legislation, the new category and criteria for Child with a Developmental Delay went into effect on March 2, 2013. All administrative units must use the revised eligibility category labels, definitions, and criteria for every child identified with a disability by July 1, 2016.

There are 13 disability categories for school-age learners and one specific to infants and toddlers. Three of the disability categories did not change their titles; the remaining 11 have title changes per alignment with the federal IDEA definitions.

Two broad existing categories (multiple disabilities and physical disability) were further divided into new categories. Deaf-blindness is now a self-standing definition and not merged within the category of multiple disabilities. Traumatic Brain Injury, Autism Spectrum Disorders, Orthopedic Impairment, and Other Health Impaired are now four distinct definition categories instead of falling under the former category of Physical Disability. The following chart shows the names of each of the 13 disability categories.

Each disability category has a Determination of Eligibility Checklist that outlines the specific criteria that must be considered when the IEP Team determines that a student is eligible to receive special education services in a particular disability category. Additional Training for ECEA Eligibility Categories has PowerPoint training, guidance and materials.

<table>
<thead>
<tr>
<th>Disability Categories Prior to HB11 1277</th>
<th>New Disability Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infant /Toddler with a Disability</td>
<td>Infant /Toddler with a Disability</td>
</tr>
<tr>
<td>Hearing Disability</td>
<td>Hearing Impairment, including Deafness</td>
</tr>
<tr>
<td>Multiple Disabilities</td>
<td>Multiple Disabilities</td>
</tr>
</tbody>
</table>
## Multiple Disabilities

<table>
<thead>
<tr>
<th>Physical Disability</th>
<th>Deaf-Blindness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Disability</td>
<td>Autism Spectrum Disorder</td>
</tr>
<tr>
<td>Physical Disability</td>
<td>Orthopedic Impairment</td>
</tr>
<tr>
<td>Physical Disability</td>
<td>Other Health Impaired</td>
</tr>
<tr>
<td>Physical Disability</td>
<td>Traumatic Brain Injury</td>
</tr>
<tr>
<td>Preschool Child with a Disability</td>
<td>Developmental Delay *</td>
</tr>
<tr>
<td>Significant Identifiable Emotional Disability</td>
<td>Serious Emotional Disability</td>
</tr>
<tr>
<td>Specific Learning Disability</td>
<td>Specific Learning Disability</td>
</tr>
<tr>
<td>Significant Limited Intellectual Disability</td>
<td>Intellectual Disability</td>
</tr>
<tr>
<td>Speech or Language Impairment</td>
<td>Speech or Language Impairment</td>
</tr>
<tr>
<td>Visual Disability</td>
<td>Visual Impairment, including Blindness</td>
</tr>
</tbody>
</table>

* The HB11-1277 legislation changed “Preschool Child with a Disability” to “Preschooler with a Disability” but since the bill passage, the 2012 Colorado legislature passed a new bill to change the definition category of Preschooler with a Disability to a child with Developmental Delay. This new definition is being rolled into the rulemaking process for the other 13 definitions.

**For questions, please contact Tanni Anthony: 303-866-6681**

## IEP Team Decision-Making Process

### Clarifying the IEP Team’s Role

To write an effective IEP for a child with a disability, parents, teachers, other school staff—and often the child—must come together at a meeting to look closely at the child’s unique needs. These individuals combine their knowledge, experience, and commitment to design an educational program that must help the child to be involved in, and progress in, the general education curriculum—that is, the same curriculum as for children without disabilities. The IEP guides the delivery of special education and related services and supplementary aids and supports for the child with a disability. Without a doubt, writing—and implementing—an effective IEP requires teamwork.—Center for Parent Information and Resources (formerly known as the National Dissemination Center for Children with Disabilities (NICHCY)

### Access to the General Curriculum

The central responsibility of the IEP Team is to consider how a student with a disability will participate in instruction and assessment by utilizing various types of interventions, accommodations, and/or modifications that will afford the student any support needed for educational success. The IEP Team will consider all evaluative evidence to determine eligibility for services and academic achievement standards. IEP Team considerations are documented in an Individualized Education Program (IEP). It is highly important for the IEP Team’s decisions to be communicated to all necessary campus personnel. It is frustrating for parents and embarrassing to students when teachers are not knowledgeable about accommodations the student is to receive.

### Participation in state/district assessments

Since the 1997 Amendments to the Individuals with Disabilities Education Act (IDEA, 1997), all students with disabilities must be included in state and district assessments. The IEP Team determines how a student will participate in a statewide assessment, but not whether the student will participate. All students who meet the participation guidelines as a student with a significant cognitive disability and who are unable to participate in the grade-level assessment, even with accommodation, must be provided with an alternate assessment based on alternate academic achievement standards, (sometimes abbreviated as AA-AAS). If the student meets the participation requirements, then all assessment is taken in the alternate format.

Educational teams are encouraged to use these optional tools in the decision-making process. The Participation Guidelines Worksheet and companion clarifying document below are provided to facilitate discussion and document the IEP Team’s decision-making process for choosing instruction based on alternate academic achievement standards and evaluating student performance with an alternate assessment based on alternate academic achievement standards.
(See Section III: Tools for printable documents)

- **Alternate Academic Achievement Standard and Alternate Assessment Participation Guidelines Worksheet**

- **Companion Clarifying Document for the Participation Guidelines**
  - Companion document--prints in booklet format

IEP Teams must consider and document a student’s eligibility:
- as a student with a significant cognitive disability (See Intellectual Disability Eligibility Checklist)
- to receive instruction on alternate academic achievement standards and
- to participate in alternate assessments based on alternate academic standards

For questions about eligibility for alternate academic achievement standard and alternate assessment based on alternate academic achievement standards, contact CDE ESSU consultant, Linda Lamirande 303-866-6863.
## Alternate Standards and Assessment Participation Guidelines Worksheet

*For further clarification of terms used in this worksheet, please refer to the companion document Participation Guidelines: Alternate Academic Achievement Standards for Instruction and Alternate Assessment*

<table>
<thead>
<tr>
<th>Criterion #1: The student has been evaluated and determined to be eligible to receive special education services and has an IEP.</th>
<th>Response:</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Has the student been determined to be a student with a disability eligible to receive special education services under the Individuals with Disabilities Education Act (IDEA)?</td>
<td>☐ No. Stop here. The student must meet Special Education Determination of Eligibility criteria in one or more disability categories defined in ECEA Rules <a href="http://www.cde.state.co.us/cdesped/IEP_Forms.asp">http://www.cde.state.co.us/cdesped/IEP_Forms.asp</a></td>
</tr>
<tr>
<td>☐ Is a current Individualized Education Program (IEP) in place or being developed for the student?</td>
<td>☐ Yes. If both elements can be affirmed, continue to Criterion #2.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Criterion #2: The student has documented evidence of a cognitive disability.</th>
<th>Response:</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ During the process of determining eligibility for a student to receive special education services, did the IEP Team review a body of evidence that supports the existence of a cognitive disability?</td>
<td>☐ No. Stop here. The student must have documented evidence of the existence of a cognitive disability, regardless of the special education disability category.</td>
</tr>
<tr>
<td>☐ Yes. Empirical evidence of a cognitive disability is documented in the IEP. Continue to Criterion #3.</td>
<td>☐ Yes. Empirical evidence of a cognitive disability is documented in the IEP. Continue to Criterion #3.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Criterion #3: The student has a significant cognitive disability.</th>
<th>Response Options:</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ The student’s demonstrated cognitive functioning and adaptive behavior in the home, school, and community environments are significantly below age expectations, even with program modifications, adaptations and accommodations and the School Psychologist (or other personnel trained in administering psychometric evaluation) presents evidence that the student’s cognitive and adaptive functioning is consistent with that of a student with a significant cognitive disability*.</td>
<td>☐ Yes. Both elements affirm that the student’s evaluated performance falls within range of the most significant cognitive disability. The student (a) requires extensive, repeated individualized instruction and support that is not of a temporary or transient nature and (b) uses substantially adapted and modified materials and individualized methods of accessing information in alternative ways to acquire, maintain, generalize, demonstrate and transfer academic and functional skills necessary for application in school, work, home and community environments. Daily modified instruction is linked to the enrolled grade level Colorado Academic Standards Extended Evidence Outcomes (EEOs). For students receiving instruction on alternate standards and taking alternate assessment, the IEP must contain measurable annual goals and objectives for content areas. Continue to 4B to select alternate standards-based instruction and appropriate alternate assessment.</td>
</tr>
<tr>
<td>☐ Yes. Although the documented evidence supporting the existence of a significant cognitive disability does not fall into the lower ranges, the IEP Team has considered the impact and severity of the disability along with other related factors in order to determine that the student qualifies to receive modified daily instruction based on the Colorado Academic Standards enrolled grade-level expectations. (The student then does not qualify for instruction on alternate academic achievement standards or to take alternate assessment based on alternate academic achievement standards.) Continue to 4A to select Grade-level standards-based instruction and appropriate grade-level assessment.</td>
<td></td>
</tr>
</tbody>
</table>

*Empirical evidence includes, but is not limited to, formal testing results, multi-disciplinary team evaluations, and other evaluative data.*

*Colorado Instructional Accommodation Manual 2015-16*
<table>
<thead>
<tr>
<th>Tested Content Areas</th>
<th>4A Instruction and Assessment based on Grade-Level Academic Achievement Standards (Grade-level Expectations / Evidence Outcomes)</th>
<th>4B Instruction based on Extended Evidence Outcomes (EEOs) and *Alternate Assessment based on Alternate Academic Achievement Standards (AA-AAS)</th>
</tr>
</thead>
</table>
| CMAS: Reading/ Writing (ELA) | □ Grade-level classroom/ district assessments  
□ with accommodation  
□ without accommodation | □ Alternate classroom/ district assessments based on alternate standards |
| Math | □ State Summative Assessment  
□ with accommodations allowed for use on state assessment  
□ without accommodation  
□ Unique Request- pending approval by CDE Assessment Unit | □ Alternate State Summative Assessments |
| Social Studies | | |
| Science | | |
| Other | □ ACCESS for ELLs (K-12)  
□ with allowable accommodations | □ Alternate ACCESS for ELLs (Gr. 1-12) |
| | □ Grade 10 Preparatory Exam | □ 10th Grade DLM Alternate Assessment |
| | □ Grade 11 College Entrance Exam | □ 11th Grade DLM Alternate Assessment |
| Dual Assessment | *Dual assessment is NOT an option beginning with the 2014-15 school year. If a student meets the guidelines to receive instruction on alternate standards and take alternate assessment based upon those alternate standards, then ALL tested content areas or other state-mandated assessment required for the student’s enrolled grade level, will be ALTERNATE assessments. | |

**Exclusionary Factors:**
The IEP Team affirms:
- that annual assessment data was reviewed for each content area and
- the decision for participation in the Alternate Assessment is NOT based on:
  1. A disability category or label
  2. Poor attendance or extended absences
  3. Native language/social/cultural or economic difference
  4. Expected poor performance on the grade-level assessment
  5. Services student receives
  6. Educational environment or instructional setting
  7. Percent of time receiving special education
  8. English Language Learner (ELL) status
  9. Low reading level/academic level
  10. Anticipated student’s disruptive behavior
  11. Impact of student scores on accountability system
  12. Administrator decision
  13. Anticipated student’s emotional duress

**IEP Team Consensus:** (Record decision on IEP Form and align goals with student’s enrolled grade level standards CAS/EEOs)
- Student meets participation guidelines as a student with a significant cognitive disability and will receive modified instruction based upon alternate academic achievement standards and participate in alternate assessment as indicated above.

* For further clarification of terms used in this worksheet, please refer to the companion document *Participation Guidelines: Alternate Academic Achievement Standards for Instruction and Alternate Assessment*

See Section III: Tools for a printable copy.
This clarifying document has been prepared as a companion for the Participation Guidelines Worksheet.

Evaluation and Determination of Eligibility for Special Education

When a child is referred for special education services, the school district will use “...a variety of assessment tools and strategies to gather relevant functional, developmental, and academic information, including information provided by the parent...” to build the body of evidence to define a student’s characteristics as a learner. The IEP Team will review the evaluation data and follow the Determination of Eligibility Checklists to document the student’s eligibility to receive special education services under IDEA and to develop an Individualized Educational Program (IEP). During the IEP Team considerations, the academic achievement standard for instruction will be specified and how the student will participate in assessment will be documented. (20 U.S.C. 1414(b)(2)(A).

Cognitive Disability

As part of the multi-disciplinary process, the unique needs of the child will be identified and evaluated. If cognitive and adaptive delay is a suspected area, a school psychologist or other trained licensed personnel will select and administer valid and reliable instruments based upon the student’s needs. Results of testing and observational instruments shall be reported and documented as part of an empirical body of evidence. No one procedure can be the sole determiner of whether a child has a disability or to determine a specific educational plan. Multiple sources of information must be considered to define the pervasive level of support required by the student and to identify areas of strength as well as areas of need. A comprehensive review would be expected to address the following areas: academics; communication; self-care; daily living; social skills; access to the community; self-direction; health and safety; leisure; and work. Adaptive skills should be commensurate with the scores from the cognitive evaluation.

Significant Cognitive Disability

While the Alternate Achievement Standards for Students with the Most Significant Cognitive Disabilities Non-regulatory Guidance issued by the U.S. Department of Education in August 2005 states that alternate achievement standards are intended for “…students with the most significant cognitive disabilities.” (p.6) there is no federal definition or single method of determining the most “significant cognitive disability” in Colorado, ECEA Guidelines for Eligibility outline the eligibility criteria for the disability categories. The Intellectual Disability checklist outlines the criteria for significant cognitive disability. Guidelines for the Determination of Eligibility for a Child with an Intellectual Disability or Multiple Disabilities also provides guidance in determining significant cognitive disability.

Since the impact of having an intellectual or cognitive disability varies considerably, just as the range of abilities varies considerably among all people, the designation of “the most significant cognitive disability” is left to the professional judgment of the school psychologist and other professionals contributing to the body of evidence gathered during the evaluation and considered by the IEP Team. Generally, such students can be characterized as having intellectual functioning well below average (typically associated with cognitive measures indicating an IQ below 55, / 3.0 standard deviations or more below the mean) that exists concurrently with deficits in adaptive functioning. This reference is only offered to help distinguish between students who meet eligibility criteria to receive special education services as a student with an Intellectual Disability and students with the most significant cognitive disability. The words “typically associated with IQ below 55” allow for some district/school flexibility; it is not intended to be an absolute requirement. For students with IQ measured in the 55-70 range, additional factors related to the severity and impact of the disability must be taken into account when considering the selection of alternate academic achievement standards and assessment.
IEP Team decisions must be based upon

- unique abilities and needs of each individual student
- impact of the disability on educational performance
- professional judgment, supported with a collected body of evidence to support the existence of a cognitive disability that falls within the significant cognitive disability range, either as the primary condition, or a secondary component.

Neither the special education disability category nor a given standardized IQ score can be the sole factor considered when determining instructional standards and participation in assessment. In other words, the disability category of Intellectual Disability itself or an IQ score below 70 does not automatically qualify the student to receive instruction based on alternate standards or to take an alternate assessment based on alternate academic achievement standards. Some disability categories have eligibility criteria that may inherently exclude significant cognitive disability, (Serious Emotional Disability, Specific Learning Disability, or Speech or Language Impairment for example.)

*It is the existence of the significant cognitive disability, regardless of a certain disability category, that allows the IEP Team to consider the option of alternate standards and assessment.*

**Consideration of Alternate Standards for Instruction and Assessment**

(Reads right to left – beginning at 2 SD below the mean)

Student meets all eligibility criteria for Intellectual Disability or
The Body of Evidence establishes a significant cognitive component within another disability category

"the most significant cognitive disability" range

For Students who have a significant cognitive disability, the IEP Team considers the impact of the disability when determining academic achievement standard

Not all students who have a significant cognitive disability will require instruction based on alternate standards and take alternate assessment based on alternate academic achievement standards.
Naturally, it will be a relatively small number of students who have a significant cognitive disability that will meet the participation guidelines to receive instruction based on the EEOs and take alternate district/state assessments based on alternate academic achievement standards. **However, the number of students who meet the participation guidelines is not limited, nor can it be administratively determined.**

**Instructional Standards**
The Colorado Academic Standards clearly delineate what students (PK-12) are expected to learn in each subject and grade, with each grade level building to the next, to ensure all Colorado students have the academic knowledge and skills needed to be successful in college and career. The updated standards are focused and rigorous, articulating the prepared graduate competencies and the points of mastery at each grade level that lead to college and career readiness.

**Alternate Academic Achievement Standards**
On August 3, 2011, the State Board of Education adopted the Extended Evidence Outcomes (EEOs) as alternate standards in Mathematics, Science, Social Studies and Reading/Writing/Communicating for students with a significant cognitive disability. These alternate expectations are directly aligned to the grade level expectations for all students.

**Measurable Goals and Objectives**
In the IEP, annual goals are based on enrolled grade-level standards and outline the specially designed instruction and related services the IEP Team has identified to meet the most critical needs for the student. If a student meets participation guidelines for alternate standards and assessment, the IEP must include measurable annual goals and objectives for the tested academic areas which align with the PLAAFP statement. Goals that are functional, or non-academic, are used to teach skills students need in order access the general curriculum and benefit from specialized instruction. Many functional goals can be referenced to the CAS Comprehensive Health & P.E. standards. However, in some instances, functional goals may not have a specific standards reference (e.g., orientation and mobility)

**Accommodations**
The IEP Team is responsible to document accessibility features, personal needs and preference, and accommodations used in instruction, as well as any accommodations needed for district/state assessment. Accessibility features are available to all students and are technically not considered to be accommodations. However, in order to ensure that students with a disability receive direct instruction in the use of the various features and are provided with ample opportunity to develop sufficient fluency to independently activate the tools, it is recommended that they be included in the instructional accommodation section. (See the Colorado Instructional Accommodation Manual, PARCC Accessibility Features and Accommodations Manual and the Colorado Measures of Academic Success Science and Social Studies Manual for more information.)

**Participation in Assessment**
The IEP Team determines how individual students participate in assessment programs, not whether they participate. Federal law clearly includes all students in assessment and accountability. Since instruction drives assessment, it is the instructional standard that determines assessment. If evidence of a significant cognitive disability is documented, then the IEP Team will consider the educational impact of the disability to determine the appropriate academic standard for instruction.
• The IEP Team may choose grade-level instructional standards with/without appropriate accommodations. In that case, the student will participate in grade-level classroom/district/state assessment with or without accommodations.

OR

• If the body of evidence supports the existence of a significant cognitive disability, the student may receive instruction based on grade-level standards OR alternate academic achievement standards and will participate in alternate classroom/district/state assessment that is based upon alternate academic achievement standards.

---

**Alternate Standards for Instruction and Alternate Assessment**

**Decision-Making Tree**

The student is classified as a student eligible to receive special education services under IDEA (2004) and has a current IEP.

- **YES**
  - The student participates in alternate assessment based on alternate academic achievement standards.
- **NO**
  - The student does NOT meet participation guidelines to receive instruction on Alternate Standards (EEOs) and will
    - NOT participate in district/state Alternate Assessment

The student has a documented significant cognitive disability.

- **YES**
  - The student participates in alternate assessment based on alternate academic achievement standards.
- **NO**
  - The student’s IEP team determines the student will receive modified instruction based on alternate academic achievement standards (EEOs).

The student’s IEP team determines the student will receive modified instruction based on alternate academic achievement standards (EEOs).

- **YES**
  - The student participates in alternate assessment based on alternate academic achievement standards.
- **NO**
  - The student is classified as a student eligible to receive special education services under IDEA (2004) and has a current IEP.

---

The student meets participation guidelines to receive instruction based on alternate academic achievement standards (CAS/EEOs) and to participate in alternate assessment:

- State Alternate Assessment – (Statewide Colorado Measures of Academic Success Assessment Program) Grades 3-9 & 11
- Alternate ACCESS for ELs – (Statewide Assessment Program/WIDA)
- Classroom/District Alternate Assessment(s) – (District provided)
- 10th Grade Alternate Assessment
- 11th Grade Alternate Assessment

---

(1) Accommodations within the general education curriculum were considered;
(2) The decision to provide instruction and assessment based on alternate standards is NOT primarily due to social, cultural, or economic factors;
(3) The student’s achievement is more appropriately measured against alternate achievement standards (EEOs) rather than typical age or grade-level standards.
**Decision-Making Process Flow Chart**

**Is the student eligible to receive Special Education services and does the student have a current IEP?**

**YES. Does the student have a significant cognitive disability, as determined by empirical evidence?**

**YES. Does the student require modified instruction based on the Extended Evidence Outcomes (alternate academic achievement standards)?**

**YES. The IEP contains measurable goals and objectives based upon alternate standards?**

**YES**

The IEP team met and considered assessment data. The student is eligible for an alternate assessment.

Typically a significant cognitive disability is pervasive in nature and the student will take an alternate assessment in each content area tested. Dual Assessment is not an option.

Student applies for a unique accommodation **Pending approval**

**NO**

**Is the student eligible to receive Special Education services and does the student have a current IEP?**

**NO**

Student takes grade level summative assessment without accommodations

Student takes grade level summative assessment with accommodations

Student applies for a unique accommodation **Pending approval**

**YES**

Student takes grade level summative assessment with accommodations

Student takes grade level summative assessment without accommodations

Student takes grade level summative assessment with accommodations

**Empirical Evidence may include, but is not limited to, standardized educational testing, professional evaluation data, and evaluation instruments deemed valid by the professional field.**

**“Pending CDE approval” is to be documented in the assessment accommodation section of the IEP for accommodations needing a unique accommodation request (UAR).**

See the most recent version of the [PARCC Accessibility Features and Accommodations Manual](#).
Federal Laws Requiring Participation by Students with a Disability
Several important laws require the participation of students with a disability in standards-based instruction and assessment initiatives. These include federal laws such as the Reauthorization of the Elementary and Secondary Education Act (ESEA), and the Individuals with Disabilities Education Improvement Act of 2004 (IDEA).

Reauthorization of the Elementary and Secondary Education Act (ESEA)
Stronger accountability for educational achievement results is one of the four basic education reform principles contained in ESEA. This law complements the provisions in providing public accountability at the school, district, and state levels for all students with disabilities. ESEA explicitly calls for the participation in such assessments of all students. ESEA § 1111 (b)(3)(C)(i), codified at 20 U.S.C. § 6311(b)(3)(C)(i). (The term “such assessments” refers to a set of high-quality, yearly student academic assessments.) It also requires that these assessments provide for the reasonable adaptations and accommodations for students with disabilities (see IDEA § 602(3), codified at 20 U.S.C. § 1401(3)) necessary to measure the academic achievement of such students relative to state academic content and state student academic achievement standards. ESEA § 1111(b)(3)(C)(ii).

The April 2007 regulations on alternate assessments based on modified achievement standards included the following statements about accommodations:

...a State’s (or in the case of district-wide assessments, an LEA’s) guidelines must require each child to be validly assessed and must identify, for each assessment, any accommodations that would result in an invalid score. Consistent with Title I...a student taking an assessment with an accommodation that invalidates the score would not be reported as a participant under the IDEA.


One of the basic reform principles of ESEA is stronger accountability for educational achievement results for all students. Through this federal legislation, in addition to other state and local district initiatives, assessments aimed at increasing accountability provide important information with regard to

• how successful schools are including all students in standards-based education;
• how well students are achieving standards; and
• what needs to be improved upon for specific groups of students.

Individuals with Disabilities Education Improvement Act of 2004 IDEA
IDEA (and its Colorado counterpart, the Exceptional Children’s Educational Act, or ECEA, C.R.S. §§ 22-20-101-206) specifically governs services provided to students with disabilities. Accountability at the individual level is provided through IEPs developed on the basis of each child’s unique needs. IDEA requires the participation of students with disabilities in state- and district wide assessments. Specific IDEA requirements include the following:

• Children with disabilities are included in general state and district-wide assessment programs, with appropriate accommodations, where necessary (IDEA § 612(a)(16)(A); 34 C.F.R. § 300.160; C.R.S. §§ 22-7-409(1.2)(d)(I) and 22-7-409(5)(A));
• The term “individualized education program” or “IEP” means a written statement for each child with a disability that is developed, reviewed, and revised in accordance with this section and that includes “a statement of any individual modifications in the administration of state or district-wide assessments of student achievement that are needed in order for the child to participate in such assessment; and if the IEP Team determines that the child will not participate in a particular state or district-wide assessment of student achievement (or part of such an assessment), a statement of why that assessment is not appropriate for the child; and how the child will be assessed.” (Id., § 614(d)(1)(A)(V) and (VI); 34 C.F.R. § 300.320(6); ECEA Rule 4.03(5).)

Section 504 of the Rehabilitation Act of 1973
Section 504 is the part of the Rehabilitation Act of 1973 that guarantees specific rights in federally funded programs and activities to people who qualify as disabled.
Section 504 states: "No otherwise qualified individual with a disability in the United States... shall, solely by reason of her or his disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance..."

Policies and procedures related to serving students under Section 504 are district-determined.

Section II:
Overview of the Accommodation Selection and Implementation Process

The Five-Step Process
The Colorado Instructional Accommodations Manual presents a Five-Step Process for all educational teams to follow in the selection, implementation, and evaluation of accommodations used during instruction and assessment. The guidance in this manual pertains to all students in the State of Colorado with a formally documented need or identified disability. The educational team is responsible to consider each student’s individual need for an accommodation used during instruction, classroom assessments, and district assessments, as well as to consider policies for use on a state summative assessment.

The purpose of the Five-Step Process is to ensure:

- accommodations are provided in order for students to gain access to instruction and assessments
- accommodations or modifications are provided to qualified students
- clear documented evidence exists to support the use of accommodations in instruction and assessments

Step 1
• Expect all students to receive standards-based instruction

Standards-based Education for All Students

Colorado Academic Standards
The Colorado Academic Standards clearly delineate what students (PK-12) are expected to learn in each subject and grade, with each grade level building to the next, to ensure all Colorado students have the academic knowledge and skills needed to be successful in college and career. The updated standards are focused and rigorous, articulating the prepared graduate competencies and the points of mastery at each grade level that lead to college and career readiness. The Colorado Academic Standards (CAS) set educational targets outlining what students are expected to learn at each grade level.

With the focus of federal and state legislation aimed at improving student outcomes, accountability, and the inclusion of all students comes the drive to ensure equal access to grade-level content standards. Teachers design instruction for students with a disability to work toward grade-level content standards by using a range of differentiated instructional strategies based on the varied strengths and needs of students. For students with documented needs, including students with a disability, accommodations are provided during instruction and assessments to help promote equal access to grade-level content.
To accomplish this goal of equal access:

- every IEP Team member must be familiar with the Colorado Academic Standards and Extended Evidence Outcomes, content standards, and accountability systems at the state and district level
- every IEP Team member should know where to locate standards and updates
- collaboration among parents and both general and special educators must occur for successful student access

All students with documented needs, including students with a disability, can work toward grade-level academic content standards, and most of these students will be able to achieve the regular academic achievement standards when the following three conditions are met:

- Instruction is provided by teachers who are qualified to teach in the content areas addressed by state standards and who know how to differentiate instruction for diverse learners
- Standards-aligned IEPs for students with a disability are developed to ensure the provision of specialized instruction (e.g., specific reading skills, strategies for “learning how to learn”)
- Appropriate accommodations are provided to give students the opportunity to access grade-level content

Forty-three states, the District of Columbia, four territories, and the Department of Defense Education Activity have adopted the Common Core State Standards (CCSS) for English language arts and mathematics. In Colorado, the Common Core State Standards are embedded within the Colorado Academic Standards (CAS), which also include 21st Century Learner Skills, Post-secondary Workforce Readiness, and the Extended Evidence Outcomes/Extended Readiness Competencies (alternate academic achievement standards). Promoting a culture of high expectations for all students is a fundamental goal of the Colorado Academic Standards and one which applies to students with a disability.

Alternate Academic Achievement Standards - Extended Evidence Outcomes/Extended Readiness Competencies

An alternate achievement standard is “an expectation of performance that differs in complexity from a grade-level achievement standard” (68 F.R. 68698, 68699). It must be “aligned with the State’s academic content standards [20]; promote access to the general curriculum; and reflect professional judgment of the highest achievement standards possible” (34 C.F.R. §§ 200.1(d)(1)-(3)

On August 3, 2011, the State Board of Education unanimously adopted the Extended Evidence Outcomes (EEOs) as part of the Colorado Academic Standards. These alternate academic achievement standards for Reading/Writing/Communicating, Mathematics, Science and Social Studies are directly linked to the grade level expectations within the Colorado Academic Standards, and are designed to appropriately meet the needs of students with a significant cognitive disability.

The Extended Readiness Competencies (ERCs) are content-based access skills, or steps, toward mastery of the CAS/Extended Evidence Outcomes.

The ERCs extend the 21st Century Skills readiness skills and are content-based access skills that align with a student’s present level of academic achievement and functional performance (PLAAFP). Educators align goals for specially designed instruction based upon the CAS Concepts and Skills of each standard and the corresponding Extended Evidence Outcomes. The Extended Readiness Competencies may be customized according to each student’s need to outline reasonable benchmarks/short-term objectives. Educators will progress monitor the objectives to report progress toward the goal.

For students needing functional skills to access the general curriculum in the areas of mobility; personal health and wellness; social and emotional skills and risk prevention, such goals may be referenced to the CAS Comprehensive Health and Physical Education Standards; however, not every functional goal will necessarily
have a specific standards reference (e.g., orientation and mobility for a child with visual impairment, including blindness).

To access the CAS templates with the Extended Evidence Outcomes, please click each link below:

- Mathematics with EEOs
- Reading, Writing and Communicating with EEOs
- Science with EEOs
- Social Studies with EEOs

For other information related to Instructional Standards for Students with a Disability, please visit the webpage.

Additional Resources

**Significant Support Needs**

**Standards Implementation Support**

The Office of Standards and Instruction provides Colorado educators with support tools for the implementation of the Colorado Academic Standards (CAS).

**Support Tools**

Curriculum Design Tools:
- Vertical Progression Tools
- Standards Graphic Organizers
- Content Connections (Kindergarten – 5th)
- 21st Century Skills
- Achieve the Core Free Resources
- District Sample Curriculum Project

**Aligning IEPs with Colorado Academic Standards**

For additional information and examples, please refer to Writing Standards-aligned Individualized Learning Programs [IEPs]: A Supplemental Guidance Document for Designing Effective Formal Educational Plans, December, 2014

*Standards Side-by-Side Reference Tools for English Language Arts and Mathematics* have been created to assist teachers with alignment of the Colorado Academic Standards Evidence Outcomes, Extended Evidence Outcomes, and the Dynamic Learning Maps™ Essential Elements (alternate standards that correspond with the embedded Common Core State Standards).
COLORADO ACADEMIC STANDARDS TEMPLATE ORGANIZATION

Content Area: NAME OF CONTENT AREA

Standard: The topical organization of an academic content area.

Prepared Graduates:
The P-12 concepts and skills that all students who complete the Colorado education system must master to ensure their success in a postsecondary and workforce setting.

High School and Grade Level Expectations

Concepts and skills students master:

Grade Level Expectation: High Schools: The articulation of the concepts and skills of a standard that indicates a student is making progress toward being a prepared graduate.

Grade Level Expectations: The articulation, at each grade level, the concepts and skills of a standard that indicates a student is making progress toward being ready for high school.

What do students need to know?

<table>
<thead>
<tr>
<th>Evidence Outcomes</th>
<th>21st Century Skills and Readiness Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students can:</td>
<td>Inquiry Questions:</td>
</tr>
<tr>
<td></td>
<td>Sample questions intended to promote deeper</td>
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<td></td>
<td>thinking, reflection and refined understandings</td>
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<td></td>
<td>precisely related to the grade level</td>
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<td>expectation.</td>
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<td></td>
<td>Relevance and Application:</td>
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<td></td>
<td>Examples of how the grade level expectation</td>
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<td>is applied at home, on the job or in a</td>
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<td>real-world, relevant context.</td>
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<td>Nature of the Discipline:</td>
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<td>The characteristics and viewpoint one keeps</td>
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<td></td>
<td>as a result of mastering the grade level</td>
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<tr>
<td></td>
<td>expectation.</td>
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</tbody>
</table>

Extended Evidence Outcomes (EEOs)  

Extended Evidence Outcomes for students with significant cognitive disabilities directly align to Grade Level Expectations

Extended Readiness Competencies (ERCs)

*Content-Based Access Skills:

Skills needed for a student with a significant cognitive disability to access the standards.

Skills listed in this section of the templates are only suggestions; actual skill-based objectives will need to be customized for the student according to their PLAAFP and goals.

*Performance Skills: This informal document provides a reference list of content-based access skills and Depth of Knowledge 1 and 2 skills that may help teachers as they formulate actionable, observable objectives for both academic and functional IEP goals.
In addition to the Colorado Academic Standards, the Colorado State Board also adopted Colorado English Language Proficiency (CELP) Standards which provide a continuum for language development and a framework for determining English language proficiency. The CELP standards should also be used to provide access to concepts and skills in all content areas through language differentiation.

Other links to CELP resources:
- Accommodations on ACCESS for ELLs
- CELP Standards K-5
- CELP Standards 6-12

Equal Access to Grade-Level Content

Instruction Based on Universal Design
Universal Design for Learning (UDL) principles address policies and practices that are intended to improve access to learning and assessments for all students. When Universal Design techniques are employed, educators can gain a more accurate understanding of what students know and can do. Universal Design is built around the premises of first determining student learning styles, seeing “how the student is smart” with a multiple intelligence profile, and then intentionally designing instruction for access by providing multiple means of representation, multiple means of action and expression, and multiple means of engagement.

Universal Design Resources
These resources offer several options to gain more information on student characteristics as learners (some have a fee; others are free)

Learning Styles
- Multiple Intelligences Tests for Children

UDL Guidelines: CAST center
- CAST UDL Book Builder - Use this site to create, share, publish, and read digital books that engage and support diverse learners according to their individual needs, interests, and skills.

### Principles of Universal Design

| Provide multiple means of representation | • options for perception  
|                                         | • options for language and symbols  
|                                         | • options for comprehension |
| Provide multiple means of action and expression | • options for physical action  
|                                                 | • options for expressive skills & fluency  
|                                                 | • options for executive function  
| Provide multiple means of engagement | • options for recruiting interest  
|                                         | • options for sustaining effort and persistence  
|                                         | • options for self regulation  

ECEA 2.52 Universal Design
The term “Universal Design”, when used in 34 CFR Parts 300 and 303, has the meaning given the term in Section 3 of the Assistive Technology Act of 1998, as amended, 29 U.S.C. 3002.
Best Practice for Instruction and Assessment
For both instruction and classroom assessment, there are resources and strategies for learning which should be allowable for all students, and are therefore not classified as accommodations. Practices of differentiating instruction or providing resources based on student needs should not be considered accommodations, but rather good instructional practices. Some of these tools and strategies apply to formative assessment as well. Accommodations and instructional practices should be based on student learner characteristics.

As the state transitions to next generation computer-based assessment, it becomes even more important that instructional practice mirrors the assessment environment whenever possible. It is simply not advantageous for the student to have accessibility features and accommodations, if they have not been provided ample opportunity to develop fluency and the ability to self-initiate the features. It is highly recommended that teachers access the practice items. (Go to PARCC.pearson.com). As the student’s proficiency with the tools and features increases, the better able the student will be to demonstrate mastery of the tested standard. The Assessment Unit provides accommodation information for all of the state assessments. Please check their website frequently, as new products, manuals and supports are under development. Participating with the released sample items will provide practice for students and will assist teachers with providing multi-modal instruction.

Best Practice, including providing accommodations for instruction and assessment, is illustrated in the figure below:

![Differentiated Instruction Diagram](image)

An article, "Differentiated Instruction and Implications for UDL Implementation" by Tracey Hall, Nicole Strangman and Anne Meyer can be found on the National Center on Accessible Educational Materials (AEM) website.

Formative Assessment
Formative assessment is a process, not a “test.” One author’s definition is: “Formative assessment is defined as assessment carried out during the instructional process for the purpose of improving teaching or learning.” (Shepard et. al., 2005 p. 275)

A self-paced online Book Study course, Checking for Understanding: Formative Assessment Techniques for Your Classroom (Fisher/Frey) is available for 10 Clock Hours credit on the Assessing Students with a Disability webpage.
Black and Wiliam also refer to the “process” of formative assessment:

*Formative assessment is not a thing—it is not a single test given to students to see what they have learned for the purpose of grading, placement, or classification. That is the function of summative assessments like an end-of-unit classroom test, the quarterly benchmark test, or the annual state test. Instead, formative assessment is a process that occurs during teaching and learning and involves both teachers and students in gathering information so they can take steps to keep learning moving forward to meet the learning goals.*

Another article by Paul Black and Dylan Wiliam, *Inside the Black Box: Raising Standards Through Assessment*, can be accessed on the Phi Delta Kappan website: Phi Delta Kappan September 2010 vol. 92 no. 1 81-90

For a student who is evaluated on alternate academic achievement standards, the teacher frequently conducts “in-the-moment” formative assessments, or designs other interim assessments, based upon what the student is currently learning in order evaluate progress and inform further instruction.

**The Process of Formative Assessment**

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**Instructional Intervention vs. Accommodation**

For a student with a disability, an **accommodation** is a practice or procedure that is aimed at providing equal access to the content being taught. Access gives a student the opportunity to participate meaningfully in instruction. The accommodation does not change what the student is expected to learn, but provides for adaptations in presentation, response, timing and/or setting.

An **intervention** is targeted, prescriptive instruction aimed to remediate a specific skill. The Response to Intervention (RtI) model is designed to address a student’s gaps in learning skills and monitor progress toward a defined level of performance.

