

# Unit Title: Our World

## INSTRUCTIONAL UNIT AUTHORS

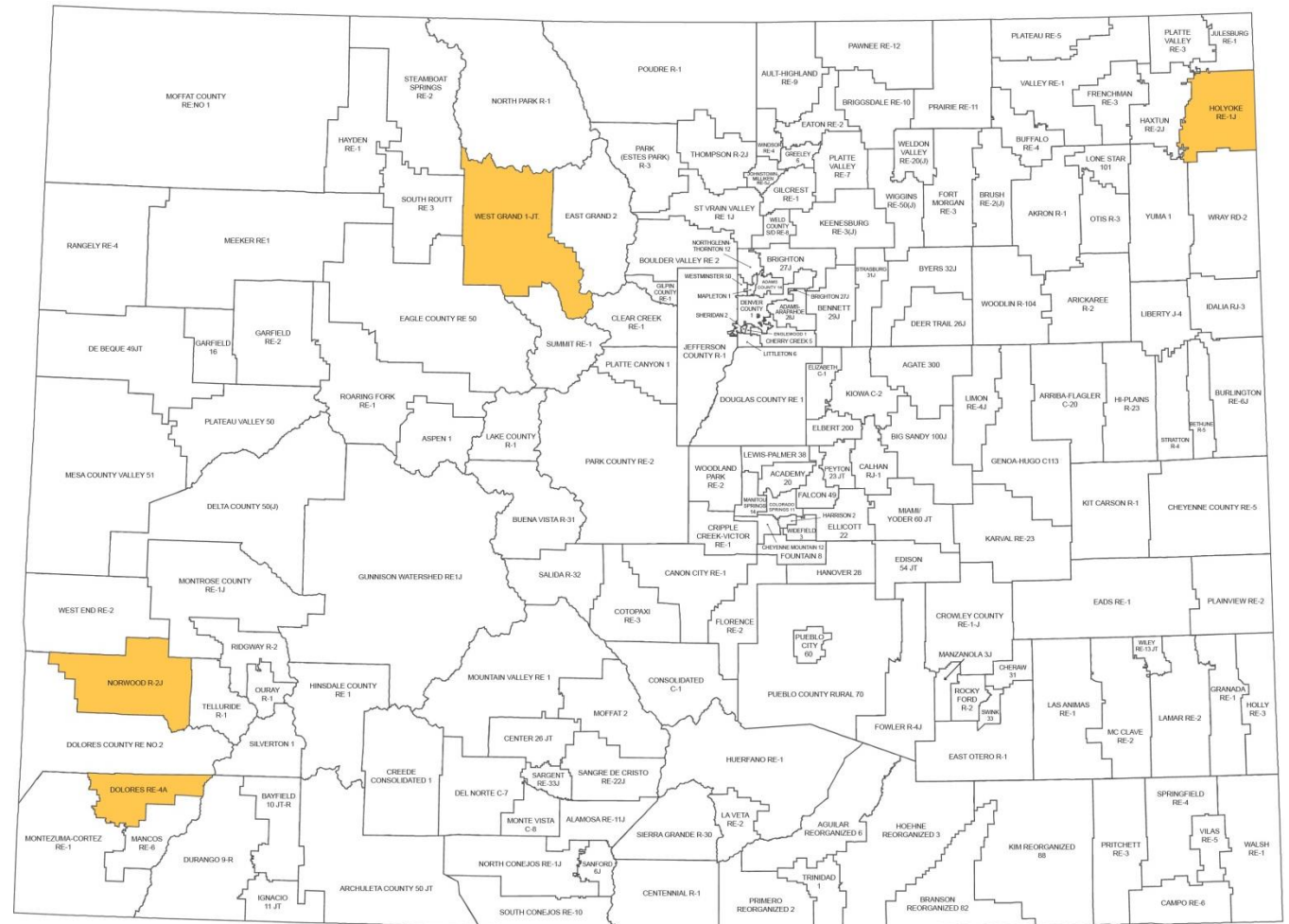
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*This unit was authored by a team of Colorado educators. The template provided one example of unit design that enabled teacher-authors to organize possible learning experiences, resources, differentiation, and assessments. The unit is intended to support teachers, schools, and districts as they make their own local decisions around the best instructional plans and practices for all students.*

**Colorado Teacher-Authored Sample Instructional Unit**

<b>Content Area</b>	Reading, Writing, and Communicating	<b>Grade Level</b>	2 <sup>nd</sup> Grade
<b>Course Name/Course Code</b>			

<b>Standard</b>	<b>Grade Level Expectations (GLE)</b>	<b>GLE Code</b>
1. Oral Expression and Listening	1. Discussions contribute and expand on the ideas of self and others	RWC10-GR.2-S.1-GLE.1
	2. New information can be learned and better dialogue created by listening actively	RWC10-GR.2-S.1-GLE.2
2. Reading for All Purposes	1. Fluent reading depends on specific skills and approaches to understanding strategies when reading literary text	RWC10-GR.2-S.2-GLE.1
	2. Fluent reading depends on specific skills and approaches to understanding strategies when reading informational text	RWC10-GR.2-S.2-GLE.2
	3. Decoding words with accuracy depends on knowledge of complex spelling patterns and morphology	RWC10-GR.2-S.2-GLE.3
3. Writing and Composition	1. Exploring the writing process helps to plan and draft a variety of literary genres	RWC10-GR.2-S.3-GLE.1
	2. Exploring the writing process helps to plan and draft a variety of simple informational texts	RWC10-GR.2-S.3-GLE.2
	3. Appropriate spelling, capitalization, grammar, and punctuation are used and applied when writing	RWC10-GR.2-S.3-GLE.3
4. Research and Reasoning	1. Reference materials help us locate information and answer questions	RWC10-GR.2-S.4-GLE.1
	2. Questions are essential to analyze and evaluate the quality of thinking	RWC10-GR.2-S.4-GLE.2

**Colorado 21<sup>st</sup> Century Skills**

**Critical Thinking and Reasoning:** *Thinking Deeply, Thinking Differently*

**Information Literacy:** *Untangling the Web*

**Collaboration:** *Working Together, Learning Together*

**Self-Direction:** *Own Your Learning*

**Invention:** *Creating Solutions*

**Common Core Reading Foundational Standards**

**Phonics and Word Recognition:** [CCSS.RF.2.3](#) Know and apply grade-level phonics and word analysis skills in decoding words.

[CCSS.RF.2.3a](#) Distinguish long and short vowels when reading regularly spelled one-syllable words.

[CCSS.RF.2.3b](#) Know spelling-sound correspondences for additional common vowel teams.

[CCSS.RF.2.3c](#) Decode regularly spelled two-syllable words with long vowels.

[CCSS.RF.2.3d](#) Decode words with common prefixes and suffixes.

[CCSS.RF.2.3e](#) Identify words with inconsistent but common spelling-sound correspondences.

[CCSS.RF.2.3f](#) Recognize and read grade-appropriate irregularly spelled words.

**Fluency:** [CCSS.RF.2.4](#) Read with sufficient accuracy and fluency to support comprehension.

[CCSS.RF.2.4a](#) Read grade-level text with purpose and understanding.

[CCSS.RF.2.4b](#) Read grade-level text orally with accuracy, appropriate rate, and expression.

[CCSS.RF.2.4c](#) Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

<b>Unit Titles</b>	<b>Length of Unit/Contact Hours</b>	<b>Unit Number/Sequence</b>
Our World	4-6 weeks	4

**Colorado Teacher-Authored Sample Instructional Unit**

<b>Unit Title</b>	Our World		<b>Length of Unit</b>	4-6 weeks
<b>Focusing Lens(es)</b>	Innovation	<b>Standards and Grade Level Expectations Addressed in this Unit</b>	RWC10-GR.2-S.1-GLE.1 RWC10-GR.2-S.2-GLE.1 RWC10-GR.2-S.2-GLE.2	RWC10-GR.2-S.3-GLE.1 RWC10-GR.2-S.3-GLE.2 RWC10-GR.2-S.3-GLE.3 RWC10-GR.2-S.4-GLE.1 RWC10-GR.2-S.4-GLE.2
<b>Inquiry Questions (Engaging-Debatable):</b>	<ul style="list-style-type: none"> <li>How do people know if information is relevant, significant, and accurate? (RWC10-GR.2-S.4-GLE.1-EO.a) and (RWC10-GR.2-S.4-GLE.1-IQ.1)</li> <li>Which innovator do you think impacted our world the most? Explain why. (RWC10-GR.2-S.2-GLE.2-N.1) and (RWC10-GR.2-S.3-GLE.1-EO.a) and (RWC10-GR.2-S.3-GLE.2-EO) and (RWC10-GR.2-S.3-GLE.2-N.3.4)</li> </ul>			
<b>Unit Strands</b>	Oral Expression and Listening, Reading for All Purposes, Writing and Composition, Research and Reasoning			
<b>Concepts</b>	<b>In content:</b>	<b>In reading:</b>	<b>In writing:</b>	
	innovation, space, interdependence, cause/effect, order, communication, energy, change, systems	phonics, fluency, comprehension, vocabulary, phonological awareness	phonics, fluency, comprehension, vocabulary, phonological awareness, spelling	

<b>Generalizations</b> My students will <b>Understand</b> that...	<b>Guiding Questions</b>	
	<b>Factual</b>	<b>Conceptual</b>
Reading fluency (reading rate, accuracy, prosody) depends on mastery of early reading skills. (RWC10-GR.2-S.2-GLE.3-EO.b)*	Have students developed the required facility with early reading skills?	Have students developed the required facility with early reading skills?
Knowledge of complex spelling patterns and morphology provides readers with greater spelling skill, decoding ability, and vocabulary? (RWC10-GR.2-S.2-GLE.3-EO.a.i)*	Does a word's morphology give us clues as to its meaning? Give examples.	How might I use a word's spelling to determine its meaning? How might I use a word's spelling to determine other related words?
Appropriate usage of spelling patterns, conventions, and grammar, and punctuation represent the hallmarks of effective writing. (RWC10-GR.2-S.3-GLE.3)*	Name all of the end punctuation marks used in English. What meaning do they imply?	Why is effective punctuation, spelling, and grammar important?

**Colorado Teacher-Authored Sample Instructional Unit**

<p>Innovators and the impact of their inventions are often powerfully communicated through informational text (RWC10-GR.2-S.1-GLE.2-EO.b) and (RWC10-GR.2-S.1-GLE.2-RA.5) and (RWC10-GR.2-S.1-GLE.2-N.1)</p>	<p>What are innovators? (RWC10-GR.2-S.4-GLE.1-EO.a)                  Can you be considered an innovator? (RWC10-GR.2-S.4-GLE.1-EO.e) and (RWC10-GR.2-S.4-GLE.1-N.1)                  What are innovations that were made to travel to space? (RWC10-GR.2-S.2-GLE.1-E.a.i) and (RWC10-GR.2-S.2-GLE.1-EO.d.i) and (RWC10-GR.2-S.2-GLE.1-RA.3) and (RWC10-GR.2-S.2-GLE.2-EO.a.iii)</p>	<p>How are different literary genres different in form and substance (RWC10-GR.2-S.3-GLE.1-IQ.1.3) and (RWC10-GR.2-S.2-GLE.1-EO.b.v)                  Which innovator do you think impacted our world the most? Explain why. (RWC10-GR.2-S.2-GLE.2-N.1) and (RWC10-GR.2-S.3-GLE.1-EO.a) and (RWC10-GR.2-S.3-GLE.2-N.3.4)</p>
<p>Systems often depend upon the maintenance of relationships in order to run/function successfully. (RWC10-GR.2-S.1-GLE.2-EO.a.iii) and (RWC10-GR.2-S.1-GLE.2-EO.b) and (RWC10-GR.2-S.1-GLE.2-N.1) and (RWC10-GR.2-S.2-GLE.2-EO.d)</p>	<p>What causes the planets to move in our solar system? (RWC10-GR.2-S.2-GLE.2-EO.a.i.iv) and (RWC10-GR.2-S.2-GLE.2-EO.b.i.ii) and (RWC10-GR.2-S.2-GLE.2-EO.d) and (RWC10-GR.2-S.2-GLE.2-N.1.2)                  Are farmers’ innovators who are dependent upon others? (RWC10-GR.2-S.1-GLE.2-EO.a.iii) and (RWC10-GR.2-S.1-GLE.2-EO.b) and (RWC10-GR.2-S.1-GLE.2-N.1) and (RWC10-GR.2-S.2-GLE.2-EO.d)</p>	<p>How would the orbit of the planets change if the sun had no gravitational pull? (RWC10-GR.2-S.4-GLE.1-EO.d) and (RWC10-GR.2-S.3-GLE.2-EO.a.c.e.f.g)                  What other systems can you think of that are interdependent?(RWC10-GR.2-S.3-GLE.2-EO.d)</p>
<p>Innovators, like authors, must understand purpose and audience in order to communicate effectively. (RWC10-GR.2-S.1-GLE.1-EO.f) and (RWC10-GR.2-S.3-GLE.2-EO.a)</p>	<p>Was Thomas Edison an innovator, did he communicate his idea? How? (RWC10-GR.2-S.3-GLE.2-N.1) and (RWC10-GR.2-S.3-EO.a)                  Were the Wright Brothers innovators? How did their idea get communicated?</p>	<p>What form of communication do you consider to be the best? (RWC10-GR.2-S.3-GLE.3-EO.b)                  Who would you write a letter to asking how they came up with their idea? (RWC10-GR.2-S.3-GLE.2-EO.b)                  What would your new innovation be? (RWC10-GR.2-S.1-GLE.1-IQ.4) and RWC10-GR.2-S.4-GLE.1-EO.b; N.1)</p>
<p>English conventions represent a system that writers understand and employ to communicate with various audiences. (RWC10-GR.2-S.3-GLE.3)</p>	<p>How does the spelling change the meaning of a word? (RWC10-GR.2-S.3-GLE.3-IQ.1)                  How can the use of punctuation change the meaning of a sentence? (RWC10-GR.2-S.3-GLE.3-IQ.2)                  Why are uppercase/capital letters important in writing? (RWC10-GR.2-S.3-GLE.3-IQ.5)</p>	<p>What would happen if everyone wrote in their own way? (RWC10-GR.2-S.1-GLE.1-N.1) and (RWC10-GR.2-S.2-GLE.1-EO.e)</p>

<p><b>Critical Content:</b>                      My students will <b>Know</b>...</p>	<p><b>Key Skills:</b>                      My students will be able to <b>(Do)</b>...</p>
<ul style="list-style-type: none"> <li>Grade-level phonics and word analysis skills. <a href="#">CCSS: RF.2.3</a> (RWC10-GR.2-S.2-GLE.3-EO.a)</li> <li>Specific vocabulary related to topic. (RWC10-GR.2-S.1-GLE.1-EO.f)</li> <li>Key ideas from text to support and extend understanding. (RWC10-GR.2-S.1-GLE.2-EO.b)</li> </ul>	<ul style="list-style-type: none"> <li>Distinguish long and short vowels when reading regularly spelled one-syllable words. <a href="#">CCSS: RF.2.3a</a> (RWC10-GR.2-S.2-GLE.3-EO.a.i)</li> <li>Know spelling-sound correspondences for additional common vowel teams. <a href="#">CCSS: RF.2.3b</a> (RWC10-GR.2-S.2-GLE.3-EO.a.ii)</li> <li>Decode regularly spelled two-syllable words with long vowels. <a href="#">CCSS: RF.2.3c</a></li> </ul>

### Colorado Teacher-Authored Sample Instructional Unit

- Formal and informal English and appropriate usage. (RWC10-GR.2-S.2-GLE.1-EO.e)
  - Various text features that explain, describe, or answer a question. (RWC10-GR.2-S.2-GLE.2-EO.b.ii)
  - Ways diagrams and other images support the text. (RWC10-GR.2-S.2-GLE.2-EO.c.i)
  - The appropriate occasions to use questioning techniques (such as *who*, *what*, *where*, *when*, *why*, and *how*) (RWC10-GR.2-S.2-GLE.2-EOa.i)
- (RWC10-GR.2-S.2-GLE.3-EO.a.iv)
  - Decode words with common prefixes and suffixes. [CCSS: RF.2.3d](#) (RWC10-GR.2-S.2-GLE.3-EO.a.v)
  - Identify words with inconsistent but common spelling-sound correspondences. [CCSS: RF.2.3e](#) (RWC10-GR.2-S.2-GLE.3-EO.a.vi)
  - Recognize and read grade-appropriate irregularly spelled words. [CCSS: RF.2.3f](#) (RWC10-GR.2-S.2-GLE.3-EO.a.vii)
  - Read with sufficient accuracy and fluency to support comprehension. [CCSS: RF.2.4](#) (RWC10-GR.2-S.2-GLE.3-EO.b)
  - Read grade-level text with purpose and understanding. [CCSS: RF.2.4a](#) (RWC10-GR.2-S.2-GLE.3-EO.b.i)
  - Read grade-level text orally with accuracy, appropriate rate, and expression. [CCSS: RF.2.4b](#) (RWC10-GR.2-S.2-GLE.3-EO.b.ii)
  - Use context to confirm or self-correct word recognition and understanding, rereading as necessary. [CCSS: RF.2.4c](#) (RWC10-GR.2-S.2-GLE.3-EO.b.iii)
  - Describe connections between a series of historical events, scientific ideas or concepts, or steps in technical procedures in text. (RWC10-GR.2-S.2-GLE.2-EOa.iii)
  - Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently (RWC10-GR.2-S.2-GLE.2-EO.b.ii)
  - Use glossaries and beginning dictionaries, both print and digital, to determine or clarify the meaning of words and phrases (RWC10-GR.2-S.2-GLE.2-EO.e)
  - Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text (RWC10-GR.2-S.2-GLE.2-EO.c.i)
  - Write informative/explanatory texts in which they introduce a topic, use acts and definitions to develop points and provide a concluding statement or section (RWC10-GR.2-S.3-GLE2.EO.a)
  - Identify a variety of resources and the information they might contain (dictionary, trade book, library databases, Internet web page) (RWC10-GR.2-S.4-GLE.1-EO.a)
  - Identify a specific question and gather information for purposeful investigation and inquiry (RWC10-GR.2-S.4-GLE.1-EO.b)
  - Use text features to locate, interpret, and use information (table of contents, illustrations, diagrams, headings, bold type) (RWC10-GR.2-S.4-GLE.1-EO.c)
  - Use a variety of multimedia sources to answer questions of interest (RWC10-GR.2-S.4-GLE.1-EO.d)
  - Recall information from experiences or gather information from provided sources to answer a question (RWC10-GR.2-S.4-GLE.1-EO.e)

**Colorado Teacher-Authored Sample Instructional Unit**

**Critical Language:** includes the Academic and Technical vocabulary, semantics, and discourse which are particular to and necessary for accessing a given discipline.  
 EXAMPLE: A student in Language Arts can demonstrate the ability to apply and comprehend critical language through the following statement: *“Mark Twain exposes the hypocrisy of slavery through the use of satire.”*

<b>A student in _____ can demonstrate the ability to apply and comprehend critical language through the following statement(s):</b>	<p><i>“_____ was an innovator because _____ (provide text-based evidence here)_____.”</i></p> <p><i>“I am an innovator and communicated my invention by _____.”</i></p> <p><i>“If a poem gives information, it can also be called a nonfiction text.”</i></p>
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<b>Academic Vocabulary:</b>	order, interdependent, planet, orbit, gravity, communication, innovation, evaluation, research
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<b>Technical Vocabulary:</b>	automaticity, prosody, reading fluency, point(s) of view, narrator
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\*These generalizations reflect the significant developmental components of reading and writing instruction essential for student mastery of the Colorado Academic Standards; they thread across the entire year and, thus, are included in every unit overview at this grade level.

**Colorado Teacher-Authored Sample Instructional Unit**

<b>Unit Description:</b>	In this 4-6 week unit, students will study an innovator or invention of their choice. Through this process, students will read and analyze informational texts, including primary source documents such as inventors’ notebooks, to develop reading skills and to build knowledge on the topic of innovators and innovations. After reading and writing about innovators, students will produce an innovator’s notebook in which they explain their own innovation in an informational text which includes diagrams, drawings, and written text.
<b>Considerations:</b>	In this unit, the authors focused on exploring informational texts to learn about innovators and innovations. As a result, students will be responding to the readings and then creating their own informational texts about an innovator or invention. When students are producing their own informational text, they will be revisiting skills learned in the writing process in earlier writers’ workshop experiences.
<b>Unit Generalizations</b>	
<b>Key Generalization:</b>	Innovators, like authors, must understand purpose and audience in order to communicate effectively
<b>Supporting Generalizations:</b>	Innovators and the impact of their inventions are often powerfully communicated through informational text
	Systems often depend upon the maintenance of relationships in order to run/function successfully
	English conventions represent a system that writers understand and employ to communicate with various audiences
<b>Ongoing</b> <i>These Generalizations, addressed throughout the Unit (and the entire year), are explained below in the Ongoing Learning Experiences section.</i>	
<b>Ongoing Generalizations / Learning Experiences</b>	Reading fluency (reading rate, accuracy, prosody) depends on mastery of early reading skills
	Knowledge of complex spelling patterns and morphology provides readers with greater spelling skill, decoding ability, and vocabulary
	Appropriate usage of spelling patterns, conventions, and grammar, and punctuation represent the hallmarks of effective writing

<b>Performance Assessment:</b> <i>The capstone/summative assessment for this unit.</i>	
<b>Claims:</b> (Key generalization(s) to be mastered and demonstrated through the capstone assessment.)	Innovators, like authors, must understand purpose and audience in order to communicate effectively.
<b>Stimulus Material:</b> (Engaging scenario that includes role, audience, goal/outcome and explicitly connects the key generalization)	<p>Before there was an airplane, there were doodles of cool flying machines. And before there was a submarine, there were doodles of magical underwater sea explorers. Since the beginning of time, ideas big and small, practical and playful, have started out as doodles. And we’re ready for more! (Google)</p> <p>So imagine that you are a famous innovator. You get to write a book about innovation you have created and share your knowledge with the world. First, you will make an innovator’s notebook about the invention you are going to suggest should be made. You’ll want to include a reason why we need your invention. Then you are going to explain your invention with words and pictures. Remember, informational books have a table of contents, glossaries, bold print, and maybe headings for different sections of the book. At the end of the unit, you will get to present your innovator’s notebook at the “Innovators of the World Fair.”</p> <p><b>Role:</b> An Innovator  <b>Audience:</b> Classmates / other “innovators” / parents and community  <b>Format:</b> An innovator’s notebook  <b>Topic:</b> Your invention</p>

### Colorado Teacher-Authored Sample Instructional Unit

<b>Product/Evidence:</b> (Expected product from students)	After reading and researching the world of innovation and innovators, students will write an innovator’s notebook about their own innovation/invention and then present that information to peers, parents, and community. Their notebooks should include an introduction that tells what their invention is and why we need it; then pages with diagrams, drawings, pictures and other visuals as well as the words they write. Their innovator’s notebook should also include a table of contents, glossaries, bold print, and maybe headings for different sections of the book. Finally, the students may present their innovator’s notebook and innovation at an Innovation Fair.
<b>Differentiation:</b> (Multiple modes for student expression)	Students may <ul style="list-style-type: none"> <li>• Have a choice of the type of text (picture book, informational book, brochure, poster, newspaper article, etc.)</li> <li>• Deliver an oral presentation independent of their written product</li> <li>• Participate in a debate between innovators as part of the end project</li> </ul>

Texts for independent reading or for class read aloud to support the content	
Informational/Non-Fiction	Fiction
<p><i>Now and Ben: The Modern Inventions of Ben Franklin</i> by Gene Baretta (Lexile = 910)</p> <p><i>A Weed is a Flower: The Life of George Washington Carver.</i> by Alikei (Lexile = AD640)</p> <p><i>Dear Benjamin Banneker.</i> by Andrea Davis Pinkney (Lexile = AD1100* )</p> <p><i>Marvelous Mattie: How Margaret E. Knight Became an Inventor</i> by Emily Arnold McCully (Lexile = AD720)</p> <p><i>Levi Strauss and Blue Jeans</i> by Nathan Olson (Lexile = 480)</p> <p><i>Steve Jobs, Steve Wozniak and the Personal Computer</i> by Donald B. Lemke (Lexile = GN600*)</p> <p><i>Philo Farnsworth and the Television</i> by Ellen Strum Niz (Lexile = 580)</p> <p><i>Blunder or Brainstorm</i> by Nancy Polette (fact and fiction of famous inventors and inventions) (Lexile = Not available)</p> <p>*AD = Adult Directed for Read-Aloud</p> <p>*GN = Graphic Novel</p>	<p><i>The Wondrous Whirligig: The Wright Brothers' First Flying Machine</i> by Andrew Glass (Lexile = 690)</p>