**Intervention** is:
- directly linked to screening, diagnostic, and/or progress monitoring types of assessment
- research/evidence-based instruction
- systematic and explicit
- varied according to individual need and response
• increasing the time, reducing the group size, increasing intensity, and narrowing the focus are examples of intervention strategies
• provided within or outside of the general education setting and by persons in various roles

Interventions are not accommodations; however, qualified students may need to use an accommodation (e.g. large print, screen reader, colored overlay, etc.) to access instructional intervention.

The National Center for Learning Disabilities recommends the following:

Identifying struggling learners in any grade is the first step to helping them gain the academic skills that lead to high school graduation with a regular diploma. There is tremendous momentum nationwide to develop systematic Pre-K-12 early intervention models for both behavior and academics that target those students most at risk. Multi-Tier Systems of Supports (MTSS) programs are referred to globally as Response to Intervention (RTI); however, states and districts may have given them a local name (e.g. Response to Instruction, Problem Solving Model, Student Success Team, or others). More than 40 states have adopted their version of MTSS, and students—including students with learning disabilities (LD)—are benefiting from the early intervention and learning support these locally developed programs provide.

The Individuals with Disabilities Education Act (IDEA 2004), supports implementation of a Multi-Tiered System of Supports because it has proven to be effective in accelerating learning for all students, including students with disabilities. Special Education within a Multi-Tiered System of Supports provides more information. Visit the Multi-tiered System of Support webpage for training opportunities as well.
Accommodations are practices and procedures designed to ensure that educators, as well as students and parents, have a valid measure of what a student with a disability knows and can do. An instructional accommodation is to be selected, designed, and evaluated by the student’s teachers based upon the student’s characteristics as a learner. A sound decision about a student’s need for accommodations considers the student’s preferences and needs in combination with the tasks required during assessment. The goal is to find the right balance which gives a student access to instruction and assessment without diluting the content or expected outcomes. Effectiveness of an accommodation is dependent upon the student’s proficiency with its use, which improves through regular practice in everyday life.

### Purpose of Instructional Accommodations

<table>
<thead>
<tr>
<th>Accommodations are...</th>
<th>Accommodations are NOT...</th>
</tr>
</thead>
<tbody>
<tr>
<td>based on individual student documented need and used routinely in instruction with sufficient frequency to ensure familiarity and independent use</td>
<td>to be provided solely for convenience</td>
</tr>
<tr>
<td>designed to give students equitable access to the general curriculum during instruction and assessment</td>
<td>intended to give educational advantage</td>
</tr>
<tr>
<td>to be used for students to produce their own work independently and demonstrate learning</td>
<td>used to reduce learning expectations or replace instruction</td>
</tr>
<tr>
<td>determined by districts for classroom and/or district interim assessments</td>
<td>intended to “help all students do better”</td>
</tr>
<tr>
<td>documented in a formal education plan</td>
<td>to be continued without evidence of effectiveness</td>
</tr>
</tbody>
</table>

Typically, the use of accommodations does not begin and end in school. Students who use accommodations will generally also need them at home, in the community, and, as they get older, in postsecondary education and in the workplace. Students should be encouraged to be involved in the selection and evaluation of accommodations.

### Definition of Terms

The terms adaptation, accommodation, and modification are not always specifically defined or used consistently in the various federal laws and are sometimes even used interchangeably. However, it is generally agreed that they are not fully interchangeable terms, but rather have different distinct meanings for educators.

For purposes of this document, the word “adaptation” will be used as the generic term for any change or adjustment made in the classroom that allows any student to be successful. Adaptations are simply good teaching strategies for helping all students understand material presented during classroom instruction. Adaptations may include such techniques as asking clarifying questions, scaffolding skills toward a more complex concept; rephrasing or “chunking” information into more easily handled tasks, adjusting the number of homework problems assigned on a given day, or making instructional changes based on formative, “in-the-moment” assessment. No specific documentation or eligibility criterion is required for teachers to make general instructional adaptations.

If a student has a documented need or a disability that requires some change in method or procedure in order to allow the student to access the information, then certain adaptations in presentation, response, setting/environment, or timing/scheduling may be considered to be an accommodation. When the student is
ultimately expected to master the same content, an accommodation may allow the student to demonstrate that standards are not fundamentally or substantially altered mastery in an alternative way or with varying levels of support. When, then this adaptation is considered to be an accommodation to a learning or performance difference. Typically, this accommodation is reflected in how the teacher delivers instruction and/or how the student demonstrates mastery. The use of an instructional accommodation does not change the grade-level academic achievement standard. Providing an accommodation for a student with a formal educational plan, including an IEP, is not discretionary.

However, an adaptation or accommodation can become a modification if the student’s IEP Team determines that the student meets participation guidelines as a student with a significant cognitive disability. The student will receive instruction based on alternate academic achievement standards (Extended Evidence Outcomes EEOs) and be evaluated with alternate assessments based on alternate academic achievement standards (AA-AAS), such as district alternate assessments, and CoAlt (DLM/CMAS) Modifications reflect a change of content, complexity and rigor and require a standards-based IEP for instruction. Modifications change what the student is expected to learn and the academic achievement standard by which the student is evaluated.

As an example to illustrate these terms, consider a hypothetical student who may be experiencing difficulty understanding a certain concept or reading a particular passage. The teacher may give the student another book or article with additional background information, provide accessible educational materials (a video on the subject), use illustrations to help him/her understand the concept better, or use adapted text that has a lower text complexity. Such strategies may considered simple adaptations. The teacher notices a student struggling and offers some scaffolded information or guided questions.

However, suppose the student has been identified as a student with dyslexia and has a formal educational plan that documents the student’s need for specific changes in presentation of text. Rather than receiving the information from a printed textbook or website, the teacher can provide a partner reader, audio book, adapted text, screen reader or other prescribed method for the student to access the information utilizing multiple means of representation. The student has a documented need, and receives a presentation accommodation. The student is still receiving instruction based on grade-level academic achievement standards (CAS) and will participate in grade-level assessments with, or without an accommodation as determined by the educational team. If the student is eligible for special education services, the special education teacher may offer additional specially designed instruction focused on remediating an identified area of reading difficulty. Accommodations are not intended to take the place of instruction. Adaptations simply allow the student to have an equal opportunity to learn the grade-level concept.

To carry the hypothetical student example one step further, if the student’s IEP Team determines that the student meets the participation guidelines as a student with a significant cognitive disability, then the student would receive modified instruction based on alternate academic achievement standards (EEOs) in all areas. The student’s IEP would outline ways the student is to work on meaningful tasks linked to the grade-level standard. Depending upon the individual, the student may need explicit instruction, modified reading and tasks that are related, but less difficult, frequent repetition, fewer tasks, or less content. Such a student would also be eligible to take alternate assessment based on alternate academic achievement standards (district alternate assessments, or CoAlt).

<table>
<thead>
<tr>
<th>Colorado Academic Standards (CAS)</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accommodation</td>
<td>Modification</td>
</tr>
<tr>
<td>• Grade-Level Academic Achievement Standard</td>
<td>• Alternate Academic Achievement Standard</td>
</tr>
<tr>
<td>• Grade-level assessment</td>
<td>• Alternate Assessment</td>
</tr>
</tbody>
</table>
Instruction based on CAS grade-level content standards and Evidence Outcomes utilizing intentionally-designed accessible instruction based on principles of UDL and Differentiated Instruction. | Modified instruction is based on Extended Evidence Outcomes and Extended Readiness Competencies (EEOs/ERCs); IEP outlines goals (concepts) and objectives (skills)

Adapts how the student accesses the content, but does not change what the student learns | Adjusts learning expectations according to student need by modifying what the student is expected to learn (content) and/or demonstrate (rigor)

Can be used by students with documented needs, including students with a disability by using strategies for differentiated instruction; adapting text and strong support for acquisition of academic vocabulary | For students with a significant cognitive disability who meet participation guidelines

*See the optional alternate standards and assessment worksheet in Tools section along with clarifying document

**Educators should understand that routinely providing modifications to content during classroom instruction and/or classroom assessments for a student who does not meet participation requirements as a student with a significant cognitive disability may have the unintended consequence of reducing the student’s opportunity to learn critical content that may be evaluated on district and state assessments.**

**Modified Standards/Assessment**
Colorado has chosen not to adopt modified academic achievement standards and does not provide modified state assessments. **Students, including students with a disability, who have cognitive and adaptive functioning within normal limits, receive enrolled grade-level instruction and are evaluated with grade-level academic achievement standards.** Approximately 99% of students will take the general statewide summative assessment, with or without accommodations.

**Description of Accommodation Categories**

Instructional accommodations are based on each student’s unique learner characteristics and needs. There is no prescribed list of certain accommodations that are provided for a given disability category. As stated previously, thoughtful consideration should be given to the selection of accommodations, so that students can focus on learning the content, not just using their accommodation. When IEP Teams consider instructional accommodations, the “More is Better” philosophy is not necessarily true.

**Accommodations are commonly categorized in four ways:**

**Presentation** accommodations allow a student with a disability to access information in ways other than standard visual or auditory means (e.g., by reading or listening.) These accommodations change the way that instruction, directions, and information are presented to students. These alternate modes of presentation include font size, audio, sign language, adapted text, picture symbols, etc.

**Response** accommodations are methods a student uses to provide responses to instructional activities or assessment tasks. Examples of response accommodations may include producing text using speech-to-text software, using an assistive communication device, or a switch to indicate choices.
Setting and Environmental accommodations are changes to the location in which an assignment or assessment is given or the environmental conditions the student needs. Some examples may include the location where a student works or takes an assessment, use of sensory tools, ear plugs etc.

Timing and Scheduling accommodations are changes in the allowable amount of time or the time of day instruction or assessments are given. These types of accommodations may include allowing extended time, frequent breaks, or providing key instruction during the time of day the student is most responsive.

What Does the Research Say?
The National Dissemination Center for Children with Disabilities (NICHCY) reports that, unfortunately, there is a lack of extensive research regarding the use of accommodations and their extensive application across testing environments. However, some research has been able to suggest that: *if accommodations are poorly matched to student need, or if the student has not had the opportunity to practice using the accommodation frequently enough to achieve fluency, lowered scores appear to result.*

The use of more accommodations is **not** necessarily better. Providing students with a “laundry list” of accommodations that are not truly needed, or that have not been evaluated and determined to be effective, may actually have a negative impact on performance. The better approach is to focus on a student’s identified needs within the general education curriculum when choosing accommodations. It is then the educators’ responsibility to implement the accommodation with fidelity and evaluate its effectiveness in both instruction and assessment.

To ensure that a student with a disability is engaged in standards-based instruction and assessments, every educational team must be knowledgeable about the state’s academic standards and assessments. Effective decision-making about the provision of appropriate accommodations begins with making good instructional decisions. In turn, making appropriate instructional decisions is facilitated by gathering and reviewing pertinent information about the student’s disability, learner characteristics, and present levels of academic achievement and functional performance in relation to state academic standards (Colorado Academic Standards).

Selection Process Considerations

Student Characteristics
Selecting accommodations for instruction and assessment is the responsibility of an educational team. Accommodations should always be chosen based on the student’s characteristics and learning needs. After considering characteristics and needs, the educational team should identify access needs that require accommodations. When these accommodations are used according to plan, the student should be able to validly demonstrate what he or she knows and can do for both instruction and assessments. This concept can be illustrated by the following graphic:
Student characteristics as a learner in relation to enrolled grade-level standards

Valid Measure of What the Student Knows and Can Do

Accommodation:
• Presentation
• Response
• Timing/Schedule
• Setting

Guiding Questions
The following questions may be used to help facilitate team discussions:

- What are the student’s strengths as a learner?
- What skills are in need of further improvement as evidenced by data?
- What are the student’s abilities in relation to the enrolled grade level standard?
- What specialized instruction outlined in the IEP (e.g., learning strategies, executive functioning skills, reading skills) is designed to address the “gap” in order for the student to achieve grade-level content standards?
- What accommodations will maximize the student’s access to instruction and assessment by addressing the student’s learning needs and reducing the effect of the student’s disability?
- What assistive technology and/or adaptive equipment is used to enable the student to produce work independently?
- Has the student received regular systematic instruction in the use of assistive technology/adaptive equipment in order to build the student’s independence?
- What are the student’s digital literacy skills?
- What are the student’s technology skills?
- What is the student’s Lexile reading level?
- What were the results of assignments and assessments when accommodations were used and when they were not used?
- What type of data was collected?
- What trends are noted from the data?
- What is the student’s perception of how well an accommodation worked?
- What difficulties did the student experience when using accommodations?
- What are the perceptions of parents, teachers, and specialists regarding the effectiveness of the accommodation?
- Based on the evidence, should the use of the accommodation continue, be adapted or be discontinued?

After accommodations are selected, consider:
- The student’s willingness to use the accommodation consistently
- How frequently the student will have an opportunity to use the accommodation
- Conditions for use on state assessments

An accommodation should not be dismissed for use as an instructional accommodation based solely on the fact that the accommodation is not allowable on a state assessment.
Involving the Student in Selecting, Using, and Evaluating Accommodations

It is critical for a student with a disability to learn self-advocacy strategies for success in school and throughout life. Some students have had limited experience expressing personal preferences and advocating for themselves. Speaking out about preferences, particularly in the presence of authority figures, may be a new role for students, one for which they need guidance and feedback. Teachers and other IEP Team members can play a key role in working with students to advocate for themselves in the context of selecting, using, and evaluating accommodations.

The more students are involved in the selection process, the more likely the accommodations will be used, especially as students reach adolescence and the desire to be more independent increases. Students need a variety of opportunities to learn which accommodations are most helpful for them and how to request accommodations in various settings. Some optional tools are provided in Section III which can be used or adapted to guide discussion with the student and provide opportunity for parental input on the use of instructional accommodations.

Analyzing Instructional and Assessment Tasks

After first considering student characteristics, it is important to look at the tasks students are being asked to do instructionally and on various state and district assessments. Below are some guiding questions:

- Are the test tasks similar to classroom assessment tasks and does the student have the opportunity to practice similar tasks prior to testing?
- Does the student use an accommodation for a classroom task that is allowed for similar tasks on the state or district tests?
- Does the student use an accommodation for a classroom task that is NOT allowed for a similar task on the state or district assessments?

Compare Accommodations for Instruction with Accommodations for Assessment

While some accommodations are perfectly useful and appropriate for use during instruction, in some cases, certain accommodations may not be allowed on a state assessment because their use would invalidate the results of the test. Some instructional accommodations may alter what a test is designed to measure. For example, a calculator may be useful at times during instruction, but may not be used on portions of a mathematics assessment designed to assess the student’s ability to perform computations. Calculator access may differ in computer-based assessments.

If the accommodation is considered a necessary step in scaffolding grade-level content instruction, having some opportunities to work on an assignment without the accommodation during classroom work would be an expected practice to gauge student progress independent of the accommodation. Data should be collected to compare the student’s performance levels with and without the use of the accommodation. The decision to modify, continue or discontinue the use of an accommodation should be based upon the data gathered. (See Section III for two optional data collection forms, which can be copied or adapted to monitor the use and effectiveness of accommodations.)

Consider a Unique Accommodation Request (UAR)

Educators should not dismiss the use a given accommodation during instruction just because it may not be allowed on certain state assessments. Remember, some accommodations can be used if approved as a Unique Accommodation. Consult your District Assessment Coordinator (DAC) for assistance with submitting a unique accommodation request (UAR). Document the unique accommodation request on the IEP as “pending CDE approval”.

Colorado Instructional Accommodation Manual 2015-16
Accommodation Selection Tools

Educational teams and educators may consult the suggestions for instructional accommodations listed in the Student Characteristics Charts and Accompanying Tables related to specific learner characteristics:

- Table A: Visual Impairment, Including Blindness
- Table B: Hearing Impairment, Including Deafness
- Table C: Fine Motor
- Table D: Communication
- Table E: Reading
- Table F: Writing
- Table G: Mathematics
- Table H: Physical/Motor Skill
- Table I: Attention Deficit
- Table J: Auditory Processing
- Table K: Setting/ Environment
- Table L: Timing / Scheduling
- Table M: Traumatic Brain Injury
- Table N: Autism Spectrum Disorder
- Table O: Executive Function
- Table P: Specific Learning Disability
Assessment used during Accommodations

The listing of an instructional accommodation on this chart does NOT indicate that it is allowable for use on a state assessment. However, any accommodation used in assessment MUST be provided, routinely used and evaluated for effectiveness during instruction in order to develop the student’s ability to independently initiate the use of embedded tools and features in the computer-based testing environment. See postings on the Assessment Unit’s website for guidance. All questions related to accessibility features and accommodations used in assessment should be directed to your local District Assessment Coordinator. For your reference, please see the most recent editions of the following guides:

- Dynamic Learning Maps™
- Colorado Measures of Academic Success Accommodations Supplement

Glossary of Instructional Accommodations

The following chart is a compilation of various types of accommodations for presentation, response, setting/environment and timing/scheduling that may be considered for use with students with a disability. Students do NOT need a “laundry list” of every possible accommodation. Rather, the accommodation selected should be explicitly taught, routinely used for a period of time sufficient for the student to independently use the accommodation, and then evaluated for effectiveness.

Abbreviations and Symbols:

- On the Glossary, a * symbol by the name of the accommodation indicates a requirement to identify the use of the accommodation in advance on the Student Registration and Personal Needs and Preferences Profile (SR/PNP)
- Reference numbers correspond to PARCC Tables in the manual and are categorized as:
  - Accessibility Features for All Students (these are included in a student’s IEP since students with a disability may require explicit instruction in how to independently access and use the feature with fluency
  - Accessibility Features Identified in Advance (Page 21-24) – Must be selected on the student’s registration and personal needs profile (SR/PNP)
  - Accommodations (504/IEP/EL)
- (Parenthesis) The various assessment vendors have slight variations in the name of the accessibility features and accommodations. Alternate names for the named accommodation are listed in ( ).

PARCC Accessibility Features, while available for all students during computer-based assessment, need to be explicitly introduced to students with a disability, along with sufficient usage to enable the student to independently activate the feature and use it with fluency during instruction. Document accessibility features along with computer-based accommodations as an instructional accommodation in the IEP.

PARCC Accommodations for Students with Disabilities (See PARCC manual for full explanation)

All students can activate accessibility features on PARCC assessments.

Four distinct groups of students may receive accommodations on PARCC assessments:

1. Students with disabilities who have an Individualized Education Program (IEP);
2. Students with a Section 504 plan who have a physical or mental impairment that substantially limits one or more major life activities, have a record of such an impairment, or are regarded as having such an impairment, but who do not qualify for special education services;
3. Students who are English learners; and
4. Students who are English learners with disabilities who have an IEP or 504 plan. These students are eligible for both accommodations for students with disabilities and accommodations for English learners.

Again, accessibility features and accommodations used for assessment, must also be provided and routinely used during instruction.

**Assistive Technology**

The evaluation of need and selection of appropriate assistive technology is paramount to providing access to communication. Assistive Technology Partners works with CDE to support a network of assistive technology teams across all school districts in the state of Colorado. They provide assistive technology services in schools and classroom settings within their districts, with the intention of enabling students with disabilities to achieve full access and participation in all educational opportunities. Visit the SWAAAC website to learn more about SWAAAC activities, professional development opportunities, or to find a team coordinator for your district.

In addition, SWAAAC has several webinars on demand to learn more about a variety of assistive technology topics.

**Integrating Tech Tools into Instruction**

The integration of technology use in the classroom has spawned a generation of new tech tools for colleagues to share with professional learning networks. Many offer students with a disability and students who are struggling with certain tasks a more level playing field for accessing material and independently producing school work.

While it is impossible to list every single useful app or software, an Assistive Technology team from Michigan’s Region 3 has compiled a list of resources and summaries that contain helpful sites and tools. Note: some are free while others may require purchase. (Information adapted from Jennifer Herseim’s July 15, 2014 article for the LRP Special Ed Connection newsletter.) Additional information about useful apps and descriptions can be found in Section IV Technology.

<table>
<thead>
<tr>
<th>Tech Tools</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tar Heel Reader</td>
<td>A website with free, easy-to-read and accessible books with a wide range of topics. Accessible using multiple interfaces. Students can also author their own readers.</td>
</tr>
<tr>
<td>Storyline Online</td>
<td>A website with free, streaming audio books that are read by actors</td>
</tr>
<tr>
<td>Talk Typer</td>
<td>A website with free speech-to-text and speech recognition</td>
</tr>
<tr>
<td>Vocaroo</td>
<td>This website allows you to record a voice and send it to anyone. Students can dictate answers to any assignment and email the file to their teacher. Teachers can also speak directions and create a QR code that they can print out and tape to a book page or assignment. Vocaroo helps the student be successful in being able to speak instead of write or be able to listen instead of read text.</td>
</tr>
<tr>
<td>Evernote, Clearly</td>
<td>A website and app for keeping track of notes and websites to find them when you need them. Clearly helps remove clutter from web pages, news blogs, and articles.</td>
</tr>
<tr>
<td>Rewordify</td>
<td>A website that can reduce text complexity and help students learn what hard words and phrases mean with smart highlighting. Helpful to teach the skill of “hovering” to bring up a pop-up glossary. Student will have to select the definition of the word that is applicable in the given text.</td>
</tr>
<tr>
<td>Symbaloo</td>
<td>A free, visual bookmarking website. Teachers can host a Symbaloo page and</td>
</tr>
</tbody>
</table>
assemble a set of selected resources for students and families that are easily accessible in one place. Great for your teacher’s homepage.

**Kidspiration**
A website that presents a visual way of thinking and learning to organize ideas and to strengthen reading, writing, and math skills

**Dragon Naturally Speaking**
Voice-to-text software for students having difficulty accessing a keyboard; Dragon Dictate may also be used on an iPhone for student to dictate answer and text to teacher. *See Glossary for more speech to text options

**My Study Bar**
A set of portable open source and freeware applications to help students overcome problems commonly experienced with studying, reading and writing

**Browsers and iPad Speak Selection: Speakit!, Readability, Speech Recognition, Google Dictionary, Select and Speak**
Accessibility features of browsers and tablets

**Livescribe**
A digital smart pen that takes notes, records audio, connects the two and uploads

**AnyBook Reader**
A reading pen that records your voice so any book can be an audio book.

**Mathtrain TV**
A website with math videos created for students by students

**Khan Academy**
An educational website with many resources

**IXL**
A website where students can practice math and English skills online

**AAA Math**
A website with thousands of interactive math games

**Math is Fun**
A website designed to teach students math skills with puzzles, games, quizzes, worksheets and more

**Em Power Math**
Helps users produce images and equations for math and science

**Math Paper**
print various types of papers useful for math

**StarChild**
A NASA learning center for young astronomers

**Windows to the Universe**
Explore earth, space, and science at a chosen reading level in English or Spanish

**Scholastic Student Activities**
Teachers can access activities across all grade levels that are web-engaging, used for computer labs, and/or for interactive whiteboards

**Newsela**
Current event website that allows students to adjust the Lexile reading level of an article (free version and paid version)

**Bookshare**
An online accessible library, free to all students with print disabilities

**Accessible Educational Materials**
CAST national center on accessible educational materials for students with low vision or students with specific learning disabilities who have a print disability *Highly recommended to use during instruction for any student using the Unique Accommodation for Reading request

**Inspiration 9**
Software that applies visual learning concepts in reading and writing

**Texas School for the Blind—Math**
Materials and strategies for teaching math to students with visual impairments
| **Texas School for the Deaf – Math** | ASL online sign dictionary for math terms |
| **Virtual Manipulatives** | A digital library of math activities organized by grade level and topic |
| **Virtual Manipulatives - Glencoe** | Digital math resources for secondary students |
| **Math Bits** | An app that supports the development of logical thinking and reasoning skills as essential competencies of algebra and mathematics |
| **Co-writer app** | An app that supports students’ writing or spelling with word prediction |
| **Notability iPad app review video** | An app to help students take notes, type, draw and record |
| **Dragon Dictation app** | A free voice-to-text app that is easy to train |
| **SoundNote** | An app that tracks what you write, type or draw while recording (Mac) |
| **Voice Dream Reader** | A document reading tool that reads in many voices and in different document formats (Android) |
| **Claro apps Claro PDF Claro Speak Claro Com Claro MagX** | Accessible, professional and user-friendly PDF viewer, reader and annotator (free and paid) Text to speech reader (paid) iPad/iPhone AAC (free and paid) powerful high definition visual magnifier (iPhone/iPod Touch/iPad (free) |
| **Show Me Whiteboard (You Tube Demo), Educreations, ScreenChomp** | Apps for creating and sharing video lessons on a tablet; Recordable whiteboard useful for recording tutorials that can be sent home with students |
| **Lower tech tools** | Label maker, fraction calculator, talking calculator, misspellers’ dictionary, wireless touchpad and keyboard mouse combo, highlighter tape, EZC reader guides, portable word processor, adapted paper, carbonless notetaking notebook, talking dictionary, and excel math supports |
| **Common Core State Standards K-12 Technology Skills Scope and Sequence** | Long Beach Unified School District produced this scope and sequence aligned to the CCSS standards (embedded in the Colorado Academic Standards) for English Language Arts/Literacy and Mathematics (Elementary and Secondary) |
Glossary of Instructional Accommodations

Included in the glossary, you will notice

- Some resource websites have been included in the Glossary for your reference. For more disability-specific information, consult the Tables A-P section of this manual.

- **Computer-based Testing (CBT) References**: PARCC has now arranged the accessibility features/accommodations into Tables 1, 2, 3, 4 and 5; Tables 6 and 7 for English Learners. (See PARCC Manual for full explanation of each feature / accommodation and the Appendices.)

Presentation Accommodations

Presentation Accommodations are not intended to change WHAT the student is expected to know and do, but there are many options for HOW the student can receive information. The Glossary offers some adaptations you may consider for instruction.

**Computer Based Testing (CBT) Note**: See Table 1, 2 and 3. Reference numbers included in the instructional accommodations glossary correlate to the PARCC Accessibility Features & Accommodations Manual (4th Edition 2015). For PARCC assessments, accommodations are considered to be adjustments to the testing conditions, test format, or test administration that provide equitable access during assessments for students with disabilities and students who are English learners. **Accommodations provided to a student must be generally consistent with those provided for classroom instruction and classroom assessments.** There are some accommodations that may be used for instruction and for formative assessments, but are not allowed for the summative assessment because they impact the validity of the assessment results. Please note and document the accessibility feature; accessibility feature identified in advance, or accommodation (504 /IEP/EL)

*Indicates the Accessibility Feature Identified in Advance/Accommodation must be selected in the Student Registration/Personal Needs Profile (SR/PNP). If such features or accommodations are selected for use on assessment, they must also be provided, routinely used, and evaluated for effectiveness during instruction.

Also see the PARCC Appendices (August 2015) for more detailed explanation of protocol used during assessment. **For consistency, the same protocol should become routine in the classroom during instruction.** For Unique Accommodation Requests, use the Colorado form. (See your District Assessment Coordinator for assistance.)

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**AT-Presentation**

*Assistive Technology - (Non-Screen Reader)*

For PARCC, Table 3 (Page 29) provides a list of presentation accommodations for students with disabilities that describe changes in the assessment format and method in which the assessment is administered. The table also outlines the before, during and after testing activities necessary to successfully administer these accommodations.

In order for the student to be fluent in the use of an accommodation, it must be provided, routinely used and evaluated for effectiveness in daily instruction.

*3a  Assistive Technology must be selected on the Student’s Student Registration/Personal Needs Profile (SR/PNP) Guidelines are available at [http://avocet.pearson.com/PARCC/Home](http://avocet.pearson.com/PARCC/Home) to test assistive technology for compatibility with the TestNav8 platform. Click on “Infrastructure Trial”.

**SWAAAC Loan Bank**: Assistive Technology Partners offers an Assisted Search Service to aid in searching for some assistive technology items to use from the Loan Bank. Check with your SWAAAC partner or visit the website.
## Presentation Accommodations

<table>
<thead>
<tr>
<th><strong>Screen Reader Version</strong> <em>(for a student who is blind or visually impaired)</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>There are many free and purchased versions of screen reader software available. Please consult your AT representative and your Teacher of the Visually Impaired to evaluate those most appropriate for your student. Reviews and comparisons <a href="#">Screen Reader Software Review</a>.</td>
</tr>
<tr>
<td><strong>Comparable CBT Accommodation: 3b</strong> Screen Reader Version must be selected in student’s SR/PNP. PARCC recommends using JAWS 15 with Firefox. Test compatibility with an Infrastructure Trial as noted above.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Large Print</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Large print editions of texts, instructional materials, and printed tests are beneficial for some students with visual impairments. It is recommended that regular print materials be manipulated to reformat test items and enlarge or change the font as needed to accommodate the visual spacing/font enlargement needs of the student. The selected font is often one that is free of serifs (sans serifs). All text and graphic materials, including labels and captions on pictures, diagrams, maps, charts, exponential numbers, notes, and footnotes, must be presented in at least 18-point type for students who need large print assessments. Measurement tools or items being measured should be retained in their standard increments. It is important for the print to be clear, with high contrast between the color of the print and the color of the background. It is the responsibility of the school district to secure and/or to prepare large print texts and instructional materials. Such materials are not provided to students with visual impairments by the Colorado Instructional Materials Center.</td>
</tr>
<tr>
<td><strong>Comparable CBT Accommodation: 3g</strong> Must have Large Print Edition selected on the student’s SR/PNP. See Appendix M and Appendix A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Paper-Based Edition</strong> <em>(Alternate Representation – Paper Test)</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>For instruction presented via auditory or visual media, students may also be provided with paper-based materials either in large print or braille. Please consult the student’s Teacher of the Visually Impaired for recommendations.</td>
</tr>
<tr>
<td><strong>Comparable CBT Accommodation: 3h</strong> Must have Paper-Based Edition selected on student’s SR/PNP. See Appendix A: Accessibility Features and Accommodations for Students Taking the Paper-Based PARCC Assessments</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Black and White Print/High Contrast</strong> <em>(1d Color Contrast - Invert Color Choice - Background/Font Color)</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Some students with visual impairment may require text with high contrast ink from the color of the background page. The high contrast enables the student to see the material more effectively.</td>
</tr>
<tr>
<td><strong>Comparable CBT Accessibility Feature Identified in Advance: 1a</strong> Must have Color Contrast (Background/Font Color)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>General Masking</strong> <em>(1a Answer Masking – 1i General Masking)</em>  Also see Visual Aids/Organizers</th>
</tr>
</thead>
<tbody>
<tr>
<td>The student creates a custom “mask” to electronically cover portions of test items, including passages, as needed. This could be in the form of a ruler, blank card, etc. or electronically show highlighted words, phrases or lines of text.</td>
</tr>
<tr>
<td><strong>Comparable CBT Accessibility Feature Identified in Advance: 1a</strong> Must have Answer Masking selected on the student’s SR/PNP to activate the feature on the platform</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Visual Aids/Organizers</strong> <em>(Highlighter-Highlight Tool)</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>The student uses highlighters, template, place marker, masking device, colored overlays, reading guide ruler, or pointer to aid in the presentation of text/graphics.</td>
</tr>
<tr>
<td><strong>Comparable CBT Accessibility Feature Identified in Advance:</strong></td>
</tr>
<tr>
<td><strong>Presentation Accommodations</strong></td>
</tr>
<tr>
<td>--------------------------------</td>
</tr>
<tr>
<td><strong>Answer Masking</strong> – Must have Answer Masking selected on the student’s SR/PNP.</td>
</tr>
<tr>
<td><strong>Background/Font Color (Color Contrast)</strong> – Must have Color Contrast (Background/Font Color) selected on the student’s SR/PNP</td>
</tr>
<tr>
<td><strong>Bookmark (formerly called Flag Items for Review)</strong></td>
</tr>
<tr>
<td><strong>General Masking</strong> – Must have General Masking selected on the student’s SR/PNP</td>
</tr>
<tr>
<td><strong>Highlight Tool</strong></td>
</tr>
<tr>
<td><strong>Line Reader Tool</strong></td>
</tr>
<tr>
<td><strong>Color Contrasting (Background/Font Color) (Invert Color Choice) (Overlay Color) (External Color Overlays)</strong></td>
</tr>
</tbody>
</table>

Some students with visual needs are better able to view information through color contrast. This need can be met for paper-based materials by either creating different color versions of content or by providing colored transparencies to place over materials. For computer use, a content and test delivery system can allow students to overlay different colors over content and choose different combinations of text and background colors.

**Comparable CBT Accessibility Feature Identified in Advance:**

- **Background/Font Color** – Must have student’s Color Contrast selected on the student’s SR/PNP.

**Increased White Space**

Increasing the amount of blank space between items in a paper-based test booklet or between instructional content may help students to better see the presented material and/or maintain visual focus.

**Magnification Devices (Magnification/Enlargement Device - Low Vision Devices)**

Some students with visual impairments read regular print materials by enlarging the print size with magnification devices. These include reading glasses, eyeglass-mounted magnifiers, free standing or handheld magnifiers, and Closed Circuit Televisions (CCTVs)/Video Magnifiers, projectors, or electronic devices to enlarge print and display printed material with various image enhancements on a screen. See below for computer.

**Comparable CBT Accessibility Feature:**

- **Magnification / Enlargement Device**

**Computer Magnification / Magnification / Enlargement Device**

Some content and test-delivery systems allow students to manipulate the size of text and graphics presented on the screen. It is important that the system is able to enlarge all material, including narrative text, formulas and equations, information presented in scientific and mathematical nomenclature, tables, graphs, charts, figures, and diagrams with visual clarity. The system may provide tools that allow students to either view material in magnified form on an occasional/as-needed basis or on a more permanent basis. Other desirable features of a computer magnification system would be to allow students to easily move content that is forced off the screen into viewing mode; allow magnifying tools to work in conjunction with other accessibility tools and/or accommodations provided on the computer; and give students the option of enlarging the entire test interface (including navigation buttons, menu options, and directions) or only instructional or test content.

**Comparable CBT Accessibility Feature:**

- **Large Monitor, Zoom Tool, Magnification/Enlargement Device**

**Braille (Uncontracted Braille)**

Braille is a method of reading a raised-dot code with the fingertips. There are braille codes specific to literature, math, and science. Some students who are blind/visually impaired will use braille as a primary and/or a secondary literacy modality. *Decisions will need to be made about whether a student will use contracted or uncontracted literary braille. If instructional tasks or assessments are timed, a braille user may need additional time to complete the task.

A certified teacher of students with visual impairment should work with the student’s IEP Team to determine the student’s need for braille.
**Comparable CBT Accommodation: 3e** Must have Hard Copy Braille Edition selected on the student’s SR/PNP. Requires a Braille Kit. See Appendix M and Appendix C for transcribing after the assessment.

**Refreshable Braille Display with Screen Reader Version for ELA/Literacy**

A student may use a manual braille writer to produce braille. Refreshable braille displays are electronic devices used to read text. This device is connected to a computer via a cable or Bluetooth and produces braille output on the braille display. Braille note takers are electronic devices to read and write braille.

**Comparable CBT Accommodation: 3d** Must have Screen Reader Version selected on the student’s SR/PNP. Once a student is placed into a test session, the student will be assigned a Screen Reader form. PARCC recommends using JAWS 15 with Firefox. Also requires refreshable braille display and tactile graphics booklet for test administration. (See Appendix M and PARCC Assistive Technology Guidelines at [http://avocet.pearson.com/PARCC/Home](http://avocet.pearson.com/PARCC/Home))

**Tactile Graphics**

Tactile graphic images provide graphic information that can be discerned through touch. Graphic material (e.g., maps, charts, graphs, diagrams, illustrations) is presented in a raised format (paper or thermoform). Tactile graphics cannot always capture the same information that is presented in a visual format and/or may be very time consuming for the student to acquire all the needed information in the graphic. In these instances, the student may benefit from an audio description or text/word description of the image.

**Comparable CBT Accommodation: 3f** Must have Large Print Edition selected in the student’s SR/PNP. See Appendix M and Appendix A

http://www.tactilegraphics.org/resources.html

**Paper/Pencil version of computer-presented items**

Available for students who are unable to take computer-delivered assessment due to a disability. See Appendix A

**Blank Scratch Paper**

Student is provided with blank (unlined, lined or graph) paper to use as scratch paper. For students with visual impairment (braille paper, raised line paper, bold line paper, raised line graph paper, bold line graph paper, or abacus)

**Comparable CBT Accessibility Feature: 1e**

**Audio Description of Images**

Audio description can provide access to complex images and graphics for students with visual and print disabilities. For specific information on how best to use audio description; please go to the website for

National Center for Accessible Media – guidelines for describing images for assessment

Described and Captioned Media – Browse Media library for audio texts with added narrations (descriptions) that convey meaning and enrich language. Also check accessible programs under Accessible Television.
Read Aloud (Oral Presentation)

A qualified person may be provided to read aloud to students who are unable to decode text visually. Readers should use an even tone and inflection so the student can process the information. Readers need to be familiar with the terminology and symbols specific to the content. This is especially important for high school mathematics and science. Graphic materials may be described, but should also be made available in print or tactile formats. Readers must be provided to students on an individual basis, not to a group of students. A student should have the option of asking a reader to slow down or repeat text. This cannot occur effectively when a person is reading to an entire group of students.

See PARCC Appendix B Human Reader and J for Mathematics Audio Guidelines

Teacher-Read Directions / (1g General Administration Directions Clarified)

Classroom practice should routinely mirror the assessment procedure.

**Comparable CBT Accessibility Feature: 1g** General Administration Directions Clarified (by test administrator) The test administrator clarifies general administration instructions only. No part of the test may be clarified, nor can assistance be provided to the student during testing.

General Administration Directions Read Aloud and Repeated as Needed

The teacher may read general administration directions aloud to the student and repeat as necessary.

**Comparable CBT Accessibility Feature: 1h** General Administration Directions Read Aloud and Repeated as Needed (by test administrator) Read aloud general administration directions only. Student may request repetition.

Oral Script (*Text-to-Speech for the Mathematics Assessments)

If it is determined that the student requires an oral administration type of accommodation, the same procedures outlined for use on state assessment should be routinely used in classroom assessment. Directions, assessment items and answer choices must be read verbatim from an oral script without clarifying, elaborating, or providing assistance with the meaning of words. Rephrasing or clarification of directions is not allowed.

*Comparable CBT Accessibility Feature Identified in Advance: 1r* See [http://parcc.pearson.com](http://parcc.pearson.com) for tutorial

Text-to-Speech (TTS)

- **Intel® Reader** (purchase) operates much like a digital camera—point, shoot and listen to it read aloud printed text for such things as schoolwork, printed documents, magazines, mail, cookbooks etc.; portable; earbuds.
- **The Reading Pen 2** (Wizcomtech – also check SWAAAC Loan Bank)
- **iPad – VoiceOver** (Accessibility Feature) continuous reading with page turn; use with iBooks

Read Aloud to Self

This accommodation is useful for students who may need to see and hear text in order to comprehend what is written. The use of an auditory/acoustical feedback device (such as WhisperPhone®, Phonics Phones or similar device) may also be beneficial, but will require individual administration in order not to disturb others.

**Comparable CBT Accommodation: 3c**

Eliminate Answer Choices

When working with paper/pencil, the student may cross out answer choices as they consider each choice.

**Comparable CBT Accessibility Feature: 1f** Eliminate Answer Choices- student selects the “Answer Eliminator” icon on the toolbar. A red X will appear when the student selects an answer. Student may disable the feature on the toolbar by selecting “Answer Eliminator” again.
### *Closed Captioning of Multimedia* (*Closed-Captioning of Multimedia on the ELA/Literacy Assessments*)

Students who are Deaf or hard-of-hearing view captioned text on multimedia (e.g., video)

**Comparable CBT Accommodation:** 3i Must have Closed-Captioning selected on the student’s SR/PNP.

### Audio Cassette Tape, Compact Disc, or Digital Recorder

Written tests and instructional materials can be prerecorded on an AAC device, audio cassette, compact disc, digital recorder, or any other type of assistive technology device which a student accesses with playback. Classroom directions, assignments, and lectures could also be recorded. When taping lectures, students may need sit near the speaker, use a quality microphone, and tape only parts of the class that can clearly be replayed (e.g., turn the tape recorder off during small group discussions or pass the microphone). Advantages include ease of operation, portability and low cost. Audio versions of tests and other written materials may need to be supplemented with a print or braille version of the text, so a student can have access to complicated graphic material. Copyright issues may need to be addressed. Consult your Assistive Technology Specialist for recommendations.

### Audio Books

An audio book is a human-recorded version of a printed book. Some of these recordings contain the full book and some are abridged. Audio books are produced on tape, CD, and in other electronic formats playable on computers and various types of digital media devices. They can be borrowed from libraries, downloaded or purchased from bookstores. Many online bookstores also carry recorded books, making access even easier. In most cases audio books are subject to copyright restrictions unless they are specifically designated as public domain works or fall under copyright exemption. (also see [Learning Ally](https://www.learningally.org))

### Colorado Talking Book Library

Learning Ally provides accessible audio textbooks and literature titles for individuals with visual and learning disabilities. The 71,000+ library of audio books are human voice recorded by subject specialists and are available through an individual or institutional membership. In addition to the audio format, Learning Ally is incorporating synchronized text to speech into their collection of books and will gradually add these books to the library. Learning Ally titles can be accessed by downloading through an online account. The books can then be played on the Learning Ally audio app for the iPhone, iPod Touch, or iPad, as well as software for a PC or Mac, and specialized hardware devices. Downloadable DAISY books provide instant access with enhanced navigation, bookmarking, and variable speed control.

### Electronic Books

An electronic book (or e-book) is a digital version of a printed book. These books come in a variety of formats. Depending on the source, these books can be read aloud by a computer generated voice using special software or hardware. Unlike audio books, electronic books include the full text so that students can read along while they listen without requiring a printed copy. Digital books are widely available from online bookstores and can be downloaded from several websites. Not all publishers allow their electronic books to be read with computer speech due to copyright.

### Colorado Talking Book Library

[Tarheelreader.org](http://www.tarheelreader.org) Click on “gear” symbol, download as PowerPoint or epub; will also read aloud. ([Putting Tar Heel Reader books into iBooks – with Speech Support](https://www.bookshare.org/tarheelreader/ibookswithspeechsupport)) (Jane Farrall)

### Bookshare.org

Bookshare is an online library of digital literature and textbooks designed for use by individuals who are blind or have other print related disabilities. The digital books are primarily contributed by volunteers or provided in digital format by publishers. Bookshare provides free individual and institutional memberships to eligible schools and
Accessible Materials

Accessible Educational Materials (AEM) are print- and technology-based educational materials, including printed and electronic textbooks and related core materials that are designed or converted in a way that makes them usable across the widest range of student variability regardless of format (print, digital, graphic, audio, video). IDEA specifically focuses on accessible formats of print instructional materials. If a student is unable to read or use standard print based materials but is able to understand the content presented in textbooks and other related core instructional materials that are used across the curriculum, the student may need specialized formats of the curricular materials. For some students, printed instructional materials can be a barrier to participation and achievement in the general education curriculum. For example, students whose decoding abilities are well below grade level and those with identified disabilities who receive services under IDEA can gain access to information contained in typical textbooks and related printed instructional materials. For many students, these needs can be addressed by offering multiple means of input in the form of braille, large print, audio, and/or digital. When specialized formats and supports are matched appropriately with the student’s needs, independence and achievement boost student outcomes.

National Center on Accessible Educational Materials – Audio-Supported Reading, Dr. Richard Jackson (video)
Audio-Supported Reading and Students with Learning Disabilities article
Getting Started with ASR article

National Center on Accessible Educational Materials – CAST
Decision-Making Tools and Supports – AEMs offers interactive tools that may be useful to teachers and IEP Teams to make decisions about the use of Accessible Educational Materials:
AEM Navigator – Examines the areas of need, format, acquisition of materials and supports. It can also print a summary of the decisions.
AIM Explorer – This is a free simulation tool for use with grade-level text supported with magnification, text color, highlighting and text layout options that can help students who are struggling with reading identify which features and helpful to them for accessing and understanding text. Exploration will involve the student and will also prepare a summary of their choices.

*Download the Instruction and Installation Instructions.
More articles about including accessible materials in IEPs; using digital materials for students with text-related disabilities

Tarheel Reader - collection of free, easy-to-read, and accessible books on a wide range of topics to share or create Exemplar Text Support- These books are accessible, open-source texts that you and your students can read online, on a reader that uses epub files, or offline as Powerpoint files or printed versions of the books. The books come from the collection of books at Tar Heel Reader. Many of the books were written by teachers across the U.S., Canada, and other English speaking countries. Dynamic Learning Maps has created Exemplar Text Supports or you can create your own. Navigate to the DLM webpage > Professional Development>Exemplar Text Supports . Also check out the Materials Exchange and Instructional Resources on this page.

Note: Books are contributed to the site from teachers, students, parents and others from around the world. Please select and/or revise the books for your student to ensure suitability before providing access for students. The books can be downloaded, edited, and printed (PowerPoint format) or as an ePub. (Click on the little gear symbol>Download)
Some students may benefit from hearing assistive technology to enhance their access to auditory instruction. The device used may vary depending on the impact of the hearing loss and personal amplification the student may be using. Amplification enhances the intelligibility of teacher-directed instruction, seating options, and in some cases connectivity with other technology (computers, audio devices, etc.). There is an array of options available such as infrared and frequency modulated (FM) amplification systems, in addition to a student's personal hearing aids/cochlear implant(s), to increase clarity of the teacher's voice. An FM system can also be used with headphones. The teacher/speaker wears a small microphone which would transmit to either a classroom and/or device that is worn by the student. A student-worn receiver allows the student to receive consistent voice input regardless of where the teacher is standing in the classroom. When working with students in classroom situations that contain ambient noise, another consideration to improve spoken voice input quality may be a classroom sound field amplification system. The teacher/speaker wears a small microphone, a receiver is placed in the classroom, and the teacher's voice is clearly projected for all students. Check with a certified professional in your administrative unit, such as an educational audiologist to assist with addressing individual student need and refer to the IEP for student's amplification requirements.

This article outlines the benefit of amplification for all students: Educational Technology Support Center White Paper: Classroom Amplification Systems  
[calypsosystems.com/images/uploads/researchstudies/Sound_Amp_whitepaper.pdf]

**Comparable CBT Accessibility Feature:**

Audio Amplification – 1b
Headphones or Noise Buffers 1k

**Video Tape and Descriptive Video**

Many books have been made into movies, giving students a visual and auditory way to access literature. Videotapes are often closed-captioned. Captions are visible when activated by a decoder. Built in decoders are required on all 13-inch or larger television sets. Descriptive video is a descriptive narration of key visual elements, making television programs, feature films, home videos, and other visual media accessible to people who are visually impaired. Key visual elements include actions, gestures, facial expressions, and scene changes. Inserted within the natural pauses in dialogue, audio descriptions of important visual details help to engage viewers with the story.

[Described and Captioned Media Accessible Denver]

**Human Interpreter for a Student Who is Deaf or Hard of Hearing**

Spoken English /Text is signed to the student by a human Interpreter using the student’s preferred mode of communication.

**Comparable CBT Accessibility Feature Identified in Advance:**

1s 3m *ASL video for the Mathematics Assessment for a Student Who is Deaf or Hard of Hearing; *ASL Video of Test Directions (If a deaf student does not use ASL, an actual human interpreter and separate test setting will be required. See PARCC Appendix B-Human Reader/Human Signer; Appendix J: Mathematics Audio Guidelines; Appendix L: Human Signer Guidelines 3l Human Reader/Human Signer *ELA/Literacy Assessments, including items, response options, and passages) 3n - Must have Text-to-speech, ASL Video, or Human Reader/Human Signer selected on student’s SR/PNP See Appendix D for decision-making guidance; Also see Appendix B; Appendix L and Appendix M in order to mirror the procedures during instruction.

**Word-to-Word Glossary (Pop up Glossary)**

Student uses bilingual, word-to-word dictionary or electronic translator. Dictionaries that include definitions or pictures are not allowed. The student should be familiar with the dictionary they will use on the test. Students should be given ample time to complete the test using the accommodation

A list of bilingual word-to-word dictionaries authorized for use on PARCC assessments is available at:  
[http://www.doe.mass.edu/mcas/testadmin/lep_bilingual_dictionary.pdf]

**Comparable CBT Accessibility Feature:**

1o Pop-up Glossary- student views definitions of pre-selected, construct-irrelevant words by hovering over them. The definition appears in a pop-up text box.
<table>
<thead>
<tr>
<th>Sight Word app</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Simplex Spelling</strong> – Sight word app (fee) Also offers Simplex Spelling Phonics (fee)</td>
</tr>
</tbody>
</table>

### Adapting Text Complexity

| **Rewordify** – this is a free, online software that can simplify difficult English, build better vocabulary and offer choices for students to understand complex text. Copy and paste selected text into the text box and click on Rewordify text. Teachers can also get charts and reports to monitor student progress. |
| **Text Compactor** – Free online automatic Text Summarization Tool. Very simple tool to use to simplify complex text. Just cut and paste text into text box, set the % of text to keep in the summary and read the summarized text. It also has a text to speech and translation tool. |

(For improved quality of text-to-speech, you may want to paste the summary into a Word document, save as pdf (tutorial: [https://www.youtube.com/watch?v=ETOohmYui3Q](https://www.youtube.com/watch?v=ETOohmYui3Q))

**Newsela** (free and upgrade for fee) This site allows teachers to select news stories and adjust the Lexile reading level simply by increasing or decreasing the text complexity levels.

Snap & Read Universal: Text Reading + Text leveling for Google- donjohnston.com has a new reading tool for Google (fee)

Paula Kluth article: *Rewriting History, and Nine Other Ways to Adapt Textbooks*

### 5 Technology tools to Measure Text Complexity

**Text Complexity: Qualitative Measures Rubric** for Literature and Informational Text

**Lexile Analyzer / The Lexile Framework for Reading** – determine the text complexity of a book or passage

### Visual Aids/ Organizers (1j Highlighter)

The student uses highlighters, template, place marker, masking device, colored overlays, or pointer.

**Comparable CBT Accessibility Feature:**

- 1f – Eliminate Answer Choices Answer Masking, Background/Font Color (Color Contrast), Flag Items for Review,
- 1i *General Masking – Must have General Masking selected on the student’s SR/PNP
- 1j - Highlight Tool
- 1l Line Reader Tool

**Colorado Unique Accommodation Request** form (UAR)

*Reference numbers correlate to the PARCC Accessibility Features & Accommodations Manual
**Presentation Accommodations:**

**Considerations in the Transformation of Accommodations from Paper/pencil to Computer-based Tests**

**Note:** The accommodations listed below are offered as general suggestions. Please check with your Assistive Technologist specialist, Occupational Therapist, Speech-Language Pathologist, Deaf Education specialist or TVI/vision specialist for specific equipment and software recommendations.

<table>
<thead>
<tr>
<th>Computer-based Instruction / Assessment</th>
<th>The student needs direct instruction in order to have the</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Large Print and Magnification</strong></td>
<td>• Capacity to self-select print size or magnification</td>
</tr>
<tr>
<td></td>
<td>• Ability to scroll or advance screen</td>
</tr>
<tr>
<td></td>
<td>• Apply magnification to screen graphics and tables without distortion</td>
</tr>
<tr>
<td></td>
<td>• Very gradually consider building visual stamina; avoid visual fatigue</td>
</tr>
<tr>
<td></td>
<td>• Choose background to improve readability of overlying text</td>
</tr>
<tr>
<td><strong>Instructions simplified/clarified</strong></td>
<td>• Capacity to self-select audio (screen reader), alternate language or signed versions of instructions and test items (all students wear ear/headphones)</td>
</tr>
<tr>
<td></td>
<td>• Choose to have text repeated</td>
</tr>
<tr>
<td><strong>Audio presentation of instructions and test items</strong></td>
<td>• Ability to self-select audio (screen reader)</td>
</tr>
<tr>
<td><strong>General Administration Directions</strong></td>
<td>• Use screen reader that converts text into synthesized speech or braille</td>
</tr>
<tr>
<td><strong>Read Aloud and Repeated as Needed</strong></td>
<td>• Control audio speed and quality of audio presentation</td>
</tr>
<tr>
<td></td>
<td>• Wear headphones or test individually</td>
</tr>
<tr>
<td></td>
<td>• Ability to process audio descriptions of graphics and other visual media</td>
</tr>
<tr>
<td></td>
<td>• Choose to repeat as many times as needed</td>
</tr>
<tr>
<td></td>
<td>• Ability to understand synthesized voice of reader</td>
</tr>
<tr>
<td></td>
<td>• Activate alternative text or “alt tags” for images</td>
</tr>
<tr>
<td><strong>Sign Language</strong></td>
<td>• Capacity to self-select alternate versions of written text/ instructions presented in sign language</td>
</tr>
<tr>
<td></td>
<td>• Capacity to self-select signed versions of instructions and test items</td>
</tr>
<tr>
<td></td>
<td>• Not feasible to read lips on video</td>
</tr>
<tr>
<td></td>
<td>• Check equipment compatibility</td>
</tr>
<tr>
<td></td>
<td>• Consider quality, accuracy and appropriate speed of signed information</td>
</tr>
<tr>
<td><strong>Languages other than English</strong></td>
<td>• Capacity to self-select alternate language versions of test items in written or audio format</td>
</tr>
<tr>
<td></td>
<td>• Be aware that translation may require different speed than English</td>
</tr>
<tr>
<td></td>
<td>• Use machine translation capabilities</td>
</tr>
<tr>
<td></td>
<td>• Check compatibility of interfaces</td>
</tr>
<tr>
<td></td>
<td>• Enable pop-up translation features</td>
</tr>
<tr>
<td></td>
<td>• Ability to regulate audio speed</td>
</tr>
<tr>
<td><strong>Braille</strong></td>
<td>• Ability to use screen reader to convert text into synthesized speech or braille</td>
</tr>
<tr>
<td></td>
<td>• Provide tactile graphics or three-dimensional models for some images</td>
</tr>
<tr>
<td></td>
<td>• Select screen and text colors</td>
</tr>
<tr>
<td></td>
<td>• Check compatibility of equipment and interfaces</td>
</tr>
<tr>
<td></td>
<td>• Express need for additional time if necessary</td>
</tr>
<tr>
<td><strong>Highlighters or Place holder</strong></td>
<td>• Capacity to self-select highlighter tool</td>
</tr>
<tr>
<td></td>
<td>• Ability to select text for highlighting</td>
</tr>
<tr>
<td><strong>Graphics or images that supplement text</strong></td>
<td>*Carefully consider images selected for presentation; avoid complex backgrounds or wallpaper that may interfere with the readability of overlying text</td>
</tr>
<tr>
<td></td>
<td>• Select alternative text or “alt tags” for images</td>
</tr>
<tr>
<td></td>
<td>• Use tactile graphics or three-dimensional models for images</td>
</tr>
</tbody>
</table>
### Paper/pencil format
- Select for students who are not yet computer literate
- Use if needed accessibility features or accommodations are not available

### Use of Color
- Ability to self-select appropriate screen and text color
- Ability to adjust contrast/ size and font

### Multiple column layout
*For classroom presentation, keep in mind that linear presentation order needs to be logical.

### Book Creators:
- Book Writer (can add video and sound) (fee)
- Tarheel Reader [http://tarheelreader.org/](http://tarheelreader.org/) (Literacy!)

### Class collaboration
- Edmodo – web-based platform that provides a safe and easy way for your class to connect and collaborate, share content, and access homework, grades and school notices. [http://www.educatorstechnology.com/2013/06/a-handy-guide-to-everything-teachers.html](http://www.educatorstechnology.com/2013/06/a-handy-guide-to-everything-teachers.html)

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**The 55 Best Free Education Apps for iPad**

YouTube: [Best iPad Apps for Dyslexia](https://www.youtube.com/watch?v=Jamie Martin)

### Response Accommodations

Please see Table 4 Response Accommodations for Students with Disabilities in the PARCC manual for complete information.

<table>
<thead>
<tr>
<th><em>Assistive Technology</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>The objective of providing assistive technology for any student is to foster the student’s ability to make choices and produce work independently. Teachers, specialists and related service providers will collaborate to craft the most effective approach for each student.</td>
</tr>
<tr>
<td><strong>Computer Based Testing Guidelines:</strong> Reference numbers correspond with Table 4 in the PARCC manual. Must have Assistive Technology selected in the student’s SR/PNP</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Adapted Ipod</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstration of an iPod adapted for speech [YouTube tutorial](<a href="https://www.youtube.com/watch?v=Jamie">https://www.youtube.com/watch?v=Jamie</a> Martin)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><em>Speech-to-Text / Voice Recognition Software</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Speech-to-text conversion, or voice recognition, allows a student to use his/her voice as an input device. Voice recognition may be used to dictate text into the computer or to give commands to the computer (e.g., opening application programs, pulling down menus, or saving work). Allow ample time for instruction and practice when using these types of devices.</td>
</tr>
</tbody>
</table>

**Comparable CBT Response Accommodation:**

ELA/Literacy Selected Response Options:

4f * Speech-to-Text – Must have Speech-to-Text, Human Scribe, Human Signer, or External Assistive Technology Device selected for the student’s SR/PNP

Mathematics Response Options

4j *Speech-to-Text - Must have Speech-to-Text, Human Scribe, Human Signer, or External Assistive Technology Device selected for the student’s SR/PNP
Speech Recognition Software Products (some have fee/purchase)
Google Chrome – Dictation 2.0
iPad Accessibility: Auto-Correction (enable with iPad Keyboard setting) similar to word prediction
/ Speak Auto-Text (accessibility feature) Speech to Text – Microsoft Word (versions may vary) YouTube video
iPad 3 provides a speech to text option through a microphone icon in its keyboard allowing students to generate text with voice rather than typing (The Yale Center for Dyslexia & Creativity)
TalkTyper (for Chrome) YouTube tutorial

Brailer / *Braille Notetaker / *Braille Writer

A brailer is a machine used to produce text in braille. As combinations of its six keys are pressed, the braille cells are embossed on the paper rolled into the machine. Some students use an electronic braille device or note taker, in which the braille is stored in the machine for later embossing through an alternative computer port. Such tools are procured by a teacher certified in the area of visual impairments. Consult your teacher of students with visual impairments (TVI) for recommendations for individual students.

Comparable CBT Response Accommodation:
4b  Must have Braille Note-taker selected in the student’s SR/PNP. See Appendix C to mirror procedure during instruction.
4c – Must have Braille Writer selected on the student’s SR/PNP. See Appendix C

Voice Recording Devices

A student uses a tape recorder or other digital recording device to record class work or test responses rather than writing on paper.

Notepad

Embedded feature that can be used when taking notes.

Comparable CBT Accessibility Feature: 1n


Computer or Personal Portable Keyboard (1t *Writing Tools – cut/paste/copy/underline/bold/insert bullets)

Computers, or other word processing systems, allow a student to produce a written response to instructional materials or assessments. Students should receive adequate instruction and time for use in order to build fluency and independence.

Comparable CBT Response Accessibility Feature Identified in Advance: (1t *Writing Tools)

Alternative Pencils (Partner Assisted Scanning)

Alternative “pencils” have been designed for students who are unable to hold a traditional pencil or physically manipulate a keyboard. Instead, the alternative pencils tap into students’ other developing abilities. For example, the alphabet eye gaze frame may be helpful for students who are learning to eye gaze. The print flip chart or onscreen keyboards may be helpful for students who are learning to use switches. The Braille flip chart may be useful for students who are blind. These are just a few examples. For many of the pencils, perfect vision and/or hearing are not needed. Examples of alternative pencils students may use for response include Alphabet Eye Gaze Frames, Print Flip Chart, Braille Alphabet Flip Chart, Alphabet Intellikeys Overlays, and Switch Accessible Onscreen Alphabet Keyboards.

Center for Literacy and Disability Studies – Univ. of North Carolina-Chapel Hill
Writing with Alternative Pencils (See DLM Self-Directed Professional Development Module # 16)
Eye Gaze

**Sensory Eye-Fx** YouTube tutorial

Wireless Devices

iPads, tablets, iPhones and other wireless devices have become useful tools for students as both presentation and response accommodations. A list of software and devices that have no known conflicts with TestNav8 can be found at [http://pearsononlinetesting.com/TestNav/AT/](http://pearsononlinetesting.com/TestNav/AT/)

*Scribe – English Spoken/ Spanish Spoken / Other*

A scribe is a skilled person who has been trained to write down what a student dictates by an assistive communication device, pointing, sign language, or speech. A scribe may not edit or alter student work in any way, and must record word-for-word exactly what the student has dictated. Following the dictation, scribes should request clarification from the student about the use of capitalization and punctuation, and must allow the student to review and edit what the scribe has written. Individuals who serve as a scribe need to become familiar with the content-area vocabulary involved and understand the strict boundaries of the assistance to be provided. The role of the scribe is to write what is dictated, no more and no less. The use of a scribe should be limited as it inhibits a student’s ability to produce his/her work independently. **Appropriate assistive technology should be provided, taught, and used whenever possible. The educational goal is for the student to be able to produce work independently.** Examples of inappropriate use of a scribe may include: "The student can tell much more than he/she can write." or "This student can do so much better with a scribe." Such statements may well be true for many students. However, such a reason indicates convenience rather than need, and may result in educational advantage. A scribe is not to be routinely used because a student lacks language competency, handwriting fluency, or spelling skill. Students who use assistive technology to respond in the classroom on a day-to-day basis, for assessments, and who have the appropriate documentation on their formal educational plans must use technology in lieu of a scribe for state assessments.

**Comparable CBT Response Accommodations:** Must have Speech-to-Text, Human Scribe, Human Signer or External Assistive Technology device selected on SR/PNP. (i.e., Dictation/Transcription or Signing) for the Mathematics assessments, and for selected response (not constructed response) items on the English Language Arts/Literacy assessments. **Consistent protocol and procedures should be mirrored in instruction.**

ELA/Literacy selected response options. See Appendix C and Appendix L

4f Speech-to-Text
4g Human Scribe
4h Human Signer
4i External Assistive Technology device

Mathematics Response Options: See Appendix C and Appendix L

4j Speech-to-Text
4k Human Scribe
4l Human Signer
4m Assistive Technology Device

Ela/Literacy Constructed Response Options: See Appendix C and Appendix L

4n Speech-to-text
4o Human Scribe
4p Human Signer
4q Assistive Technology Device
# Calculator /* Calculation Device and Mathematics Tools

If a student’s disability affects math calculation, but not reasoning, a calculator or other assistive device (e.g., abacus, arithmetic table, manipulatives, or number chart) may be used for instruction. It is important to determine whether the use of a calculation device is a matter of convenience, or a necessary accommodation. It is important to know the goal of instruction and assessment before making decisions about the use of calculation devices. For example, if students are learning subtraction with regrouping, using a calculator would not give a student an opportunity to show regrouping. On the other hand, if students are learning problem solving skills that include subtraction (e.g., bargain shopping for items with a better value), the use of a calculation device may be a valid accommodation. Calculators may be adapted with large keys or voice output (talking calculators). In other cases, an abacus may be useful for students when mathematics/science problems are to be calculated without a calculator. The abacus functions as a paper and pencil device for students with visual impairments. Student uses a calculation device or manipulatives to respond to questions.

### Comparable CBT Response Accommodation:

**4d** *Calculation Device on Calculator Section of Mathematics Assessment - Must have Calculation Device on Calculator Sections selected according to PARCC Calculator Policy*

**4e** *Calculation Device and Mathematics Tools on Non-calculator Sessions of Mathematics Assessments - Must have 504/IEP. Must have Calculation Device and Mathematics Tools on Non-Calculator Sections selected on student’s SR/PNP*

Allowable Mathematics tools include: (only these)
- Allowable mathematics tools include:
  - Arithmetic tables (e.g., addition charts, subtraction charts, multiplication charts; division charts)
  - Two-color chips (e.g., single-sided or double-sided)
  - Counters and counting chips
  - Square tiles
  - Base 10 blocks
  - 100s chart

---

# Spelling and Grammar Devices (1q*Spell Check or External Spell Check Device)

The use of a dictionary may be beneficial for assignments that require an extended response or essay. Spelling and grammar can also be checked with pocket spellcheckers. Students enter an approximate spelling and then see or hear the correct spelling or correct use of a word. Students who use a word processor may be allowed to use a spell check or other electronic spelling device.

### AT and Learning Disabilities resources for Spelling Resources

### Comparable CBT Accessibility Feature: 1q  Embedded spell check in Test Nav or external device without grammar check, internet or ability to save information

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# Pop-up Glossary (1o Pop-up Glossary)

Student learns skill of “hovering” over an unfamiliar word so that the definition appears in a pop-up text box. This feature is found in a variety of software programs.

### Comparable CBT Accessibility Feature: 1o

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# Word Prediction (*Word Prediction External Device)

Word prediction software can work in various modes of operation based on the student’s needs. This accommodation provides a word list pop-up tool that can assist the student with word choice and spelling based on the letters that a student types on the screen. The student uses word prediction software that provides a bank of frequently- or recently-used words as a result of the student entering the first few letters of a word.

### Comparable CBT Response Accommodation: 4r  Must have Word Prediction selected in the student’s SR/PNP. In order for the student to be successful using this accommodation on an assessment, the student must be familiar with the use of the external device during instruction.

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| Word Prediction Software Comparison Chart: | Word Prediction Apps - Features Comparison Chart (Technology for Special Education Needs blog) |
### Prompt / Encourage Student Responses

Some students may respond to prompting or encouragement to maintain focus during instruction or testing. The teacher/test administrator may redirect the student’s attention to the task, provide a reminder to remain focused or provide a visual cue or prompt. (e.g., an icon/picture/symbol taped to the student’s desk; hand signal etc.)

**Comparable CBT Accessibility Feature: 1p** Redirect Student to the Test (by test administrator)

### Organization Tools

Organization tools include graph paper, highlighters, place markers, and scratch paper. Students may not be allowed to write in books owned by the school. Photocopying parts of written text allows a student to use a highlighter and write in the margins.

### Eliminate Answer Choices

Cross out unselected responses as a decision-making strategy

**Comparable CBT Accessibility Feature:** Computer based accessibility feature available to all students;  
1c Bookmark (previously called Flag Items for Review)  
1f Eliminate Answer Choices

### Graphic Organizers (NotePad)

Graphic organizers help students arrange information into patterns in order to organize their work and stay focused on the content. Graphic organizers are especially helpful for writing reports and essays. Semantic mapping software is now available to enable students to understand a narrative story, informational text, or writing elements through graphics.

**Comparable CBT Accessibility Feature:** 1n student writes and edits notes using embedded NotePad application

### Specialized Paper

Some students require special paper in order to respond in writing. Some examples include graph paper, paper with raised lines, or paper with colored/highlighted lines.  
*Donna Young’s Printable Handwriting Paper*  
*Printable Paper for Math*

### Additional Paper / Blank Paper

Some students may benefit from having additional paper available to use during instruction. This paper may be blank (scratch), lined, graph, or other paper.

**Comparable CBT Accessibility Feature:** 1e Blank Paper provided by test administrator

### Slant Boards

Slant boards often help students with motor fatigue or students who need closer visual accesses to print material. An inclined surface may assist in maintaining better posture, thus allowing a student to respond in writing with less fatigue.

### Pencil Grip / Large #2 Pencil

A pencil grip/large #2 pencil that the student is accustomed to using may help the student with motor fatigue and thus allow the student to respond in writing.

### Abacus / Tactile Math Manipulatives

Some students require an abacus or physical objects in order to accomplish math calculations. Some examples include raised touch math dots, counters, number lines, 1-100 chart, raised line graph paper, shape construction board, braille ruler, or protractor. Any number of math manipulates may be used during instruction to help students visualize the math concept being taught.
**Comparable CBT Accommodation:** Table 4

Allowable mathematics tools include:
- Arithmetic tables (e.g., addition charts, subtraction charts, multiplication charts; division charts)
- Two-color chips (e.g., single-sided or double-sided)
- Counters and counting chips
- Square tiles
- Base 10 blocks
- 100s chart

**Other Response Accommodations (**Additional Assistive Technology – determined by individual need**)

Some students may have other response accommodations in place during instruction to help them access the learning objectives. The accommodation should also be documented in the student's IEP or Section 504 Plan as an instructional accommodation.

**Comparable CBT accommodation:** External Assistive technology devices; See PARCC Infrastructure Trial [http://avocet.pearson.com/PARCC/Home](http://avocet.pearson.com/PARCC/Home)

**Unique Accommodation Request** – Use Colorado Unique Accommodation Request (UAR) form. See your DAC for assistance.

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*Reference numbers correlate to the PARCC Accessibility Features & Accommodations Manual

**Response Accommodations: Technology**

**Considerations in the Transformation of Accommodations from Paper/pencil to Computer-based Tests**

**Note:** The accommodations listed below are offered as general suggestions. Please check with your Assistive Technologist specialist, Occupational Therapist, Speech-Language Pathologist, Deaf Education specialist or TVI-vision specialist for specific equipment and software recommendations.

| Write Alternate Pencil | Capacity to select among multiple options to indicate response— mouse click; keyboard; touch screen; speech recognition; assistive devices to access the keyboard(e.g., mouth stick, eye gaze, or head wand)  
| --- | --- |
| Augmentative Communication Device | Partner Assisted Scanning to select letter for multiple choice

| Scribe | Ability to use speech recognition software to dictate response  
| --- | --- |
| | Ability to use multiple options to indicate response (listed above)

| Brailler | Ability to use speech recognition software  
| Tape Recorder | Ability to operate equipment and dictate response  
| Paper/pencil response | Capability of producing response using braille writer or other equipment  
| | Use paper/pencil in addition to computer (e.g. use scratch paper for solving problems, drafting ideas) Use paper and pencil in place

---

Colorado Instructional Accommodation Manual 2015-16
## Spell Check
- Ability to self-select the spell-check option
- Capacity to disable option when spelling achievement is being measured
- May have implications when using speech recognition software

## Calculator
- Ability to self-select calculator option
- Capacity to disable option when math fluency is being measured

## English or bilingual dictionary / glossary
- Ability to self-select dictionary option
- Ability to access pop-up definitions built into assessment
- Capacity for use of multiple languages

## iPad Apps for Differentiation
- Anne Beninghof’s Ideas for Education – Reading Comprehension Booster iPad app (purchase) [http://www.ideasforeducators.com/](http://www.ideasforeducators.com/)
- **15 iPad Skills Every Teacher and Student Should Have**, Educational Technology and Mobile Learning [http://www.educatorstechnology.com/2013/01/15-ipad-skills-students-must-have.html](http://www.educatorstechnology.com/2013/01/15-ipad-skills-students-must-have.html)

### Setting / Environment Accommodations
*Reference numbers correlate to the PARCC Accessibility Features & Accommodations Manual – See TABLE 2: Administrative Considerations for All Students*

<table>
<thead>
<tr>
<th>Reduce Distractions to the Student and Auditory Sensitivity Accommodations (1k Headphones or Noise Buffers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A setting accommodation to reduce distractions would allow a student to do individual work or take tests in a different location, usually in a place with few or no other students. Changes may also be made to a student’s location within a room. For example, a student who is easily distracted may not want to sit near windows, doors, or pencil sharpeners. Preferential seating near the teacher’s desk or in the front of a classroom may be helpful for some students. Enclosed classrooms may be more appropriate than open classrooms. Study carrels or other means of focusing sightline may be helpful for students who are easily distracted. Students with low vision may prefer to sit in the part of a room that has the best non-glare lighting. Noise cancelling headphone, earplugs, earphones or other noise buffers not connected to any audio device are available to all students.</td>
</tr>
</tbody>
</table>

**Comparable CBT Accessibility Feature:** 1k

<table>
<thead>
<tr>
<th>Auditory Calming/Music /Noise Buffers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some students concentrate best while wearing noise buffers such as earphones, earplugs, or music.</td>
</tr>
</tbody>
</table>

**Comparable CBT Accessibility Feature:** 1k
Reduce Distractions to Other Students

Some students use accommodations that may distract other students, such as having an oral administration or scribe. In addition, some students might perform better when they can read and think aloud, or a student may make noises or use equipment that distracts other students. Distractions to other students are reduced by using these accommodations in individual settings.

Change Location to Increase Physical Access or to Use Special Equipment

Occasionally a setting might be changed to increase physical access for a student. For example, a student who uses a wheelchair with a specially designed tabletop and assistive technology may not have adequate space in an auditorium with theater seating. Other students may need equipment that requires specific locations for learning and assessment. For example, a student who uses a computer for word processing might need to complete assignments and take tests in a computer lab. A student who uses large-print materials may need to sit at a table rather than at a desk with a small surface area. Another student might benefit from a standing work station or in a study carrel. Provide space for a guide or working dog, and explain to other students that the dog is working and should be ignored. Make certain the school is accessible for students with mobility impairments. Students should have access to the building, cafeteria, classrooms, media center, restrooms, and playground. In essence, they should be able to access any room or space on the school grounds used by students in general.

Table 2: Administrative Consideration:
2c: Separate or Alternate Location
2d: Specified area or seating

Adaptive Furniture/Equipment (2e Adaptive and specialized equipment or furniture)

Some students benefit from the use of adaptive or customized furniture to aid positioning during instruction or assessment. Other students may find it helpful to use a slant board or wedge to minimize visual fatigue and provide a better work surface.

2e Table 2: Administrative Consideration:

Special Chairs (Adaptive and specialized equipment or furniture)

Some students may need to physically move during instruction and have a difficult time sitting in a regular chair, so ball chairs or rocking chairs may be beneficial. Another way to accommodate this type of need is to modify a regular chair by adding a cushion or a small ball.

2d Table 2: Administrative Consideration:

Fidget Toys

Some students may need something in their hand to manipulate as they work in order to focus their attention. Some examples of these are small balls, pieces of textured cloth, or putty.

For additional suggestions, consult your school's Occupational Therapist or Physical Therapist.

Weighted Vests

Some students may require accommodations that provide proprioceptive input and aid in self-regulation; items such as weighted vests or blankets may assist in calming or focusing a student’s attention to the task at hand.

Thera-tubing or Stretchy Bands

Thera-tubing is often used as a replacement accommodation for foot tapping. These bands provide students resistance and are used as a calming or focusing accommodation.

Redirect Student to Task

Teacher may use verbal reminder; remind to focus; or use visual cues to redirect student’s attention to task. No coaching or assistance.

Comparable CBT Accessibility Feature: 1p Redirect Student to the Test
**Other Setting/Environment Accommodations**

Some students may have other setting/environment accommodations in place during instruction to help them access the learning objectives. The accommodation should also be documented in the student's IEP or Section 504 Plan as an instructional accommodation.