Reading, Writing, and Communicating Ongoing Learning Experiences	
<p><b>Assessments:</b> Each of the Ongoing Learning Experiences will use assessments aligned with and identified in the READ Act: DIBELS, PALS, DRA2 to measure foundational reading skills. (Additional commercially available resources may be found on the READ Act Resource Bank of Approved Assessments found <a href="#">here.</a>) In addition, teachers may use other assessment resources to monitor student progress throughout the unit: CORE Phonics; Aimsweb resources; <a href="http://www.interventioncentral.org">www.interventioncentral.org</a> (Intervention Central), <a href="http://www.studentprogress.org">www.studentprogress.org</a> (Student Progress) as well as the skill-specific assessments found in basal reading programs.</p>	
<b>Ongoing Learning Experience #1</b>	Students will think like readers by knowing and applying grade-level phonics and word analysis skills in decoding words.
Skills:	<ul style="list-style-type: none"> <li>• Distinguish long and short vowels when reading regularly spelled one-syllable words. <a href="#">CCSS: RF.2.3a</a></li> <li>• Know spelling-sound correspondences for additional common vowel teams. <a href="#">CCSS: RF.2.3b</a></li> <li>• Decode regularly spelled two-syllable words with long vowels. <a href="#">CCSS: RF.2.3c</a></li> <li>• Decode words with common prefixes and suffixes. <a href="#">CCSS: RF.2.3d</a></li> </ul>



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	<ul style="list-style-type: none"> <li>Identify words with inconsistent but common spelling-sound correspondences. <a href="#">CCSS: RF.2.3e</a></li> <li>Recognize and read grade-appropriate irregularly spelled words. <a href="#">CCSS: RF.2.3f</a></li> </ul>
Teacher Resources:	<a href="https://www.indianriverschools.org/SiteDirectory/Curriculum/Reading/Documents/Florida_RF_activities_2.pdf">https://www.indianriverschools.org/SiteDirectory/Curriculum/Reading/Documents/Florida_RF_activities_2.pdf</a> (Resources for CCSS Reading Foundational skills under Standard 2.3) <a href="http://www.fcrr.org/studentactivities/02.htm">http://www.fcrr.org/studentactivities/02.htm</a> (Grade 2 fluency activities from FCRR) <a href="http://www.k12reader.com/common-core-standard/phonics-word-recognition/rf23/">http://www.k12reader.com/common-core-standard/phonics-word-recognition/rf23/</a> (Phonics worksheets and resources) <a href="http://tinyurl.com/q23u5km">http://tinyurl.com/q23u5km</a> (Resource from Thinkfinity for long and short vowels) <a href="http://tinyurl.com/npdshoa">http://tinyurl.com/npdshoa</a> (Resource from Thinkfinity for irregularly spelled words) <a href="http://tinyurl.com/phkp3tl">http://tinyurl.com/phkp3tl</a> (Resource from Thinkfinity for fluency)
<b>Ongoing Learning Experience #2</b>	Students will think like readers by reading with sufficient accuracy and fluency to support comprehension.
Skills:	<ul style="list-style-type: none"> <li>Read with sufficient accuracy and fluency to support comprehension. <a href="#">CCSS: RF.2.4</a></li> <li>Read grade-level text with purpose and understanding. <a href="#">CCSS: RF.2.4a</a></li> <li>Read grade-level text orally with accuracy, appropriate rate, and expression. <a href="#">CCSS: RF.2.4b</a></li> <li>Use context to confirm or self-correct word recognition and understanding, rereading as necessary. <a href="#">CCSS: RF.2.4c</a></li> </ul>
Teacher Resources:	<a href="http://www.fcrr.org/studentactivities/02.htm">http://www.fcrr.org/studentactivities/02.htm</a> (Grade 2 fluency activities from FCRR) <a href="http://tinyurl.com/nq9mzjn">http://tinyurl.com/nq9mzjn</a> (Resources from Thinkfinity for CCSS Standard 2.4)
<b>Ongoing Learning Experience #3</b>	Students will think like writers by applying appropriate usage of spelling patterns, conventions, grammar, and punctuation -- the hallmarks of effective writing.
Skills:	Use glossaries and beginning dictionaries, both print and digital, to determine or clarify the meaning of words and phrases
Teacher Resources:	<a href="http://www.watchknowlearn.org/Category.aspx?CategoryID=1075">http://www.watchknowlearn.org/Category.aspx?CategoryID=1075</a> (Using reference tools) <a href="http://www.internet4classrooms.com/grade_level_help/research_references_language_arts_second_2nd_grade.htm">http://www.internet4classrooms.com/grade_level_help/research_references_language_arts_second_2nd_grade.htm</a> (Using reference materials from <a href="http://www.internet4classrooms.com">www.internet4classrooms.com</a> )

<b>Prior Knowledge and Experiences</b>	
<p><b>Students should have prior knowledge and experiences in the following literacy skills:</b></p> <p><b>Writing:</b> sentence structures, writing process (planning, drafting, revising, editing)</p> <p><b>Reading:</b> different types of writing (narrative, descriptive, /informational)</p> <p><b>Research:</b> identifying facts, fiction (make believe) vs. non-fiction (true) texts, different online resources (National Geographic, etc.)</p> <p><b>Presenting:</b> author’s chair, brief presentations, listening and speaking skills for presentations, show-and-tell experiences, conferencing (peer, teacher, small groups, etc.)</p>	

**Colorado Teacher-Authored Sample Instructional Unit**

<b>Learning Experience # 1</b>		
The teacher may brainstorm innovators and inventions so that students can begin thinking about how creativity and creative thinkers have impacted their lives.		
<b>Generalization Connection(s):</b>	Innovators and the impact of their inventions are often powerfully communicated through informational text	
<b>Teacher Resources:</b>	<a href="http://www.pbs.org/teachers/thismonth/innovtion/index1.html">www.pbs.org/teachers/thismonth/innovtion/index1.html</a> (Although aimed for 3rd grade, teachers may use this site for additional resources and relevant vocabulary) <a href="http://www.primaryschoolatsage.weebly.com/sage-innovation-fair.html">www.primaryschoolatsage.weebly.com/sage-innovation-fair.html</a> (This site includes graphic organizers and journaling pages) <a href="http://www.applesforteachers.com">www.applesforteachers.com</a> (This site includes a large list of children’s books and resources for inventors and inventions) <i>Blunder or Brainstorm</i> by Nancy Polette (Fact and fiction of famous inventors and inventions) <a href="http://www.schoolexpress.com/wordwalls/wordwalls.php">http://www.schoolexpress.com/wordwalls/wordwalls.php</a> (Site to create word-wall flash cards) <a href="https://www.teachervision.com/science/graphic-organizers/32137.html">https://www.teachervision.com/science/graphic-organizers/32137.html</a> (Word web graphic organizer)	
<b>Student Resources:</b>	N/A	
<b>Assessment:</b>	Students will create an interactive word wall of their vocabulary words related to innovation. <a href="http://www.schoolexpress.com/wordwalls/wordwalls.php">http://www.schoolexpress.com/wordwalls/wordwalls.php</a> (Site to create word-wall flash cards)	
<b>Differentiation:</b> (Multiple means for students to access content and multiple modes for student to express understanding.)	<b>Access</b> (Resources and/or Process)	<b>Expression</b> (Products and/or Performance)
	Teacher may ask leading questions to activate prior knowledge Teacher may allow students to think/pair/share	Students may brainstorm with partners Students may use sticky note parking lot to contribute words
<b>Extensions for depth and complexity:</b>	<b>Access</b> (Resources and/or Process)	<b>Expression</b> (Products and/or Performance)
	Teacher may lead students in thinking about word webs of related terms (invent/invention) <a href="https://www.teachervision.com/science/graphic-organizers/32137.html">https://www.teachervision.com/science/graphic-organizers/32137.html</a> (Word web graphic organizer)	Students may use cluster word webs to explore/define vocabulary words
<b>Critical Content:</b>	<ul style="list-style-type: none"> <li>• Specific vocabulary related to topic</li> </ul>	
<b>Key Skills:</b>	<ul style="list-style-type: none"> <li>• Identify a specific question and gather information for purposeful investigation and inquiry</li> <li>• Recall information from experiences or gather information from provided sources to answer a question</li> </ul>	
<b>Critical Language:</b>	Innovators, inventions, discover, anchor chart, graphic organizer, resource, research, presentation, vocabulary, conferencing, brainstorming	

**Colorado Teacher-Authored Sample Instructional Unit**

<b>Learning Experience # 2</b>	
The teacher may read fictional and/or informational texts (e.g. <i>Marvelous Mattie</i> or <i>The Wonder of Wings</i> ) about innovators so that students can begin identifying and categorizing inventors and inventions. [ <i>Understanding text</i> ]	
<b>Generalization Connection(s):</b>	Innovators and the impact of their inventions are often powerfully communicated through informational text
<b>Teacher Resources:</b>	<p><i>Now and Ben: The Modern Inventions of Ben Franklin</i> by Gene Baretta (Lexile = 910)</p> <p><i>A Weed is a Flower: The Life of George Washington Carver.</i> by Aliko (Lexile = AD640)</p> <p><i>Dear Benjamin Banneker.</i> by Andrea Davis Pinkney (Lexile = AD 1100 )</p> <p><i>Marvelous Mattie: How Margaret E. Knight Became an Inventor</i> by Emily Arnold McCully (Lexile = AD720)</p> <p><i>Levi Strauss and Blue Jeans</i> by Nathan Olson (Lexile = Not available)</p> <p><i>Steve Jobs, Steve Wozniak and the Personal Computer</i> by Donald B. Lemke (Lexile = GN600)</p> <p><i>Philo Farnsworth and the Television</i> by Ellen Strum Niz (Lexile = 580)</p> <p><a href="http://videos.howstuffworks.com/howstuffworks/35522-infamous-inventors-velcro-video.htm">http://videos.howstuffworks.com/howstuffworks/35522-infamous-inventors-velcro-video.htm</a> (Video on Farnsworth inventing the television)</p> <p><a href="http://videos.howstuffworks.com/howstuffworks/35524-infamous-inventors-the-flexible-straw-video.htm">http://videos.howstuffworks.com/howstuffworks/35524-infamous-inventors-the-flexible-straw-video.htm</a> (Invention of the Flexible Straw)</p> <p><i>The Wondrous Whirligig: The Wright Brothers' First Flying Machine</i> by Andrew Glass (Lexile = 690)</p> <p><i>The Flyer Flew! The Invention of the Airplane</i> by Lee Sullivan Hill, illustrated by Craig Orback</p> <p><i>The Wonder of Wings</i> by Lynette Evans (Lexile = 800)</p> <p><i>Smart About - George Washington Carver, The Peanut Wizard</i> by Laura Driscoll, illustrated by Jill Weber</p> <p><i>Alexander Graham Bell: Inventor of the Telephone</i> Edited by TIME for Kids with John Micklos, Jr. Eli Whitney, M.C. Hall</p> <p><i>Galileo's Journal 1609-1610</i> by Jeanne K. Pettenati Illustrated by Paolo Rui</p> <p><i>Inventing the Camera</i> Joanne Richter (Read Aloud)</p> <p><i>Motion Pictures (Inventions that Shaped the World)</i> by Robyn Conley (Lexile = 1160 Read Aloud)</p> <p><i>Inventions</i> Valerie Wyatt Illustrated by Matthew Fernandes</p> <p><i>Leonardo da Vinci</i> Kathleen Krull, Illustrated by Boris Kulikov (Read Aloud)</p> <p><i>The Light Bulb</i> by Jennifer Fandel (Read Aloud)</p> <p><i>Nikola Tesla and the Taming of Electricity</i> by Lisa J. Aldrich (Read Aloud)</p> <p><i>The Television</i> by Marc Tyler Nobleman</p> <p><i>Pop-up House of Inventions</i> by Robert Crowther (Pop-up Book)</p>
<b>Student Resources:</b>	<p>Scholastic Series of Explorers (This is a series of young readers that focuses on inventors)</p> <p><a href="http://www.paperlessarchives.com">www.paperlessarchives.com</a> (An example of a site that has primary source documents.)</p> <p><a href="http://legacy.mos.org/sln/Leonardo/VisionsoftheFuture.html">http://legacy.mos.org/sln/Leonardo/VisionsoftheFuture.html</a> (Leonardo da Vinci's notebooks)</p> <p><a href="http://www.cdn.sciencebuddies.org/Files/806/9/SciF_EngrDesignGuide_Notebook_ThomasEdison_N314003-Image2-thumb.jpg">http://www.cdn.sciencebuddies.org/Files/806/9/SciF_EngrDesignGuide_Notebook_ThomasEdison_N314003-Image2-thumb.jpg</a> (example of Thomas Edison's notebook)</p> <p><i>Now and Ben: The Modern Inventions of Ben Franklin</i> by Gene Baretta (Lexile = 910)</p> <p><i>A Weed is a Flower: The Life of George Washington Carver.</i> by Aliko (Lexile = AD640)</p> <p><a href="#"><i>Dear Benjamin Banneker.</i></a> by Andrea Davis Pinkney (Lexile = AD 1100 )</p> <p><i>Marvelous Mattie: How Margaret E. Knight Became an Inventor</i> by Emily Arnold McCully (Lexile = AD720)</p>