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### Setting / Environment Accommodations:

Considerations in the Transformation of Accommodations from Paper/pencil to Computer-based Tests

**Note:** The accommodations listed below are offered as general suggestions. Please check with your Assistive Technologist specialist, Occupational Therapist, Speech-Language Pathologist, Deaf Education specialist, behavior specialist or TVI/vision specialist for specific equipment and software recommendations.

| **Writing** | **Alternate Pencil**
| **Augmentative Communication Device** |
| | • Capacity to select among multiple options to indicate response—mouse click; keyboard; touch screen; speech recognition; assistive devices to access the keyboard(e.g., mouth stick, eye gaze, or head wand)
| | • Partner Assisted Scanning to select letter for multiple choice

| **Scribe** | **Ability to use speech recognition software to dictate response**
| **Ability to use multiple options to indicate response (listed above)**

| **Braille** | **Tape Recorder**
| **Paper/pencil response** | **Ability to use speech recognition software**
| **Ability to operate equipment and dictate response**
| **Capability of producing response using braille writer or other equipment**
| **Use paper/pencil in addition to computer (e.g. use scratch paper for solving problems, drafting ideas Use paper and pencil in place of computer (e.g. or composing extended response items)**

| **Spell Check** | **Ability to self-select the spell-check option**
| **Capacity to disable option when spelling achievement is being measured**
| **May have implications when using speech recognition software**

| **Calculator** | **Ability to self-select calculator option**
| **Capacity to disable option when math fluency is being measured**

| **English or bilingual dictionary / glossary** | **Ability to self-select dictionary option**
| **Ability to access pop-up definitions built into assessment**
| **Capacity for use of multiple languages**
Timing / Scheduling Accommodations
Refer to Table 2: Administrative Considerations for All Students and Table 5: Timing and Scheduling Accommodations

<table>
<thead>
<tr>
<th><strong>Extended Time</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>A student’s educational team is to determine, based on documentation, an amount of extra time to complete assignments, projects, and tests. Data can be collected to assist in the calculation of a typical amount of time that a student requires to perform a given task. For timed tests, a standard extension may be time and one-half. This means that a student is allowed 90 minutes to take a test that normally has a 60-minute time limit. For rare cases, double time may also be allowed. Decisions should be made on a student-by-student basis and evidenced with the collected data. Usually “unlimited” time is not appropriate or feasible. The amount of extra time a student needs (time and 1/2, double time, etc.) should be documented in the IEP based on gathered evidence of need. Students who have too much time may lose interest and motivation to do their best work, while others may simply need additional time to complete work independently.</td>
</tr>
</tbody>
</table>

| **Comparable CBT Accommodation: SR/PNP must have Extended Time Accommodation selected:** See Table 5 Timing and Scheduling Accommodation for Students with Disabilities 5a |

<table>
<thead>
<tr>
<th><strong>Multiple or Frequent Breaks (2f Frequent Breaks)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Breaks may be given at predetermined intervals or after completion of assignments, tests, or activities. Sometimes a student is allowed to take breaks when individually needed. If the length of a break is predetermined, a timer might be used to signal the end of the break.</td>
</tr>
</tbody>
</table>

| **2f CBT Administrative Consideration:** Medical Breaks, Individual Bathroom Breaks, In-Chair Stretch Break or Other Frequent Breaks, according to state policy. |

<table>
<thead>
<tr>
<th><strong>Change Time of Day, Schedule, or Order of Activities</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>If possible, schedule tests and activities that require focused attention at the time of day when a student is most likely to demonstrate peak performance. Sometimes students are allowed to complete activities over multiple days – completing a portion each day in order to reduce fatigue for students who are medically fragile or have significant support needs.</td>
</tr>
</tbody>
</table>

| **2b CBT Administrative Consideration:** Time of Day |

<table>
<thead>
<tr>
<th><strong>Verbal/Visual/Tactile Prompts to Stay on Task</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Such prompts as general verbal reminders (&quot;Keep on/continue working&quot; or &quot;Stay on task&quot;), visual reminders (picture symbols or color-coded cards), and tactile reminders (gentle touch on the hand or arm, soft tap on the table, paperclips to divide tests into sections) may be used to refocus student attention.</td>
</tr>
</tbody>
</table>

| **Comparable CBT Accessibility Feature:** 1p Redirect Student to the Test (by test administrator) |

<table>
<thead>
<tr>
<th><strong>Countdown Timers</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Countdown timers allow the student to track how much time is left for timed assignments or assessments.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Other Timing/Scheduling Accommodations</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Some students may have other timing/scheduling accommodations in place during instruction to help them access the learning objectives. The needed accommodation should also be documented in the student’s IEP as an instructional accommodation.</td>
</tr>
</tbody>
</table>

See PARCC Manual for complete information on Timing and Scheduling Accommodations
Documenting Accommodations

Formal Plan for Students with a Documented Need
Districts determine policies and procedures for documenting needs for a student who does not qualify as a student with a disability under Section 504, or as a student with a disability and evidence of educational need who qualifies to receive special education services. Check with your District Assessment Coordinator (DAC) for specific information on what your district requires regarding documenting accommodations for students served under other educational plans.

Section 504 Plan
Section 504 of the Rehabilitation Act of 1973 requires public schools to provide accommodations to students with disabilities even if they do not qualify for special education services under IDEA. The definition of a disability under Section 504 is much broader than the definition under IDEA. All IDEA students are also covered by Section 504, but not all Section 504 students are eligible for services under IDEA.

Examples of students who may receive assessment accommodations based on their 504 accommodations plan include students with:
- communicable diseases (e.g., hepatitis)
- chronic illnesses or other health issues
- allergies or asthma
- drug or alcoholic addictions (as long as they are not currently using illegal drugs)
- environmental illnesses
- hearing or vision issues
- attention difficulties
- temporary disabilities from an accident that may require short-term hospitalization or homebound recovery

Individualized Education Program (IEP)
For students with a disability served under IDEA, the IEP Team is responsible, among other things, to:
- determine eligibility
- develop an appropriate Individualized Education Program (IEP), including specialized instruction and related services
- specify appropriate academic achievement levels (grade-level or alternate) and
- document instructional and assessment accommodations

Documenting accessibility features and accommodations for all staff working with the student
- All staff who interact with the student to provide instruction or support must have an up-to-date list of the student’s accommodations in order to provide, routinely use and evaluate the use of the accommodation for effectiveness.
- While accessibility features in a computer-based environment or on some electronic devices are available to all students, a student with a disability may need explicit instruction in how and when to activate the feature. It should not be assumed that just because any student can use the feature, that a student with a disability automatically knows how to use it.
- Best practice would include the use of a log or weekly data collection sheet to provide evidence that the student’s accommodation was indeed provided and may also include comments about the student’s progress toward using the accommodation fluently. Such data may be used by the IEP team when selecting accommodations for the student.
- Ensuring that all staff are familiar with a student’s needs lessens the potential for embarrassing the student or making the student feel “different”. Make the use of the accommodation routine in the classroom.
Care should be taken to ensure that evaluation supporting the existence of a disability shows clear connection to the Present Levels of Academic Achievement and Functional Performance statement, identified learner characteristics, inclusion needs, and selected accommodations for instruction and assessment.

This logical progression through the body of evidence is sometimes called “The Golden Thread” that should weave throughout the IEP document connecting all the pieces to tell a complete educational story for the student. Is the IEP complete and concise enough for anyone to be able to follow the educational plan determined by the IEP Team?

IEP Teams are also required to state “how the child’s disability affects the child’s involvement and progress in the general education curriculum—the same curriculum as non-disabled children” [IDEA 2004 Sec. 614 (d) (1) (A) (i) (I)]. Depending on the design and overall format of a typical IEP, there are potentially five sections of the IEP in which accommodations can be addressed:

“Consideration of Special Factors” [Sec. 614 (d) (3) (B)]. This section outlines consideration of communication and assistive technology supports. Goal statements may also address the use of augmentative communication.

“Supplementary Aids and Services” [Sec. 602 (33) and Sec. 614 (d) (1) (A) (i)]. This area of the IEP includes, “aids, services, and other supports that are provided in regular education classes or other education-related settings to enable children with disabilities to be educated with non-disabled children to the maximum extent appropriate.”

“Participation in Assessments” [Sec. 612 (a) (16)]. This section of the IEP documents accommodations needed to facilitate the participation of a student with disabilities in general state and district-wide assessments.

“Instructional Accommodations” – Make note of instructional accommodations that are provided and routinely used. Remember, this is not a checklist of every possible accommodation strategy. Select only those accommodations that are necessary-- not simply convenient. Use should be evaluated for effectiveness periodically and adjusted or discontinued as evidenced by data collected.

“Accommodations for Assessment” - If the IEP Team agrees that a Unique Accommodation is necessary for student success during instruction and state assessment, the statement, “Pending CDE approval” should be
included under State Assessment in the Nonstandard Accommodation section of the IEP. A description of the accommodation and a statement of student need should also be included. After the District Assessment Coordinator submits the request, and approval is obtained from the CDE Office of Student Assessment, the District Assessment Coordinator (DAC) should communicate the approval to the student’s teachers.

*Note: On an educational plan, there should never be more accommodations listed for the state and/or district assessment accommodations than are used for instruction.

Teachers are responsible to plan how and when the student will learn to use each new accommodation. Care should be taken to provide ample time for the student to learn to use instructional and assessment accommodations before an assessment takes place. Teach the student to self-advocate for the accommodation in the classroom setting to ensure that the accommodation is being implemented effectively. It is the expectation of IDEA and the State of Colorado that educators will provide selected accommodations during instruction with fidelity, in accordance with the student’s IEP.

Appropriate provision of a documented accommodation is not discretionary.

Accommodations Used During Instruction

The student must be provided the selected accommodations during instructional periods that necessitate their use. An accommodation may not be used solely during assessments. The accommodation must have been routinely used with sufficient frequency to ensure the student’s ability to use the accommodation with fluency and independence during instruction. The following chart provides examples of appropriate and inappropriate practices for accommodation use in instruction.

<table>
<thead>
<tr>
<th>Instructional Accommodations</th>
<th>✤ Appropriate Practices ✤</th>
<th>Inappropriate Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using accommodations that allow students to be included and to access grade-level content</td>
<td>Choosing not to use an accommodation chosen for instruction just because it may not be allowed on assessments</td>
<td></td>
</tr>
<tr>
<td>Making accommodation choices which will provide the most seamless experience between instruction and assessment (while maintaining the validity of the assessment)</td>
<td>Failing to make accommodations available during instruction when the student will need that accommodation on the assessment</td>
<td></td>
</tr>
<tr>
<td>Designing accommodations WITH the student that encourage independence and build skills for life-long learning</td>
<td>Fostering dependence on another outside person</td>
<td></td>
</tr>
<tr>
<td>Ensuring that accommodations needed for assessment are routinely available during instruction</td>
<td>Using accommodations that compromise student’s ability to learn grade-level content for convenience</td>
<td></td>
</tr>
<tr>
<td></td>
<td>“Forgetting” to provide the accommodation during</td>
<td></td>
</tr>
</tbody>
</table>
Practicing discretion so as not to call attention to their disability or embarrass the student in any way

Tracking each student’s ongoing accommodation use to ensure that the accommodation is effective and consistently implemented across the school day

<table>
<thead>
<tr>
<th>★ Ethical Practices ★</th>
<th>Unethical Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop instructional objectives based on the Colorado Academic Standards/Extended Evidence Outcomes</td>
<td>Prepare instructional objectives or study guides based on specific Colorado test items and teach accordingly – “Teach the test”</td>
</tr>
<tr>
<td>Prepare students for use of technology</td>
<td>Administratively determine which assessment the student can take</td>
</tr>
<tr>
<td>Base assessment decisions on individual student needs not convenience</td>
<td>Use an accommodation for an entire group or class over an extended period of time whether every student needs it or not</td>
</tr>
<tr>
<td>Ensure that accommodations used in instruction that are needed and allowable for an assessment are available</td>
<td>Restrict access to or deny allowable accommodations on an assessment that are normally used during instruction</td>
</tr>
<tr>
<td>Use released items to familiarize teachers and students with item types (multiple choice, short constructed response and constructed response) and test format</td>
<td>Look at test booklets for any reason other than to distribute and collect them</td>
</tr>
<tr>
<td>Resources and released items are available on the CDE Website: <a href="http://www.cde.state.co.us/assessment/CoAssessReleased.asp">www.cde.state.co.us/assessment/CoAssessReleased.asp</a></td>
<td>Respond to question or give any type of hints during test administration</td>
</tr>
</tbody>
</table>

Preparing Students for Assessments during Instruction

Naturally, teachers will want to familiarize students with various test formats and test-taking strategies. However, the following chart outlines examples of ethical and unethical practices:

Step 5

• Evaluate and monitor the use of accommodations

After accommodations have been selected based upon the individual student’s needs and used consistently for instruction and classroom/district assessment, data should be collected periodically and analyzed for effectiveness. Data on the use and impact of accommodations during instruction and assessments may reveal patterns of accommodation use that support the continued use of some accommodations or the rethinking of others.

Examination of the data may also indicate areas in which the educational decision-making teams need additional training and support. In addition to collecting information about the use of accommodations within the classroom, information also needs to be gathered on the implementation of accommodations used during classroom or district assessment. Data may include the following:

- Observations conducted during test administration
- Interviews with test administrators
- Talking with students after testing sessions (helpful to guide the formative evaluation process at both the school and student levels)
Questions to Guide Evaluation at the Student Level

Accommodation use information can be analyzed in different ways. Here are some questions to guide data analysis at the district, school, and student levels. The list of questions that follow is not intended to be exhaustive, but rather could be used to start the discussion.

- What accommodations are used by the student during instruction and assessments?
- What are the results of classroom assignments and assessments when accommodations are used versus when accommodations are not used? If a student did not meet the expected level of performance, is it due to not having access to the necessary instruction, not receiving the accommodations, or that using accommodations was ineffective?
- What is the student’s perception of how well the accommodation worked?
- What combinations of accommodations seem to be effective?
- What are the difficulties encountered in the use of accommodations?
- What are the perceptions of teachers and others about how the accommodation appears to be working?
- What policies are in effect to include the student in determining what types of accommodations will benefit him or her, and does the student understand why there is a need for an accommodation?

School- and district-level questions can be addressed by a committee responsible for continuous improvement efforts, while the student-level questions need to be considered by the IEP team. It is critical to stress that formative evaluation is not the responsibility of just one individual. The entire educational team should contribute to the information gathering and decision-making processes.

Data Gathering Tools

Teachers are encouraged to design and use any type of data gathering methods they desire. Please see the Section III for some sample forms you may use or adapt for your purposes to track and evaluate the use and effectiveness of accommodations in instruction and classroom assessment.

- Evaluation of Accommodation Use Data Collection Sheet
- Infused Skills Grid (PEAK resource)

Postsecondary Implications

Postsecondary and Workforce Readiness

Postsecondary and workforce readiness is an important educational outcome for all students. As a student with a disability plans for transition to postsecondary settings, it is important for IEP Teams to have documented the student’s previous eligibility for, and evidenced use of accommodations so that the student may request to continue to use them as needed in college and career settings. Colleges and universities may allow fewer accommodations than were available in K-12 settings, so it is important for students to document their need for use of accommodations. This is also true for students who transition into vocational and other workplace settings.

Documenting Use of Accommodations in the Student’s IEP and Transition Plans

In order to determine a person eligible to receive reasonable accommodations in the adult world, providers must be able to document that the individual has a mental or physical condition that substantially limits a major life activity and needs the requested accommodation to access educational courses and activities or employment. It is important to know that information requested by most adult service agencies and colleges could easily be incorporated into existing paperwork, including a student’s evaluation reports, body of evidence used to determine eligibility, IEPs, and Summary of Performance.

When considering accommodations for instruction or assessment, be sure to include information that provides the rationale or evidence that shows the requested accommodation is necessary and effective. For example, what evidence do you have that tells you this particular student needs extended time? Do you have evidence that extended time has been a benefit to this student? Do you have scores from timed and untimed tests? Do you have
documented teacher observations? It is not sufficient to indicate a student needs a specific accommodation without including the rationale or evidence that supports the request. For additional resources, see the CDE Secondary Transition website:  http://www.cde.state.co.us/cdesped/Transition.asp

**Documenting Accommodations for Standardized and other High Stakes Exams**

The U.S. Justice Department issued a technical assistance document on Sept. 18, 2015 regarding the obligation of testing entities, both private and public, to ensure that the test scores of individuals with disabilities accurately reflect the individual's aptitude, achievement, or the skill that the exam purports to measure, rather than his or her disability. The document discusses who is entitled to testing accommodations, what types of testing accommodations must be provided, and what documentation may be required of the person requesting testing accommodations. The document also discusses prohibited flagging policies and how test scores for test-takers receiving disability-related accommodations should be reported.

**Past Testing Accommodations.** Proof of past testing accommodations in similar test settings is generally sufficient to support a request for the same testing accommodations for a current standardized exam or other high-stakes test.

**Formal Public School Accommodations.** If a candidate previously received testing accommodations under an Individualized Education Program (IEP)\(^3\) or a Section 504 Plan,\(^4\) he or she should generally receive the same testing accommodations for a current standardized exam or high-stakes test...

If a candidate shows the receipt of testing accommodations in his or her most recent IEP or Section 504 Plan, and certifies his or her current need for the testing accommodations due to disability, then a testing entity should generally grant those same testing accommodations for the current standardized exam or high-stakes test without requesting further documentation from the candidate. This would include students with disabilities publicly-placed and funded in a private school under the IDEA or Section 504 placement procedures whose IEP or Section 504 Plan addresses needed testing accommodations.

**What Kinds Of Tests Are Covered?**

Exams administered by any private, state, or local government entity related to applications, licensing, certification, or credentialing for secondary or postsecondary education, professional, or trade purposes are covered by the ADA and testing accommodations, pursuant to the ADA, must be provided.\(^1\)

Examples of covered exams include:

- High school equivalency exams (such as the GED);
- High school entrance exams (such as the SSAT or ISEE);
- College entrance exams (such as the SAT or ACT);
- Exams for admission to professional schools (such as the LSAT or MCAT);
• Admissions exams for graduate schools (such as the GRE or GMAT); and

• Licensing exams for trade purposes (such as cosmetology) or professional purposes (such as bar exams or medical licensing exams, including clinical assessments).

For a copy of the Guidance Document
<http://links.govdelivery.com:80/track?type=click&enid=ZWFzPTEmbWFpbGluZ2lkPTlwMTUwOTA4LjQ4ODQ4NDcxLm1lc3NhZ2VpZD1NREItUFJEUlVTc0yMDE1MDkwOC40ODQ4MDZkYXRhYmFzZWlkPTEwMDEuc2VyaWFsPTE3NTQ3NmMxMjNlYmNhNzI5NzhjZTQwYjY2ZjY2YzYwZmMzJmVyaWFsPTE3NTQ3NzMxMjNlYmNhNzI5NzhjZTQwYjY2ZjY2YzYwZmMzJmVyaWFsPTE3NTQ3NzIxNjU2MzI1MTk1Mzc4OTI0MjIyMjUwOTQxNzQzNzQ4&enid=ZWFzPTEmbWFpbGluZ2lkPTIwMTUwOTA4LjQ4ODQ4NDcxLm1lc3NhZ2VpZD1NREItUFJEUlVTc0yMDE1MDkwOC40ODQ4MDZkYXRhYmFzZWlkPTEwMDEuc2VyaWFsPTE3NTQ3NmMxMjNlYmNhNzI5NzhjZTQwYjY2ZjY2YzYwZmMzJmVyaWFsPTE3NTQ3NzMxMjNlYmNhNzI5NzhjZTQwYjY2ZjY2YzYwZmMzJmVyaWFsPTE3NTQ3NzIxNjU2MzI1MTk1Mzc4OTI0MjIyMjUwOTQxNzQzNzQ4&&&100&&&http://www.ada.gov/regs2014/testing_accommodations.html

References


• Available on the World Wide Web at <http://www.ccsso.org/Resources/Programs/Assessing_Special_Education_Students_(ASES).html>
Section III: Tools

Most of the reference Tools listed below are discussed in Sections I and II, but all are also provided here for ease of access and printing. Click on the title to access the pdf version for printing.

1. Consideration When Making Decisions for Instructional Accommodations
2. Student Characteristics Charts
3. Tables A-P: Instructional Accommodations Linked to Student Characteristics
   - Table A: Vision
   - Table B: Hearing
   - Table C: Fine Motor
   - Table D: Communication
   - Table E: Reading
   - Table F: Writing
   - Table G: Mathematics
   - Table H: Physical/Motor
   - Table I: Attention Deficit
   - Table J: Auditory Processing
   - Table K: Setting / Environment
   - Table L: Timing and Scheduling
   - Table M: Traumatic Brain Injury
   - Table N: Autism Spectrum Disorder
   - Table O: Executive Function
   - Table P: Specific Learning Disability
4. Alternate Academic Achievement Standard and Alternate Assessment Eligibility Participation Guidelines Worksheet
5. Companion document: Participation Guidelines
6. Companion document: Participation Guidelines – Print in 5” x 7” folded booklet format
7. Glossary of Instructional Accommodations Chart
8. Parent Input for Accommodations
9. Accommodations from the Student’s Perspective
10. Dos and Don’ts When Selecting Accommodations
11. Use of Scribe: Example Decision-Making Guide (example from Cherry Creek ISD)
12. Accommodation Use in the Classroom
13. Evaluation of Accommodation Use Data Collection Sheet
14. Infused Skills Grid (PEAK resource)
15. After-Test Accommodations Interview
Considerations for Instructional Accommodations

Educational Team Considerations for Instructional Accommodations

Student Characteristics
What are the characteristics of the student as a learner?
Has the student indicated preference in using an accommodation?
Has a parent and other staff members had input on accommodations?
Does the student need or use the same accommodations for classwork as on-class assessments?

Classroom Instruction and Assessment Tasks:
What instructional tasks are required of students?
Are there barriers for the student in showing progress or achievement in what an assignment or assessment is designed to measure with regard to the standards?
Are instructional tasks the same as classroom assessment tasks in type and purpose?
Are there accommodations that could facilitate access to the general curriculum for instruction?
What accommodations are needed for state assessment?

Classroom Accommodation Policy:
Consistency with IEP
Are accommodations documented in the student’s IEP being provided, routinely used, and evaluated for both instruction and assessment?
Are the accommodations included in a standards-aligned IEP consistent with the student’s designated academic achievement standard?
**Student Characteristics**

*Use these questions to identify a student’s characteristics as a learner which may indicate a need for an accommodation. Mark “yes” if the student has the characteristic. Follow the next steps for more information about potential types of accommodations that could be helpful for instruction. The provided list is certainly not exhaustive, but may be used as a guide when selecting accommodations as discussed in Step 3 of the Five Step Process.*

**Note:** These Student Characteristics questions and Corresponding Tables have been incorporated into the state IEP system for guidance during the IEP Team considerations.

<table>
<thead>
<tr>
<th>Student Characteristics</th>
<th>YES</th>
<th>Refer to Tables A-O for accommodations to consider</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Does the student have blindness or low vision that requires an accommodation?</td>
<td>☐</td>
<td>Go to Table A</td>
</tr>
<tr>
<td>2. Does the student have a hearing impairment that requires an accommodation?</td>
<td>☐</td>
<td>Go to Table B</td>
</tr>
<tr>
<td>3. Does the student have some other physical condition that requires an accommodation?</td>
<td>☐</td>
<td>Go to Table C and H</td>
</tr>
<tr>
<td>4. Does the student have difficulty with expressive or receptive communication?</td>
<td>☐</td>
<td>Go to Table D</td>
</tr>
<tr>
<td>5. Has the student been identified as having a reading impairment or difficulty with decoding?</td>
<td>☐</td>
<td>Go to Table E</td>
</tr>
<tr>
<td>6. Does the student have difficulty with writing composition, grammar or spelling?</td>
<td>☐</td>
<td>Go to Table F</td>
</tr>
<tr>
<td>7. Does the student have weak manual dexterity, fine motor difficulty, have trouble typing or using a pencil?</td>
<td>☐</td>
<td>Go to Table C, H and F</td>
</tr>
<tr>
<td>8. Does the student have mathematics-related impairment?</td>
<td>☐</td>
<td>Go to Table G</td>
</tr>
<tr>
<td>9. Is the student easily distracted, have a short attention span or have difficulty tracking from one page or line to another and maintaining his or her place?</td>
<td>☐</td>
<td>Go to Table I</td>
</tr>
<tr>
<td>10. Does the student need directions repeated frequently or have memory impairments?</td>
<td>☐</td>
<td>Go to Table J and M</td>
</tr>
<tr>
<td>11. Does the student have a brain injury?</td>
<td>☐</td>
<td>Go to Table M</td>
</tr>
<tr>
<td>12. Does the student have a developmental disability significantly affecting verbal and non-verbal communication and social interaction that adversely affects the child’s educational performance?</td>
<td>☐</td>
<td>Go to Table N</td>
</tr>
<tr>
<td>13. Does the child engage in repetitive activities and stereotyped movement, resist environmental change or change in daily routine, or have unusual responses to sensory stimuli?</td>
<td>☐</td>
<td>Go to Table N</td>
</tr>
<tr>
<td>14. Does the student use visual supports/schedules to produce work?</td>
<td>☐</td>
<td>Go to Table N</td>
</tr>
</tbody>
</table>
### Characteristics Affecting Setting/Environmental Accommodations

<table>
<thead>
<tr>
<th>Yes/No</th>
<th>Next Steps</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ 1. Do others easily distract the student or does that student have difficulty remaining on task?</td>
<td>Go to Table K and O</td>
</tr>
<tr>
<td>☐ 2. Does the student require any specialized equipment or other accommodations that may be distracting to others?</td>
<td>Go to Table K</td>
</tr>
<tr>
<td>☐ 3. Does the student have visual and/or auditory impairments that require special lighting and/or acoustics?</td>
<td>Go to Table K</td>
</tr>
<tr>
<td>☐ 4. Can the student focus on his or her own work in a large group setting?</td>
<td>Go to Table K or M</td>
</tr>
<tr>
<td>☐ 5. Does the student exhibit behaviors that may disrupt the attention of other students?</td>
<td>Go to Table K/O</td>
</tr>
<tr>
<td>☐ 6. Do any physical or environmental accommodations need to be made for the student in the classroom?</td>
<td>Go to Table K</td>
</tr>
</tbody>
</table>

### Characteristics Affecting Timing and Scheduling

<table>
<thead>
<tr>
<th>Yes/No</th>
<th>Next Steps</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ 1. Can the student work continuously for the length of time allocated for standard test administration?</td>
<td>Go to Table L</td>
</tr>
<tr>
<td>☐ 2. Does the student use an accommodation or adaptive equipment that requires more time to complete test items (e.g., braille, scribe, use of head pointer to type)?</td>
<td>Go to Table L</td>
</tr>
<tr>
<td>☐ 3. Does the student tire easily due to health impairments?</td>
<td>Go to Table L and M</td>
</tr>
<tr>
<td>☐ 4. Does the student have a visual impairment that causes visual fatigue and requires frequent breaks?</td>
<td>Go to Table L</td>
</tr>
<tr>
<td>☐ 5. Does the student have a learning disability that affects the rate at which the student processes written information?</td>
<td>Go to Table L and M</td>
</tr>
<tr>
<td>☐ 6. Does the student have a motor disability that affects the rate at which the student writes responses?</td>
<td>Go to Table L</td>
</tr>
<tr>
<td>☐ 7. Does the student take any type of medication to facilitate optimal performance?</td>
<td>Go to Table L</td>
</tr>
<tr>
<td>☐ 8. Does the student’s attention span or distractibility require shorter working periods and frequent breaks?</td>
<td>Go to Table L and M</td>
</tr>
</tbody>
</table>

### Table References
- **Table A**: Vision
- **Table B**: Hearing
- **Table C**: Fine Motor
- **Table D**: Communication
- **Table E**: Reading
- **Table F**: Writing
- **Table G**: Mathematics
- **Table H**: Physical/Motor
- **Table I**: Attention Deficit
- **Table J**: Auditory Processing
- **Table K**: Setting / Environment
- **Table L**: Timing and Scheduling
- **Table M**: Traumatic Brain Injury
- **Table N**: Autism Spectrum Disorder
- **Table O**: Executive Function
- **Table P**: Specific Learning Disability
**Table A. Student Characteristic: Visual Impairment, Including Blindness**

<table>
<thead>
<tr>
<th>Accommodation Category</th>
<th>Consider the following accommodations for use in instruction with students who benefit from auditory support for a visual impairment, visual processing disorder, or print disability*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Presentation</strong></td>
<td>• Large print; enlarge with photocopy machine to recommended font size</td>
</tr>
<tr>
<td></td>
<td>✤ Hand held magnification devices</td>
</tr>
<tr>
<td></td>
<td>✤ Braille notetaker</td>
</tr>
<tr>
<td></td>
<td>✤ Refreshable Braille displays</td>
</tr>
<tr>
<td></td>
<td>✤ Computer magnification</td>
</tr>
<tr>
<td></td>
<td>✤ Black and white print; black or white on high contrast screen</td>
</tr>
<tr>
<td></td>
<td>• Color contrasting</td>
</tr>
<tr>
<td></td>
<td>• Increased white space</td>
</tr>
<tr>
<td></td>
<td>• Use easy-to-read sans serif font such as Verdana, Arial, or Calibri</td>
</tr>
<tr>
<td></td>
<td>• Abacus</td>
</tr>
<tr>
<td></td>
<td>✤ Closed Circuit TV (CCTV)/video magnification</td>
</tr>
<tr>
<td></td>
<td>• Braille</td>
</tr>
<tr>
<td></td>
<td>• Read aloud/oral presentation</td>
</tr>
<tr>
<td></td>
<td>✤ Recordings for the Blind and dyslexic</td>
</tr>
<tr>
<td></td>
<td>✤ Recorded books, Mp3 players, other electronic reading devices; descriptive video</td>
</tr>
</tbody>
</table>
| **Resources:**         | **Colorado Center for the Blind**  
**www.cocenter.org**                                                                                                                                                                       |
|                        | **American Council of the Blind of Colorado**  
**www.acbco.org**                                                                                                                                                                         |
|                        | **National Federation of the Blind, Colorado Chapter**  
**www.nfbc.co.org**                                                                                                                                                                        |
<table>
<thead>
<tr>
<th>Screen reader programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Large print or braille notes, outlines, and instructions</td>
</tr>
<tr>
<td>- Masking or tracking tools for enlarged print</td>
</tr>
<tr>
<td><strong>Talking materials</strong> (talking calculators, clocks etc.)</td>
</tr>
<tr>
<td>- Real objects; tactile materials; tangible symbols</td>
</tr>
<tr>
<td>- Tactile Graphics</td>
</tr>
</tbody>
</table>

**Response**

For additional information see CDE Vision Impairment including Blindness website: [http://www.cde.state.co.us/cdesped/BLV.asp](http://www.cde.state.co.us/cdesped/BLV.asp)

Deaf-blindness: [http://www.cde.state.co.us/cdesped/sd-db](http://www.cde.state.co.us/cdesped/sd-db)

- Express response to a scribe
- Type on word processor
- Speech to text programs
- Type on Braille Notetaker
- Speak into tape recorder, Mp3 devices or other recording devices
- Use calculation devices (e.g., talking calculator with enlarged keys, abacus)
Table B. Student Characteristic: Hearing Impairment, Including Deafness

Symbol represents accommodations that can be considered as use of Assistive Technology

<table>
<thead>
<tr>
<th>Accommodation Category</th>
<th>Consider the following accommodations for use in instruction with students who benefit from auditory support for hearing loss, deafness, auditory processing disorder, or developmental language delay*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation</td>
<td>• Sign language (student’s preferred mode)</td>
</tr>
<tr>
<td></td>
<td>• Face the student during all verbal instruction</td>
</tr>
<tr>
<td></td>
<td>• Write on white board and the face class for instruction</td>
</tr>
<tr>
<td></td>
<td>• Speak clearly with unexaggerated speech; rephrase rather than repeating</td>
</tr>
<tr>
<td></td>
<td>• Develop a signal system for student to nonverbally inform the teacher when difficulties occur</td>
</tr>
<tr>
<td></td>
<td>• Audio amplification devices: personal hearing aids; cochlear implant; classroom sound field system; personal FM system</td>
</tr>
<tr>
<td></td>
<td>• Encourage student to advocate for own listening and understanding needs</td>
</tr>
<tr>
<td></td>
<td>• Visual cues; picture supported text</td>
</tr>
<tr>
<td></td>
<td>• Written notes, outlines, and instructions; peer notetaker</td>
</tr>
<tr>
<td></td>
<td>• Advanced organizers and outlines of lectures</td>
</tr>
<tr>
<td></td>
<td>• Use natural gestures (e.g., point to materials; acknowledge who is speaking)</td>
</tr>
<tr>
<td></td>
<td>• Allow only one person to speak at a time</td>
</tr>
<tr>
<td></td>
<td>• Repeat questions and responses from classmates; pass FM microphone to speaker</td>
</tr>
<tr>
<td></td>
<td>• Provide notes from classmate (duplicate copy paper/ print whiteboard notes) or teacher notes</td>
</tr>
<tr>
<td></td>
<td>• Use captioned versions of streamed video/film or provide printed script</td>
</tr>
<tr>
<td></td>
<td>• Give oral/sign language interpreter instructional materials in advance</td>
</tr>
<tr>
<td></td>
<td>• Pre-teach academic vocabulary</td>
</tr>
<tr>
<td></td>
<td>• Use expansion techniques to scaffold vocabulary in context and use pictures for multiple meaning words</td>
</tr>
<tr>
<td></td>
<td>• Use visual /picture/sign language online dictionaries, vocabulary flashcards, graphic organizers to build vocabulary</td>
</tr>
<tr>
<td></td>
<td>• Show first; then explain</td>
</tr>
<tr>
<td></td>
<td>• Frequently summarize main points and provide</td>
</tr>
</tbody>
</table>

Resources:
Hands & Voices organization for parents:

Tips for Working with Deaf or Hard of Hearing Students in the Classroom

Explain idioms/multiple meaning words:
http://www.readwritethink.org/files/resources/interactives/idioms/idiom_1.html

Using Assistive Listening Devices:
http://www.youtube.com/watch?v=M4lBkdRereE
<table>
<thead>
<tr>
<th>an outline for guided note taking and vocabulary reinforcement</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Write page numbers, assignments and other important information on board prior to presentation</td>
</tr>
<tr>
<td>• Access to telecommunication/text messaging/video relay</td>
</tr>
<tr>
<td>• Provide content material in accessible text level format</td>
</tr>
<tr>
<td>• Provide picture-rich background materials to link vocabulary to prior knowledge or experience</td>
</tr>
<tr>
<td>• Maintain cochlear implant/personal hearing aids/FM equipment and chart daily use</td>
</tr>
<tr>
<td>• Use installed visual warning system for building emergencies; buddy check system</td>
</tr>
<tr>
<td>• Model acceptance, respect and communication techniques</td>
</tr>
<tr>
<td>• Provide access to daily school announcements, assemblies etc.</td>
</tr>
<tr>
<td>• Access to computer audio by inputting FM transmitter into auxiliary access port</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Express response to a scribe or interpreter (sign to voice)</td>
</tr>
<tr>
<td>• Use word processor or portable keyboards (text-to-voice programs)</td>
</tr>
<tr>
<td>• Use of word processor with spelling and grammar software</td>
</tr>
<tr>
<td>• Word prediction software</td>
</tr>
<tr>
<td>• Use visual organizers</td>
</tr>
<tr>
<td>• Use graphic organizers</td>
</tr>
<tr>
<td>• Demonstrate reading comprehension through digital storytelling</td>
</tr>
</tbody>
</table>

For additional information see CDE Hearing Disabilities website: [http://www.cde.state.co.us/cdesped/SD-Hearing.asp](http://www.cde.state.co.us/cdesped/SD-Hearing.asp)
### Table C. Student Characteristic: Fine Motor

_[Symbol represents accommodations that can be considered as use of Assistive Technology]_

<table>
<thead>
<tr>
<th>Accommodation Category</th>
<th>Consider the following accommodations for use in instruction with students who have a physical disability, Autism Spectrum Disorder, orthopedic impairment, other health impaired, or Traumatic Brain Injury affecting fine motor control*</th>
</tr>
</thead>
</table>
| Presentation           | ✅ Slant boards  
  ✅ Text reader program  
  ✅ Electronic books |
| Response               | • Express response to a scribe  
  • Use alternate pencil  
  ✅ Voice-activated computers  
  ✅ Type on word processor or portable keyboard  
  ✅ Speech-to-text programs  
  ✅ Speak into tape recorder, Mp3 player, or other recording device  
  ✅ Use thick pencil, pencil grip, or modified pencils  
  • Use written/electronic notes, outlines  
  • Make a choice utilizing any preferred method (e.g., eye gaze, switch, etc.) |

For additional information see CDE Orthopedic Impairment website: [http://www.cde.state.co.us/cdesped/SD-Physical.asp](http://www.cde.state.co.us/cdesped/SD-Physical.asp)
### Table D. Student Characteristic: Communication

[Symbol] **Symbol represents accommodations that can be considered as use of Assistive Technology**

<table>
<thead>
<tr>
<th>Accommodation Category</th>
<th>Consider the following accommodations for use in instruction with students who have difficulty with receptive/expressive communication skills*</th>
</tr>
</thead>
</table>
| **Presentation**       | • Sign/Picture/Symbol support  
                        | • Sign Supported Speech  
                        | • Repeat/rephrase directions  
                        | • Simplified instructions  
                        | • Text reader |
| Resource:              | **Assistive Technology Resource Guide**  
| **Response**           | • Computer word prediction programs  
                        | • Spell check programs  
                        | • Augmentative Communication Devices  
<pre><code>                    | • Alternate pencil |
</code></pre>
<p>| *For additional information see: |                                                                 |
| CDE Speech or Language Impairment website: | <a href="http://www.cde.state.co.us/cdesped/SD-SLI.asp">http://www.cde.state.co.us/cdesped/SD-SLI.asp</a> |
| Writing with Alternative Pencils | <a href="http://www.med.unc.edu/ahs/clds/products/available-for-purchase">UNC School of Medicine Dept. of Allied Health Sciences – Center for Literacy and Disability Studies</a> |</p>
<table>
<thead>
<tr>
<th>Accommodation Category</th>
<th>Consider the following accommodations for use in instruction with students who have difficulty with reading*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation</td>
<td>• Read aloud/ oral presentation&lt;br&gt;• Pair-Share reading/choral reading&lt;br&gt;• Whisper reading&lt;br&gt;• Repeated readings&lt;br&gt;• Use adapted books for grade-level text&lt;br&gt;• Picture supported text&lt;br&gt;• Recorded books, Mp3 players, other electronic reading devices&lt;br&gt;• Screen reader programs; reading systems&lt;br&gt;• Vocabulary games&lt;br&gt;• Visual cues such as color coding phonemes, or word parts&lt;br&gt;• Video tapes/DVD&lt;br&gt;• Read out loud to self/ auditory feedback tube&lt;br&gt;• Text reader programs (Text-to-Speech)&lt;br&gt;• Masking or tracking tools, Reading Guides&lt;br&gt;• Concept mapping&lt;br&gt;• Multi-sensory instruction&lt;br&gt;• Cooperative learning techniques&lt;br&gt;• Group Response methods&lt;br&gt;• Peer assistance methods/teaching&lt;br&gt;• Relationships between questions and answers; explicit/implicit&lt;br&gt;• Summarization strategies; &lt;br&gt;• Grammar/Syntax instruction&lt;br&gt;• Mnemonic devices&lt;br&gt;• Coding the text&lt;br&gt;• Sentence stems&lt;br&gt;• Goal Setting&lt;br&gt;• Self instruction (Self talk and self questioning), &amp; self evaluation&lt;br&gt;• Universal Design for Learning (UDL)&lt;br&gt;• Teacher provided summary and vocabulary prior to reading&lt;br&gt;• Read questions prior to reading&lt;br&gt;• Extended time</td>
</tr>
</tbody>
</table>

Symbol represents accommodations that can be considered as use of Assistive Technology
<table>
<thead>
<tr>
<th>Response</th>
</tr>
</thead>
</table>
| • Reading Assist programs (Font; speed; text size)  
• Reduce number of items per page/line |

*For additional information see CDE Specific Learning Disabilities website: http://www.cde.state.co.us/cdesped/SD-SLD.asp

<table>
<thead>
<tr>
<th>Response</th>
</tr>
</thead>
</table>
| • Word prediction programs  
• Spell checkers  
• Demonstrate comprehension through role play, illustration, graphic organizers, cloze notes procedures, etc.  
• Focus on decoding, vocabulary, and fluency to improve comprehension  
• Concept mapping  
• Speech recognition/ Speech-to-Text  
• Organizational managers/note-taking strategies  
• UDL  
• Extended time  
• Verbal responses  
• Dictate answers to a scribe only until fluent with speech-to-text software |

- **Consult with Special Education and Assistive Technology professionals for the identification of appropriate assistive tools, technology and applications.**
# Table F. Student Characteristic: Writing

Symbol represents accommodations that can be considered as use of Assistive Technology

<table>
<thead>
<tr>
<th>Accommodation Category</th>
<th>Consider the following accommodations for use in instruction with students who have difficulty with the writing process*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Response</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*For additional information see CDE Specific Learning Disabilities website: [http://www.cde.state.co.us/cdesped/SD-SLD.asp](http://www.cde.state.co.us/cdesped/SD-SLD.asp)

<table>
<thead>
<tr>
<th>Resources:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fountas &amp; Pinnell word study PLC Live Binder</td>
<td><a href="http://www.livebinders.com/play/play_or_edit?id=322117">http://www.livebinders.com/play/play_or_edit?id=322117</a></td>
</tr>
<tr>
<td>Dinah Zike’s Visual Kinesthetic Vocabulary</td>
<td><a href="http://www.dinah.com">http://www.dinah.com</a></td>
</tr>
<tr>
<td><em>For additional information see CDE Orthopedic Impairment website: <a href="http://www.cde.state.co.us/cdesped/SD-Physical.asp">http://www.cde.state.co.us/cdesped/SD-Physical.asp</a></em></td>
<td></td>
</tr>
</tbody>
</table>

*For additional information see CDE Orthopedic Impairment website: [http://www.cde.state.co.us/cdesped/SD-Physical.asp](http://www.cde.state.co.us/cdesped/SD-Physical.asp)*

**Composition:**
- Type on word processor or portable keyboard
- Use Speech-to-text programs
- Speak into tape recorder, Mp3 Player or other recording device
- Use spelling and grammar programs
  - Teach commonly occurring letter patterns
  - Pair spelling with fingerspelling for tactile reinforcement
- Use Word prediction program
- Appropriate online dictionary
- Individual student dictionary
- Use written notes, outlines, and instructions
- Blank scratch paper
- Use graphic organizers or software to create

**Handwriting:**
- Use specially designed paper with raised/colored lines such as; “Handwriting Without Tears” or similar ruled paper
  - Use of pencil grip to reduce fatigue
- Use slant board/clip board/magnetic strips to hold paper to whiteboard/“MagnaDoodle” type slate
- Consider teaching cursive rather than manuscript
- Use computer/word processor/adaptive keyboard
- Express response to a scribe (limit to need, not convenience)
- *Speech to Text software*
Table G. Student Characteristic: Mathematics

Symbol represents accommodations that can be considered as use of Assistive Technology

<table>
<thead>
<tr>
<th>Accommodation Category</th>
<th>Consider the following accommodations for use in instruction with students who have a specific learning disability in the area of mathematics*</th>
</tr>
</thead>
</table>
| **Presentation**       | • Graph paper to help line up numerals for computation  
• Number lines on desk/floor/wall  
• Turn lined notebook paper landscape for columns (e.g. division)  
• Mnemonic devices, rhymes, choral responses and songs to aid memory  
• “Finger Multiplication” / patterns to learn facts  
• Visual cues to steps in problem-solving  
• Manipulatives and hands-on experiences  
• Graphics and models  
• Role play story problems  
**Calculation devices (talking calculator; enlarged keys, abacus**  
• Fold paper/use mask sheet/electronic masking to reveal only one problem/answer response at a time  
• Reduce number of practice problems assigned  
• Provide sample problems for reference |
| **Response**           | **Calculation devices**  
**Visual organizers**  
**Graphic organizers**  
Math tables and formulas  
• Manipulatives  
• Abacus  
• Lattices for multiplication  
• Individual dry erase boards |

*For additional information see CDE Specific Learning Disabilities website: [http://www.cde.state.co.us/cdesped/SD-SLD.asp](http://www.cde.state.co.us/cdesped/SD-SLD.asp)
Table H. Student Characteristic: Physical/Motor Skill

Symbol represents accommodations that can be considered as use of Assistive Technology

<table>
<thead>
<tr>
<th>Accommodation Category</th>
<th>Consider the following accommodations for use in instruction with students having difficulty with motor skills*</th>
</tr>
</thead>
</table>
| Presentation           | • Partner Assisted Scanning  
                        | • Allow longer processing time  
                        | • Books on tape  
                        | • Uncluttered work area  
                        | • Adjustable/tilt table to have equipment within reach  
                        | • Prolonged sitting may cause chronic pain |
| Response               | • Allow for longer response time  
                        | • Express response to a scribe through speech, pointing, or by using an assistive communication device  
                        | • Type on word processor or personal portable keyboard  
                        | • Speech-to-text programs  
                        | • Speak into tape recorder, Mp3 Players or other recording devices  
                        | • Use augmentative devices for single or multiple messages  
                        | • Use written notes, outlines, and instructions  
                        | • Scanning software |

Resource:

Color Coded Eye Gaze Frame- PPT

*For additional information see:  
CDE Significant Support Needs website: http://www.cde.state.co.us/cdesped/SD-Physical.asp

*Statewide assistive technology, augmentative and alternate communication website  
http://www.swaaac.com
### Table I. Student Characteristic: Attention Deficit

Symbol represents accommodations that can be considered as use of Assistive Technology

<table>
<thead>
<tr>
<th>Accommodation Category</th>
<th>Consider the following accommodations for use in instruction*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Presentation</strong></td>
<td>• Gain attention before speaking</td>
</tr>
<tr>
<td></td>
<td>• Incorporate movement into lessons</td>
</tr>
<tr>
<td></td>
<td>• Provide consistency, stability and structure daily</td>
</tr>
<tr>
<td></td>
<td>✦ Recorded books, Mp3 players, other electronic reading devices</td>
</tr>
<tr>
<td></td>
<td>✦ Computer-based instruction</td>
</tr>
<tr>
<td></td>
<td>• Give short and simple directions with examples</td>
</tr>
<tr>
<td></td>
<td>• Use nonverbal signals</td>
</tr>
<tr>
<td></td>
<td>• Masking or tracking device</td>
</tr>
<tr>
<td></td>
<td>• Repeating directions</td>
</tr>
<tr>
<td></td>
<td>• Text highlighting</td>
</tr>
<tr>
<td></td>
<td>✦ Low Gain Amplification systems (if prescribed)</td>
</tr>
<tr>
<td></td>
<td>• Capitalize on student interests</td>
</tr>
<tr>
<td><strong>Response</strong></td>
<td>• Write in test booklet instead of on answer sheet</td>
</tr>
<tr>
<td></td>
<td>• Monitor placement of student responses on answer sheet / graph paper</td>
</tr>
<tr>
<td></td>
<td>✦ Use materials or devices used to solve or organize responses</td>
</tr>
<tr>
<td></td>
<td>✦ Use visual organizers</td>
</tr>
<tr>
<td></td>
<td>✦ Use graphic organizers</td>
</tr>
<tr>
<td></td>
<td>• Use mnemonic devices to aid memory</td>
</tr>
<tr>
<td></td>
<td>• Highlight key words in directions</td>
</tr>
<tr>
<td></td>
<td>• Have student repeat and explain directions to check for understanding</td>
</tr>
<tr>
<td></td>
<td>• Use template</td>
</tr>
<tr>
<td></td>
<td>• Use graph paper to keep numbers in proper columns</td>
</tr>
<tr>
<td></td>
<td>✦ Time cue or countdown clock</td>
</tr>
</tbody>
</table>

Also see **Table O**: Executive Function

For additional information see CDE Behavior/Mental Health website: [http://www.cde.state.co.us/cdesped/Behavior.asp](http://www.cde.state.co.us/cdesped/Behavior.asp)

Table J. Student Characteristic: Auditory Processing

Symbol represents accommodations that can be considered as use of Assistive Technology

<table>
<thead>
<tr>
<th>Accommodation Category</th>
<th>Consider the following accommodations for use in instruction for students who have difficulty with comprehension*</th>
</tr>
</thead>
</table>
| **Presentation**        | • Gain attention before engaging student  
                          • Consider voice amplification for teacher or classroom sound field system  
                          • Repeat /limit directions or instructions  
                          • Enunciate clearly with measured pace  
                          • Utilize vocal inflection, intonation and volume changes to emphasize important information  
                          • Written/picture supported directions  
                          • Provide brief, to-the-point instruction  
                          • Model steps in directions  
                          • Restate or rephrase if student does not respond  
                          • Avoid dividing student’s attention between watching, listening and writing  
                          • Student takes notes during directions  
                          • Students retells directions  
                          • Amplification system  
                          • Text-to-speech  
                          • Low Gain Amplification Systems (if prescribed) |

*For additional information see CDE Hearing Impairment, Including Deafness website: [http://www.cde.state.co.us/cdesped/SD-Hearing.asp](http://www.cde.state.co.us/cdesped/SD-Hearing.asp)

Resources: [http://www.cde.state.co.us/cdesped/sd-hearing_resources](http://www.cde.state.co.us/cdesped/sd-hearing_resources)

CDE Services/Support Programs: [http://www.cde.state.co.us/cdesped/sd-hearing_servicessupportprograms](http://www.cde.state.co.us/cdesped/sd-hearing_servicessupportprograms)

*Educational Audiology Services [http://www.cde.state.co.us/cdesped/RS-EdAudiology.asp](http://www.cde.state.co.us/cdesped/RS-EdAudiology.asp)
### Table K. Student Characteristics Related to Setting / Environment Needs

<table>
<thead>
<tr>
<th>Accommodation Category</th>
<th>Consider the following accommodations for use in instruction*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting/Environment</td>
<td>✥ Use headphones, sound buffers, classroom sound field amplification or preferred acoustic seating for student</td>
</tr>
<tr>
<td></td>
<td>• For students who are Deaf/Hard of Hearing, arrange chairs in circle so student can know who is speaking and maintain sightline</td>
</tr>
<tr>
<td></td>
<td>• Maintain “one speaker at a time” rule</td>
</tr>
<tr>
<td></td>
<td>• Evaluate lighting to avoid glare</td>
</tr>
<tr>
<td></td>
<td>• If using an interpreter, seat a student who is Deaf/Hard of Hearing slightly to the thumb side of the interpreter’s dominant hand and maintain the student’s sight line between the speaker and interpreter</td>
</tr>
<tr>
<td></td>
<td>• To assist with speechreading, gain eye contact before speaking and maintain the same facial level as the student</td>
</tr>
<tr>
<td></td>
<td>• Limit “visual clutter” to reduce distraction (e.g., dangling jewelry; strong pattern in clothing, background etc.)</td>
</tr>
<tr>
<td></td>
<td>• Exercise balls or rocking chairs</td>
</tr>
<tr>
<td></td>
<td>• Weighted vests</td>
</tr>
<tr>
<td></td>
<td>• Fidget toys/ manipulatives</td>
</tr>
<tr>
<td></td>
<td>• Thera-bands</td>
</tr>
<tr>
<td></td>
<td>• Study carrel; alternate seating within room or resource room</td>
</tr>
<tr>
<td></td>
<td>• Checkpoints for work completion</td>
</tr>
<tr>
<td></td>
<td>• Clearly defined limits</td>
</tr>
<tr>
<td></td>
<td>• Frequent reminders</td>
</tr>
<tr>
<td></td>
<td>• Adaptive furniture/chairs</td>
</tr>
</tbody>
</table>

*For additional information see: CDE Serious Emotional Disability website: [http://www.cde.state.co.us/cdesped/Behavior.asp](http://www.cde.state.co.us/cdesped/Behavior.asp)

Occupational Therapy: [http://www.cde.state.co.us/cdesped/RS-OT.asp](http://www.cde.state.co.us/cdesped/RS-OT.asp)

Table L. Student Characteristics Related to Timing and Scheduling

Symbol represents accommodations that can be considered as use of Assistive Technology

<table>
<thead>
<tr>
<th>Accommodation Category</th>
<th>Consider the following accommodations for use in instruction*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timing/Scheduling</td>
<td>• Simplify directions, prompts or pace rate of instructional presentation</td>
</tr>
<tr>
<td></td>
<td>• “Chunk” assignments into smaller more manageable steps</td>
</tr>
<tr>
<td></td>
<td>• Provide checklists to monitor completion of tasks</td>
</tr>
<tr>
<td></td>
<td>• Use visual timer</td>
</tr>
<tr>
<td></td>
<td>• Give students time to read and process <strong>before</strong> you begin speaking</td>
</tr>
<tr>
<td></td>
<td>• Do not ask students to read while someone is speaking</td>
</tr>
<tr>
<td></td>
<td>• Allow for plenty of response time; some students need longer to formulate their response</td>
</tr>
<tr>
<td></td>
<td>• Use familiar cultural contexts for content</td>
</tr>
<tr>
<td></td>
<td>• Allow more time to complete work (e.g., language processing or more “wait time” after questions)</td>
</tr>
<tr>
<td></td>
<td>• Shortened sessions with frequent breaks; also be mindful of visual/mental fatigue</td>
</tr>
<tr>
<td></td>
<td>• “Stop the clock” breaks for timed assignments or assessments</td>
</tr>
<tr>
<td></td>
<td>• Change the time of day difficult instruction is given</td>
</tr>
</tbody>
</table>
**Table M. Student Characteristic: Brain Injury, including Traumatic Brain Injury**

Symbol represents accommodations that can be considered as use of Assistive Technology

<table>
<thead>
<tr>
<th>Student Characteristic</th>
<th>Consider the following accommodations for use in instruction*</th>
</tr>
</thead>
</table>
| **Sensory & Motor**                    | • Be sure that the student’s table and chair provide optimal support to reduce the amount of energy devoted to maintaining balance.  
• Preferential seating away from visual and auditory stimulation.  
• Limit visual clutter and auditory stimulation in the classroom-consider the impact of lights, noise, movement, etc.  
• Provide a quiet space/area for breaks or to allow the student to complete work.  
• Provide student with the opportunity for physical and cognitive rest breaks during the day (lunch and recess are not rest breaks for a student with a brain injury).  
• Monitor whether the student can handle the lunchroom or if a less stimulating area should be provided where they can eat with their friends.  
• Allow use of sunglasses and hats when outdoors for students with light sensitivity. |
| **Attention & Concentration**          | • Schedule most important work during times when the child has displayed their greatest concentration abilities.  
• Seat nearest the location of instruction and away from distractions (e.g. doors, windows, high traffic areas, and other off-task children).  
• Seat next to positive peers with age appropriate attention abilities to help with redirection and understanding of instructions.  
• Clear desk and area of everything expect what needed for task at hand.  
• Reduce background noise by experimenting with ear plugs, ear muffs/headphones, or introducing background sound such as, white noise or a music device with soft music.  
• Eliminate interruptions as much as possible. |
Once students are focused on a task, it is very difficult to get them restarted if interrupted.
- Allow student to complete work or test in alternate settings where there are fewer distractions.
- Make sure to get student’s attention when giving directions or cue them when information is really important.
- Use verbal and visual cues to refocus student as well as frequent checks for understanding.

### Processing Speed

- Give instructions one at a time and focus on the essential or most important parts.
- Give time between parts of a direction for the child to process and provide a response.
- If the child appears “blank” or is not doing what you have asked, repeat the main points. Do not elaborate or add details.
- Provide written directions and combine verbal information with visuals.
- Frequent checks for understanding.
- Reduce other distractions, so student does not have to screen them out or share his/her focus with anything but your words.
- Try not to pressure your student, urge them to “hurry up”, or get exasperated.
- Allow extra time for processing and providing their responses as well as on assessments and assignments, including tests.
- Limit the number of tasks the student is required to complete at one time.
- Provide a copy of classroom notes or guided notes/outline.
- Provide or teach the use of graphic organizers and checklists.

### Memory

- Break instructions and assignments into manageable pieces-limit amount of information, give at one time.
- Present information in several ways (verbal, written, visuals, modeling).
- Use self-questioning, “wh” questions during reading and discussion (who, what, when,
- When possible use thematic learning across content areas.
- Teach the concept and then ask the student to teach you or others - having them teach others activates numerous areas of the brain.
- Incorporate repetition/practice of new material - allow rest breaks between repetitions.
- Provide copies of guided notes.
- Allow use of notes and books during assessments.
- Modify test format to multiple choice to reduce the need for total memory recall. Give recognition tests not recall tests.
- Teach note taking techniques such as highlighting essential information.
- Regularly summarize information and ask the student to paraphrase or repeat it back.

**Visual-Spatial**

- Provide directions and content verbally (verbal focus on learning).
- Provide precise and clear verbal directions.
- Frequent checks for understanding.
- Highlight what visual information needs to be focused on.
- Use simplified visual planners; some webs/diagrams may be too confusing.
- Enlarge written materials.
- Reduce the amount of written work.
- Consider if visual presentation of worksheets needs to be modified.
- Provide support in aligning math problems.
- Provide support in organizing writing from left to right and organizing/expressing thoughts.
- Teach verbal strategies to interpret visual information such as maps, charts and graphs.
- Reduce clutter on student’s desk.

**Language – Receptive, Expressive, Social Pragmatic**

- Give directions slowly and one at a time-use short simple sentences.
- Have child repeat back instructions.
- Reinforce verbal concepts with visual cues.
- Identify targeted vocabulary and integrate throughout classroom lesson.
- Reading to the child and discussing provides language models and exposes children to a variety of aspects of language.
- Teach listening comprehension strategies to help expand understanding of social and academic language situations.
- Ask open ended questions and ask for elaborations.
- Model and encourage participation in natural conversations.
- Teach the student to rehearse silently before replying.
- Provide picture cues to support memory for details and sequencing information when telling or retelling a story or event.
- Encourage expression through nonverbal means such as art and music.
- Use pictures, photographs, visuals and modeling to teach recognition of emotions based on facial expressions, nonverbal cues, tone of voice, etc.
- Take advantage of naturally occurring situations to practice and reinforce social skills (e.g. greetings at the beginning of a day, requesting materials to complete a project, starting and maintaining conversations with peers during free time, etc.).
- Role play and model how to behave and communicate appropriately in common social situations.
- Use social narratives to support learning appropriate and inappropriate verbal and nonverbal behaviors in different situations.

**New Learning**

- Teach outlining and highlighting of the most important concepts.
- Provide copies of guided notes and outlines.
- Extra time to complete tests and assignments.
- Encourage student to review what has been learned daily.
- Provide student/parents with upcoming topics, notes and materials so they can preview and reinforce concepts at home.
- Use real world examples to make new learning meaningful—make connections between new learning and information student already knows.
- Teach the concept and then ask the student to teach you or others—having them teach others activates numerous areas of the brain.
- Use errorless learning to teach concepts—see projectlearnet.org and brainline.org. Errorless learning does not encourage guessing so the student never has the chance to learn or remember the information incorrectly.
- Provide multimodal learning opportunities (visual, verbal, modeling, hands on).

### Social/Emotional Competency

**For younger students:**
- Give clear and simple direction.
- Avoid time outs (the student is not likely to independently regroup or calm down).
- Label the emotion and direct the student to show the acceptable behavior.

**For older students:**
- Teach strategies and how to use them rather than offering assistance.
- Discuss and practice age-appropriate behaviors in real life situations.
- Create structured social activities (a school/community friendship group focused on the student, for example).
- Assume limited ability to generalize from one setting to another

### Executive Function - Initiation

- Provide assistance with getting started on school tasks - have the child then identify the first thing they are going to do.
- Provide more frequent check-ins to ensure student is completing work and to provide “jumpstarts” as the task demands change.
- Seat next to a positive peer to help them get started or if they get stuck as the task changes.
- Provide a written routine with an outline of tasks and time frame.
- Break large projects or tasks into smaller steps.
- Help student develop planning skills.
- Teach organization strategies: checklists, graphic organizer or a series of pictures indicating steps needed in task.

### Executive Function - Planning

- Teach the student how to develop a step-by-step guide for problem solving by identifying the problem, considering relevant information, listing and evaluating possible solutions, creating a plan of action, and evaluating the plan of action.
- Teach time management and prioritizing.
- Teach how to develop short term and long term goals.
- Support student in connecting new information with what they already know.
- Develop and practice schedules and routines when possible.
- Plan ahead and prepare student for changes in these routines.
- May need written or picture schedule. Prepare the student ahead of time if schedule is changed and make the changes on their written or picture schedule.
- If they are not planning social times with friends, they may need help with planning their social and free time. (See also Organization and Reasoning strategies)

### Executive Function – Mental Flexibility

- Develop and practice schedules and routines when possible.
  - Plan ahead and prepare student for changes in these routines.
  - May need written or picture schedule; prepare student head of time if schedule is changed and make the changes on their written or picture schedule.
  - Rehearse or do a dry run of unfamiliar situations or schedules.
- Prepare and give reminders of upcoming transitions.
- Plan for situations that require mental flexibility.
- Plan ahead and do not introduce too much novelty at once.
- Teach student how to analyze directions, break down problems, self-check and self-correct.
- Allow for previewing of class notes or materials.
- Break tasks down into smaller steps. Make sure directions are clear and concrete.

### Executive Function - Reasoning
- Teach the student how to develop a step-by-step guide for problem solving by identifying the problem, considering relevant information, listing and evaluating possible solutions, creating a plan of action, and evaluating the plan of action.
- When considering solutions, review at least two different alternatives then let the student select one of the solutions. The goal is to eventually move them to developing their own possible alternative solutions.
- Teach use of self-monitoring questions - “What else could I do?”
- Present information in concrete and concise manner - avoid language using puns, sarcasm, and double meanings.
- Check for understanding and the need for assistance.
- Give consistent, neutral feedback.
- Break tasks into smaller and shorter segments.
- Use graphic organizers to show relationships.

### Executive Function – Organizational Skills
To help a student who does not have normal ability to organize information independently, parents and teachers must provide more structure for the student than is ordinarily necessary for a student their age. Increasing structure can include any of the following:
- Establish a daily routine as much as possible. Particularly for young students, the ability to predict what is going to be happening will help them to organize their behavior better.
- Teach the student how to develop a step-by-step guide for problem solving by identifying the problem, considering relevant information, listing and evaluating possible solutions, creating a plan of action, and
evaluating the plan of action.

- Use picture schedules, planners, checklists, or electronic organizers to help them organize their day and prepare themselves for transitions.
- Use a “check-in/check-out” system to ensure that student has assignments and materials.
- Help the student break down long-term and larger projects. Start with the due date and then work backwards to determine when the smaller steps need to be completed. Have them mark those dates in their planner or on a calendar.
**Table N. Student Characteristic: Autism Spectrum Disorder**

Symbol represents accommodations that can be considered as use of Assistive Technology

<table>
<thead>
<tr>
<th>Accommodation Category</th>
<th>Consider the following accommodations for use in instruction*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation</td>
<td>• Provide consistency with routines</td>
</tr>
<tr>
<td></td>
<td>• Simplify directions and/or break up into “chunks” or steps given one at a time</td>
</tr>
<tr>
<td></td>
<td>• Reduce sensory stimulation such as decorations, fragrances, buzzing of equipment etc.; use noise buffers</td>
</tr>
<tr>
<td></td>
<td>• Picture symbols accompany written information</td>
</tr>
<tr>
<td></td>
<td>• Written/visual information to accompany all information presented orally</td>
</tr>
<tr>
<td></td>
<td>• Written/symbol directions for tasks</td>
</tr>
<tr>
<td></td>
<td>• Use visual presentation strategies</td>
</tr>
<tr>
<td></td>
<td>• “pix writer”, “Picture It” or other clipart/software</td>
</tr>
<tr>
<td></td>
<td>• Use of visual supports/visual schedules; do not talk while student looks at them</td>
</tr>
<tr>
<td></td>
<td>• Use social narratives to directly teach age-appropriate interactions and routines (e.g., scripting, Social Stories™ Power Cards)</td>
</tr>
<tr>
<td></td>
<td>• Give advance notice of routine changes or change of activity</td>
</tr>
<tr>
<td></td>
<td>• Redirect repetitive movement</td>
</tr>
<tr>
<td></td>
<td>• Use of iPads or Tablets</td>
</tr>
</tbody>
</table>

**Response**

*For additional information see CDE Autism website: [http://www.cde.state.co.us/cdesped/SD-Autism.asp](http://www.cde.state.co.us/cdesped/SD-Autism.asp)

**Power Cards:** Using Special Interests to Motivate Children and Youth with Asperger Syndrome and Autism, Elisa Gagnon (purchase)


| Setting/Environment | • Reduce lighting                                             |
|                     | • Change type of lighting                                     |

*For additional information see CDE Autism website: [http://www.cde.state.co.us/cdesped/SD-Autism.asp](http://www.cde.state.co.us/cdesped/SD-Autism.asp)
<table>
<thead>
<tr>
<th>Student Characteristic</th>
<th>Consider the following accommodations for use in instruction*</th>
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</table>
| **Sensory & Motor**    | • Be sure that the student’s table and chair provide optimal support to reduce the amount of energy devoted to maintaining balance.  
                          • Preferential seating away from visual and auditory stimulation.  
                          • Limit visual clutter and auditory stimulation in the classroom—consider the impact of lights, noise, movement, etc.  
                          • Provide a quiet space/area for breaks or to allow the student to complete work.  
                          • Provide student with the opportunity for physical and cognitive rest breaks during the day (lunch and recess are not rest breaks for a student with a brain injury).  
                          • Monitor whether the student can handle the lunchroom or if a less stimulating area should be provided where they can eat with their friends.  
                          • Allow use of sunglasses and hats when outdoors for students with light sensitivity. |
| **Attention & Concentration** | • Schedule most important work during times when the child has displayed their greatest concentration abilities.  
                                • Seat nearest the location of instruction and away from distractions (e.g. doors, windows, high traffic areas, and other off-task children).  
                                • Seat next to positive peers with age appropriate attention abilities to help with redirection and understanding of instructions.  
                                • Clear desk and area of everything expect what needed for task at hand.  
                                • Reduce background noise by experimenting with ear plugs, ear muffs/headphones, or introducing background sound such as, white noise or a music device with soft music.  
                                • Eliminate interruptions as much as possible. Once students are focused on a task, it is |
very difficult to get them restarted if interrupted.

- Allow student to complete work or test in alternate settings where there are fewer distractions.
- Make sure to get student’s attention when giving directions or cue them when information is really important.
- Use verbal and visual cues to refocus student as well as frequent checks for understanding.

### Processing Speed

- Give instructions one at a time and focus on the essential or most important parts.
- Give time between parts of a direction for the child to process and provide a response.
- If the child appears “blank” or is not doing what you have asked, repeat the main points. Do not elaborate or add details.
- Provide written directions and combine verbal information with visuals.
- Frequent checks for understanding.
- Reduce other distractions, so student does not have to screen them out or share his/her focus with anything but your words.
- Try not to pressure your student, urge them to “hurry up”, or get exasperated.
- Allow extra time for processing and providing their responses as well as on assessments and assignments, including tests.
- Limit the number of tasks the student is required to complete at one time.
- Provide a copy of classroom notes or guided notes/outline.
- Provide or teach the use of graphic organizers and checklists.

### Memory

- Break instructions and assignments into manageable pieces-limit amount of information, give at one time.
- Present information in several ways (verbal, written, visuals, modeling).
- Use self-questioning, “wh” questions during reading and discussion (who, what, when, where, why, how).
- When possible use thematic learning across content areas.
- Teach the concept and then ask the student to teach you or others - having them teach others activates numerous areas of the brain.
- Incorporate repetition/practice of new material - allow rest breaks between repetitions.
- Provide copies of guided notes.
- Allow use of notes and books during assessments.
- Modify test format to multiple choice to reduce the need for total memory recall. Give recognition tests not recall tests.
- Teach note taking techniques such as highlighting essential information.
- Regularly summarize information and ask the student to paraphrase or repeat it back.

| Visual-Spatial | • Provide directions and content verbally (verbal focus on learning).
|               | • Provide precise and clear verbal directions.
|               | • Frequent checks for understanding.
|               | • Highlight what visual information needs to be focused on.
|               | • Use simplified visual planners; some webs/diagrams may be too confusing.
|               | • Enlarge written materials.
|               | • Reduce the amount of written work.
|               | • Consider if visual presentation of worksheets needs to be modified.
|               | • Provide support in aligning math problems.
|               | • Provide support in organizing writing from left to right and organizing/expressing thoughts.
|               | • Teach verbal strategies to interpret visual information such as maps, charts and graphs.
|               | • Reduce clutter on student’s desk. |

| Language – Receptive, Expressive, Social Pragmatic | • Give directions slowly and one at a time-use short simple sentences.
|                                                  | • Have child repeat back instructions.
|                                                  | • Reinforce verbal concepts with visual cues.
|                                                  | • Identify targeted vocabulary and integrate throughout classroom lesson.
|                                                  | • Reading to the child and discussing provides
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<td>New Learning</td>
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<td>- Provide student/parents with upcoming topics, notes and materials so they can</td>
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- preview and reinforce concepts at home.
- Use real world examples to make new learning meaningful—make connections between new learning and information student already knows.
- Teach the concept and then ask the student to teach you or others—having them teach others activates numerous areas of the brain.
- Use errorless learning to teach concepts—see projectlearnet.org and brainline.org. Errorless learning does not encourage guessing so the student never has the chance to learn or remember the information incorrectly.
- Provide multimodal learning opportunities (visual, verbal, modeling, hands on).

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<th>Executive Function - Planning</th>
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<td>Teach time management and prioritizing.</td>
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<td>Teach how to develop short term and long term goals.</td>
</tr>
<tr>
<td>Support student in connecting new information with what they already know.</td>
</tr>
<tr>
<td>Develop and practice schedules and routines when possible.</td>
</tr>
</tbody>
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- Plan ahead and prepare student for changes in these routines.
- May need written or picture schedule. Prepare the student ahead of time if schedule is changed and make the changes on their written or picture schedule.
- If they are not planning social times with friends, they may need help with planning their social and free time.  
  (See also Organization and Reasoning strategies)

| Executive Function – Mental Flexibility | Develop and practice schedules and routines when possible.  
  o Plan ahead and prepare student for changes in these routines.  
  o May need written or picture schedule- prepare student head of time if schedule is changed and make the changes on their written or picture schedule.  
  o Rehearse or do a dry run of unfamiliar situations or schedules.  
- Prepare and give reminders of upcoming transitions.  
- Plan for situations that require mental flexibility.  
- Plan ahead and do not introduce too much novelty at once.  
- Teach student how to analyze directions, break down problems, self-check and self-correct.  
- Allow for previewing of class notes or materials.  
- Break tasks down into smaller steps. Make sure directions are clear and concrete.  

| Executive Function – Reasoning | Teach the student how to develop a step-by-step guide for problem solving by identifying the problem, considering relevant information, listing and evaluating possible solutions, creating a plan of action, and evaluating the plan of action.  
- When considering solutions, review at least two different alternatives then let the student select one of the solutions. The goal is to
eventually move them to developing their own possible alternative solutions.

- Teach use of self-monitoring questions—“What else could I do?”
- Present information in concrete and concise manner—avoid language using puns, sarcasm, and double meanings.
- Check for understanding and the need for assistance.
- Give consistent, neutral feedback.
- Break tasks into smaller and shorter segments.
- Use graphic organizers to show relationships.

### Executive Function – Organizational Skills

To help a student who does not have normal ability to organize information independently, parents and teachers must provide more structure for the student than is ordinarily necessary for a student their age. Increasing structure can include any of the following:

- Establish a daily routine as much as possible. Particularly for young students, the ability to predict what is going to be happening will help them to organize their behavior better.
- Teach the student how to develop a step-by-step guide for problem solving by identifying the problem, considering relevant information, listing and evaluating possible solutions, creating a plan of action, and evaluating the plan of action.
- Use picture schedules, planners, checklists, or electronic organizers to help them organize their day and prepare themselves for transitions.
- Use a “check-in/check-out” system to ensure that student has assignments and materials.
- Help the student break down long-term and larger projects. Start with the due date and then work backwards to determine when the smaller steps need to be completed. Have them mark those dates in their planner or on a calendar.