**Colorado Teacher-Authored Sample Instructional Unit**

	<p><i>Levi Strauss and Blue Jeans</i> by Nathan Olson (Lexile = Not available)  <a href="#">Steve Jobs, Steve Wozniak and the Personal Computer</a> by Donald B. Lemke (Lexile = GN600)  <i>Philo Farnsworth and the Television</i> by Ellen Strum Niz (Lexile = 580)  <a href="http://videos.howstuffworks.com/howstuffworks/35522-infamous-inventors-velcro-video.htm">http://videos.howstuffworks.com/howstuffworks/35522-infamous-inventors-velcro-video.htm</a> (Video on Farnsworth inventing the television)  <a href="http://videos.howstuffworks.com/howstuffworks/35524-infamous-inventors-the-flexible-straw-video.htm">http://videos.howstuffworks.com/howstuffworks/35524-infamous-inventors-the-flexible-straw-video.htm</a> (Invention of the Flexible Straw)  <i>The Wondrous Whirligig: The Wright Brothers' First Flying Machine</i> by Andrew Glass (Lexile = 690)  <i>The Flyer Flew! The Invention of the Airplane</i> by Lee Sullivan Hill, illustrated by Craig Orback  <i>The Wonder of Wings</i> by Lynette Evans (Lexile = 800)  <i>Smart About - George Washington Carver, The Peanut Wizard</i> by Laura Driscoll, illustrated by Jill Weber  <i>Alexander Graham Bell: Inventor of the Telephone</i> Edited by TIME for Kids with John Micklos, Jr.  <i>Eli Whitney</i>, M.C. Hall  <i>Galileo's Journal 1609-1610</i> by Jeanne K. Pettenati Illustrated by Paolo Rui  <i>Inventing the Camera</i> Joanne Richter (Read Aloud)  <i>Motion Pictures (Inventions that Shaped the World)</i> by Robyn Conley (Lexile = 1160 Read Aloud)  <i>Inventions</i> Valerie Wyatt Illustrated by Matthew Fernandes  <i>Leonardo da Vinci</i> Kathleen Krull, Illustrated by Boris Kulikov (Read Aloud)  <i>The Light Bulb</i> by Jennifer Fandel (Read Aloud)  <i>Nikola Tesla and the Taming of Electricity</i> by Lisa J. Aldrich (Read Aloud)  <i>The Television</i> by Marc Tyler Nobleman  <i>Pop-up House of Inventions</i> by Robert Crowther (Pop-up Book)</p>	
<b>Assessment:</b>	<p>Students will add to their interactive word wall and create a “wall of inventors and inventions.”  <a href="http://www.schoolexpress.com/wordwalls/wordwalls.php">http://www.schoolexpress.com/wordwalls/wordwalls.php</a> (Site to create word-wall flash cards)</p>	
<p><b>Differentiation:</b>            (Multiple means for students to access content and multiple modes for student to express understanding.)</p>	<b>Access</b> (Resources and/or Process)	<b>Expression</b> (Products and/or Performance)
	Teacher may provide repeated viewings / readings of the text	Students may pose questions or responses using vocabulary words Students may participate in group discussion
<p><b>Extensions for depth and complexity:</b></p>	<b>Access</b> (Resources and/or Process)	<b>Expression</b> (Products and/or Performance)
	Teacher may provide story, text or movie Teacher may anchor chart with word web, graphic organizer or vocabulary web Teacher may primary source documents	Students may pose higher level questions Students may participate in group discussion Students may add information to graphic organizer or vocabulary web Students may discuss from inventor’s perspective during invention process
<b>Critical Content:</b>	<ul style="list-style-type: none"> <li>• Specific vocabulary related to topic</li> <li>• Key ideas from text to support and extend understanding</li> <li>• Various text features that explain, describe, or answer a question</li> <li>• Ways diagrams and other images support the text</li> </ul>	

**Colorado Teacher-Authored Sample Instructional Unit**

<b>Key Skills:</b>	<ul style="list-style-type: none"> <li>• Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text</li> <li>• Identify a specific question and gather information for purposeful investigation and inquiry</li> <li>• Use a variety of multimedia sources to answer questions of interest</li> <li>• Recall information from experiences or gather information from provided sources to answer a question</li> </ul>
<b>Critical Language:</b>	Innovators, inventions, discover, anchor chart, resource, heading, bold print, captions, italics, text features, fiction, non-fiction, context, autobiography, biography, genre

**Learning Experience # 3**

The teacher may use informational texts (e.g. *A Weed is a Flower* or *The Wonder of Wings*) so that students can begin to identify authors’ main ideas and supporting details in non-fiction. [*Understanding text*]

**Generalization Connection(s):** Innovators and the impact of their inventions are often powerfully communicated through informational text

**Teacher Resources:**

<http://www.readingrockets.org/article/52240> (PD resource from Reading Rockets)  
<http://invention.smithsonian.org/centerpieces/electricguitar/index.htm> (How the electric guitar was invented; Smithsonian)  
<http://invention.smithsonian.org/centerpieces/inventingourselves/index.htm> (Inventing Ourselves; Smithsonian)  
*Now and Ben: The Modern Inventions of Ben Franklin* by Gene Baretta  
*A Weed is a Flower: The Life of George Washington Carver* by Alike  
*Dear Benjamin Banneker* by Andrea Davis Pinkney  
*Marvelous Mattie: How Margaret E. Knight Became an Inventor* by Emily Arnold McCully  
*The Wondrous Whirligig: The Wright Brothers' First Flying Machine* by Andrew Glass (Lexile = 690)  
*The Flyer Flew! The Invention of the Airplane* by Lee Sullivan Hill, illustrated by Craig Orback  
*The Wonder of Wings* by Lynette Evans (Lexile = 800)  
*Smart About - George Washington Carver, The Peanut Wizard* by Laura Driscoll, illustrated by Jill Weber  
*Alexander Graham Bell: Inventor of the Telephone* Edited by TIME for Kids with John Micklos, Jr.  
*Eli Whitney*, M.C. Hall  
*Galileo's Journal 1609-1610* by Jeanne K. Pettenati Illustrated by Paolo Rui  
*Inventing the Camera* Joanne Richter (Read Aloud)  
*Motion Pictures (Inventions that Shaped the World)* by Robyn Conley (Lexile = 1160 Read Aloud)  
*Inventions* Valerie Wyatt Illustrated by Matthew Fernandes  
*Leonardo da Vinci* Kathleen Krull, Illustrated by Boris Kulikov (Read Aloud)  
*The Light Bulb* by Jennifer Fandel (Read Aloud)  
*Nikola Tesla and the Taming of Electricity* by Lisa J. Aldrich (Read Aloud)  
*The Television* by Marc Tyler Nobleman  
*Pop-up House of Inventions* by Robert Crowther (Pop-up Book)

**Student Resources:**

<http://invention.smithsonian.org/centerpieces/electricguitar/index.htm> (How the electric guitar was invented; Smithsonian)  
<http://invention.smithsonian.org/centerpieces/inventingourselves/index.htm> (Inventing Ourselves; Smithsonian)  
*Now and Ben: The Modern Inventions of Ben Franklin* by Gene Baretta  
*A Weed is a Flower: The Life of George Washington Carver* by Alike

**Colorado Teacher-Authored Sample Instructional Unit**

	<p><i>Dear Benjamin Banneker</i> by Andrea Davis Pinkney  <i>Marvelous Mattie: How Margaret E. Knight Became an Inventor</i> by Emily Arnold McCully  <i>The Wondrous Whirligig: The Wright Brothers' First Flying Machine</i> by Andrew Glass (Lexile = 690)  <i>The Flyer Flew! The Invention of the Airplane</i> by Lee Sullivan Hill, illustrated by Craig Orback  <i>The Wonder of Wings</i> by Lynette Evans (Lexile = 800)  <i>Smart About - George Washington Carver, The Peanut Wizard</i> by Laura Driscoll, illustrated by Jill Weber  <i>Alexander Graham Bell: Inventor of the Telephone</i> Edited by TIME for Kids with John Micklos, Jr.  <i>Eli Whitney</i>, M.C. Hall  <i>Galileo's Journal 1609-1610</i> by Jeanne K. Pettenati Illustrated by Paolo Rui  <i>Inventing the Camera</i> Joanne Richter (Read Aloud)  <i>Motion Pictures (Inventions that Shaped the World)</i> by Robyn Conley (Lexile = 1160 Read Aloud)  <i>Inventions</i> Valerie Wyatt Illustrated by Matthew Fernandes  <i>Leonardo da Vinci</i> Kathleen Krull, Illustrated by Boris Kulikov (Read Aloud)  <i>The Light Bulb</i> by Jennifer Fandel (Read Aloud)  <i>Nikola Tesla and the Taming of Electricity</i> by Lisa J. Aldrich (Read Aloud)  <i>The Television</i> by Marc Tyler Nobleman  <i>Pop-up House of Inventions</i> by Robert Crowther (Pop-up Book)</p>	
<b>Assessment:</b>	<p>Students will complete graphic organizer with main idea and supporting details.  <a href="https://www.teachervision.com/tv/printables/scottforesman/Math_2_TTM_25.pdf">https://www.teachervision.com/tv/printables/scottforesman/Math_2_TTM_25.pdf</a> (main idea and supporting details graphic organizer)</p>	
<b>Differentiation:</b> (Multiple means for students to access content and multiple modes for student to express understanding.)	<b>Access</b> (Resources and/or Process)	<b>Expression</b> (Products and/or Performance)
	Teacher may provide modified graphic organizers Teacher may provide informational text samples	Students may complete graphic organizer with a partner
<b>Extensions for depth and complexity:</b>	<b>Access</b> (Resources and/or Process)	<b>Expression</b> (Products and/or Performance)
	Teacher may provide pre-writing organizer using informational text features	Students may complete pre-writing organizer using informational text features
<b>Critical Content:</b>	<ul style="list-style-type: none"> <li>• Key ideas from text to support and extend understanding</li> <li>• Various text features that explain, describe, or answer a question</li> <li>• Ways diagrams and other images support the text</li> </ul>	
<b>Key Skills:</b>	<ul style="list-style-type: none"> <li>• Describe connections between a series of historical events, scientific ideas or concepts, or steps in technical procedures in text</li> <li>• Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently</li> <li>• Use glossaries and beginning dictionaries, both print and digital, to determine or clarify the meaning of words and phrases</li> <li>• Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text</li> <li>• Use text features to locate, interpret, and use information (table of contents, illustrations, diagrams, headings, bold type)</li> </ul>	
<b>Critical Language:</b>	<p>Innovators, inventions, discover, graphic organizer, resource, research, presentation, vocabulary, heading, bold print, captions, italics, text features, fiction, non-fiction, context, autobiography, biography, genre</p>	

**Colorado Teacher-Authored Sample Instructional Unit**

<b>Learning Experience # 4</b>	
The teacher may use informational texts (e.g. <i>A Weed is a Flower</i> or <i>The Wonder of Wings</i> ) so that students can identify common text features (e.g., section headings, glossary, etc). [ <i>Understanding text</i> ]	
<b>Generalization Connection(s):</b>	Innovators and the impact of their inventions are often powerfully communicated through informational text
<b>Teacher Resources:</b>	<p><a href="http://invention.smithsonian.org/centerpieces/electricguitar/index.htm">http://invention.smithsonian.org/centerpieces/electricguitar/index.htm</a> (How the electric guitar was invented; Smithsonian)</p> <p><a href="http://invention.smithsonian.org/centerpieces/inventingourselves/index.htm">http://invention.smithsonian.org/centerpieces/inventingourselves/index.htm</a> (Inventing Ourselves; Smithsonian)</p> <p><i>Now and Ben: The Modern Inventions of Ben Franklin</i> by Gene Baretta</p> <p><i>A Weed is a Flower: The Life of George Washington Carver</i> by Alike</p> <p><i>Dear Benjamin Banneker</i> by Andrea Davis Pinkney</p> <p><i>Marvelous Mattie: How Margaret E. Knight Became an Inventor</i> by Emily Arnold McCully</p> <p><i>The Wondrous Whirligig: The Wright Brothers' First Flying Machine</i> by Andrew Glass (Lexile = 690)</p> <p><i>The Flyer Flew! The Invention of the Airplane</i> by Lee Sullivan Hill, illustrated by Craig Orback</p> <p><i>The Wonder of Wings</i> by Lynette Evans (Lexile = 800)</p> <p><i>Smart About - George Washington Carver, The Peanut Wizard</i> by Laura Driscoll, illustrated by Jill Weber</p> <p><i>Alexander Graham Bell: Inventor of the Telephone</i> Edited by TIME for Kids with John Micklos, Jr.</p> <p><i>Eli Whitney</i>, M.C. Hall</p> <p><i>Galileo's Journal 1609-1610</i> by Jeanne K. Pettenati Illustrated by Paolo Rui</p> <p><i>Inventing the Camera</i> Joanne Richter (Read Aloud)</p> <p><i>Motion Pictures (Inventions that Shaped the World)</i> by Robyn Conley (Lexile = 1160 Read Aloud)</p> <p><i>Inventions</i> Valerie Wyatt Illustrated by Matthew Fernandes</p> <p><i>Leonardo da Vinci</i> Kathleen Krull, Illustrated by Boris Kulikov (Read Aloud)</p> <p><i>The Light Bulb</i> by Jennifer Fandel (Read Aloud)</p> <p><i>Nikola Tesla and the Taming of Electricity</i> by Lisa J. Aldrich (Read Aloud)</p> <p><i>The Television</i> by Marc Tyler Nobleman</p> <p><i>Pop-up House of Inventions</i> by Robert Crowther (Pop-up Book)</p>
<b>Student Resources:</b>	<p>Graphic organizer from <a href="http://media-cache-ec0.pinimg.com/736x/1c/0b/ef/1c0bef4244db04dea711b7aa24b4cfed.jpg">http://media-cache-ec0.pinimg.com/736x/1c/0b/ef/1c0bef4244db04dea711b7aa24b4cfed.jpg</a> (Text features graphic organizer)</p> <p><i>Now and Ben: The Modern Inventions of Ben Franklin</i> by Gene Baretta</p> <p><i>A Weed is a Flower: The Life of George Washington Carver</i> by Alike</p> <p><i>Dear Benjamin Banneker</i> by Andrea Davis Pinkney</p> <p><i>Marvelous Mattie: How Margaret E. Knight Became an Inventor</i> by Emily Arnold McCully</p> <p><i>The Wondrous Whirligig: The Wright Brothers' First Flying Machine</i> by Andrew Glass (Lexile = 690)</p> <p><i>The Flyer Flew! The Invention of the Airplane</i> by Lee Sullivan Hill, illustrated by Craig Orback</p> <p><i>The Wonder of Wings</i> by Lynette Evans (Lexile = 800)</p> <p><i>Smart About - George Washington Carver, The Peanut Wizard</i> by Laura Driscoll, illustrated by Jill Weber</p> <p><i>Alexander Graham Bell: Inventor of the Telephone</i> Edited by TIME for Kids with John Micklos, Jr.</p> <p><i>Eli Whitney</i>, M.C. Hall</p> <p><i>Galileo's Journal 1609-1610</i> by Jeanne K. Pettenati Illustrated by Paolo Rui</p> <p><i>Inventing the Camera</i> Joanne Richter (Read Aloud)</p>

**Colorado Teacher-Authored Sample Instructional Unit**

	<p><i>Motion Pictures (Inventions that Shaped the World)</i> by Robyn Conley (Lexile = 1160 Read Aloud)  <i>Inventions</i> Valerie Wyatt Illustrated by Matthew Fernandes  <i>Leonardo da Vinci</i> Kathleen Krull, Illustrated by Boris Kulikov (Read Aloud)  <i>The Light Bulb</i> by Jennifer Fandel (Read Aloud)  <i>Nikola Tesla and the Taming of Electricity</i> by Lisa J. Aldrich (Read Aloud)  <i>The Television</i> by Marc Tyler Nobleman  <i>Pop-up House of Inventions</i> by Robert Crowther (Pop-up Book)</p>	
<b>Assessment:</b>	<p>Students will complete graphic organizer with identified text features.  <a href="http://media-cache-ec0.pinimg.com/736x/1c/0b/ef/1c0bef4244db04dea711b7aa24b4cfed.jpg">http://media-cache-ec0.pinimg.com/736x/1c/0b/ef/1c0bef4244db04dea711b7aa24b4cfed.jpg</a> (Text features graphic organizer)            A variation could be the text feature “scavenger hunt”  <a href="http://www.scholastic.com/teachers/sites/default/files/images/blogs/82/6a00e54faaf86b88330147e2feb60f970b-200wi">http://www.scholastic.com/teachers/sites/default/files/images/blogs/82/6a00e54faaf86b88330147e2feb60f970b-200wi</a>            (Scavenger hunt checklist from Scholastic)            For a whole class activity, teachers may want to have a class chart:  <a href="http://imavex.vo.llnwd.net/o18/clients/smekenseducation/images/Nonfiction_Reading/ExamineTextPhoto-squared.jpg">http://imavex.vo.llnwd.net/o18/clients/smekenseducation/images/Nonfiction_Reading/ExamineTextPhoto-squared.jpg</a></p>	
<b>Differentiation:</b> (Multiple means for students to access content and multiple modes for student to express understanding.)	<b>Access</b> (Resources and/or Process)	<b>Expression</b> (Products and/or Performance)
	Teacher may provide modified graphic organizers Teacher may provide informational text samples	Students may complete graphic organizer with a partner
<b>Extensions for depth and complexity:</b>	<b>Access</b> (Resources and/or Process)	<b>Expression</b> (Products and/or Performance)
	N/A	N/A
<b>Critical Content:</b>	<ul style="list-style-type: none"> <li>• Key ideas from text to support and extend understanding</li> <li>• Various text features that explain, describe, or answer a question</li> <li>• Ways diagrams and other images support the text</li> </ul>	
<b>Key Skills:</b>	<ul style="list-style-type: none"> <li>• Describe connections between a series of historical events, scientific ideas or concepts, or steps in technical procedures in text</li> <li>• Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently</li> <li>• Use glossaries and beginning dictionaries, both print and digital, to determine or clarify the meaning of words and phrases</li> <li>• Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text</li> <li>• Use text features to locate, interpret, and use information (table of contents, illustrations, diagrams, headings, bold type)</li> </ul>	
<b>Critical Language:</b>	<p>Innovators, inventions, discover, anchor chart, graphic organizer, resource, research, presentation, vocabulary, brainstorming, heading, bold print, captions, italics, text features, fiction, non-fiction, context, autobiography, biography, genre</p>	



**Colorado Teacher-Authored Sample Instructional Unit**

<b>Learning Experience # 5</b>	
The teacher may use informational texts (e.g. <i>Smart About - George Washington Carver</i> , <i>The Peanut Wizard</i> or <i>Motion Pictures</i> ) so that students can explore the ways in which text features support understanding of the main idea and supporting details. [Understanding text, Responding to text]	
<b>Generalization Connection(s):</b>	Innovators and the impact of their inventions are often powerfully communicated through informational text
<b>Teacher Resources:</b>	<p><a href="http://invention.smithsonian.org/centerpieces/electricguitar/index.htm">http://invention.smithsonian.org/centerpieces/electricguitar/index.htm</a> (How the electric guitar was invented; Smithsonian)</p> <p><a href="http://invention.smithsonian.org/centerpieces/inventingourselves/index.htm">http://invention.smithsonian.org/centerpieces/inventingourselves/index.htm</a> (Inventing Ourselves; Smithsonian)</p> <p><i>Now and Ben: The Modern Inventions of Ben Franklin</i> by Gene Baretta</p> <p><i>A Weed is a Flower: The Life of George Washington Carver</i> by Alike</p> <p><i>Dear Benjamin Banneker</i> by Andrea Davis Pinkney</p> <p><i>Marvelous Mattie: How Margaret E. Knight Became an Inventor</i> by Emily Arnold McCully</p> <p><i>The Wondrous Whirligig: The Wright Brothers' First Flying Machine</i> by Andrew Glass (Lexile = 690)</p> <p><i>The Flyer Flew! The Invention of the Airplane</i> by Lee Sullivan Hill, illustrated by Craig Orback</p> <p><i>The Wonder of Wings</i> by Lynette Evans (Lexile = 800)</p> <p><i>Smart About - George Washington Carver, The Peanut Wizard</i> by Laura Driscoll, illustrated by Jill Weber</p> <p><i>Alexander Graham Bell: Inventor of the Telephone</i> Edited by TIME for Kids with John Micklos, Jr.</p> <p><i>Eli Whitney</i>, M.C. Hall</p> <p><i>Galileo's Journal 1609-1610</i> by Jeanne K. Pettenati Illustrated by Paolo Rui</p> <p><i>Inventing the Camera</i> Joanne Richter (Read Aloud)</p> <p><i>Motion Pictures (Inventions that Shaped the World)</i> by Robyn Conley (Lexile = 1160 Read Aloud)</p> <p><i>Inventions</i> Valerie Wyatt Illustrated by Matthew Fernandes</p> <p><i>Leonardo da Vinci</i> Kathleen Krull, Illustrated by Boris Kulikov (Read Aloud)</p> <p><i>The Light Bulb</i> by Jennifer Fandel (Read Aloud)</p> <p><i>Nikola Tesla and the Taming of Electricity</i> by Lisa J. Aldrich (Read Aloud)</p> <p><i>The Television</i> by Marc Tyler Nobleman</p> <p><i>Pop-up House of Inventions</i> by Robert Crowther (Pop-up Book)</p>
<b>Student Resources:</b>	<p><a href="http://invention.smithsonian.org/centerpieces/electricguitar/index.htm">http://invention.smithsonian.org/centerpieces/electricguitar/index.htm</a> (How the electric guitar was invented; Smithsonian)</p> <p><a href="http://invention.smithsonian.org/centerpieces/inventingourselves/index.htm">http://invention.smithsonian.org/centerpieces/inventingourselves/index.htm</a> (Inventing Ourselves; Smithsonian)</p> <p><i>Now and Ben: The Modern Inventions of Ben Franklin</i> by Gene Baretta</p> <p><i>A Weed is a Flower: The Life of George Washington Carver</i> by Alike</p> <p><i>Dear Benjamin Banneker</i> by Andrea Davis Pinkney</p> <p><i>Marvelous Mattie: How Margaret E. Knight Became an Inventor</i> by Emily Arnold McCully</p> <p><i>The Wondrous Whirligig: The Wright Brothers' First Flying Machine</i> by Andrew Glass (Lexile = 690)</p> <p><i>The Flyer Flew! The Invention of the Airplane</i> by Lee Sullivan Hill, illustrated by Craig Orback</p> <p><i>The Wonder of Wings</i> by Lynette Evans (Lexile = 800)</p> <p><i>Smart About - George Washington Carver, The Peanut Wizard</i> by Laura Driscoll, illustrated by Jill Weber</p> <p><i>Alexander Graham Bell: Inventor of the Telephone</i> Edited by TIME for Kids with John Micklos, Jr.</p> <p><i>Eli Whitney</i>, M.C. Hall</p>