*For additional information see CDE Traumatic Brain Injury website: [http://www.cde.state.co.us/cdesped/SD-TBI.asp](http://www.cde.state.co.us/cdesped/SD-TBI.asp)*

[BRAIN INJURY IN CHILDREN AND YOUTH: A MANUAL FOR EDUCATORS](http://www.cde.state.co.us/cdesped/SD-TBI.asp)
Table P. Student Characteristic: Specific Learning Disability: Oral Expression and Listening Comprehension

Symbol represents accommodations that can be considered as use of Assistive Technology

<table>
<thead>
<tr>
<th>Accommodation Category</th>
<th>Consider the following accommodations for use in instruction*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation</td>
<td>• Read Aloud/Oral Presentation/ Accessible Educational Materials</td>
</tr>
<tr>
<td></td>
<td>• Audio tape/CD/Digital Reader</td>
</tr>
<tr>
<td></td>
<td>• Screen Reader</td>
</tr>
<tr>
<td></td>
<td>• Video tape</td>
</tr>
<tr>
<td></td>
<td>• Picture Supported Text</td>
</tr>
<tr>
<td></td>
<td>• Visual cues</td>
</tr>
<tr>
<td></td>
<td>• Phonological Awareness Activities: Such as rhyming games; identifying/sorting pictures that Rhyme</td>
</tr>
<tr>
<td></td>
<td>• Phonemic Awareness Activities: Such as tapping out words in sentences, clapping the number of syllables, games to identify initial, medial and final sounds</td>
</tr>
<tr>
<td></td>
<td>• Alphabet games</td>
</tr>
<tr>
<td></td>
<td>• Letter/sound games or activities</td>
</tr>
<tr>
<td></td>
<td>• Narrative Skill Development: such as sequencing activities (arranging picture cards to illustrate a story or series of events)</td>
</tr>
<tr>
<td></td>
<td>• Model Summarization strategies; teach summarization</td>
</tr>
<tr>
<td></td>
<td>• Cooperative learning structures</td>
</tr>
<tr>
<td></td>
<td>• Rephrase with only important elements</td>
</tr>
<tr>
<td></td>
<td>• Use story maps or graphic organizers for sequencing, retelling or summarizing</td>
</tr>
<tr>
<td></td>
<td>• Story grammars</td>
</tr>
<tr>
<td></td>
<td>• Visualization strategies with verbal description</td>
</tr>
<tr>
<td></td>
<td>• Read-alouds using Pre-taught vocabulary; students draw, write, and/or orally respond</td>
</tr>
<tr>
<td></td>
<td>• Questioning for comprehension and expression</td>
</tr>
<tr>
<td></td>
<td>• Model making connections to prior knowledge and experience (e.g. picture walk, KWL chart)</td>
</tr>
<tr>
<td></td>
<td>• Recorded books, Mp3 players, other electronic reading devices</td>
</tr>
<tr>
<td></td>
<td>• Give short and simple directions with examples</td>
</tr>
<tr>
<td></td>
<td>• Use nonverbal signals</td>
</tr>
<tr>
<td></td>
<td>• Repeating directions</td>
</tr>
<tr>
<td></td>
<td>• Restate directions</td>
</tr>
<tr>
<td></td>
<td>• Text highlighting for oral response</td>
</tr>
<tr>
<td></td>
<td>• Capitalize on student interests</td>
</tr>
<tr>
<td></td>
<td>• Personal FM system</td>
</tr>
</tbody>
</table>
|  | Clarify directions (rephrase, explain)  
|  | Clarify test questions (rephrase, ask the question in a different format instead of open-ended response choices)  
|  | Visual aids (provide written directions, graphics, diagrams, color coding, highlighting)  
|  | Provide captioned versions of videos  
|  | Provide guided notes  
|  | Provide note-taking assistance or app  
|  | Use hand-held microphone to pass around the class during class discussions  
|  | Repeat questions and answers from students  
|  | Provide graphic organizers  
|  | Break long assignments/projects into steps; provide a model of the finished project  
|  | Make eye contact with child before giving directions  
|  | Give short, simple directions; avoid verbal overload  
|  | Preview important vocabulary and key concepts prior to a lesson  
|  | Use advance organizers (Advance organizers used in reading may involve a preview of the objectives, topics and subtopics, questions, or the chapter summary.)  
|  | Provide study guides, review packets  
|  | Use demonstration and hands-on activities  

**Response**

- Write in test booklet instead of on answer sheet  
- Monitor placement of student responses on answer sheet  
- Use materials or devices used to solve or organize responses  
- Use visual organizers  
- Use graphic organizers  
- Use mnemonic devices to aid memory  
- Retelling stories; paraphrasing  
- Allow for class presentations to be given individually to the teacher or to a small group  
- Allow child to record class presentation at home and provide teacher the video to assess  
- Allow child to use assistive communication device to respond  
- Add to the child’s response by extending it and expanding it.  
- Allow “processing time” for children to respond  
- Allow amplification such as hand held microphone for responses  
- Have script of child’s speech/presentation on an overhead projector while student reads or delivers speech  
- Allow child to use note cards for class presentations to organize thoughts

**Resource:**

*National Center on Accessible Educational Materials*

http://aem.cast.org/about#.VfYWOmzNyQ

See CDE Specific Learning Disability webpage:

http://www.cde.state.co.us/cdesped/sd-sld

Also see Glossary of Instructional Accommodations
- Grammar checker/spell checker
- Allow non-verbal responses (pointing, gestures, pantomime, eye gaze responses)
- Highlight key words in directions
- Have student repeat and explain directions to check for understanding

### Table P. Student Characteristic: Specific Learning Disability: Mathematical Calculation and Problem Solving

*Symbol represents accommodations that can be considered as use of Assistive Technology*

<table>
<thead>
<tr>
<th>Accommodation Category</th>
<th>Consider the following accommodations for use in instruction*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Presentation</strong></td>
<td>• Frame mathematical instruction in growth-mindset</td>
</tr>
<tr>
<td></td>
<td>• Encourage positive self-talk</td>
</tr>
<tr>
<td></td>
<td>• Set purpose for learning</td>
</tr>
<tr>
<td></td>
<td>• Provide positive reinforcement</td>
</tr>
<tr>
<td></td>
<td>• Create a safe-learning environment</td>
</tr>
<tr>
<td></td>
<td>• Reduce emphasis on peer competition and perfection; use personal growth models and ongoing revision and learning as models of a differentiated, flexible, relaxed learning community</td>
</tr>
<tr>
<td></td>
<td>• Repeat directions/instructions</td>
</tr>
<tr>
<td></td>
<td>• Simplify directions/instructions</td>
</tr>
<tr>
<td></td>
<td>• Read aloud text/problems, repeat, review</td>
</tr>
<tr>
<td></td>
<td>• Reduce number of items on a page/practice items to improve focus</td>
</tr>
<tr>
<td></td>
<td>• Use masking to reduce visual load or fold paper to limit amount of text visible</td>
</tr>
<tr>
<td></td>
<td>• Reduce amount of work required; focus on quality of answer not quantity</td>
</tr>
<tr>
<td></td>
<td>• Provide extra processing time for learning new procedures/concepts</td>
</tr>
<tr>
<td></td>
<td>• Require verbal and written expression of thinking/problem solving steps/reasoning</td>
</tr>
<tr>
<td></td>
<td>• Use multiple modalities for instruction (Auditory, Visual, Kinesthetic)</td>
</tr>
<tr>
<td></td>
<td>• Make learning relevant/Connect examples to student’s daily life</td>
</tr>
<tr>
<td></td>
<td>• Sequence instruction from concrete, to representational,</td>
</tr>
</tbody>
</table>
• Use tangible/concrete materials/manipulatives to illustrate concepts
• Use Collaborative Learning Structures
• Use multi-sensory strategies
• Use hands-on activities
• Explicitly teach academic vocabulary
• Use math word walls with visuals; teach key words with multiple application and teach how to use, model, and encourage student use to check work
• Use and allow ongoing access to anchor charts with examples and non-examples;
• Use Advance organizers
• Provide outline of lesson materials, steps for problems, concept maps, prior to instruction
• Explicitly model and draw attention to critical features and mathematical relationships
• Explicitly teach purpose and application of mathematical models and tools; teach use of knowns and unknowns for strategy selection
• Provide multiple strategies for skill instruction
• Provide guided notes
• Pre-teach important concepts and vocabulary before lesson; use visual reminders (e.g. concept maps, pictures, etc.)
• Connect to prior learning and background knowledge, use culturally relevant and developmentally appropriate examples
• Provide frequent opportunities for cumulative and distributed review of rules, facts, formulas, strategies, etc.
• Provide immediate corrective feedback
• Use written prompts and cue sheets to support independent sequencing and chunking (breaking tasks/assignments/problems into smaller segments)
• Small group instruction
• Ensure mastery prior to independent practice
• Use checklists for solving word problems
• Teach math “tricks”: mnemonics, stories, rhythm or music, and use visual cues to teach rules or facts
• To encourage operation sense and reduce confusion use color-coding/different fonts for operation symbols
• Record lesson for review; provide access to student
• Break long assignments and lengthy sequences into shorter assignments and/or part/steps
• Provide study guides and review packets
• Highlight essential components in texts, worksheets, problems
• Teach self-monitoring (self-questioning, self-evaluation) and self-regulation strategies
• Connect learning to real-life examples
• Pre/teach and/or review pre-requisite skills/component skills prior to teaching new concepts with complex processes or multiple steps (e.g. order of operations for use in algorithm);
• Encourage use of models, drawings, etc., when solving problems
• Encourage reading aloud to self/sub-vocalization during problem solving
• Teach coding (using symbols, colors, underlining and/or highlighting) to determine and highlight critical components of problems
• Encourage note taking; allow use of note during assessments
• Provide cloze notes and/or teach note-taking procedures during direct instruction
• Teach and Use two-column notes strategies to assist with review of concepts/test-taking
• Allow use of computing devices for problem solving
• Provide desk and pocket size tools, e.g., multiplication and measurement tables; number lines, addition tables, bar models; fraction/decimal conversions0
• Monitor progress frequently to ensure appropriate application and encourage student to set goals based on data
• Use flexible grouping (i.e., heterogeneous grouping for collaborative structures based on strengths to minimize barriers of disability; match groupings with instructional intent)
• Provide environmental accommodations: quiet space with minimal distractions for independent work; head phones, or earplugs, study carrels; Be consistent with classroom routines and procedures to help focus attention on mathematics
• Encourage use of calculator to check work
• Allow talking calculators
• Use technology: e.g Computer Algebra Systems, online
tools, digital manipulatives

- Use tablets and apps for note-taking; procedural/conceptual review, frequent practice, and
- Computer-assisted instruction for highly, structured systemic tutorials and independent practice with immediate feedback

<table>
<thead>
<tr>
<th>Response</th>
</tr>
</thead>
</table>
| **Resource:**
| [http://www.cde.state.co.us/cdesped/SLD.asp](http://www.cde.state.co.us/cdesped/SLD.asp) |

- Collaborative Learning Structures
- Allow choice in solving problem strategy
- Allow for class presentations to be given as a group
- Interactive notebooks
- Cloze notes/two-column notes other assisted note-taking strategies
- Calculation Devices
- Manipulatives
- Visual Organizers
- Graphic Organizers
- Mnemonics for Problem Solving
- Math Tables and formula sheets
- Guided notes (e.g., cloze/2-column, highlighted, etc.)
- Extra time
- Extra Space on worksheets/assessments for problem solving
### Alternate Standards and Assessment Participation Guidelines Worksheet

*For further clarification of terms used in this worksheet, please refer to the companion document Participation Guidelines: Alternate Academic Achievement Standards for Instruction and Alternate Assessment*

<table>
<thead>
<tr>
<th>Criterion #1: The student has been evaluated and determined to be eligible to receive special education services and has an IEP.</th>
<th>Response:</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Has the student been determined to be a student with a disability eligible to receive special education services under the Individuals with Disabilities Education Act (IDEA)?</td>
<td>□ No. Stop here. The student must meet Special Education Determination of Eligibility criteria in one or more disability categories defined in ECEA Rules <a href="http://www.cde.state.co.us/cdesped/IEP_Forms.asp">http://www.cde.state.co.us/cdesped/IEP_Forms.asp</a></td>
</tr>
<tr>
<td>□ Is a current Individualized Education Program (IEP) in place or being developed for the student?</td>
<td>□ Yes. If both elements can be affirmed, continue to Criterion #2.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Criterion #2: The student has documented evidence of a cognitive disability.</th>
<th>Response:</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ During the process of determining eligibility for a student to receive special education services, did the IEP Team review a body of evidence that supports the existence of a cognitive disability?</td>
<td>□ No. Stop here. The student must have documented evidence of the existence of a cognitive disability, regardless of the special education disability category.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Criterion #3: The student has a significant cognitive disability.</th>
<th>Response Options:</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ The student’s demonstrated cognitive functioning and adaptive behavior in the home, school, and community environments are significantly below age expectations, even with program modifications, adaptations and accommodations and the School Psychologist (or other personnel trained in administering psychometric evaluation) presents evidence that the student’s cognitive and adaptive functioning is consistent with that of a student with a significant cognitive disability*.</td>
<td>□ Yes. Both elements affirm that the student’s evaluated performance falls within range of the most significant cognitive disability. The student (a) requires extensive, repeated individualized instruction and support that is not of a temporary or transient nature and (b) uses substantially adapted and modified materials and individualized methods of accessing information in alternative ways to acquire, maintain, generalize, demonstrate and transfer academic and functional skills necessary for application in school, work, home and community environments. Daily modified instruction is linked to the enrolled grade level Colorado Academic Standards Extended Evidence Outcomes (EEOs). For students receiving instruction on alternate standards and taking alternate assessment, the IEP must contain measurable annual goals and objectives for content areas. Continue to 4B to select alternate standards-based instruction and appropriate alternate assessment.</td>
</tr>
<tr>
<td>□ The documented evidence supports the existence of a significant cognitive disability. However, the IEP Team determines that with appropriate adaptations (supports and accommodations), the student will receive daily instruction based on the Colorado Academic Standards enrolled grade-level expectations. (The student then does not qualify for instruction on alternate academic achievement standards or to take alternate assessment based on alternate academic achievement standards.)</td>
<td>□ Yes. Although the documented evidence supporting the existence of a significant cognitive disability does not fall into the lower ranges, the IEP Team has considered the impact and severity of the disability along with other related factors in order to determine that the student qualifies to receive modified daily instruction based on the Colorado Academic Standards Extended Evidence Outcomes (alternate academic achievement standards) and participate in alternate assessment based on alternate academic achievement standards. Continue to 4A to select Grade-level standards-based instruction and appropriate grade-level assessment.</td>
</tr>
</tbody>
</table>

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*Empirical evidence includes, but is not limited to, formal testing results, multidisciplinary team evaluations, and other evaluative data.*

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Colorado Instructional Accommodation Manual 2015-16
<table>
<thead>
<tr>
<th>Tested Content Areas</th>
<th>4A Instruction and Assessment based on Grade-Level Colorado Academic Achievement Standards (Grade-level Expectations / Evidence Outcomes)</th>
<th>4B Instruction based on Colorado Academic Standards/Extended Evidence Outcomes (EEOs) and *Alternate Assessment based on Alternate Academic Achievement Standards (AA-AAS)</th>
</tr>
</thead>
</table>
| CMAS: Reading/ Writing (ELA) | □ Grade-level classroom/district assessments  
  □ with accommodation  
  □ without accommodation  
 □ State Summative Assessment  
  □ with accommodations allowed for use on state assessment  
  □ without accommodation  
  □ Unique Request- pending approval by CDE Assessment Unit | □ Alternate classroom/district assessments based on alternate standards  
 □ Alternate State Summative Assessments (Gr. 3-9 and 11) |
| Math | | |
| Social Studies | | |
| Science | | |
| Other | □ ACCESS for ELLs (K-12)  
  □ with allowable accommodations | □ Alternate ACCESS for ELLs (Gr. 1-12) |
| | □ Grade 10 Preparatory Exam | □ 10th Grade DLM Alternate Assessment |
| | □ Grade 11 College Entrance Exam | □ 11th Grade DLM Alternate Assessment |
| Dual Assessment | *Dual assessment is NOT an option beginning with the 2014-15 school year. If a student meets the guidelines to receive instruction on alternate standards and take alternate assessment based upon those alternate standards, then ALL tested content areas or other state-mandated assessments required for the student’s enrolled grade level, will be ALTERNATE assessments. |

**Exclusionary Factors:**

The IEP Team affirms

- that annual assessment data was reviewed for each content area and
- the decision for participation in the Alternate Assessment is **NOT** based on:
  1. A disability category or label  
  2. Poor attendance or extended absences  
  3. Native language/social/cultural or economic difference  
  4. Expected poor performance on the grade-level assessment  
  5. Services student receives  
  6. Educational environment or instructional setting  
  7. Percent of time receiving special education  
  8. English Language Learner (ELL) status  
  9. Low reading level/academic level  
  10. Anticipated student’s disruptive behavior  
  11. Impact of student scores on accountability system  
  12. Administrator decision  
  13. Anticipated student’s emotional duress

**IEP Team Consensus:** (Record decision on IEP Form)

- Student meets participation guidelines as a student with a significant cognitive disability and will receive instruction based upon alternate academic achievement standards and participate in alternate assessment as indicated above.

* For further clarification of terms used in this worksheet, please refer to the companion document *Participation Guidelines: Alternate Academic Achievement Standards for Instruction and Alternate Assessment*
Companion Document: Participation Guidelines for Alternate Standards and Assessment

This clarifying document has been prepared as a companion for the Participation Guidelines Worksheet.

Evaluation and Determination of Eligibility for Special Education

When a child is referred for special education services, the school district will use “...a variety of assessment tools and strategies to gather relevant functional, developmental, and academic information, including information provided by the parent...” to build the body of evidence to define a student’s characteristics as a learner. The IEP Team will review the evaluation data and follow the Determination of Eligibility Checklists to document the student’s eligibility to receive special education services under IDEA and to develop an Individualized Educational Program (IEP). During the IEP Team considerations, the academic achievement standard for instruction will be specified and how the student will participate in assessment will be documented. (20 U.S.C. 1414(b)(2)(A).

Cognitive Disability

As part of the multi-disciplinary process, the unique needs of the child will be identified and evaluated. If cognitive and adaptive delay is a suspected area, a school psychologist or other trained licensed personnel will select and administer valid and reliable instruments based upon the student’s needs. Results of testing and observational instruments shall be reported and documented as part of an empirical body of evidence. No one procedure can be the sole determiner of whether a child has a disability or to determine a specific educational plan. Multiple sources of information must be considered to define the pervasive level of support required by the student and to identify areas of strength as well as areas of need. A comprehensive review would be expected to address the following areas: academics; communication; self-care; daily living; social skills; access to the community; self-direction; health and safety; leisure; and work. Adaptive skills should be commensurate with the scores from the cognitive evaluation.

Significant Cognitive Disability

While the Alternate Achievement Standards for Students with the Most Significant Cognitive Disabilities Non-regulatory Guidance issued by the U.S. Department of Education in August 2005 states that alternate achievement standards are intended for “…students with the most significant cognitive disabilities.” (p.6) there is no federal definition or single method of determining the most “significant cognitive disability” In Colorado, ECEA Guidelines for Eligibility are outlined for the disability categories. The Intellectual Disability checklist outlines the criteria for significant cognitive disability. Guidelines for the Determination of Eligibility for a Child with an Intellectual Disability or Multiple Disabilities also provides guidance in determining significant cognitive disability.

Since the impact of having an intellectual or cognitive disability varies considerably, just as the range of abilities varies considerably among all people, the designation of “the most significant cognitive disability” is left to the professional judgment of the school psychologist and other professionals contributing to the body of evidence gathered during the evaluation and considered by the IEP Team. Generally, such students can be characterized as having intellectual functioning well below average (typically associated with cognitive measures indicating an IQ below 55, / 3.0 standard deviations or more below the mean) that exists concurrently with deficits in adaptive functioning. This reference is only offered to help distinguish between students who meet eligibility criteria to receive special education services as a student with an Intellectual Disability and students with the most significant cognitive disability. The words “typically associated with IQ below 55” allow for some district/school flexibility; the reference is not intended to be an absolute requirement. For students with IQ measured in the 55-70 range, additional factors related to the severity and impact of the disability must be taken into account when considering the selection of alternate academic achievement standards and assessment.
IEP Team decisions must be based upon
- unique abilities and needs of each individual student
- impact of the disability on educational performance
- professional judgment, supported with a collected body of evidence to support the existence of a cognitive disability that falls within the **significant cognitive disability** range, either as the primary condition, or a secondary component.

Neither the special education disability category nor a given standardized IQ score can be the sole factor considered when determining instructional standards and participation in assessment. In other words, the disability category of *Intellectual Disability* itself or an IQ score below 70 **does not automatically** require that the student receives instruction based on alternate standards or takes an alternate assessment based on alternate academic achievement standards. Some disability categories have eligibility criteria that may inherently exclude significant cognitive disability, (Serious Emotional Disability, Specific Learning Disability, or Speech or Language Impairment for example.)

*It is the existence of the significant cognitive disability, regardless of a certain disability category, that allows the IEP Team to consider the option of alternate standards and assessment.*

**Consideration of Alternate Standards for Instruction and Assessment**

(Reads right to left – beginning at 2 SD below the mean)
Naturally, it will be a relatively small number of students who have a significant cognitive disability that will meet the participation guidelines to receive instruction based on the EEOs and take alternate district/state assessments based on alternate academic achievement standards. However, the number of students who meet the participation guidelines is not limited, nor can it be administratively determined.

### Instructional Standards

The [Colorado Academic Standards](#) (CAS) are expectations of what students need to know and be able to do at the end of each grade. They also stand as the values and content organizers of what Colorado sees as the future skills and essential knowledge for our next generation to be more successful. State standards are the basis of the annual state assessment.

On August 3, 2011, the State Board of Education adopted [Extended Evidence Outcomes (EEOs)](#) as alternate standards in Mathematics, Science, Social Studies and Reading, Writing and Communicating for students with a significant cognitive disability. These alternate expectations are directly aligned to the grade level expectations for all students.

### Measurable Goals and Objectives

In the IEP, annual goals are based on enrolled grade-level standards and specify the specialized instruction and related services the IEP Team has identified for the student. If a student meets participation guidelines for alternate standards and assessment, the IEP must include measurable annual goals and objectives for the tested academic areas. Goals that are non-academic (functional) are used to teach skills students need in order access the general curriculum and benefit from specialized instruction.

### Accommodations

The IEP Team is also responsible to document instructional accommodations and accommodations for district/state assessment in the IEP. (See the [Colorado Instructional Accommodations Manual](#) for more information.)

### Participation in Assessment

The IEP Team determines how individual students participate in assessment programs, not whether they participate. Federal law clearly includes all students in assessment and accountability. Since instruction drives assessment, it is the instructional standard that determines assessment. If evidence of a significant cognitive disability is documented, then the IEP Team will consider the educational impact of the disability to determine the appropriate academic standard for instruction.

- The IEP Team may choose grade-level instructional standards with/without appropriate accommodations. In that case, the student will participate in grade-level classroom/district/state assessment with or without accommodations. However, if there are compelling indications that the student should receive instruction based on alternate standards and take alternate assessment, those factors must be documented in the IEP.

  OR

- If the body of evidence supports the existence of a significant cognitive disability, the student may receive instruction based on alternate academic achievement standards and will participate in alternate classroom/district/state assessment.
Not all students who have a cognitive disability will require instruction based on alternate standards and take alternate assessment based on alternate academic achievement standards.

For questions regarding the Participation Guidelines, please contact the Exceptional Student Services Unit:
Linda Lamirande
Accommodations & Assessment Specialist
Lamirande_L@cde.state.co.us
303-866-6863

Or
Julia Wigert
School Psychology Specialist
Wigert_J@cde.state.co.us
303-866-
*Empirical Evidence may include, but is not limited to, standardized educational testing, professional evaluation data, and evaluation instruments deemed valid by the professional field.

** “Pending CDE approval” is to be documented in the assessment accommodation section of the IEP and the appropriate form submitted to CDE for Unique Accommodation Requests.
**Assistive Technology**

The evaluation of need and selection of appropriate assistive technology is paramount to providing access to communication. Assistive Technology Partners works with CDE to support a network of assistive technology teams across all school districts in the state of Colorado. They provide assistive technology services in schools and classroom settings within their districts, with the intention of enabling students with disabilities to achieve full access and participation in all educational opportunities. Visit the SWAAAC website to learn more about SWAAAC activities, professional development opportunities, or to find a team coordinator for your district.

In addition, SWAAAC has several webinars on demand to learn more about a variety of assistive technology topics.

**Integrating Tech Tools into Instruction**

The integration of technology use in the classroom has spawned a generation of new tech tools for colleagues to share with professional learning networks. Many offer students with a disability and students who are struggling with certain tasks a more level playing field for accessing material and independently producing school work.

While it is impossible to list every single useful app or software, an Assistive Technology team from Michigan’s Region 3 has compiled a list of resources and summaries that contain helpful sites and tools. Note: some are free while others may require purchase. (Information adapted from Jennifer Herseim’s July 15, 2014 article for the LRP Special Ed Connection newsletter.)

<table>
<thead>
<tr>
<th><strong>Tech Tools</strong></th>
<th><strong>Description</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tar Heel Reader</td>
<td>A website with free, easy-to-read and accessible books with a wide range of topics. Accessible using multiple interfaces. Students can also author their own readers.</td>
</tr>
<tr>
<td>Storyline Online</td>
<td>A website with free, streaming audio books that are read by actors</td>
</tr>
<tr>
<td>Talk Typer</td>
<td>A website with free speech-to-text and speech recognition</td>
</tr>
<tr>
<td>Vocaroo</td>
<td>This website allows you to record a voice and send it to anyone. Students can dictate answers to any assignment and email the file to their teacher. Teachers can also speak directions and create a QR code that they can print out and tape to a book page or assignment. Vocaroo helps the student be successful in being able to speak instead of write or be able to listen instead of read text.</td>
</tr>
<tr>
<td>Evernote, Clearly</td>
<td>A website and app for keeping track of notes and websites to find them when you need them. Clearly helps remove clutter from web pages, news blogs, and articles.</td>
</tr>
<tr>
<td>Rewordify</td>
<td>A website that can reduce text complexity and help students learn what hard words and phrases mean with smart highlighting. Helpful to teach the skill of “hovering” to bring up a pop-up glossary. Student will have to select the definition of the word that is applicable in the given text.</td>
</tr>
<tr>
<td>Symbaloo</td>
<td>A free, visual bookmarking website. Teachers can host a Symbaloo page and assemble a set of selected resources for students and families that are easily accessible in one place. Great for your teacher’s homepage.</td>
</tr>
<tr>
<td>Kidspiration</td>
<td>A website that presents a visual way of thinking and learning to organize ideas and to strengthen reading, writing, and math skills</td>
</tr>
<tr>
<td>Dragon Naturally Speaking</td>
<td>Voice-to-text software for students having difficulty accessing a keyboard; Dragon Dictate may also be used on an iPhone for student to dictate answer and text to teacher. *See Glossary for more speech to text options</td>
</tr>
<tr>
<td>My Study Bar</td>
<td>A set of portable open source and freeware applications to help students</td>
</tr>
</tbody>
</table>

*See Glossary for more speech to text options.*
<table>
<thead>
<tr>
<th>Tool/Website</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Browsers and iPad Speak Selection: SpeakIt!, Readability, Speech Recognition, Google Dictionary, Select and Speak</td>
<td>Accessibility features of browsers and tablets</td>
</tr>
<tr>
<td>Livescribe</td>
<td>A digital smart pen that takes notes, records audio, connects the two and uploads</td>
</tr>
<tr>
<td>AnyBook Reader</td>
<td>A reading pen that records your voice so any book can be an audio book.</td>
</tr>
<tr>
<td>Mathtrain TV</td>
<td>A website with math videos created for students by students</td>
</tr>
<tr>
<td>Khan Academy</td>
<td>An educational website with many resources</td>
</tr>
<tr>
<td>IXL</td>
<td>A website where students can practice math and English skills online</td>
</tr>
<tr>
<td>AAA Math</td>
<td>A website with thousands of interactive math games</td>
</tr>
<tr>
<td>Math is Fun</td>
<td>A website designed to teach students math skills with puzzles, games, quizzes, worksheets and more</td>
</tr>
<tr>
<td>Em Power Math</td>
<td>Helps users produce images and equations for math and science</td>
</tr>
<tr>
<td>Math Paper</td>
<td>print various types of papers useful for math</td>
</tr>
<tr>
<td>StarChild</td>
<td>A NASA learning center for young astronomers</td>
</tr>
<tr>
<td>Windows to the Universe</td>
<td>Explore earth, space, and science at a chosen reading level in English or Spanish</td>
</tr>
<tr>
<td>Scholastic Student Activities</td>
<td>Teachers can access activities across all grade levels that are web-engaging, used for computer labs, and/or for interactive whiteboards</td>
</tr>
<tr>
<td>Newsela</td>
<td>Current event website that allows students to adjust the Lexile reading level of an article (free version and paid version)</td>
</tr>
<tr>
<td>Bookshare</td>
<td>An online accessible library, free to all students with print disabilities</td>
</tr>
<tr>
<td>Accessible Educational Materials</td>
<td>CAST national center on accessible educational materials for students with low vision or students with specific learning disabilities who have a print disability  *Highly recommended to use during instruction for any student using the Unique Accommodation for Reading request</td>
</tr>
<tr>
<td>Inspiration 9</td>
<td>Software that applies visual learning concepts in reading and writing</td>
</tr>
<tr>
<td>Texas School for the Blind—Math</td>
<td>Materials and strategies for teaching math to students with visual impairments</td>
</tr>
<tr>
<td>Texas School for the Deaf—Math</td>
<td>ASL online sign dictionary for math terms</td>
</tr>
<tr>
<td>Virtual Manipulatives</td>
<td>A digital library of math activities organized by grade level and topic</td>
</tr>
<tr>
<td>Virtual Manipulatives - Glencoe</td>
<td></td>
</tr>
<tr>
<td>Math Bits</td>
<td>Digital math resources for secondary students</td>
</tr>
<tr>
<td><strong>App</strong></td>
<td><strong>Description</strong></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>iSolveIt</td>
<td>An app that supports the development of logical thinking and reasoning skills as essential competencies of algebra and mathematics</td>
</tr>
<tr>
<td>Co-writer app</td>
<td>An app that supports students’ writing or spelling with word prediction</td>
</tr>
<tr>
<td>Notability iPad app review video</td>
<td>An app to help students take notes, type, draw and record</td>
</tr>
<tr>
<td>Dragon Dictation app</td>
<td>A free voice-to-text app that is easy to train</td>
</tr>
<tr>
<td>SoundNote</td>
<td>An app that tracks what you write, type or draw while recording (Mac)</td>
</tr>
<tr>
<td>Voice Dream Reader</td>
<td>A document reading tool that reads in many voices and in different document formats (Android)</td>
</tr>
<tr>
<td>Claro apps</td>
<td>Accessible, professional and user-friendly PDF viewer, reader and annotator (free and paid)</td>
</tr>
<tr>
<td>Claro PDF</td>
<td>Text to speech reader (paid)</td>
</tr>
<tr>
<td>Claro Speak</td>
<td>iPad/iPhone AAC (free and paid)</td>
</tr>
<tr>
<td>Claro Com</td>
<td>powerful high definition visual magnifier (iPhone/iPod Touch/iPad (free))</td>
</tr>
<tr>
<td>Claro MagX</td>
<td>Apps for creating and sharing video lessons on a tablet;</td>
</tr>
<tr>
<td>Show Me Whiteboard (You Tube Demo), Educreations, ScreenChomp</td>
<td>Recordable whiteboard useful for recording tutorials that can be sent home with students</td>
</tr>
<tr>
<td>Lower tech tools</td>
<td>Label maker, fraction calculator, talking calculator, misspellings’ dictionary, wireless touchpad and keyboard mouse combo, highlighter tape, EZC reader guides, portable word processor, adapted paper, carbonless notetaking notebook, taking dictionary, and excel math supports</td>
</tr>
<tr>
<td>Common Core State Standards K-12 Technology Skills Scope and Sequence</td>
<td>Long Beach Unified School District produced this scope and sequence aligned to the CCSS standards (embedded in the Colorado Academic Standards) for English Language Arts/Literacy and Mathematics (Elementary and Secondary)</td>
</tr>
</tbody>
</table>
Glossary of Instructional Accommodations

Included in the glossary, you will notice

- Some resource websites have been included in the Glossary for your reference. For more disability-specific information, consult the Tables A-P section of this manual.

- **Computer-based Testing (CBT) References:** PARCC has now arranged the features/accommodations into Tables 1, 2, 3, 4 and 5; Tables 6 and 7 for English Learners. (See PARCC Manual for full explanation of each feature / accommodation and the Appendices.)

Presentation Accommodations

Presentation Accommodations are not intended to change WHAT the student is expected to know and do, but there are many options for HOW the student can receive information. The Glossary offers some adaptations you may consider for instruction.

**Computer Based Testing (CBT) Note:** See Table 1, 2 and 3. Reference numbers included in the instructional accommodations glossary correlate to the [PARCC Accessibility Features & Accommodations Manual](#) (4th Edition2015). For PARCC assessments, accommodations are considered to be adjustments to the testing conditions, test format, or test administration that provide equitable access during assessments for students with disabilities and students who are English learners. **Accommodations provided to a student must be generally consistent with those provided for classroom instruction and classroom assessments.** There are some accommodations that may be used for instruction and for formative assessments, but are not allowed for the summative assessment because they impact the validity of the assessment results. Please note and document the accessibility feature; accessibility feature identified in advance, or accommodation (504 /IEP/EL)

*Indicates the Accessibility Feature Identified in Advance/Accommodation must be selected in the Student Registration/Personal Needs Profile (SR/PNP). If such features or accommodations are selected for use on assessment, they must also be provided, routinely used, and evaluated for effectiveness during instruction.

Also see the PARCC Appendices (August 2015) for more detailed explanation of protocol used during assessment. **For consistency, the same protocol should become routine in the classroom during instruction.** For Unique Accommodation Requests, use the Colorado form. (See your District Assessment Coordinator for assistance.)

AT-Presentation

*Assistive Technology - (Non-Screen Reader)*

For PARCC, Table 3 (Page 29) provides a list of presentation accommodations for students with disabilities that describe changes in the assessment format and method in which the assessment is administered. The table also outlines the before, during and after testing activities necessary to successfully administer these accommodations.

In order for the student to be fluent in the use of an accommodation, it must be provided, routinely used and evaluated for effectiveness in daily instruction.

*3a Assistive Technology must be selected on the Student’s Student Registration/Personal Needs Profile (SR/PNP) Guidelines are available at [http://avocet.pearson.com/PARCC/Home](http://avocet.pearson.com/PARCC/Home) to test assistive technology for compatibility with the TestNav8 platform. Click on “Infrastructure Trial”.

**SWAAAC Loan Bank:** Assistive Technology Partners offers an [Assisted Search Service](#) to aid in searching for some assistive technology items to use from the Loan Bank. Check with your SWAAAC partner or visit the website.
### *Screen Reader Version (for a student who is blind or visually impaired)*

There are many free and purchased versions of screen reader software available. Please consult your AT representative and your Teacher of the Visually Impaired to evaluate those most appropriate for your student. Reviews and comparisons can be found [here](#).

**Comparable CBT Accommodation: 3b** Screen Reader Version must be selected in student’s SR/PNP. PARCC recommends using JAWS 15 with Firefox. Test compatibility with an Infrastructure Trial as noted above.

### *Large Print*

Large print editions of texts, instructional materials, and printed tests are beneficial for some students with visual impairments. It is recommended that regular print materials be manipulated to reformat test items and enlarge or change the font as needed to accommodate the visual spacing/font enlargement needs of the student. The selected font is often one that is free of serifs (sans serifs). All text and graphic materials, including labels and captions on pictures, diagrams, maps, charts, exponential numbers, notes, and footnotes, must be presented in at least 18-point type for students who need large print assessments. Measurement tools or items being measured should be retained in their standard increments. It is important for the print to be clear, with high contrast between the color of the print and the color of the background. It is the responsibility of the school district to secure and/or to prepare large print texts and instructional materials. Such materials are not provided to students with visual impairments by the Colorado Instructional Materials Center.

**Comparable CBT Accommodation: 3g** Must have Large Print Edition selected on the student’s SR/PNP. See Appendix M and Appendix A: American Printing House for the Blind, Inc.

**New!** [Large Print Textbooks for eReader](#)

### *Paper-Based Edition (Alternate Representation – Paper Test)*

For instruction presented via auditory or visual media, students may also be provided with paper-based materials either in large print or braille. Please consult the student’s Teacher of the Visually Impaired for recommendations.

**Comparable CBT Accommodation: 3h** Must have Paper-Based Edition selected on student’s SR/PNP. See Appendix A: Accessibility Features and Accommodations for Students Taking the Paper-Based PARCC Assessments.

### *Black and White Print/High Contrast  (*1d Color Contrast -Invert Color Choice - Background/Font Color)*

Some students with visual impairment may require text with high contrast ink from the color of the background page. The high contrast enables the student to see the material more effectively.

**Comparable CBT Accessibility Feature Identified in Advance: 1a** Must have Color Contrast (Background/Font Color).

### General Masking (*1a Answer Masking – *1i General Masking  Also see Visual Aids/Organizers)*

The student creates a custom "mask" to electronically cover portions of test items, including passages, as needed. This could be in the form of a ruler, blank card, etc. or electronically show highlighted words, phrases or lines of text.

**Comparable CBT Accessibility Feature Identified in Advance: 1a** Must have Answer Masking selected on the student’s SR/PNP to activate the feature on the platform.

### Visual Aids/ Organizers (Highlighter-Highlight Tool)

The student uses highlighters, template, place marker, masking device, colored overlays, reading guide ruler, or pointer to aid in the presentation of text/graphics.

**Comparable CBT Accessibility Feature Identified in Advance:**
### Presentation Accommodations

<table>
<thead>
<tr>
<th>1a</th>
<th>Answer Masking – Must have Answer Masking selected on the student’s SR/PNP.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1d</td>
<td>Background/Font Color (Color Contrast) Must have Color Contrast (Background/Font Color) selected on the student’s SR/PNP</td>
</tr>
<tr>
<td>1c</td>
<td>Bookmark (formerly called Flag Items for Review)</td>
</tr>
<tr>
<td>1i</td>
<td>General Masking-Must have General Masking selected on the student’s SR/PNP</td>
</tr>
<tr>
<td>1j</td>
<td>Highlight Tool</td>
</tr>
<tr>
<td>1l</td>
<td>Line Reader Tool</td>
</tr>
</tbody>
</table>

#### Color Contrasting (*Background/Font Color) (Invert Color Choice) (Overlay Color) (External Color Overlays)

Some students with visual needs are better able to view information through color contrast. This need can be met for paper-based materials by either creating different color versions of content or by providing colored transparencies to place over materials. For computer use, a content and test delivery system can allow students to overlay different colors over content and choose different combinations of text and background colors.

#### Comparable CBT Accessibility Feature Identified in Advance: 1d

Must have student’s Color Contrast (Background/Font Color) selected on the student’s SR/PNP.

### Increased White Space

Increasing the amount of blank space between items in a paper-based test booklet or between instructional content may help students to better see the presented material and/or maintain visual focus.

### Magnification Devices (Magnification/Enlargement Device - Low Vision Devices)

Some students with visual impairments read regular print materials by enlarging the print size with magnification devices. These include reading glasses, eyeglass-mounted magnifiers, free standing or handheld magnifiers, and Closed Circuit Televisions (CCTVs)/Video Magnifiers, projectors, or electronic devices to enlarge print and display printed material with various image enhancements on a screen. See below for computer.

#### Comparable CBT Accessibility Feature: 1m

### Computer Magnification / *Magnification / Enlargement Device

Some content and test-delivery systems allow students to manipulate the size of text and graphics presented on the screen. It is important that the system is able to enlarge all material, including narrative text, formulas and equations, information presented in scientific and mathematical nomenclature, tables, graphs, charts, figures, and diagrams with visual clarity. The system may provide tools that allow students to either view material in magnified form on an occasional/as-needed basis or on a more permanent basis. Other desirable features of a computer magnification system would be to allow students to easily move content that is forced off the screen into viewing mode; allow magnifying tools to work in conjunction with other accessibility tools and/or accommodations provided on the computer; and give students the option of enlarging the entire test interface (including navigation buttons, menu options, and directions) or only instructional or test content.

PARCC: The student uses magnification or enlargement devices to increase the font or graphic size. (e.g., telescopes, projector, CCTV, eye-glass-mounted or hand-held magnifiers, electronic magnification systems

#### Comparable CBT Accessibility Feature: 1m

Large Monitor, Zoom Tool, Magnification/Enlargement Device

### *Braille (Uncontracted Braille)

Braille is a method of reading a raised-dot code with the fingertips. There are braille codes specific to literature, math, and science. Some students who are blind/visually impaired will use braille as a primary and/or a secondary literacy modality. *Decisions will need to be made about whether a student will use contracted or uncontracted literary braille. If instructional tasks or assessments are timed, a braille user may need additional time to complete the task.

A certified teacher of students with visual impairment should work with the student’s IEP Team to determine the student’s need for braille.
**Comparable CBT Accommodation: 3e** Must have Hard Copy Braille Edition selected on the student’s SR/PNP. Requires a Braille Kit. See Appendix M and Appendix C for transcribing after the assessment.

**Refreshable Braille Display with Screen Reader Version for ELA/Literacy**

A student may use a manual braille writer to produce braille. Refreshable braille displays are electronic devices used to read text. This device is connected to a computer via a cable or Bluetooth and produces braille output on the braille display. Braille note takers are electronic devices to read and write braille.