**Colorado Teacher-Authored Sample Instructional Unit**

	<p><i>Galileo's Journal 1609-1610</i> by Jeanne K. Pettenati Illustrated by Paolo Rui  <i>Inventing the Camera</i> Joanne Richter (Read Aloud)  <i>Motion Pictures (Inventions that Shaped the World)</i> by Robyn Conley (Lexile = 1160 Read Aloud)  <i>Inventions</i> Valerie Wyatt Illustrated by Matthew Fernandes  <i>Leonardo da Vinci</i> Kathleen Krull, Illustrated by Boris Kulikov (Read Aloud)  <i>The Light Bulb</i> by Jennifer Fandel (Read Aloud)  <i>Nikola Tesla and the Taming of Electricity</i> by Lisa J. Aldrich (Read Aloud)  <i>The Television</i> by Marc Tyler Nobleman  <i>Pop-up House of Inventions</i> by Robert Crowther (Pop-up Book)</p>	
<b>Assessment:</b>	<p>Students will complete a graphic organizer which identifies text features and explain how the features help develop the main/supporting ideas.  <a href="http://media-cache-ak0.pinimg.com/236x/5c/5d/54/5c5d5452af6c1e8165353cb9e7673ae6.jpg">http://media-cache-ak0.pinimg.com/236x/5c/5d/54/5c5d5452af6c1e8165353cb9e7673ae6.jpg</a> (Main idea, evidence, text features graphic organizer)</p>	
<b>Differentiation:</b> (Multiple means for students to access content and multiple modes for student to express understanding.)	<b>Access</b> (Resources and/or Process)	<b>Expression</b> (Products and/or Performance)
	Teacher may provide modified graphic organizers Teacher may provide informational text samples	Students may complete the graphic organizer with a partner
<b>Extensions for depth and complexity:</b>	<b>Access</b> (Resources and/or Process)	<b>Expression</b> (Products and/or Performance)
	N/A	N/A
<b>Critical Content:</b>	<ul style="list-style-type: none"> <li>• Key ideas from text to support and extend understanding</li> <li>• Various text features that explain, describe, or answer a question</li> <li>• Ways diagrams and other images support the text</li> </ul>	
<b>Key Skills:</b>	<ul style="list-style-type: none"> <li>• Describe connections between a series of historical events, scientific ideas or concepts, or steps in technical procedures in text</li> <li>• Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently</li> <li>• Use glossaries and beginning dictionaries, both print and digital, to determine or clarify the meaning of words and phrases</li> <li>• Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text</li> <li>• Use text features to locate, interpret, and use information (table of contents, illustrations, diagrams, headings, bold type)</li> </ul>	
<b>Critical Language:</b>	<p>Innovators, inventions, discover, anchor chart, graphic organizer, resource, research, presentation, vocabulary, brainstorming, heading, bold print, captions, italics, text features, fiction, non-fiction, context, autobiography, biography, genre</p>	

**Colorado Teacher-Authored Sample Instructional Unit**

<b>Learning Experience # 6</b>		
The teacher may introduce primary source documents (e.g. passages from Edison’s notebook- see Teacher Resources) so students can begin to see how people’s writing can give us insights into their thoughts, plans, hopes, etc. [ <i>Understanding text</i> ]		
<b>Generalization Connection(s):</b>	Innovators, like authors, must understand purpose and audience in order to communicate effectively	
<b>Teacher Resources:</b>	<p>Teachers may use primary sources of innovators’ notebooks. A general Google search can be used to find images.</p> <p><a href="http://www.sciencebuddies.org/Files/805/8/SciF_EngrDesignGuide_Notebook_ThomasEdison_N314003-Image2.jpg">http://www.sciencebuddies.org/Files/805/8/SciF_EngrDesignGuide_Notebook_ThomasEdison_N314003-Image2.jpg</a> (copy of Edison’s notebook)</p> <p><a href="http://edison.rutgers.edu/lighting.htm">http://edison.rutgers.edu/lighting.htm</a> (Edison papers at Rutgers. Images of first light bulbs)</p> <p><a href="http://www.loc.gov/resource/mwright.04135#seq-3">http://www.loc.gov/resource/mwright.04135#seq-3</a> (Images of Wright Brothers’ planes and flying machines)</p> <p><a href="http://memory.loc.gov/cgi-bin/ampage?collid=magbell&amp;fileName=273/27300105/bellpage.db&amp;recNum=0">http://memory.loc.gov/cgi-bin/ampage?collid=magbell&amp;fileName=273/27300105/bellpage.db&amp;recNum=0</a> (Alexander Graham Bell drawing of telephone)</p> <p><a href="http://invention.smithsonian.org/centerpieces/sparklab/spark-inventors.html">http://invention.smithsonian.org/centerpieces/sparklab/spark-inventors.html</a> (From the Smithsonian: Inventors’ Profiles: Charles Brannock, Joseph Friedman, Charlotte Sachs)</p> <p><a href="http://www.sil.si.edu/exhibitions/doodles/index.htm">http://www.sil.si.edu/exhibitions/doodles/index.htm</a> (Doodles, Drafts and Designs: Industrial Drawings from the Smithsonian )</p>	
<b>Student Resources:</b>	<p><a href="http://www.sciencebuddies.org/Files/805/8/SciF_EngrDesignGuide_Notebook_ThomasEdison_N314003-Image2.jpg">http://www.sciencebuddies.org/Files/805/8/SciF_EngrDesignGuide_Notebook_ThomasEdison_N314003-Image2.jpg</a> (Copy of Edison’s notebook)</p> <p><a href="http://www.paperlessarchives.com/WBPapers4.jpg">http://www.paperlessarchives.com/WBPapers4.jpg</a> (Wright brothers’ drawings)</p>	
<b>Assessment:</b>	<p>Students will complete a Venn diagram or other graphic organizer that compares an informational text with a primary source (innovator’s notebooks, journals, etc.). <a href="http://www.readwritethink.org/classroom-resources/student-interactives/venn-diagram-30973.html">http://www.readwritethink.org/classroom-resources/student-interactives/venn-diagram-30973.html</a> (interactive online Venn diagram) <a href="http://www.studenthandouts.com/01-Web-Pages/2012-10/venn-diagram-2012-10-01.jpg">http://www.studenthandouts.com/01-Web-Pages/2012-10/venn-diagram-2012-10-01.jpg</a> (Venn diagram)</p>	
<b>Differentiation:</b> (Multiple means for students to access content and multiple modes for student to express understanding.)	<b>Access</b> (Resources and/or Process)	<b>Expression</b> (Products and/or Performance)
	Teacher may provide a pre-populated Venn diagram	Students may work in pairs to complete the task
<b>Extensions for depth and complexity:</b>	<b>Access</b> (Resources and/or Process)	<b>Expression</b> (Products and/or Performance)
	Teacher may provide copies of the primary document for students to “annotate”	Students may independently “annotate” a primary document and label the features they observe in it
<b>Critical Content:</b>	<ul style="list-style-type: none"> <li>• Various text features that explain, describe, or answer a question</li> <li>• Ways diagrams and other images support the text</li> </ul>	
<b>Key Skills:</b>	<ul style="list-style-type: none"> <li>• Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text</li> <li>• Identify a variety of resources and the information they might contain (dictionary, trade book, library databases, Internet web page)</li> </ul>	
<b>Critical Language:</b>	Primary source documents, Venn diagram, autobiography, biography, genre	

**Colorado Teacher-Authored Sample Instructional Unit**

<b>Learning Experience # 7</b>		
The teacher may use primary source documents (e.g. passages from Edison’s notebook- see Teacher Resources) so that students begin to consider how people’s writing can prompt good question generation.		
<b>Generalization Connection(s):</b>	Innovators, like authors, must understand purpose and audience in order to communicate effectively	
<b>Teacher Resources:</b>	<p>Teachers may use primary sources of innovators’ notebooks. A general Google search can be used to find images.</p> <p><a href="http://www.sciencebuddies.org/Files/805/8/SciF_EngrDesignGuide_Notebook_ThomasEdison_N314003-Image2.jpg">http://www.sciencebuddies.org/Files/805/8/SciF_EngrDesignGuide_Notebook_ThomasEdison_N314003-Image2.jpg</a> (Copy of Edison’s notebook)</p> <p><a href="http://edison.rutgers.edu/lighting.htm">http://edison.rutgers.edu/lighting.htm</a> (Edison papers at Rutgers. Images of first light bulbs)</p> <p><a href="http://www.loc.gov/resource/mwright.04135#seq-3">http://www.loc.gov/resource/mwright.04135#seq-3</a> (Images of Wright Brothers’ planes and flying machines)</p> <p><a href="http://memory.loc.gov/cgi-bin/ampage?collid=magbell&amp;fileName=273/27300105/bellpage.db&amp;recNum=0">http://memory.loc.gov/cgi-bin/ampage?collid=magbell&amp;fileName=273/27300105/bellpage.db&amp;recNum=0</a> (Alexander Graham Bell drawing of telephone)</p> <p><a href="http://invention.smithsonian.org/centerpieces/sparklab/spark-inventors.html">http://invention.smithsonian.org/centerpieces/sparklab/spark-inventors.html</a> (From the Smithsonian: Inventors’ Profiles: Charles Brannock, Joseph Friedman, Charlotte Sachs)</p> <p><a href="http://www.sil.si.edu/exhibitions/doodles/index.htm">http://www.sil.si.edu/exhibitions/doodles/index.htm</a> (Doodles, Drafts and Designs: Industrial Drawings from the Smithsonian )</p>	
<b>Student Resources:</b>	<p><a href="http://www.sciencebuddies.org/Files/805/8/SciF_EngrDesignGuide_Notebook_ThomasEdison_N314003-Image2.jpg">http://www.sciencebuddies.org/Files/805/8/SciF_EngrDesignGuide_Notebook_ThomasEdison_N314003-Image2.jpg</a> (Copy of Edison’s notebook)</p> <p><a href="http://www.paperlessarchives.com/WBPapers4.jpg">http://www.paperlessarchives.com/WBPapers4.jpg</a> (Wright brothers’ drawings)</p>	
<b>Assessment:</b>	Based on the readings they have done, students will generate three questions they would ask Thomas Edison.	
<b>Differentiation:</b> (Multiple means for students to access content and multiple modes for student to express understanding.)	<b>Access</b> (Resources and/or Process)	<b>Expression</b> (Products and/or Performance)
	<p>Teacher may provide Bloom’s and DOK question stems</p> <p><a href="http://www.meade.k12.sd.us/PASS/Pass%20Adobe%20Files/March%202007/BloomsTaxonomyQuestionStems.pdf">http://www.meade.k12.sd.us/PASS/Pass%20Adobe%20Files/March%202007/BloomsTaxonomyQuestionStems.pdf</a> (Bloom’s Question Stems)</p> <p><a href="http://svesd.net/files/DOK_Question_Stems.pdf">http://svesd.net/files/DOK_Question_Stems.pdf</a> (Depth of Knowledge -- DOK – Question Stems)</p>	Students may work in pairs to generate questions
<b>Extensions for depth and complexity:</b>	<b>Access</b> (Resources and/or Process)	<b>Expression</b> (Products and/or Performance)
	<p>Teacher may provide Bloom’s and DOK question stems</p> <p><a href="http://www.meade.k12.sd.us/PASS/Pass%20Adobe%20Files/March%202007/BloomsTaxonomyQuestionStems.pdf">http://www.meade.k12.sd.us/PASS/Pass%20Adobe%20Files/March%202007/BloomsTaxonomyQuestionStems.pdf</a> (Bloom’s Question Stems)</p> <p><a href="http://svesd.net/files/DOK_Question_Stems.pdf">http://svesd.net/files/DOK_Question_Stems.pdf</a> (Depth of Knowledge -- DOK – Question Stems)</p>	Students may generate a range of questions covering all levels of Bloom’s Taxonomy and DOK
<b>Critical Content:</b>	<ul style="list-style-type: none"> <li>• Various text features that explain, describe, or answer a question</li> <li>• Ways diagrams and other images support the text</li> <li>• The appropriate occasions to use questioning techniques (such as <i>who, what, where, when, why, and how</i>)</li> </ul>	

**Colorado Teacher-Authored Sample Instructional Unit**

<b>Key Skills:</b>	<ul style="list-style-type: none"> <li>• Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text</li> <li>• Identify a variety of resources and the information they might contain (dictionary, trade book, library databases, Internet web page)</li> </ul>
<b>Critical Language:</b>	Primary source documents, questioning, autobiography, biography, genre

**Learning Experience # 8**

The teacher will model the thought process of generating ideas for innovations so that students can begin to understand where innovations and inventions come from.