**Comparable CBT Accommodation: 3d** Must have Screen Reader Version selected on the student’s SR/PNP. Once a student is placed into a test session, the student will be assigned a Screen Reader form. PARCC recommends using JAWS 15 with Firefox. Also requires refreshable braille display and tactile graphics booklet for test administration. (See Appendix M and PARCC Assistive Technology Guidelines at [http://avocet.pearson.com/PARCC/Home](http://avocet.pearson.com/PARCC/Home))

Accessible Denver: Resources for the Blind or Visually Impaired

**Tactile Graphics**

Tactile graphic images provide graphic information that can be discerned through touch. Graphic material (e.g., maps, charts, graphs, diagrams, illustrations) is presented in a raised format (paper or thermoform). Tactile graphics cannot always capture the same information that is presented in a visual format and/or may be very time consuming for the student to acquire all the needed information in the graphic. In these instances, the student may benefit from an audio description or text/word description of the image.

**Comparable CBT Accommodation: 3f** Must have Large Print Edition selected in the student’s SR/PNP. See Appendix M and Appendix A

[http://www.tactilegraphics.org/resources.html](http://www.tactilegraphics.org/resources.html)

**Paper/Pencil version of computer-presented items**

Available for students who are unable to take computer-delivered assessment due to a disability. See Appendix A

**Blank Scratch Paper**

Student is provided with blank (unlined, lined or graph) paper to use as scratch paper. For students with visual impairment (braille paper, raised line paper, bold line paper, raised line graph paper, bold line graph paper, or abacus)

**Comparable CBT Accessibility Feature: 1e**

Audio Description of Images

Audio description can provide access to complex images and graphics for students with visual and print disabilities. For specific information on how best to use audio description; please go to the website for National Center for Accessible Media – guidelines for describing images for assessment

[Described and Captioned Media](http://www.describedmedia.com) – Browse Media library for audio texts with added narrations (descriptions) that convey meaning and enrich language. Also check accessible programs under Accessible Television.
**Read Aloud (Oral Presentation)**

A qualified person may be provided to read aloud to students who are unable to decode text visually. Readers should use an even tone and inflection so the student can process the information. Readers need to be familiar with the terminology and symbols specific to the content. This is especially important for high school mathematics and science. Graphic materials may be described, but should also be made available in print or tactile formats. Readers must be provided to students on an individual basis, not to a group of students. A student should have the option of asking a reader to slow down or repeat text. This cannot occur effectively when a person is reading to an entire group of students.

*See PARCC Appendix B Human Reader and J for Mathematics Audio Guidelines*

**Teacher-Read Directions / (1g General Administration Directions Clarified)**

Classroom practice should routinely mirror the assessment procedure.

**Comparable CBT Accessibility Feature: 1g General Administration Directions Clarified (by test administrator)** The test administrator clarifies general administration instructions only. No part of the test may be clarified, nor can assistance be provided to the student during testing.

**General Administration Directions Read Aloud and Repeated as Needed**

The teacher may read general administration directions aloud to the student and repeat as necessary.

**Comparable CBT Accessibility Feature: 1h General Administration Directions Read Aloud and Repeated as Needed (by test administrator)** Read aloud general administration directions only. Student may request repetition.

**Oral Script (*Text-to-Speech for the Mathematics Assessments)**

If it is determined that the student requires an oral administration type of accommodation, the same procedures outlined for use on state assessment should be routinely used in classroom assessment. Directions, assessment items and answer choices must be read verbatim from an oral script without clarifying, elaborating, or providing assistance with the meaning of words. Rephrasing or clarification of directions is not allowed.

*Comparable CBT Accessibility Feature Identified in Advance:1r See [http://parcc.pearson.com](http://parcc.pearson.com) for tutorial*

**Text-to-Speech (TTS)**

Intel®Reader (purchase) operates much like a digital camera—point, shoot and listen to it read aloud printed text for such things as schoolwork, printed documents, magazines, mail, cookbooks etc.; portable; earbuds.

The Reading Pen 2 (Wizcomtech – also check SWAAAC Loan Bank)

iPad – VoiceOver (Accessibility Feature) continuous reading with page turn; use with iBooks

**Read Aloud to Self**

This accommodation is useful for students who may need to see and hear text in order to comprehend what is written. The use of an auditory/acoustical feedback device (such as WhisperPhone®, Phonics Phones or similar device) may also be beneficial, but will require individual administration in order not to disturb others.

**Comparable CBT Accommodation: 3c**

**Eliminate Answer Choices**

When working with paper/pencil, the student may cross out answer choices as they consider each choice.

**Comparable CBT Accessibility Feature: 1f Eliminate Answer Choices- student selects the “Answer Eliminator” icon on the toolbar. A red X will appear when the student selects an answer. Student may disable the feature on the toolbar by selecting “Answer Eliminator” again.**
**Closed Captioning of Multimedia** (*Closed-Captioning of Multimedia on the ELA/Literacy Assessments*)

Students who are Deaf or hard-of-hearing view captioned text on multimedia (e.g., video)

**Comparable CBT Accommodation: 3i** Must have Closed-Captioning selected on the student’s SR/PNP.

<table>
<thead>
<tr>
<th>Audio Cassette Tape, Compact Disc, or Digital Recorder</th>
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<tr>
<td>Written tests and instructional materials can be prerecorded on an AAC device, audio cassette, compact disc, digital recorder, or any other type of assistive technology device which a student accesses with playback. Classroom directions, assignments, and lectures could also be recorded. When taping lectures, students may need sit near the speaker, use a quality microphone, and tape only parts of the class that can clearly be replayed (e.g., turn the tape recorder off during small group discussions or pass the microphone). Advantages include ease of operation, portability and low cost. Audio versions of tests and other written materials may need to be supplemented with a print or braille version of the text, so a student can have access to complicated graphic material. Copyright issues may need to be addressed. Consult your Assistive Technology Specialist for recommendations.</td>
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<tr>
<th>Audio Books</th>
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<tr>
<td>An audio book is a human-recorded version of a printed book. Some of these recordings contain the full book and some are abridged. Audio books are produced on tape, CD, and in other electronic formats playable on computers and various types of digital media devices. They can be borrowed from libraries, downloaded or purchased from bookstores. Many online bookstores also carry recorded books, making access even easier. In most cases audio books are subject to copyright restrictions unless they are specifically designated as public domain works or fall under copyright exemption. (also see Learning Ally)</td>
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<tr>
<th>Colorado Talking Book Library</th>
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<tr>
<td>Learning Ally provides accessible audio textbooks and literature titles for individuals with visual and learning disabilities. The 71,000+ library of audio books are human voice recorded by subject specialists and are available through an individual or institutional membership. In addition to the audio format, Learning Ally is incorporating synchronized text to speech into their collection of books and will gradually add these books to the library. Learning Ally titles can be accessed by downloading through an online account. The books can then be played on the Learning Ally audio app for the iPhone, iPod Touch, or iPad, as well as software for a PC or Mac, and specialized hardware devices. Downloadable DAISY books provide instant access with enhanced navigation, bookmarking, and variable speed control.</td>
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<tr>
<th>Learning Ally: (formerly Recording for the Blind &amp; Dyslexic)</th>
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<tr>
<th>Electronic Books</th>
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<tr>
<td>An electronic book (or e-book) is a digital version of a printed book. These books come in a variety of formats. Depending on the source, these books can be read aloud by a computer generated voice using special software or hardware. Unlike audio books, electronic books include the full text so that students can read along while they listen without requiring a printed copy. Digital books are widely available from online bookstores and can be downloaded from several websites. Not all publishers allow their electronic books to be read with computer speech due to copyright.</td>
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<th>Colorado Talking Book Library</th>
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<tr>
<td>Tarheelreader.org  Click on “gear” symbol, download as PowerPoint or epub; will also read aloud. ([Putting Tar Heel Reader books into iBooks – with Speech Support](Jane Farrall))</td>
</tr>
</tbody>
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<tr>
<th>Bookshare.org</th>
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<tbody>
<tr>
<td>Bookshare is an online library of digital literature and textbooks designed for use by individuals who are blind or have other print related disabilities. The digital books are primarily contributed by volunteers or provided in digital format by publishers. Bookshare provides free individual and institutional memberships to eligible schools and</td>
</tr>
</tbody>
</table>
Accessible Materials

Accessible Educational Materials (AEM) are print- and technology-based educational materials, including printed and electronic textbooks and related core materials that are designed or converted in a way that makes them usable across the widest range of student variability regardless of format (print, digital, graphic, audio, video). IDEA specifically focuses on accessible formats of print instructional materials. If a student is unable to read or use standard print based materials but is able to understand the content presented in textbooks and other related core instructional materials that are used across the curriculum, the student may need specialized formats of the curricular materials. For some students, printed instructional materials can be a barrier to participation and achievement in the general education curriculum. For example, students whose decoding abilities are well below grade level and those with identified disabilities who receive services under IDEA can gain access to information contained in typical textbooks and related printed instructional materials. For many students, these needs can be addressed by offering multiple means of input in the form of braille, large print, audio, and/or digital. When specialized formats and supports are matched appropriately with the student’s needs, independence and achievement boost student outcomes.

National Center on Accessible Educational Materials – Audio-Supported Reading, Dr. Richard Jackson (video)
Audio-Supported Reading and Students with Learning Disabilities article
Getting Started with ASR article

National Center on Accessible Educational Materials – CAST
Decision-Making Tools and Supports – AEMs offers interactive tools that may be useful to teachers and IEP Teams to make decisions about the use of Accessible Educational Materials:
AEM Navigator – Examines the areas of need, format, acquisition of materials and supports. It can also print a summary of the decisions.
AIM Explorer – This is a free simulation tool for use with grade-level text supported with magnification, text color, highlighting and text layout options that can help students who are struggling with reading identify which features and helpful to them for accessing and understanding text. Exploration will involve the student and will also prepare a summary of their choices.

*Download the Instruction and Installation Instructions.
More articles about including accessible materials in IEPs; using digital materials for students with text-related disabilities

Tarheel Reader - collection of free, easy-to-read, and accessible books on a wide range of topics to share or create Exemplar Text Support- These books are accessible, open-source texts that you and your students can read online, on a reader that uses epub files, or offline as Powerpoint files or printed versions of the books. The books come from the collection of books at Tar Heel Reader. Many of the books were written by teachers across the U.S., Canada, and other English speaking countries. Dynamic Learning Maps has created Exemplar Text Supports or you can create your own. Navigate to the DLM webpage > Professional Development>Exemplar Text Supports. Also check out the Materials Exchange and Instructional Resources on this page.

Note: Books are contributed to the site from teachers, students, parents and others from around the world. Please select and/or revise the books for your student to ensure suitability before providing access for students. The books can be downloaded, edited, and printed (PowerPoint format) or as an ePub. (Click on the little gear symbol>Download)
**Audio Amplification Devices / Auditory Aids (*noise buffers, *headphones, white noise machines)**

Some students may benefit from hearing assistive technology to enhance their access to auditory instruction. The device used may vary depending on the impact of the hearing loss and personal amplification the student may be using. Amplification enhances the intelligibility of teacher-directed instruction, seating options, and in some cases connectivity with other technology (computers, audio devices, etc.). There is an array of options available such as infrared and frequency modulated (FM) amplification systems, in addition to a student’s personal hearing aids/cochlear implant(s), to increase clarity of the teacher’s voice. An FM system can also be used with headphones. The teacher/speaker wears a small microphone which would transmit to either a classroom and/or device that is worn by the student. A student-worn receiver allows the student to receive consistent voice input regardless of where the teacher is standing in the classroom. When working with students in classroom situations that contain ambient noise, another consideration to improve spoken voice input quality may be a classroom sound field amplification system. The teacher/speaker wears a small microphone, a receiver is placed in the classroom, and the teacher’s voice is clearly projected for all students. Check with a certified professional in your administrative unit, such as an educational audiologist to assist with addressing individual student need and refer to the IEP for student’s amplification requirements.

This article outlines the benefit of amplification for all students: Educational Technology Support Center White Paper: Classroom Amplification Systems
calypsosystems.com/images/uploads/researchstudies/Sound_Amp_whitepaper.pdf

**Comparable CBT Accessibility Feature:**
Audio Amplification – 1b
Headphones or Noise Buffers 1k

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**Video Tape and Descriptive Video**

Many books have been made into movies, giving students a visual and auditory way to access literature. Videotapes are often closed-captioned. Captions are visible when activated by a decoder. Built in decoders are required on all 13-inch or larger television sets. Descriptive video is a descriptive narration of key visual elements, making television programs, feature films, home videos, and other visual media accessible to people who are visually impaired. Key visual elements include actions, gestures, facial expressions, and scene changes. Inserted within the natural pauses in dialogue, audio descriptions of important visual details help to engage viewers with the story.

Described and Captioned Media
Accessible Denver

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**Human Interpreter for a Student Who is Deaf or Hard of Hearing**

Spoken English /Text is signed to the student by a human Interpreter using the student’s preferred mode of communication.

**Comparable CBT Accessibility Feature Identified in Advance:** 1s 3m *ASL video for the Mathematics Assessment for a Student Who is Deaf or Hard of Hearing; *ASL Video of Test Directions (If a deaf student does not use ASL, an actual human interpreter and separate test setting will be required.  See PARCC Appendix B-Human Reader/Human Signer; Appendix J: Mathematics Audio Guidelines; Appendix L: Human Signer Guidelines 3l Human Reader/Human Signer

*ELA/Literacy Assessments, including items, response options, and passages) 3n - Must have Text-to-speech, ASL Video, or Human Reader/Human Signer selected on student’s SR/PNP  See Appendix D for decision-making guidance; Also see Appendix B; Appendix L and Appendix M in order to mirror the procedures during instruction.

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**Word-to-Word Glossary (Pop up Glossary)**

Student uses bilingual, word-to-word dictionary or electronic translator. Dictionaries that include definitions or pictures are not allowed. The student should be familiar with the dictionary they will use on the test. Students should be given ample time to complete the test using the accommodation. A list of bilingual word-to-word dictionaries authorized for use on PARCC assessments is available at:
http://www.doe.mass.edu/mcas/testadmin/lep_bilingual_dictionary.pdf

**Comparable CBT Accessibility Feature: 1o** Pop-up Glossary- student views definitions of pre-selected, construct-irrelevant words by hovering over them. The definition appears in a pop-up text box.
<table>
<thead>
<tr>
<th><strong>Sight Word app</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Simplex Spelling – Sight word app (fee) Also offers Simplex Spelling Phonics (fee)</td>
</tr>
</tbody>
</table>

**Adapting Text Complexity**

<table>
<thead>
<tr>
<th><strong>Rewordify</strong> – this is a free, online software that can simplify difficult English, build better vocabulary and offer choices for students to understand complex text. Copy and paste selected text into the text box and click on Rewordify text. Teachers can also get charts and reports to monitor student progress.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Text Compactor</strong> – Free online automatic Text Summarization Tool. Very simple tool to use to simplify complex text. Just cut and paste text into text box, set the % of text to keep in the summary and read the summarized text. It also has a text to speech and translation tool.</td>
</tr>
<tr>
<td><em>(For improved quality of text-to-speech, you may want to paste the summary into a Word document, save as pdf (tutorial: <a href="https://www.youtube.com/watch?v=ETOohmYui3Q">https://www.youtube.com/watch?v=ETOohmYui3Q</a>))</em></td>
</tr>
<tr>
<td><strong>Newsela</strong> <em>(free and upgrade for fee)</em> This site allows teachers to select news stories and adjust the Lexile reading level simply by increasing or decreasing the text complexity levels.</td>
</tr>
<tr>
<td>Snap &amp; Read Universal: Text Reading + Text leveling for Google- donjohnston.com has a new reading tool for Google (fee)</td>
</tr>
<tr>
<td>Paula Kluth article: <em>Rewriting History, and Nine Other Ways to Adapt Textbooks</em></td>
</tr>
</tbody>
</table>

**5 Technology tools to Measure Text Complexity**

| **Text Complexity: Qualitative Measures Rubric** for Literature and Informational Text |
| **Lexile Analyzer / The Lexile Framework for Reading** – determine the text complexity of a book or passage |

**Visual Aids/ Organizers (1j Highlighter)**

The student uses highlighters, template, place marker, masking device, colored overlays, or pointer.

**Comparable CBT Accessibility Feature:**

1f – Eliminate Answer Choices Answer Masking, Background/Font Color (Color Contrast), Flag Items for Review, 1i *General Masking – Must have General Masking selected on the student’s SR/PNP, 1j - Highlight Tool, 1l Line Reader Tool

**Colorado Unique Accommodation Request form (UAR)**

*Reference numbers correlate to the PARCC Accessibility Features & Accommodations Manual*
**Presentation Accommodations:**

**Considerations in the Transformation of Accommodations from Paper/pencil to Computer-based Tests**

**Note:** The accommodations listed below are offered as general suggestions. Please check with your Assistive Technologist specialist, Occupational Therapist, Speech-Language Pathologist, Deaf Education specialist or TVI/vision specialist for specific equipment and software recommendations.

<table>
<thead>
<tr>
<th>Computer-based Instruction / Assessment</th>
<th>The student needs direct instruction in order to have the</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Large Print and Magnification</strong></td>
<td>• Capacity to self-select print size or magnification</td>
</tr>
<tr>
<td></td>
<td>• Ability to scroll or advance screen</td>
</tr>
<tr>
<td></td>
<td>• Apply magnification to screen graphics and tables without distortion</td>
</tr>
<tr>
<td></td>
<td>• Very gradually consider building visual stamina; avoid visual fatigue</td>
</tr>
<tr>
<td></td>
<td>• Choose background to improve readability of overlying text</td>
</tr>
<tr>
<td><strong>Instructions simplified/clarified</strong></td>
<td>• Capacity to self-select audio (screen reader), alternate language or signed versions of instructions and test items (all students wear ear/headphones)</td>
</tr>
<tr>
<td></td>
<td>• Choose to have text repeated</td>
</tr>
<tr>
<td><strong>Audio presentation of instructions and test items</strong></td>
<td>• Ability to self-select audio (screen reader)</td>
</tr>
<tr>
<td><strong>General Administration Directions</strong></td>
<td>• Use screen reader that converts text into synthesized speech or braille</td>
</tr>
<tr>
<td><strong>Read Aloud and Repeated as Needed</strong></td>
<td>• Control audio speed and quality of audio presentation</td>
</tr>
<tr>
<td></td>
<td>• Wear headphones or test individually</td>
</tr>
<tr>
<td></td>
<td>• Ability to process audio descriptions of graphics and other visual media</td>
</tr>
<tr>
<td></td>
<td>• Choose to repeat as many times as needed</td>
</tr>
<tr>
<td></td>
<td>• Ability to understand synthesized voice of reader</td>
</tr>
<tr>
<td></td>
<td>• Activate alternative text or “alt tags” for images</td>
</tr>
<tr>
<td><strong>Sign Language</strong></td>
<td>• Capacity to self-select alternate versions of written text/ instructions presented in sign language</td>
</tr>
<tr>
<td></td>
<td>• Capacity to self-select signed versions of instructions and test items</td>
</tr>
<tr>
<td></td>
<td>• Not feasible to read lips on video</td>
</tr>
<tr>
<td></td>
<td>• Check equipment compatibility</td>
</tr>
<tr>
<td></td>
<td>• Consider quality, accuracy and appropriate speed of signed information</td>
</tr>
<tr>
<td><strong>Languages other than English</strong></td>
<td>• Capacity to self-select alternate language versions of test items in written or audio format</td>
</tr>
<tr>
<td></td>
<td>• Be aware that translation may require different speed than English</td>
</tr>
<tr>
<td></td>
<td>• Use machine translation capabilities</td>
</tr>
<tr>
<td></td>
<td>• Check compatibility of interfaces</td>
</tr>
<tr>
<td></td>
<td>• Enable pop-up translation features</td>
</tr>
<tr>
<td></td>
<td>• Ability to regulate audio speed</td>
</tr>
<tr>
<td><strong>Braille</strong></td>
<td>• Ability to use screen reader to convert text into synthesized speech or braille</td>
</tr>
<tr>
<td></td>
<td>• Provide tactile graphics or three-dimensional models for some images</td>
</tr>
<tr>
<td></td>
<td>• Select screen and text colors</td>
</tr>
<tr>
<td></td>
<td>• Check compatibility of equipment and interfaces</td>
</tr>
<tr>
<td></td>
<td>• Express need for additional time if necessary</td>
</tr>
<tr>
<td><strong>Highlighters or Place holder</strong></td>
<td>• Capacity to self-select highlighter tool</td>
</tr>
<tr>
<td></td>
<td>• Ability to select text for highlighting</td>
</tr>
<tr>
<td><strong>Graphics or images that supplement text</strong></td>
<td>• Carefully consider images selected for presentation; avoid complex backgrounds or wallpaper that may interfere with the readability of overlying text</td>
</tr>
<tr>
<td></td>
<td>• Select alternative text or “alt tags” for images</td>
</tr>
<tr>
<td></td>
<td>• Use tactile graphics or three-dimensional models for images</td>
</tr>
</tbody>
</table>
**Paper/pencil format**
- Select for students who are not yet computer literate
- Use if needed accessibility features or accommodations are not available

**Use of Color**
- Ability to self-select appropriate screen and text color
- Ability to adjust contrast/size and font

**Multiple column layout**
*For classroom presentation, keep in mind that linear presentation order needs to be logical.

**Book Creators:**
- Book Writer (can add video and sound) (fee)
- Tarheel Reader [http://tarheelreader.org/](http://tarheelreader.org/) (Literacy)

**Class collaboration**
- Edmodo – web-based platform that provides a safe and easy way for your class to connect and collaborate, share content, and access homework, grades and school notices. [http://www.educatorstechnology.com/2013/06/a-handy-guide-to-everything-teachers.html](http://www.educatorstechnology.com/2013/06/a-handy-guide-to-everything-teachers.html)

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**The 55 Best Free Education Apps for iPad**

YouTube: [Best iPad Apps for Dyslexia](https://www.youtube.com/watch?v=JamieMartin) (Jamie Martin)

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**Response Accommodations**

Please see Table 4 Response Accommodations for Students with Disabilities in the PARCC manual for complete information.

<p>| | |</p>
<table>
<thead>
<tr>
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</thead>
</table>
|  | *Assistive Technology*
|  | The objective of providing assistive technology for any student is to foster the student’s ability to make choices and produce work independently. Teachers, specialists and related service providers will collaborate to craft the most effective approach for each student.
|  | **Computer Based Testing Guidelines:** Reference numbers correspond with Table 4 in the PARCC manual. Must have Assistive Technology selected in the student’s SR/PNP
|  | Adapted Ipod
|  | Demonstration of an iPod adapted for speech [YouTube tutorial](https://www.youtube.com/watch?v=JamieMartin)
|  | *Speech-to-Text / Voice Recognition Software*
|  | Speech-to-text conversion, or voice recognition, allows a student to use his/her voice as an input device. Voice recognition may be used to dictate text into the computer or to give commands to the computer (e.g., opening application programs, pulling down menus, or saving work). Allow ample time for instruction and practice when using these types of devices.
|  | **Comparable CBT Response Accommodation:**
|  | ELA/Literacy Selected Response Options:
|  | 4f *Speech-to-Text – Must have Speech-to-Text, Human Scribe, Human Signer, or External Assistive Technology Device selected for the student’s SR/PNP
|  | Mathematics Response Options
|  | 4j *Speech-to-Text – Must have Speech-to-Text, Human Scribe, Human Signer, or External Assistive Technology Device selected for the student’s SR/PNP

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Colorado Instructional Accommodation Manual 2015-16
Speech Recognition Software Products (some have fee/purchase)
Google Chrome – Dictation 2.0
iPad Accessibility: Auto-Correction (enable with iPad Keyboard setting) similar to word prediction
/ Speak Auto-Text (accessibility feature) Speech to Text – Microsoft Word (versions may vary) YouTube video
iPad 3 provides a speech to text option through a microphone icon in its keyboard allowing students to generate text with voice rather than typing (The Yale Center for Dyslexia & Creativity)
TalkTyper (for Chrome) YouTube tutorial

Brailer / *Braille Notetaker / *Braille Writer

A brailer is a machine used to produce text in braille. As combinations of its six keys are pressed, the braille cells are embossed on the paper rolled into the machine. Some students use an electronic braille device or note taker, in which the braille is stored in the machine for later embossing through an alternative computer port. Such tools are procured by a teacher certified in the area of visual impairments. Consult your teacher of students with visual impairments (TVI) for recommendations for individual students.

Comparable CBT Response Accommodation:
4b Must have Braille Note-taker selected in the student’s SR/PNP. See Appendix C to mirror procedure during instruction.
4c – Must have Braille Writer selected on the student’s SR/PNP. See Appendix C

Voice Recording Devices

A student uses a tape recorder or other digital recording device to record class work or test responses rather than writing on paper.

Notepad

Embedded feature that can be used when taking notes.

Comparable CBT Accessibility Feature: 1n


Computer or Personal Portable Keyboard (1t *Writing Tools – cut/paste/copy/underline/bold/insert bullets)

Computers, or other word processing systems, allow a student to produce a written response to instructional materials or assessments. Students should receive adequate instruction and time for use in order to build fluency and independence.

Comparable CBT Response Accessibility Feature Identified in Advance: (1t *Writing Tools)

Alternative Pencils (Partner Assisted Scanning)

Alternative “pencils” have been designed for students who are unable to hold a traditional pencil or physically manipulate a keyboard. Instead, the alternative pencils tap into students’ other developing abilities. For example, the alphabet eye gaze frame may be helpful for students who are learning to eye gaze. The print flip chart or onscreen keyboards may be helpful for students who are learning to use switches. The Braille flip chart may be useful for students who are blind. These are just a few examples. For many of the pencils, perfect vision and/or hearing are not needed. Examples of alternative pencils students may use for response include Alphabet Eye Gaze Frames, Print Flip Chart, Braille Alphabet Flip Chart, Alphabet Intellikeys Overlays, and Switch Accessible Onscreen Alphabet Keyboards.

Center for Literacy and Disability Studies – Univ. of North Carolina-Chapel Hill
Writing with Alternative Pencils (See DLM Self-Directed Professional Development Module # 16)
Eye Gaze

**Sensory Eye-Fx** YouTube tutorial

Wireless Devices

iPads, tablets, iPhones and other wireless devices have become useful tools for students as both presentation and response accommodations. A list of software and devices that have no known conflicts with TestNav8 can be found at [http://pearsononlinetesting.com/TestNav/AT/](http://pearsononlinetesting.com/TestNav/AT/)

*Scribe – English Spoken/ Spanish Spoken / Other

A scribe is a skilled person who has been trained to write down what a student dictates by an assistive communication device, pointing, sign language, or speech. A scribe may not edit or alter student work in any way, and must record word-for-word exactly what the student has dictated. Following the dictation, scribes should request clarification from the student about the use of capitalization and punctuation, and must allow the student to review and edit what the scribe has written. Individuals who serve as a scribe need to become familiar with the content-area vocabulary involved and understand the strict boundaries of the assistance to be provided. The role of the scribe is to write what is dictated, no more and no less. The use of a scribe should be limited as it inhibits a student’s ability to produce his/her work independently. **Appropriate assistive technology should be provided, taught, and used whenever possible. The educational goal is for the student to be able to produce work independently.** Examples of inappropriate use of a scribe may include: "The student can tell much more than he/she can write." or "This student can do so much better with a scribe." Such statements may well be true for many students. However, such a reason indicates convenience rather than need, and may result in educational advantage. A scribe is not to be routinely used because a student lacks language competency, handwriting fluency, or spelling skill. Students who use assistive technology to respond in the classroom on a day-to-day basis, for assessments, and who have the appropriate documentation on their formal educational plans must use technology in lieu of a scribe for state assessments.

**Comparable CBT Response Accommodations:** Must have Speech-to-Text, Human Scribe, Human Signer or External Assistive Technology device selected on SR/PNP. (i.e., Dictation/Transcription or Signing) for the Mathematics assessments, and for selected response (not constructed response) items on the English Language Arts/Literacy assessments. **Consistent protocol and procedures should be mirrored in instruction.**

ELA/Literacy selected response options. See Appendix C and Appendix L

4f Speech-to-Text

4g Human Scribe

4h Human Signer

4i External Assistive Technology device

Mathematics Response Options: See Appendix C and Appendix L

4j Speech-to-Text

4k Human Scribe

4l Human Signer

4m Assistive Technology Device

Ela/Literacy Constructed Response Options: See Appendix C and Appendix L

4n Speech-to-text

4o Human Scribe

4p Human Signer

4q Assistive Technology Device
### Calculator /* Calculation Device and Mathematics Tools

If a student’s disability affects math calculation, but not reasoning, a calculator or other assistive device (e.g., abacus, arithmetic table, manipulatives, or number chart) may be used for instruction. It is important to determine whether the use of a calculation device is a matter of convenience, or a necessary accommodation. It is important to know the goal of instruction and assessment before making decisions about the use of calculation devices. For example, if students are learning subtraction with regrouping, using a calculator would not give a student an opportunity to show regrouping. On the other hand, if students are learning problem solving skills that include subtraction (e.g., bargain shopping for items with a better value), the use of a calculation device may be a valid accommodation. Calculators may be adapted with large keys or voice output (talking calculators). In other cases, an abacus may be useful for students when mathematics/science problems are to be calculated without a calculator. The abacus functions as a paper and pencil device for students with visual impairments.

#### Student uses a calculation device or manipulatives to respond to questions.

**Comparable CBT Response Accommodation:**

- **4d** *Calculation Device on Calculator Sections of Mathematics Assessment- Must have Calculation Device on Calculator Sections selected according to PARCC Calculator Policy*
- **4e** *Calculation Device and Mathematics Tools (on Non-calculator Sessions of Mathematics Assessments) Must have 504/IEP. Must have Calculation Device and Mathematics Tools on Non-Calculator Sections selected on student’s SR/PNP*

Allowable Mathematics tools include: (only these)
- Allowable mathematics tools include:
  - Arithmetic tables (e.g., addition charts, subtraction charts, multiplication charts; division charts)
  - Two-color chips (e.g., single-sided or double-sided)
  - Counters and counting chips
  - Square tiles
  - Base 10 blocks
  - 100s chart

### *Spelling and Grammar Devices (1q*Spell Check or External Spell Check Device)

The use of a dictionary may be beneficial for assignments that require an extended response or essay. Spelling and grammar can also be checked with pocket spellcheckers. Students enter an approximate spelling and then see or hear the correct spelling or correct use of a word. Students who use a word processor may be allowed to use a spell check or other electronic spelling device.

**AT and Learning Disabilities resources for Spelling Resources**

**Comparable CBT Accessibility Feature:** 1q  
Embedded spell check in Test Nav or external device without grammar check, Internet or ability to save information

### *Pop-up Glossary (1o Pop-up Glossary)

Student learns skill of “hovering” over an unfamiliar word so that the definition appears in a pop-up text box. This feature is found in a variety of software programs.

**Comparable CBT Accessibility Feature:** 1o

### *Word Prediction (*Word Prediction External Device)

Word prediction software can work in various modes of operation based on the student’s needs. This accommodation provides a word list pop-up tool that can assist the student with word choice and spelling based on the letters that a student types on the screen.

The student uses word prediction software that provides a bank of frequently- or recently-used words as a result of the student entering the first few letters of a word.

**Comparable CBT Response Accommodation:** 4r  
Must have Word Prediction selected in the student’s SR/PNP. In order for the student to be successful using this accommodation on an assessment, the student must be familiar with the use of the external device during instruction.

## Prompt / Encourage Student Responses

Some students may respond to prompting or encouragement to maintain focus during instruction or testing. The teacher/test administrator may redirect the student’s attention to the task, provide a reminder to remain focused or provide a visual cue or prompt. (e.g., an icon/picture/symbol taped to the student’s desk; hand signal etc.)

**Comparable CBT Accessibility Feature:** 1p Redirect Student to the Test (by test administrator)

## Organization Tools

Organization tools include graph paper, highlighters, place markers, and scratch paper. Students may not be allowed to write in books owned by the school. Photocopying parts of written text allows a student to use a highlighter and write in the margins.

## Eliminate Answer Choices

Cross out unselected responses as a decision-making strategy

**Comparable CBT Accessibility Feature:** Computer based accessibility feature available to all students; 1c Bookmark (previously called Flag Items for Review) 1f Eliminate Answer Choices

## Graphic Organizers (NotePad)

Graphic organizers help students arrange information into patterns in order to organize their work and stay focused on the content. Graphic organizers are especially helpful for writing reports and essays. Semantic mapping software is now available to enable students to understand a narrative story, informational text, or writing elements through graphics.

**Comparable CBT Accessibility Feature:** 1n student writes and edits notes using embedded NotePad application

## Specialized Paper

Some students require special paper in order to respond in writing. Some examples include graph paper, paper with raised lines, or paper with colored/highlighted lines.

- Donna Young’s Printable Handwriting Paper
- Printable Paper for Math

## Additional Paper / Blank Paper

Some students may benefit from having additional paper available to use during instruction. This paper may be blank (scratch), lined, graph, or other paper.

**Comparable CBT Accessibility Feature:** 1e Blank Paper provided by test administrator

## Slant Boards

Slant boards often help students with motor fatigue or students who need closer visual accesses to print material. An inclined surface may assist in maintaining better posture, thus allowing a student to respond in writing with less fatigue.

## Pencil Grip / Large #2 Pencil

A pencil grip/large #2 pencil that the student is accustomed to using may help the student with motor fatigue and thus allow the student to respond in writing.

## Abacus / Tactile Math Manipulatives

Some students require an abacus or physical objects in order to accomplish math calculations. Some examples include raised touch math dots, counters, number lines, 1-100 chart, raised line graph paper, shape construction board, braille ruler, or protractor. Any number of math manipulates may be used during instruction to help students visualize the math concept being taught.
Comparable CBT Accommodation: Table 4

Allowable mathematics tools include:
- Arithmetic tables (e.g., addition charts, subtraction charts, multiplication charts; division charts)
- Two-color chips (e.g., single-sided or double-sided)
- Counters and counting chips
- Square tiles
- Base 10 blocks
- 100s chart

Other Response Accommodations (*Additional Assistive Technology – determined by individual need)

Some students may have other response accommodations in place during instruction to help them access the learning objectives. The accommodation should also be documented in the student's IEP or Section 504 Plan as an instructional accommodation.

Comparable CBT accommodation: External Assistive technology devices; See PARCC Infrastructure Trial http://avocet.pearson.com/PARCC/Home

Unique Accommodation Request – Use Colorado Unique Accommodation Request (UAR) form. See your DAC for assistance.

*Reference numbers correlate to the PARCC Accessibility Features & Accommodations Manual

Response Accommodations: Technology

Considerations in the Transformation of Accommodations from Paper/pencil to Computer-based Tests

Note: The accommodations listed below are offered as general suggestions. Please check with your Assistive Technologist specialist, Occupational Therapist, Speech-Language Pathologist, Deaf Education specialist or TVI-vision specialist for specific equipment and software recommendations.

<table>
<thead>
<tr>
<th>Write Alternate Pencil Augmentative Communication Device</th>
<th>Capacity to select among multiple options to indicate response—mouse click; keyboard; touch screen; speech recognition; assistive devices to access the keyboard (e.g., mouth stick, eye gaze, or head wand) Partner Assisted Scanning to select letter for multiple choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scribe</td>
<td>Ability to use speech recognition software to dictate response Ability to use multiple options to indicate response (listed above)</td>
</tr>
<tr>
<td>Brailler Tape Recorder Paper/pencil response</td>
<td>Ability to use speech recognition software Ability to operate equipment and dictate response Capability of producing response using braille writer or other equipment Use paper/pencil in addition to computer (e.g. use scratch paper for solving problems, drafting ideas Use paper and pencil in place</td>
</tr>
</tbody>
</table>
| Spell Check | • Ability to self-select the spell-check option  
• Capacity to disable option when spelling achievement is being measured  
• May have implications when using speech recognition software |
| --- | --- |
| Calculator | • Ability to self-select calculator option  
• Capacity to disable option when math fluency is being measured |
| English or bilingual dictionary / glossary | • Ability to self-select dictionary option  
• Ability to access pop-up definitions built into assessment  
• Capacity for use of multiple languages |
| iPad Apps for Differentiation | • Anne Beninghof’s Ideas for Education – Reading Comprehension Booster iPad app (purchase) [http://www.ideasforeducators.com/]  
• Anne’s Blog: [http://www.ideasforeducators.com/idea-blog.html]  
• 15 iPad Skills Every Teacher and Student Should Have, Educational Technology and Mobile Learning [http://www.educatorstechnology.com/2013/01/15-ipad-skills-students-must-have.html]  
• Create iBooks on the iPad (fee) [https://itunes.apple.com/us/app/book-creator-for-ipad/id442378070?mt=8] |

### Setting / Environment Accommodations

*Reference numbers correlate to the PARCC Accessibility Features & Accommodations Manual – See TABLE 2: Administrative Considerations for All Students*

<table>
<thead>
<tr>
<th>Reduces Distractions to the Student and Auditory Sensitivity Accommodations (1k Headphones or Noise Buffers)</th>
</tr>
</thead>
</table>
| A setting accommodation to reduce distractions would allow a student to do individual work or take tests in a different location, usually in a place with few or no other students. Changes may also be made to a student’s location within a room. For example, a student who is easily distracted may not want to sit near windows, doors, or pencil sharpeners. Preferential seating near the teacher’s desk or in the front of a classroom may be helpful for some students. Enclosed classrooms may be more appropriate than open classrooms. Study carrels or other means of focusing sightline may be helpful for students who are easily distracted. Students with low vision may prefer to sit in the part of a room that has the best non-glare lighting. Noise cancelling headphone, earplugs, earphones or other noise buffers not connected to any audio device are available to all students.  

**Comparable CBT Accessibility Feature:** 1k |

<table>
<thead>
<tr>
<th>Auditory Calming/Music /Noise Buffers</th>
</tr>
</thead>
</table>
| Some students concentrate best while wearing noise buffers such as earphones, earplugs, or music.  

**Comparable CBT Accessibility Feature:** 1k |
Reduce Distractions to Other Students

Some students use accommodations that may distract other students, such as having an oral administration or scribe. In addition, some students might perform better when they can read and think aloud, or a student may make noises or use equipment that distracts other students. Distractions to other students are reduced by using these accommodations in individual settings.

Change Location to Increase Physical Access or to Use Special Equipment

Occasionally a setting might be changed to increase physical access for a student. For example, a student who uses a wheelchair with a specially designed tabletop and assistive technology may not have adequate space in an auditorium with theater seating. Other students may need equipment that requires specific locations for learning and assessment. For example, a student who uses a computer for word processing might need to complete assignments and take tests in a computer lab. A student who uses large-print materials may need to sit at a table rather than at a desk with a small surface area. Another student might benefit from a standing work station or in a study carrel. Provide space for a guide or working dog, and explain to other students that the dog is working and should be ignored. Make certain the school is accessible for students with mobility impairments. Students should have access to the building, cafeteria, classrooms, media center, restrooms, and playground. In essence, they should be able to access any room or space on the school grounds used by students in general.

<table>
<thead>
<tr>
<th>Table 2: Administrative Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2c: Separate or Alternate Location</td>
</tr>
<tr>
<td>2d: Specified area or seating</td>
</tr>
</tbody>
</table>

Adaptive Furniture/Equipment (2e Adaptive and specialized equipment or furniture)

Some students benefit from the use of adaptive or customized furniture to aid positioning during instruction or assessment. Other students may find it helpful to use a slant board or wedge to minimize visual fatigue and provide a better work surface.

2e Table 2: Administrative Consideration:

Special Chairs (Adaptive and specialized equipment or furniture)

Some students may need to physically move during instruction and have a difficult time sitting in a regular chair, so ball chairs or rocking chairs may be beneficial. Another way to accommodate this type of need is to modify a regular chair by adding a cushion or a small ball.

2d Table 2: Administrative Considerations:

Fidget Toys

Some students may need something in their hand to manipulate as they work in order to focus their attention. Some examples of these are small balls, pieces of textured cloth, or putty.

For additional suggestions, consult your school's Occupational Therapist or Physical Therapist.

Weighted Vests

Some students may require accommodations that provide proprioceptive input and aid in self-regulation; items such as weighted vests or blankets may assist in calming or focusing a student’s attention to the task at hand.

Thera-tubing or Stretchy Bands

Thera-tubing is often used as a replacement accommodation for foot tapping. These bands provide students resistance and are used as a calming or focusing accommodation.

Redirect Student to Task

Teacher may use verbal reminder; remind to focus; or use visual cues to redirect student’s attention to task. No coaching or assistance.

Comparable CBT Accessibility Feature: 1p Redirect Student to the Test
**Other Setting/Environment Accommodations**

Some students may have other setting/environment accommodations in place during instruction to help them access the learning objectives. The accommodation should also be documented in the student’s IEP or Section 504 Plan as an instructional accommodation.

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### Setting / Environment Accommodations:

Considerations in the Transformation of Accommodations from Paper/pencil to Computer-based Tests

**Note:** The accommodations listed below are offered as general suggestions. Please check with your Assistive Technologist specialist, Occupational Therapist, Speech-Language Pathologist, Deaf Education specialist, behavior specialist or TVI/vision specialist for specific equipment and software recommendations.

<table>
<thead>
<tr>
<th>Writing</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Alternate Pencil</td>
<td>• Capacity to select among multiple options to indicate response—mouse click; keyboard; touch screen; speech recognition; assistive devices to access the keyboard(e.g., mouth stick, eye gaze, or head wand</td>
</tr>
<tr>
<td>Augmentative Communication Device</td>
<td>• Partner Assisted Scanning to select letter for multiple choice</td>
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</table>

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<th>Scribe</th>
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<tr>
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</tr>
<tr>
<td>Ability to use multiple options to indicate response (listed above)</td>
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</table>

<table>
<thead>
<tr>
<th>Braille</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tape Recorder</td>
<td>• Ability to use speech recognition software</td>
</tr>
<tr>
<td>Paper/pencil response</td>
<td>• Ability to operate equipment and dictate response</td>
</tr>
<tr>
<td></td>
<td>• Capability of producing response using braille writer or other equipment</td>
</tr>
<tr>
<td></td>
<td>• Use paper/pencil in addition to computer (e.g. use scratch paper for solving problems, drafting ideas Use paper and pencil in place of computer (e.g. or composing extended response items)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spell Check</th>
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<tbody>
<tr>
<td>Ability to self-select the spell-check option</td>
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<tr>
<td>Capacity to disable option when spelling achievement is being measured</td>
<td></td>
</tr>
<tr>
<td>May have implications when using speech recognition software</td>
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</table>

<table>
<thead>
<tr>
<th>Calculator</th>
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<tbody>
<tr>
<td>Ability to self-select calculator option</td>
<td></td>
</tr>
<tr>
<td>Capacity to disable option when math fluency is being measured</td>
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<table>
<thead>
<tr>
<th>English or bilingual dictionary / glossary</th>
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</thead>
<tbody>
<tr>
<td>Ability to self-select dictionary option</td>
<td></td>
</tr>
<tr>
<td>Ability to access pop-up definitions built into assessment</td>
<td></td>
</tr>
<tr>
<td>Capacity for use of multiple languages</td>
<td></td>
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</tbody>
</table>
### Timing /Scheduling Accommodations

Refer to Table 2: Administrative Considerations for All Students and Table 5: Timing and Scheduling Accommodations

<table>
<thead>
<tr>
<th><strong>Timing /Scheduling Accommodations</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Extended Time</strong></td>
</tr>
<tr>
<td>A student’s educational team is to determine, based on documentation, an amount of extra time to complete assignments, projects, and tests. Data can be collected to assist in the calculation of a typical amount of time that a student requires to perform a given task. For timed tests, a standard extension may be time and one-half. This means that a student is allowed 90 minutes to take a test that normally has a 60-minute time limit. For rare cases, double time may also be allowed. Decisions should be made on a student-by-student basis and evidenced with the collected data. Usually “unlimited” time is not appropriate or feasible. The amount of extra time a student needs (time and 1/2, double time, etc.) should be documented in the IEP based on gathered evidence of need. Students who have too much time may lose interest and motivation to do their best work, while others may simply need additional time to complete work independently.</td>
</tr>
<tr>
<td><strong>Comparable CBT Accommodation: SR/PNP must have Extended Time Accommodation selected:</strong> See Table 5 Timing and Scheduling Accommodation for Students with Disabilities 5a *Extended Time</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Multiple or Frequent Breaks (2f Frequent Breaks)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Breaks may be given at predetermined intervals or after completion of assignments, tests, or activities. Sometimes a student is allowed to take breaks when individually needed. If the length of a break is predetermined, a timer might be used to signal the end of the break.</td>
</tr>
<tr>
<td><strong>2f CBT Administrative Consideration:</strong> Medical Breaks, Individual Bathroom Breaks, In-Chair Stretch Break or Other Frequent Breaks, according to state policy.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Change Time of Day, Schedule, or Order of Activities</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>If possible, schedule tests and activities that require focused attention at the time of day when a student is most likely to demonstrate peak performance. Sometimes students are allowed to complete activities over multiple days – completing a portion each day in order to reduce fatigue for students who are medically fragile or have significant support needs.</td>
</tr>
<tr>
<td><strong>2b CBT Administrative Consideration:</strong> Time of Day</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Verbal/Visual/Tactile Prompts to Stay on Task</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Such prompts as general verbal reminders (“Keep on/continue working” or ”Stay on task”), visual reminders (picture symbols or color-coded cards), and tactile reminders (gentle touch on the hand or arm, soft tap on the table, paperclips to divide tests into sections) may be used to refocus student attention.</td>
</tr>
<tr>
<td><strong>Comparable CBT Accessibility Feature:</strong> 1p Redirect Student to the Test (by test administrator)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Countdown Timers</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Countdown timers allow the student to track how much time is left for timed assignments or assessments.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Other Timing/Scheduling Accommodations</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Some students may have other timing/scheduling accommodations in place during instruction to help them access the learning objectives. The needed accommodation should also be documented in the student’s IEP as an instructional accommodation.</td>
</tr>
</tbody>
</table>

See PARCC Manual for complete information on Timing and Scheduling Accommodations
Discussion Questions for Parents
Accommodations in Instruction and Assessments

About Instruction

• Is my child expected to work toward enrolled grade-level or alternate achievement standards? Does this affect what types of accommodations / modifications are available to my child in instruction?

• What accommodations does my child need to access and achieve the academic standards?

• Are there accommodations that could be allowed in instruction that are not currently being provided?

• Are there accommodations being used at home that could be used in instruction to help the student access and learn content or help them in performing certain academic tasks?

• How can my child and I advocate to receive accommodations not yet provided in instruction?

• Are the accommodations my child is receiving in instruction meant to be a temporary support? If yes, what is the plan to help determine when to phase out or discontinue the use of a certain accommodation?

• How are the various staff members who work with my child in all subject areas providing accommodations?

• Are the accommodations allowed on state assessments also provided for district tests?

About Assessment

• Can my child participate in a computer-based assessment with or without accommodations?

• If my child is taking the alternate assessment how will he/she access the assessment?

• Are there any local consequences for my child participating in an alternate assessment? What are my child’s graduation options?

• How will my child’s test scores count?

• Has my child received instruction in how to access and use the various accessibility features and accommodations identified in the IEP? Has there been sufficient time to develop fluency?

• What are the tests my child needs to take, what do they measure (e.g., grade-level or alternate academic standards), and for what purpose is each given?
Is there evidence to support the need for each accommodation documented in my child’s IEP or 504 Plan?

Do data indicate the need to revise or discontinue provided accommodations?

How does my child indicate his/her preferences for specific accommodations?

If an accommodation used in instruction is not allowed or is not available on an assessment, is there another option to support the student that is allowed? If yes, has it been documented and tried in instruction first? If no, how is my child being prepared to work without the accommodation before the test?

Other discussion items:

Accommodations from the Student’s Perspective

Use this questionnaire to collect information about needed accommodations from the student’s perspective. The questions can be completed independently or as part of an interview process. However, be certain that the student understands the concept of an “accommodation,” providing examples as necessary. Also, provide a description or example of possible accommodations to give the student a good understanding of the range of accommodations that may be considered.

1. Think about all the classes you are taking now. Which is your best class?

2. Explain what you do well in this class.

The things you said you can do well above are your strengths. For example, you may have mentioned reading, writing, listening, working in groups, working alone, drawing, or doing your homework as some things you can do well. If you said you really like the subject, have a good memory, and work hard in class, these are also examples of your strengths.

3. Now ask yourself, “What class is hardest?”

4. What’s the hardest part of this class for you?

The things you said were hardest are areas you need to work on during the school year. For example, you might have listed paying attention in class, reading the book, taking tests, listening, staying in the seat, remembering new information, doing homework, or doing work in groups. These are all things in which an accommodation may be helpful for you.

5. Make a list of the classes you are taking now. Then think about accommodations that could help you access the information and tasks needed in each class. Write down what accommodations you think might be helpful for you.

<table>
<thead>
<tr>
<th>Classes</th>
<th>Accommodations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. What technology is most helpful for you? ________________________________
## Dos and Don’ts When Considering Accommodations

<table>
<thead>
<tr>
<th><strong>Do</strong></th>
<th><strong>Don’t</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>make accommodation decisions based on individualized needs</td>
<td>make accommodation decisions based on whatever is easiest to do (e.g., reading to student or scribing instead of using technology)</td>
</tr>
<tr>
<td>select accommodations that reduce the effect of the disability to access instruction and demonstrate learning</td>
<td>select accommodations unrelated to documented student learning needs</td>
</tr>
<tr>
<td>be certain to document instructional and assessment accommodation(s) on the IEP, Section 504, or other formal plans</td>
<td>use an accommodation that has not been documented on the IEP, 504 or other formal plan</td>
</tr>
<tr>
<td>be familiar with the types of accommodations that can be used as both instructional and assessment accommodations</td>
<td>assume that all instructional accommodations are appropriate for use on state assessments</td>
</tr>
<tr>
<td>be specific about the “Why, What, Where, When, Who, and How” of providing accommodations. Keep service logs or other forms of documentation of accommodation use and effectiveness</td>
<td>simply indicate an accommodation will be provided “as appropriate” or “as necessary”</td>
</tr>
<tr>
<td>refer to state accommodation policies and understand implications of selections</td>
<td>check every accommodation possible on a checklist simply to be “safe”</td>
</tr>
<tr>
<td>evaluate accommodations used with input from the student</td>
<td>assume the same accommodations remain appropriate year after year or that the student is willing to use the accommodation</td>
</tr>
<tr>
<td>get input about accommodations from teachers, parents, and students, and use it to make decisions at a meeting for the IEP, Section 504 or other formal plans</td>
<td>make decisions about instructional and assessment accommodations alone</td>
</tr>
<tr>
<td>Routinely provide accommodations for classroom instruction</td>
<td>provide an assessment accommodation for the first time on the day of a test</td>
</tr>
<tr>
<td>select accommodations based on specific individual needs in each content area</td>
<td>assume certain accommodations, such as extra time, are appropriate for every student in every content area</td>
</tr>
<tr>
<td>#</td>
<td>Question</td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>Does the student have a disability under either Section 504 or Special Education?</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Has the IEP or 504 team determined that the student has a physical impairment?</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Does student have significant motor impairment that interferes with writing or exhibit extreme motor/physical fatigue as a result of the physical impairment?</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Do the Accommodations written in the IEP include Scribe and Assistive Technology in the instruction section AND the standardized test section of the IEP or 504?</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Has assistive technology been introduced to the student?</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Has the AT been administered with fidelity?</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Is the student able to use the AT program on their own? Are they able to manipulate the program as needed to produce results? (i.e., on a test, they would be able to respondanswer questions without assistance.)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Data Collection Tool
This chart can be used to track different aspects of how a student uses an accommodation in your classroom and to help inform decision making on assessment accommodations.

Student ___________________________  Date ___________________

List accommodations the student uses in the classroom. Then apply the questions in the chart and record your observations.

<table>
<thead>
<tr>
<th>Questions</th>
<th>List Accommodations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Is it noted in student’s IEP, 504, or other formal plan?</td>
<td></td>
</tr>
<tr>
<td>2. For what task(s) is it used? (e.g., task type or content/standard)</td>
<td></td>
</tr>
<tr>
<td>3. Does the student use it for that task every time? Note how often.</td>
<td></td>
</tr>
<tr>
<td>4. Is the need for it fixed or changing?</td>
<td></td>
</tr>
<tr>
<td>5. Does the student use it alone or with assistance? (e.g., Aide, peers)</td>
<td></td>
</tr>
<tr>
<td>6. Notes: (e.g., does one accommodation seem more effective than another on a task, etc.)</td>
<td></td>
</tr>
</tbody>
</table>

Adapted from the Minnesota Manual for Accommodations for Students with Disabilities in Instruction and Assessment.
### Evaluation of Accommodation Use Form

*If you would like this chart in the Excel format, so that you can customize it for your use, please email Lamirande.1@cde.state.co.us or call 303-866-6863*
**After-Test Accommodations Interview**

*Use this form after a test to interview a student about the accommodations provided, ease of use, effectiveness, and whether it should be used again. Also, note any adjustments or difficulties experienced by the student in either how the accommodation was administered or in using the accommodation during the assessment.*

<table>
<thead>
<tr>
<th>Questions</th>
<th>Test Taken / Date</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>List accessibility features and accommodations provided</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Was the opportunity to use accessibility features and accommodations provided and routinely used during instruction?</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td></td>
</tr>
<tr>
<td>Was the accessibility feature used on assessment?</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td></td>
</tr>
<tr>
<td>Was the accommodation used on assessment?</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td></td>
</tr>
<tr>
<td>Was the accommodation useful?</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td></td>
</tr>
<tr>
<td>Were there any difficulties with the accommodation? (Are adjustments needed?)</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td></td>
</tr>
<tr>
<td>Should the accommodation be used again?</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td>Yes / No</td>
<td></td>
</tr>
</tbody>
</table>

**Student Comments:**

---

**Student signature**

**Assistant signature (if applicable)**
Section IV: Technology

Just as the use of accommodations on paper/pencil tests has increased awareness and use of accommodations in the classroom, so can the use of built-in accessibility features and accommodation features of computer-based tests encourage and increase the use of those features in classroom and other environments.

(adapted from Thompson, Thurlow, Quenemoen, & Lehr (2002)

Despite the potential advantages, computer-based instruction and assessment cannot take the place of quality instruction in the classroom. Simply improving access and providing various systems of delivery may not necessarily result in improved instruction. Improved learning depends upon the quality of instruction and not on the medium through which it is delivered. However, students must have access to information in order to have a fair chance at performing well. Think of technology as a way of improving access to quality instruction.

There is a plethora of software programs and websites available to educators that can help students develop the keyboarding skills and critical thinking skills needed for computer-based instruction and assessment. Obviously there are many considerations for using accessibility features, accommodations and assistive technology with computer-based instruction. It is beyond the scope of this manual to provide lists of every assistive technology device and available apps and software; however, some selected resources are offered in the Glossary of Instructional Accommodations. (See Section III)

Role of Computer Technology
Technology has been called “the great equalizer” in a classroom with diverse learners. For instruction, the primary goal of using technology for instruction and for assessment is to reduce or remove barriers that block access to information. However, assistive technology is not always just for students with disabilities; it can be used to help any student with motivation, academic skills, and social development. The sections below focus on different types of disabilities and special needs and offer descriptions of computer applications and devices can help make it possible for students with a disability to receive instruction. The following information is extracted and condensed from the article, “Use of Computer Technology to Help Students with Special Needs” by Ted S. Hasselbring and Candyce H. Williams Glaser.

Definition of Technology
Technology for students with special needs is defined by federal law as “any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities.” (Amendments to the Individuals with Disabilities Education act. Public Law 105-12, title I, part A § 602(3)(June 4, 1997)

Technology for Students with a Disability
The following sections list several types of computer activities that can be integrated into classroom instruction and may have benefits for students with a disability. (Information excerpted from Hassebring and Williams-Glaser, 2000 and other Internet sources.) Disability specialists should be consulted for more specific technology solutions for students; these are offered as general considerations. The field of technology is ever-changing with not only improvements, but also less expensive options. Remember—if there’s a roadblock for a student—there’s an app for that! This is by no means intended to be an exhaustive list. Additional suggestions may be found in the Tables A-N that correspond to Student Characteristics. See Section III: Tools.

Digital Literacy
The first priority is to use technology and media to expand readers’ access to, and successful understanding of, a range of texts for varied purposes. The second priority is to use technology and media to expand students’ composition and communication to include multimodal composition. In other
words, focus instructional time and resources on developing students who are strategic, successful, digital readers, and composers. This will require a shift in literate identity and self-efficacy – from a struggling reader/writer who feels inept in the academic world of text to someone who has confidence in his/her ability to read and compose with digital tools and media, and who understands how to leverage out-of-school literacies and technology skills for academic purposes (Alvermann, 2011).

| Technologies for Students with Learning and Behavioral Disorders | • Audio recordings of textbook material and answers to chapter or workbook questions; scan text and read aloud with synthesized or digital voice  
• Software that allows student to draw responses  
• Word processing- allows students to participate in writing activities with greater ease; screen masking to limit amount of material presented on the screen at once  
• Word prediction software – reduces the number of keystrokes that are required to type words and provides assistance with spelling. With audio allows students to hear their selections read back  
• Communication technologies – expands the learning environment and provides increased opportunity for collaborative learning  
• Networking technologies- allows access to electronically linked resources with the click of a mouse  
• Use of hypertext (text-based documents) and multimedia (text, photographs, television, video, sound, graphics) projects that allow students to express their knowledge other than in writing and also allows students to access learning material in different formats  
• Semantic mapping software for outlining and organizing writing |
|---|---|
| Technologies for students with Speech and Language Disorders | • AAC Devices – augmentative and alternative communication devices are designed to support or enhance speaking capability  
• Range from high tech to low tech—many options now available on the open market (e.g. iPad with iCommunicate)  
• Portable  
• Allow communication through word selection/pictures/graphics |
<table>
<thead>
<tr>
<th>Technologies for Students with Hearing Impairments</th>
<th>Technologies for Students with Visual Impairments</th>
</tr>
</thead>
</table>
| • May have incorporated synthetic or digital speech output  
  • Written output can be printed  
  • Word prediction software (e.g. Co: Writer)  
  • Talking word processor (e.g. Write: OutLoud)  
  • Use Voice Mail as a short recording method for students to record read aloud assignment from home | • Wide range of assistive listening devices (ALDs)  
  • Personal amplification (hearing aids/ cochlear implant)  
  • Captioning – video and real time (CART)  
  • Frequency-Modulated (FM) Amplification systems – link a teacher’s voice to the student’s hearing aid thereby reducing background noise; allows freedom of movement around the classroom  
  • Infrared Systems – transmit clean clear sound without the hassle of wires and cords  
  • TDDs – displays incoming and outgoing messages  
  • Telephone text messaging  
  • Captioned television  
  • Live Speech Captioning CART transcriptionist displays words as they are spoken on a computer monitor | • Large-print materials  
  • Specialized magnification lenses or electronic enlargement  
  • Taped recordings/podcast  
  • Braille translations  
  • Descriptive video services (DVS)- provide narrative verbal descriptions of visual elements; enabled on televisions with SAP switch so user can hear descriptive video, such as sets, costumes, characters’ physical description, and facial expressions.  
  • Synthetic and digital speech synthesizers; referred to as text-to-speech or screen readers; reads aloud any text found on the computer screen; facilitates rereading and editing for previously written text  
  • Closed-Circuit Television Magnification (CCTV)-projects text or graphic material from a camera lens to a video monitor |
<table>
<thead>
<tr>
<th>Technologies for Students with Severe Physical Disabilities</th>
<th>Barriers to Effective Use of Technology for Students with Disabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Optical Character Recognitions (OCR) allows books or textbooks to be placed on a scanner and have the text interpreted and read using synthetic or digital speech</td>
<td>- Lack of appropriate technology training for teachers, both pre-service and in-service teachers, to carry out a plan of action</td>
</tr>
<tr>
<td>- Braille Notetakers-small portable devices that enable students to enter and store braille characters as words and/or sentences; allows text-to-speech review; capable of printing standard text into braille or paperless “refreshable braille”</td>
<td>- Cost or perceived cost (many technologies are</td>
</tr>
<tr>
<td>- Digital audio recorders for recording lectures and later playback and review</td>
<td></td>
</tr>
</tbody>
</table>

Technologies for Students with Severe Physical Disabilities

- Switches to control access to adaptive devices promote independence
- Alternative input devices can assist or replace the use of a traditional keyboard
- Adaptive keyboards-replace standard keys with larger keys; reduced number of keys on the keyboard; keys in alphabetical order; brightly colored keys; keys more sensitive to touch
- Infrared sensors with pneumatic switches worn on the head to move the cursor on the screen; activated by inhaling or exhaling through a plastic tube enables the user to move the mouse by a “sip and puff” to type out information on a keyboard displayed on the monitor
- Voice recognition systems-bypasses the keyboard by using voice commands that are programmed into the computer; allow students to operate application programs, dictate to a word processor and enter data into spreadsheets
- Specially designed equipment
- Touch-Sensitive Screens with multiple screen overlays that can be used for a variety of tasks
- Alternate pencil – alphabet flip chart for partner assisted scanning
- Eye gaze frame
  [http://www.med.unc.edu/ahs/clds/products/available-or-purchase](http://www.med.unc.edu/ahs/clds/products/available-or-purchase)
Adapting Content with Technology

Just as the use of technology can offer multiple means of presentation, response and engagement, it also can provide a way for curriculum content to be accessible for students with a disability. It is always important to keep in mind that you begin with the needs of the learner, and let the technology follow. The real power of technology lies within the teacher’s ability to customize and differentiate instruction through content, process, product and environment, according to student readiness, interest and learning style. Technology can facilitate both using different content to teach the same subject to students with different needs and to also enhance or augment existing content to make it accessible to all students.

Inherent within the nature of technology is rapid design and development. Now with the use of the worldwide web, the range of resources for teachers and students seems to be almost without limit. While it would be a near impossibility to list all of them, the following list of resources have been gleaned from the literature and are referenced under Resources on the Section IV: Technology Contents page. Teachers should review and select with discretion; some resources are free while others may require a fee. CDE makes no recommendation or endorsement of vendor products.

Teacher Resources

TechMatrix is sponsored by the National center for Technology Innovation and the Center for Implementing Technology in Education. The consumer guides and links to software and assistive technology devices provide help resources for teaching science, math, reading and writing using technology for students with a disability.


The Statewide Augmentative Alternative Communication (SWAAAC) project provides a wide variety of cost effective, readily accessible support services all around the state of Colorado. Access the SWAAAC Guidelines Manual http://www.swaaac.com/

Assistive Technology Internet Modules- OCALI project offers online training modules- (FREE! Unless you want certificates, then it’s $10 for each hour) http://www.atinternetmodules.org

Using Technology to Access Content

Video: http://www.learnnc.org/lp/multimedia/19117

* Videos are associated with the article “Inclusion in the 21st-century Classroom: Differentiating with Technology” (Hobgood and Ormsby (2011)
<table>
<thead>
<tr>
<th>Learner Characteristics</th>
<th>Technology Resource</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Also Reference Tables A-N in Section III</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*Teacher-created online survey tools to ask students about their preferred learning styles or engage in response.</td>
<td>SurveyMonkey / Zoomerang</td>
<td>Student responds to teacher-posed questions</td>
</tr>
<tr>
<td></td>
<td>PollEverywhere</td>
<td>Clickers to poll and capture data on a group of students</td>
</tr>
<tr>
<td></td>
<td>PollDaddy</td>
<td>Hand-held text messaging devices such as iPod Touches</td>
</tr>
<tr>
<td>Difficulty organizing thoughts</td>
<td>Bubbl.us</td>
<td>Create concept map</td>
</tr>
<tr>
<td>Difficulty understanding and remembering relationships</td>
<td>Inspiration or Kidspiration</td>
<td>Graphic organizer</td>
</tr>
<tr>
<td></td>
<td>Read,Write,Think</td>
<td>Apps for digital literacy</td>
</tr>
<tr>
<td>Difficulty writing</td>
<td>Glogster</td>
<td>Journaling tool</td>
</tr>
<tr>
<td></td>
<td>Voice Thread</td>
<td>Can capture student’s voice and photos to narrate their own projects</td>
</tr>
<tr>
<td></td>
<td>Science Writer</td>
<td>Writing tool for MS/HS students to scaffold through the process of writing a science report</td>
</tr>
<tr>
<td></td>
<td>Sounding Board</td>
<td>iPad/iPod Touch app to use as a storyboard communicator</td>
</tr>
<tr>
<td></td>
<td>First Author Writing Software</td>
<td>Don Johnston software tools</td>
</tr>
<tr>
<td></td>
<td>Co: Writer and Write:OutLoud</td>
<td>word prediction with audio, homonym checker, and spell check; USB device available (fee)</td>
</tr>
<tr>
<td></td>
<td>ClaroRead</td>
<td></td>
</tr>
<tr>
<td>Prefers choice</td>
<td>Think-Tac-Toe</td>
<td>Create boards to allow student to select assignment for differentiating instruction</td>
</tr>
</tbody>
</table>
| Tactile issues | Bamboo drawing pads (Wacom)  
\textit{Scribble Screen} download (Mac) | Encourages students to write their work in order to see where errors occur |
|---|---|---|
| Needs high interest leveled reading | \textit{Time for Kids}  
\textit{Newsela}  
\textit{Education City}  
\textit{iReady}  
\textit{Start-to-Finish Online}  
\textit{International Children’s Library}  
\textit{Tumble Book Library} | Current events for Kids  
Current events with ability to adjust Lexile level  
Online activities and interactive whiteboard activities  
Curriculum Associates  
Don Johnston – accessible library  
Digital library- pictures books in 61 languages  
ebooks |
| Difficulty with phonics / spelling | \textit{Simon S.I.O.}  
\textit{WordMaker}  
\textit{Write to Learn} | Don Johnston – accessible phonics and spelling  
Improve writing quality with formative feedback |
| Difficulty attending to lecture or reading lengthy text | Video-streaming subscription site offers searchable database for topics and levels; includes closed-captioning to reinforce language and vocabulary with spoken and written speech at the same time.  
\textit{Dictionary Support}  
\textit{Discovery Education Streaming}  
\textit{Screen reading software} | Provides verbal and textual input that can be supplemented with visual reinforcement by video or images  
Support for word meaning  
Digital textbooks  
Reads aloud text from a webpage or document using synthesized voice (student wears headphones) |
| Benefits from visual support to augment background knowledge | \textit{Flickr}  
\textit{MorgueFiles} | Searchable access to images  
(Check with district IT to allow access) |
<table>
<thead>
<tr>
<th>Needs alternate response mode</th>
<th><strong>PollEverywhere.com</strong></th>
<th>Allows student response via cell phones with text messaging</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enjoys gaming</td>
<td>(older students) <strong>Quest Atlantis</strong></td>
<td>Explore Virtual worlds</td>
</tr>
<tr>
<td>Needs same content at different levels of text complexity</td>
<td>Textbook publisher’s digital textbook offer a variety of supports, such as pronunciation guides, text-to-speech, vocabulary support and features to allow the reader to format text to improve readability. Visit the publisher’s website.</td>
<td>Digital format can incorporate interactive media directly within the text. Digital textbooks, eBooks and audiobooks provide both online and CD-based options</td>
</tr>
<tr>
<td></td>
<td><strong>Bookshare</strong></td>
<td>Federally funded; allows registered users to download books, textbooks, and newspapers that can be accessed by text-to-speech readers</td>
</tr>
<tr>
<td></td>
<td><strong>CAST UDL book Builder</strong></td>
<td>Free digital book database and book builder to create, share, publish and read digital books</td>
</tr>
<tr>
<td></td>
<td><strong>Tarheel Reader</strong></td>
<td>Univ. of NC at Chapel Hill Center for Literacy and Disability Studies offers support for students with significant support needs. Tarheelreader is a growing free library of accessible, beginning level readers for students of all ages. You have access to images and can write your own books.</td>
</tr>
<tr>
<td></td>
<td><strong>Exemplar Text Support</strong></td>
<td>Reading passages can be copied and pasted into Microsoft Word to allow students to use such tools as highlighting, and grammar support. The comment feature can facilitate editing.</td>
</tr>
<tr>
<td></td>
<td><strong>Microsoft Word</strong></td>
<td>Adobe acrobat can read aloud any document in pdf format</td>
</tr>
<tr>
<td></td>
<td><strong>Adobe Acrobat pdf (under View) enable read aloud (free)</strong></td>
<td></td>
</tr>
</tbody>
</table>
Using Technology to Differentiate by Process

Video: http://www.learnnc.org/lp/multimedia/19120

Information excerpted from Hobgood and Ormsby’s article “Inclusion in the 21st-century classroom: Differentiating with Technology” to offer a variety of ways teachers can use technology to differentiate by process.

<table>
<thead>
<tr>
<th>Flexible Grouping allows teachers to prepare for two, three or four basic groups</th>
<th>Organize groups according to</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Ability/readiness</td>
</tr>
<tr>
<td></td>
<td>• Interest</td>
</tr>
<tr>
<td></td>
<td>• Learning profile</td>
</tr>
<tr>
<td></td>
<td>Group students differently depending on the type of activity or learning objective and allow students to move between groups.</td>
</tr>
</tbody>
</table>

| Processing and Recording Information | Technology can support notetaking and math calculation. Microsoft Word offers a free Mathematics Add-in to create graphs and solve equations within a word processor. |

| Manipulating Information | Virtual manipulatives can be helpful for students with processing difficulties or kinesthetic learners. National Library of Virtual Manipulatives is supported by the National Science Foundation |

| Extending Access to class content beyond the instructional period | Online course platforms like Moodle and Blackboard |
## Online class access

- Free tools: wikis and template-driven website creators like [Google Sites](http://sites.google.com) and [Weebly](http://weebly.com)

## Whiteboard capture

- Print out notes from interactive whiteboard lesson

## Narrated PowerPoint

- Student can review and hear teacher explanation as many times as desired

## Using Technology to Differentiate by Product

### Video: [http://www.learnnc.org/lp/multimedia/19120](http://www.learnnc.org/lp/multimedia/19120)

By providing multiple means of engagement, a student can then demonstrate mastery through various products.

<table>
<thead>
<tr>
<th>Blogs, Wikis and other Writing Platforms</th>
<th>Class Blogmeister – free secure environment for students to share and comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microsoft Word</td>
<td>Spell check; grammar check; Text-to-Speech add-ins support auditory proofing</td>
</tr>
</tbody>
</table>

### Demonstrating understanding through various media:

<table>
<thead>
<tr>
<th>Digital Posters</th>
<th><a href="http://weebly.com">Glogster EDU</a> (make sure you select the educational version); incorporate images, videos, audio recordings and drawings with text  Video: <a href="http://digitalstorytelling.coe.uh.edu/">Digital Posters</a>: Composing with an Online Canvas (Hodgson)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VoiceThread</td>
<td>Allows response to a topic using text, audio, video or images; responses can be recorded</td>
</tr>
</tbody>
</table>

### Digital storytelling

- [Apple iMovie](http://imovie.com)
- [Audacity](http://audacity.sourceforge.net)
- [Microsoft Photo Story 3](http://windows.microsoft.com)
- [Photoshop Elements](http://www.adobe.com/products/photoshop-elements)
| **Cowbird** | Cowbird is a public library of human experience, offering a simple set of storytelling tools — for free, and without ads (older students; need to prescreen content) |
| **Digital Book Talk, Book Trailers K-12** | Preview books |
| **Audio Editing Software** | |
| **Evaluating Student Products** | Create clear guidelines for evaluation using a rubric. |
| | *Rubistar* – free rubric generator |
| | *The 5 Best Free Rubric Making Tools for Teachers* |
| **Smart Pen** | Allows students to record notes matched to the audio recording of the lecture; can also display on a computer screen. Smart Pen paper can be cut into strips and taped into a regular book to create an audio book. |
| | *www.livescribe.com* |
Using Technology to Differentiate by Environment

Video: http://www.learnnc.org/lp/multimedia/19118

Support all learners by manipulating the environment and considering these elements:

<table>
<thead>
<tr>
<th>Control Chaos</th>
<th>For students with processing issues, controlling the ambient noise of a classroom is a consideration. Using individual student headsets allow access without disturbing other students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensory Experience</td>
<td>Providing technology can help students who have sensory aversion to such things as the feel of a pencil or the sound of pencil on paper (e.g. paper with raised/colored lines, liquid graphite pencils)</td>
</tr>
<tr>
<td>Culturally Inclusive Classrooms</td>
<td>Provide access to a variety of materials with a rich global perspective to allow each class member to feel valued. Integrate culture and experiences across content areas with virtual field trips and visits to art museum galleries online</td>
</tr>
<tr>
<td>Photostory</td>
<td>Video: <a href="http://www.learnnc.org/lp/multimedia/19121">http://www.learnnc.org/lp/multimedia/19121</a></td>
</tr>
</tbody>
</table>

Assessing Student Proficiency with Technology Features

Naturally, a student’s proficiency with technology will increase with familiarity and practice. The best way to prepare students for online assessment is to expose the student to a wide variety of computer-based instruction. Learning to navigate the program by clicking icons to enable certain features will lead to increased confidence. However, there are basic skills that every student needs to address either directly with a keyboard or with assistive technology. Please consult with your district’s assistive technology specialist, and other related service personnel to craft a means for every student to access instruction.

These two samples are offered as resources for teachers as they first assess students’ technology skills and then plan instruction for developing competency with technology skills. Neither resource is based on Colorado Academic Standards, but can perhaps serve as an inventory of fundamental skills.

1. Example: Click on this link: Kentucky technology Skills Checklist for Online Assessment. This tool is a product of a grant and was produced in collaboration with CAST. One of the research activities of the project was to identify the prerequisite skills for students to successfully access and use a computer-based assessment. The Kentucky assessment, CATS, is specifically mentioned, but parallels can be projected for use with Colorado’s new online assessments. The tool is designed to:
1) analyze specific online assessments to determine necessary skills for all students

2) inventory skills each student can demonstrate and identify what skills are needed prior to taking online assessment

2. Example: Click on this link: Elementary Technology Literacy Guide-Plano, Texas ISD

3. Educator Tools for teaching digital literacy http://www.digitalliteracy.gov/content/educator

4. Common Core State Standards K-12 Technology Skills Scope and Sequence (Long Beach Unified School District)

References for Section IV


Technology Skills Checklist for Online Assessment, developed by: Jo Fleming, PhD; Jacqueline Kearns, EdD.; Preston Lewis, MA; Ashley Dethloff, MA; Robert Dolan, PhD; Linnie Lee, BME. The Universal Design of Assessment: Applications of Technology Project ; Office of Special Education Programs (Grant Number H324D020016); affiliated with the Interdisciplinary Human Development Institute at the University of Kentucky. (2005) Available on the web at http://www.hdi.uky.edu/Ilsaa/_Closed/uda/Files/TechnologyChecklistKY11-21-05.pdf


Wiener, Daniel , Thurlow, Martha. Creating Accessible PARCC Reading Assessments: Separating the Constructs and Providing Text-to-Speech Accommodations for Students with Disabilities. PARCC White Paper available on the web at http://ca539dfd55636c55e922-fd4c048d1c793e15a27f954b34a49d25.r49.cfl.rackcdn.com/PARCCAccessibleReadingAssessmentsPaperFINAL_0.pdf

Thank you for accessing the *Colorado Instructional Accommodations Manual*. Should you find a broken link or error, please contact Linda Lamirande at Lamirande_L@cde.state.co.us