<b>Generalization Connection(s):</b>	Innovators, like authors, must understand purpose and audience in order to communicate effectively Innovators and the impact of their inventions are often powerfully communicated through informational text	
<b>Teacher Resources:</b>	<a href="http://site.njtea.org/wp-content/uploads/2012/01/innovation-notebook-Latest1.pdf">http://site.njtea.org/wp-content/uploads/2012/01/innovation-notebook-Latest1.pdf</a> (Innovator’s notebook) <a href="http://sparklab.si.edu/downloads/sparklab-inventors-ntbk.pdf">http://sparklab.si.edu/downloads/sparklab-inventors-ntbk.pdf</a> (Innovator’s notebook sample)	
<b>Student Resources:</b>	Innovator’s notebooks for brainstorming ideas	
<b>Assessment:</b>	Students will complete a questionnaire focused on their innovation by identifying a problem that needs solving or a need that has to be filled. See pages 22-23 in <a href="http://sparklab.si.edu/downloads/sparklab-inventors-ntbk.pdf">http://sparklab.si.edu/downloads/sparklab-inventors-ntbk.pdf</a> (Innovator’s notebook sample) for identifying the problem and the ideas to solve it. See Pages 13-21 <a href="http://site.njtea.org/wp-content/uploads/2012/01/innovation-notebook-Latest1.pdf">http://site.njtea.org/wp-content/uploads/2012/01/innovation-notebook-Latest1.pdf</a> for other ideas on getting students started on their innovator’s notebook.	
<b>Differentiation:</b> (Multiple means for students to access content and multiple modes for student to express understanding.)	<b>Access</b> (Resources and/or Process)	<b>Expression</b> (Products and/or Performance)
	N/A	Students may first draw their innovation and then explain verbally to a partner and the teacher about what problem it solves or need it fills
<b>Extensions for depth and complexity:</b>	<b>Access</b> (Resources and/or Process)	<b>Expression</b> (Products and/or Performance)
	Teacher may provide resources (see Learning Experience #5)	Students may connect their innovation with a related invention (see resources in Learning Experience #5)
<b>Critical Content:</b>	<ul style="list-style-type: none"> <li>• Ways diagrams and other images support the text</li> <li>• The appropriate occasions to use questioning techniques (such as <i>who, what, where, when, why, and how</i>)</li> </ul>	
<b>Key Skills:</b>	<ul style="list-style-type: none"> <li>• Describe connections between a series of historical events, scientific ideas or concepts, or steps in technical procedures in text</li> <li>• Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text</li> <li>• Identify a specific question and gather information for purposeful investigation and inquiry</li> <li>• Recall information from experiences or gather information from provided sources to answer a question</li> </ul>	
<b>Critical Language:</b>	Questions, resource, informational text	

**Colorado Teacher-Authored Sample Instructional Unit**

Learning Experience # 9		
The teacher will model the process of keeping an innovator’s notebook so that students can begin to understand how innovators use language to capture and express their ideas.		
<b>Generalization Connection(s):</b>	Innovators, like authors, must understand purpose and audience in order to communicate effectively Innovators and the impact of their inventions are often powerfully communicated through informational text	
<b>Teacher Resources:</b>	<a href="http://site.njtea.org/wp-content/uploads/2012/01/innovation-notebook-Latest1.pdf">http://site.njtea.org/wp-content/uploads/2012/01/innovation-notebook-Latest1.pdf</a> (Innovator’s notebook) <a href="http://sparklab.si.edu/downloads/sparklab-inventors-ntbk.pdf">http://sparklab.si.edu/downloads/sparklab-inventors-ntbk.pdf</a> (Innovator’s notebook sample) <a href="http://invention.smithsonian.org/resources/mind_inventing.aspx">http://invention.smithsonian.org/resources/mind_inventing.aspx</a> (Documenting the invention process. Great resource from the Lemelson Center for the Study of Invention & Innovation / Smithsonian Institution)	
<b>Student Resources:</b>	Innovator’s notebook	
<b>Assessment:</b>	Students will continue working on their innovator’s notebook, including drawing/diagrams, labels and captions for the diagrams, and explanation.	
<b>Differentiation:</b> (Multiple means for students to access content and multiple modes for student to express understanding.)	<b>Access</b> (Resources and/or Process)	<b>Expression</b> (Products and/or Performance)
	N/A	N/A
<b>Extensions for depth and complexity:</b>	<b>Access</b> (Resources and/or Process)	<b>Expression</b> (Products and/or Performance)
	N/A	N/A
<b>Critical Content:</b>	<ul style="list-style-type: none"> <li>• Ways diagrams and other images support the text</li> <li>• The appropriate occasions to use questioning techniques (such as <i>who, what, where, when, why, and how</i>)</li> </ul>	
<b>Key Skills:</b>	<ul style="list-style-type: none"> <li>• Describe connections between a series of historical events, scientific ideas or concepts, or steps in technical procedures in text</li> <li>• Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text</li> <li>• Identify a specific question and gather information for purposeful investigation and inquiry</li> </ul>	
<b>Critical Language:</b>		

Learning Experience # 10		
The teacher may revisit pre-writing methods, so that students can deepen their understandings of the connections between planning and the writing process/effective writing. [ <i>Producing text</i> ]		
<b>Generalization Connection(s):</b>	Systems often depend upon the maintenance of relationships in order to run/function successfully Innovators and the impact of their inventions are often powerfully communicated through informational text	

**Colorado Teacher-Authored Sample Instructional Unit**

<p><b>Teacher Resources:</b></p>	<p><a href="http://www.primaryschoolatsage.weebly.com/sage-innovation-fair.htm">www.primaryschoolatsage.weebly.com/sage-innovation-fair.htm</a> (This site includes a lot of premade graphic organizers, research guides and journaling pages)</p> <p><a href="http://www.studenthandouts.com">www.studenthandouts.com</a> (This resource has grade level graphic organizers to help in the writing process, specifically, the 5 W’s and How)</p> <p><a href="http://www.writingfix.com">www.writingfix.com</a> (This site has a ton of graphic organizers, cluster word webs, KWL’s)</p> <p><a href="http://www.usingenglish.com">www.usingenglish.com</a> (This site is an excellent resource for your ESL and ELL students. It includes a ton of various activities and ideas for learning about innovators and inventions).</p> <p><a href="http://www.helpforlearning.org">www.helpforlearning.org</a> (Includes information on text features)</p> <p><i>Differentiating Instruction With Menus</i> by Laurie E. Westphal (This resource includes activities to help students explore text and organize their writing)</p> <p><i>Standards-Based Activities and Assessments for the Differentiated Classroom</i> by Carolyn Coil (great assessment and differentiated tool)</p> <p><i>Images of Greatness: Understanding Giftedness Through Eminent People</i> by Katha Decker Williams (The focus in this resource was the “Who Am I?” poem but also contains many resource guides and organizers)</p>	
<p><b>Student Resources:</b></p>	<p><a href="http://www.studenthandouts.com">www.studenthandouts.com</a> (This resource has grade level graphic organizers to help in the writing process, specifically, the 5 W’s and How)</p> <p><a href="http://www.primaryschoolatsage.weebly.com/sage-innovation-fair.htm">www.primaryschoolatsage.weebly.com/sage-innovation-fair.htm</a> (This site includes a lot of premade graphic organizers, research guides and journaling pages)</p> <p><a href="http://www.studenthandouts.com">www.studenthandouts.com</a> (This resource has grade level graphic organizers to help in the writing process, specifically, the 5 W’s and How)</p> <p><a href="http://www.writingfix.com">www.writingfix.com</a> (This site has a ton of graphic organizers, cluster word webs, KWL’s)</p> <p><a href="http://theasideblog.blogspot.com/2013/04/2nd-graders-go-wild-for-sketchnotes.html">http://theasideblog.blogspot.com/2013/04/2nd-graders-go-wild-for-sketchnotes.html</a> (This site is a note taking site using pictures and words)</p>	
<p><b>Assessment:</b></p>	<p>Students will complete a writing plan (web, graphic organizer, etc.) for their project. Throughout the remainder of the unit, teachers will be moving students through a writing process from planning through polished piece. Teachers may want to use the Stead and Hoyt resource (<a href="https://www.heinemann.com/shared/onlineresources/E03143/ENW_K2TeacherGuide.pdf">https://www.heinemann.com/shared/onlineresources/E03143/ENW_K2TeacherGuide.pdf</a> (PD source: “A Guide to Teaching Nonfiction Writing” by Tony Stead and Linda Hoyt) as well as other resources on writer’s workshop, teacher- and peer-conferencing, and providing feedback to students during the writing process)</p> <p><a href="http://www.teachersfirst.com/lessons/writers/writer-2.php">http://www.teachersfirst.com/lessons/writers/writer-2.php</a> (Structuring Writer’s Workshop), <a href="http://www.tips-for-teachers.com/ManagementIdeasforWritersWorkshop.htm">http://www.tips-for-teachers.com/ManagementIdeasforWritersWorkshop.htm</a> (Managing Writer’s Workshop)</p>	
<p><b>Differentiation:</b> (Multiple means for students to access content and multiple modes for student to express understanding.)</p>	<p><b>Access (Resources and/or Process)</b></p>	<p><b>Expression (Products and/or Performance)</b></p>
<p><b>Extensions for depth and complexity:</b></p>	<p><b>Access (Resources and/or Process)</b></p>	<p><b>Expression (Products and/or Performance)</b></p>
	<p>Teacher may provide graphic organizer for specific organization Teachers may provide selected sources for students to use</p>	<p>Students may complete organizer/writing plan</p>
	<p>Teacher may provide additional resources (primary sources such as inventor’s notes, etc.)</p>	<p>Students may demonstrate brainstorming / planning with multiple resources</p>

**Colorado Teacher-Authored Sample Instructional Unit**

<b>Critical Content:</b>	<ul style="list-style-type: none"> <li>• Specific vocabulary related to topic</li> <li>• Formal and informal English and appropriate usage</li> <li>• The appropriate occasions to use questioning techniques (such as who, what, where, when, why, and how)</li> <li>• Various text features that explain, describe, or answer a question</li> <li>• Ways diagrams and other images support the text</li> </ul>
<b>Key Skills:</b>	<ul style="list-style-type: none"> <li>• Describe connections between a series of historical events, scientific ideas or concepts, or steps in technical procedures in text</li> <li>• Write informative/explanatory texts in which they introduce a topic, use acts and definitions to develop points and provide a concluding statement or section</li> <li>• Recall information from experiences or gather information from provided sources to answer a question</li> </ul>
<b>Critical Language:</b>	Topic-relevant vocabulary, graphic organizer, resource, research

<b>Learning Experience # 11</b>	
The teacher may model how to identify and locate information sources so that students can begin exploring the content and value of reference materials/informational texts. [ <i>Understanding text, Producing text</i> ]	
<b>Generalization Connection(s):</b>	Innovators and the impact of their inventions are often powerfully communicated through informational text Innovators, like authors, must understand purpose and audience in order to communicate effectively
<b>Teacher Resources:</b>	<p><a href="https://www.heinemann.com/shared/onlineresources/E03143/ENW_K2TeacherGuide.pdf">https://www.heinemann.com/shared/onlineresources/E03143/ENW_K2TeacherGuide.pdf</a> (PD source: “A Guide to Teaching Nonfiction Writing” by Tony Stead and Linda Hoyt)</p> <p><a href="http://www.primaryschoolatsage.weebly.com/sage-innovation-fair.htm">www.primaryschoolatsage.weebly.com/sage-innovation-fair.htm</a> (This site includes premade graphic organizers, research guides and journaling pages)</p> <p><a href="http://www.applesforteachers.com">www.applesforteachers.com</a> (This site includes a large list of children’s books and resources for inventors and inventions)</p> <p><a href="http://www.studenthandouts.com">www.studenthandouts.com</a> (This resource has grade level graphic organizers to help in the writing process, specifically, the 5 W’s and How)</p> <p><a href="http://www.writingfix.com">www.writingfix.com</a> (This site has a ton of graphic organizers, cluster word webs, KWL’s)</p> <p><a href="http://1.bp.blogspot.com/-DZDFreX4w94/UmgVTIAUPvI/AAAAAAAAADfo/K6rDlyV-1js/s1600/Slide3.jpg">http://1.bp.blogspot.com/-DZDFreX4w94/UmgVTIAUPvI/AAAAAAAAADfo/K6rDlyV-1js/s1600/Slide3.jpg</a> (“All About” mini-webquest)</p> <p><a href="http://www.sevengenerationsschool.org/download.phtml/784/eic_sample_unit_2nd_grade.pdf">http://www.sevengenerationsschool.org/download.phtml/784/eic_sample_unit_2nd_grade.pdf</a> (This site has an A-Z list of inventors)</p> <p><a href="http://www.enchantedlearning.com/inventors/women.shtml">http://www.enchantedlearning.com/inventors/women.shtml</a> (This site includes resources, pictures, etc for various famous inventors A-Z)</p> <p><a href="http://www.usingenglish.com">www.usingenglish.com</a> (This site is an excellent resource for your ESL and ELL students. It includes a ton of various activities and ideas for learning about innovators and inventions).</p> <p><a href="http://www.teachertube.com/viewVideo.php?video_id=114224">www.teachertube.com/viewVideo.php?video_id=114224</a> (This is a video of Benjamin Franklin describing his various inventions)</p> <p><a href="http://www.helpforlearning.org">www.helpforlearning.org</a> (Includes information on text features)</p> <p>Images of Greatness: Understanding Giftedness Through Eminent People by Katha Decker Williams (The focus in this resource was the “Who Am I?” poem but also contains many resource guides and organizers)</p> <p><i>Differentiating Instruction With Menus</i> by Laurie E. Westphal (this resource includes activities to help students explore text and organize their writing)</p>



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	<i>Standards-Based Activities and Assessments for the Differentiated Classroom</i> by Carolyn Coil (great assessment and differentiated tool)	
<b>Student Resources:</b>	<a href="http://www.minnesotainventorscongress.org">www.minnesotainventorscongress.org</a> (Links for sites that would be helpful during the research process) <a href="http://theasideblog.blogspot.com/2013/04/2nd-graders-go-wild-for-sketchnotes.html">http://theasideblog.blogspot.com/2013/04/2nd-graders-go-wild-for-sketchnotes.html</a> (This site is a note taking site using pictures and words)	
<b>Assessment:</b>	Students will locate information about their chosen innovation. Throughout the remainder of the unit, teachers will be moving students through a writing process from planning through polished piece. Teachers may want to use the Stead and Hoyt resource ( <a href="https://www.heinemann.com/shared/onlineresources/E03143/ENW_K2TeacherGuide.pdf">https://www.heinemann.com/shared/onlineresources/E03143/ENW_K2TeacherGuide.pdf</a> (PD source: "A Guide to Teaching Nonfiction Writing" by Tony Stead and Linda Hoyt) as well as other resources on writer's workshop, teacher- and peer-conferencing, and providing feedback to students during the writing process) <a href="http://www.teachersfirst.com/lessons/writers/writer-2.php">http://www.teachersfirst.com/lessons/writers/writer-2.php</a> (Structuring Writer's Workshop), <a href="http://www.tips-for-teachers.com/ManagementIdeasforWritersWorkshop.htm">http://www.tips-for-teachers.com/ManagementIdeasforWritersWorkshop.htm</a> (Managing Writer's Workshop)	
<b>Differentiation:</b> (Multiple means for students to access content and multiple modes for student to express understanding.)	<b>Access</b> (Resources and/or Process)	<b>Expression</b> (Products and/or Performance)
	Teacher may provide various non-fiction resources (books on tape, videos, etc.) Teacher may provide resource personnel Teacher may provide pre-writing organizers Teacher may provide <a href="http://www.usingenglish.com">www.usingenglish.com</a> (this site is an excellent resource for your ESL and ELL students. It includes various activities and ideas for learning about innovators and inventions)	Students may select sources related to chosen topic Students may use a pre-writing organizer
<b>Extensions for depth and complexity:</b>	<b>Access</b> (Resources and/or Process)	<b>Expression</b> (Products and/or Performance)
	Teacher may provide pre-writing organizers Teacher may provide various non-fiction resources/primary documents/interviews Teacher may provide GT personnel/resources	Students may use pre-writing organizer (writing plan) Students may select sources related to chosen topic
<b>Critical Content:</b>	<ul style="list-style-type: none"> <li>• Key ideas from text to support and extend understanding</li> <li>• Various text features that explain, describe, or answer a question</li> <li>• Ways diagrams and other images support the text</li> <li>• Formal and informal English and appropriate usage</li> </ul>	
<b>Key Skills:</b>	<ul style="list-style-type: none"> <li>• Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently</li> <li>• Identify a variety of resources and the information they might contain (dictionary, trade book, library databases, Internet web page)</li> <li>• Use text features to locate, interpret, and use information (table of contents, illustrations, diagrams, headings, bold type)</li> <li>• Use a variety of multimedia sources to answer questions of interest</li> <li>• Recall information from experiences or gather information from provided sources to answer a question</li> </ul>	

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<b>Critical Language:</b>	Topic-relevant vocabulary, Innovators, inventions, discover, graphic organizer, resource, research, fiction, non-fiction, autobiography, biography, genre
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<b>Learning Experience # 12</b>		
The teacher may revisit ways to organize information, so that students can deepen their understandings of the connections between structure and the writing process/effective writing. [ <i>Producing text</i> ]		
<b>Generalization Connection(s):</b>	Systems often depend upon the maintenance of relationships in order to run/function successfully Innovators and the impact of their inventions are often powerfully communicated through informational text	
<b>Teacher Resources:</b>	<a href="http://www.primaryschoolatsage.weebly.com/sage-innovation-fair.htm">www.primaryschoolatsage.weebly.com/sage-innovation-fair.htm</a> (This site includes a lot of premade graphic organizers, research guides and journaling pages) <a href="http://www.studenthandouts.com">www.studenthandouts.com</a> (This resource has grade level graphic organizers to help in the writing process, specifically, the 5 W's and How) <a href="http://www.writingfix.com">www.writingfix.com</a> (This site has a ton of graphic organizers, cluster word webs, KWL's) <i>Differentiating Instruction With Menus</i> by Laurie E. Westphal (this resource includes activities to help students explore text and organize their writing) <i>Standards-Based Activities and Assessments for the Differentiated Classroom</i> by Carolyn Coil (great assessment and differentiated tool) <i>Images of Greatness: Understanding Giftedness Through Eminent People</i> by Katha Decker Williams (The focus in this resource was the "Who Am I?" poem but also contains many resource guides and organizers)	
<b>Student Resources:</b>	<a href="http://www.studenthandouts.com">www.studenthandouts.com</a> (This resource has grade level graphic organizers to help in the writing process, specifically, the 5 W's and How)	
<b>Assessment:</b>	Throughout the remainder of the unit, teachers will be moving students through a writing process from planning through polished piece. Teachers may want to use the Stead and Hoyt resource ( <a href="https://www.heinemann.com/shared/onlineresources/E03143/ENW_K2TeacherGuide.pdf">https://www.heinemann.com/shared/onlineresources/E03143/ENW_K2TeacherGuide.pdf</a> (PD source: "A Guide to Teaching Nonfiction Writing" by Tony Stead and Linda Hoyt) as well as other resources on writer's workshop, teacher- and peer-conferencing, and providing feedback to students during the writing process) <a href="http://www.teachersfirst.com/lessons/writers/writer-2.php">http://www.teachersfirst.com/lessons/writers/writer-2.php</a> (Structuring Writer's Workshop), <a href="http://www.tips-for-teachers.com/ManagementIdeasforWritersWorkshop.htm">http://www.tips-for-teachers.com/ManagementIdeasforWritersWorkshop.htm</a> (Managing Writer's Workshop)	
<b>Differentiation:</b> (Multiple means for students to access content and multiple modes for student to express understanding.)	<b>Access (Resources and/or Process)</b>	<b>Expression (Products and/or Performance)</b>
	Teacher may provide graphic organizer for specific organization Teacher may provide selected sources for students to use	Students may complete organizer/writing plan
<b>Extensions for depth and complexity:</b>	<b>Access (Resources and/or Process)</b>	<b>Expression (Products and/or Performance)</b>
	Teacher may provide additional resources (primary sources such as inventor's notes, etc.)	Students may demonstrate brainstorming / planning with multiple resources

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<b>Critical Content:</b>	<ul style="list-style-type: none"> <li>• Specific vocabulary related to topic</li> <li>• Formal and informal English and appropriate usage</li> <li>• Formal and informal English and appropriate usage</li> <li>• Various text features that explain, describe, or answer a question</li> </ul>
<b>Key Skills:</b>	<ul style="list-style-type: none"> <li>• Describe connections between a series of historical events, scientific ideas or concepts, or steps in technical procedures in text</li> <li>• Write informative/explanatory texts in which they introduce a topic, use acts and definitions to develop points and provide a concluding statement or section</li> <li>• Recall information from experiences or gather information from provided sources to answer a question</li> </ul>
<b>Critical Language:</b>	Topic-relevant vocabulary, graphic organizer, resource, research

<b>Learning Experience # 13</b>		
The teacher may revisit peer editing steps, so that students deepen their understandings of the connections between giving and getting feedback and the writing process/effective writing. [ <i>Producing text</i> ]		
<b>Generalization Connection(s):</b>	Innovators and the impact of their inventions are often powerfully communicated through informational text Innovators, like authors, must understand purpose and audience in order to communicate effectively English conventions represent a system that writers understand and employ to communicate with various audiences	
<b>Teacher Resources:</b>	<a href="http://teacher.scholastic.com/products/scholasticprofessional/pdfs/master_mechanics/2-3/0-545-04878-8_ASSESS.pdf">http://teacher.scholastic.com/products/scholasticprofessional/pdfs/master_mechanics/2-3/0-545-04878-8_ASSESS.pdf</a> (peer editing checklist)	
<b>Student Resources:</b>	<a href="http://teacher.scholastic.com/products/scholasticprofessional/pdfs/master_mechanics/2-3/0-545-04878-8_ASSESS.pdf">http://teacher.scholastic.com/products/scholasticprofessional/pdfs/master_mechanics/2-3/0-545-04878-8_ASSESS.pdf</a> (peer editing checklist)	
<b>Assessment:</b>	Students will continue to polish their informational text. Teachers may want to use the Stead and Hoyt resource ( <a href="https://www.heinemann.com/shared/onlineresources/E03143/ENW_K2TeacherGuide.pdf">https://www.heinemann.com/shared/onlineresources/E03143/ENW_K2TeacherGuide.pdf</a> (PD source: “A Guide to Teaching Nonfiction Writing” by Tony Stead and Linda Hoyt) as well as other resources on writer’s workshop, teacher- and peer-conferencing, and providing feedback to students during the writing process) <a href="http://www.teachersfirst.com/lessons/writers/writer-2.php">http://www.teachersfirst.com/lessons/writers/writer-2.php</a> (Structuring Writer’s Workshop), <a href="http://www.tips-for-teachers.com/ManagementIdeasforWritersWorkshop.htm">http://www.tips-for-teachers.com/ManagementIdeasforWritersWorkshop.htm</a> (Managing Writer’s Workshop)	
<b>Differentiation:</b> (Multiple means for students to access content and multiple modes for student to express understanding.)	<b>Access (Resources and/or Process)</b>	<b>Expression (Products and/or Performance)</b>
	Teacher may use individual conferences to support students Teacher may use District-adopted writing tools Teacher may use Dragon Dictation App	Students may draft and confer with peers and teacher
<b>Extensions for depth and complexity:</b>	<b>Access (Resources and/or Process)</b>	<b>Expression (Products and/or Performance)</b>
	Teacher may use Various forms of written expression while following district-adopted writing approach	Students may draft and confer with peers and teacher

**Colorado Teacher-Authored Sample Instructional Unit**

<b>Critical Content:</b>	<ul style="list-style-type: none"><li>• Specific vocabulary related to topic</li><li>• Key ideas from text to support and extend understanding</li><li>• Formal and informal English and appropriate usage</li><li>• Various text features that explain, describe, or answer a question</li><li>• Ways diagrams and other images support the text</li></ul>
<b>Key Skills:</b>	<ul style="list-style-type: none"><li>• Describe connections between a series of historical events, scientific ideas or concepts, or steps in technical procedures in text</li><li>• Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently</li><li>• Write informative/explanatory texts in which they introduce a topic, use acts and definitions to develop points and provide a concluding statement or section</li></ul>
<b>Critical Language:</b>	Writing process, draft, revise, plagiarism, topic-relevant vocabulary, product, rubric, format, poetry, conferences