

Colorado School Day Digital PSAT & SAT

Spring 2024

TAP
October 5, 2023

Agenda

- ✓ Testing Window and Administration Flexibility
- ✓ Test Overview: What's Different?
- ✓ Test Overview: What's the Same?
- ✓ Q&A
- ✓ Sample Items

Testing Window and Administration Flexibility

Colorado School Day Testing: Digital PSAT and SAT – Test Window

Assessment	Grade	Administration Dates
PSAT 9	9	April 15 - April 26, 2024 Dates may be selected based on district/school preference within this window
PSAT 10	10	
SAT	11	April 15 - April 26, 2024* Dates may be selected based on district/school preference within this window Essay is available to students who choose to take it

* The March 9 SAT Weekend administration is available for virtual schools to use, as well as students who have curricular conflicts with the SAT School Day testing window.

Colorado School Day Testing: Digital PSAT and SAT – Administration Flexibility

Important changes to administration:

- Digital tests
- Multiple forms for each test
- Testing times are the same across tests
- No mandatory start times

Our historical use of primary test days and make-up days won't apply in the same way.

- We suggest a single test day (per test); however, districts/schools will have flexibility to establish (multiple) test days within the state testing window.
 - 9th, 10th and 11th grade can be tested on the same day or different days, based on school technology availability and schedule flexibility
 - For this year, a testing room should only be comprised of the same grade level
- To the extent possible, we suggest single morning and/or afternoon start time(s); however, student groups can start at different times throughout the day.
 - Consider a late arrival room

Test Overview

What's Different?



Digital SAT Test Design

Reading & Writing



Past years: Paper-based SAT Reading Section Writing Section



96 total questions (2 sections)

100 total minutes (1.04 min/question)

Set based questions

Passage or Set Word Count: 400-750



New Digital SAT Reading & Writing Section



54 total questions (1 section)

64 total minutes (1.19 min/question)

Discrete questions

Passage or Set Word Count: 25-150

NOTE: To support reliability and comparability of scores, the number of questions and timing are increased for the accommodated paper-based form



SAT Domain Distribution

Reading and Writing



2023 Evidence-based Reading and Writing		Digital Reading and Writing	
Information and Ideas	15-20%	Information and Ideas	26%
Rhetoric and Synthesis	30-35%	Craft and Structure	28%
Expression of Ideas	28%	Expression of Ideas	20%
Standard English Conventions	23%	Standard English Conventions	26%
Additional Information			
Passage (Set) Word Count	400-750	Passage (Set) Word Count	25-150

Digital SAT Test Design Math



Past years: Paper-based SAT



58 total questions

2 sections – calculator and no calculator



New Digital SAT



44 total questions

1 section – with calculator

80 total minutes (1.38 min/question)



70 total minutes (1.59 min/question)

Discrete and set based questions

Multiple-choice ($\approx 78\%$)

Student-produced response ($\approx 22\%$)



Discrete questions

Four-option multiple-choice ($\approx 75\%$)

Student-produced response ($\approx 25\%$)

NOTE: To support reliability and comparability of scores, the number of questions and timing are increased for the accommodated paper-based form



SAT Domain Distribution Math



2023		Digital	
Algebra	33%	Algebra	35%
Problem-solving & Data Analysis	29%	Problem-solving & Data Analysis	15%
Advanced Math	28%	Advanced Math	35%
Additional Topics (Geometry)	10%	Geometry	15%
Additional Information			
Items in Context	100% (unofficial)	Items in Context	30%

Digital SAT Suite Math Section: Distribution of MC and SPR Question Formats

Digital SAT Suite Testing Program	Question Format	Algebra	Advanced Math	Problem-Solving and Data Analysis	Geometry and Trigonometry (SAT, PSAT/NMSQT, PSAT 10)/ Geometry (PSAT 8/9)	Total
SAT	MC	10–11	10–11	4–5	4–5	28–32
	SPR	3–4	3–4	1–2	1–2	8–12
PSAT/NMSQT and PSAT 10	MC	10–11	10–11	5–6	3–4	28–32
	SPR	3–4	2–3	2–3	1–2	8–12
PSAT 8/9	MC	14–15	5–6	6–7	3–4	28–32
	SPR	2–3	2–3	3–4	1–2	8–12

- *Assessment Framework for the Digital SAT Suite* (College Board, 2023)

Digital SAT and PSAT: Multi-Stage Adaptive



Multi-Stage Adaptive Testing (MST) (SAT and PSAT)

Test Delivery

Sets of questions (called modules)

Adaptive

Based on how students perform in the previous module

Navigation

Students can review items within a module

Test Length

Supports shorter test lengths



Digital SAT and PSAT: Two Modules per Section

Module 1

Students are given a broad mix of easy, medium, and hard questions.



Module 2

Students are given a targeted mix of questions of varying difficulty based on their performance in Module 1.



**Student's
Score for
that
Section:
Historical
scale score,
but based
on IRT
parameters
and pattern
scoring**

Test Overview

What's the Same?



Constructs



Reading and Writing: literacy achievement relative to core college and career readiness requirements in English language arts as well as in the academic disciplines of literature, history/social studies, the humanities, and science.

“To be successful on the Reading and Writing section, students must be able to

- demonstrate understanding of **information and ideas** in texts across a range of academic disciplines and complexities aligned with college and career readiness requirements.
- effectively evaluate the **craft and structure** of texts, including demonstrating understanding and proficient use of high-utility academic vocabulary in context.
- revise the **expression of ideas** in texts to enhance communicative power in accordance with specified rhetorical goals.
- edit texts in accordance with **Standard English conventions** in order to meet academic and workplace expectations regarding the use of standardized expression”

- *Assessment Framework for the Digital SAT Suite* (College Board, 2023)



Constructs

Math: math achievement relative to core college and career readiness requirements

“To be successful on the Math section, students must be able to

- analyze, fluently solve, interpret, and create linear equations and inequalities as well as analyze and fluently solve systems of equations using multiple techniques. (**Algebra**)
- demonstrate attainment of skills and knowledge central for successful progression to more advanced math courses, including analyzing, fluently solving, interpreting, and creating equations, including absolute value, quadratic, exponential, polynomial, rational, radical, and other nonlinear equations, as well as analyzing and fluently solving systems of linear and nonlinear equations in two variables. (**Advanced Math**)
- apply quantitative reasoning about ratios, rates, and proportional relationships; understand and apply unit rate; and analyze and interpret one- and two-variable data. (**Problem-Solving and Data Analysis**)
- solve problems that focus on perimeter, area, and volume; angles, triangles, and trigonometry; and circles. (**Geometry and Trigonometry** [SAT, PSAT/NMSQT, and PSAT 10] / **Geometry** [PSAT 8/9])

- *Assessment Framework for the Digital SAT Suite* (College Board, 2023)



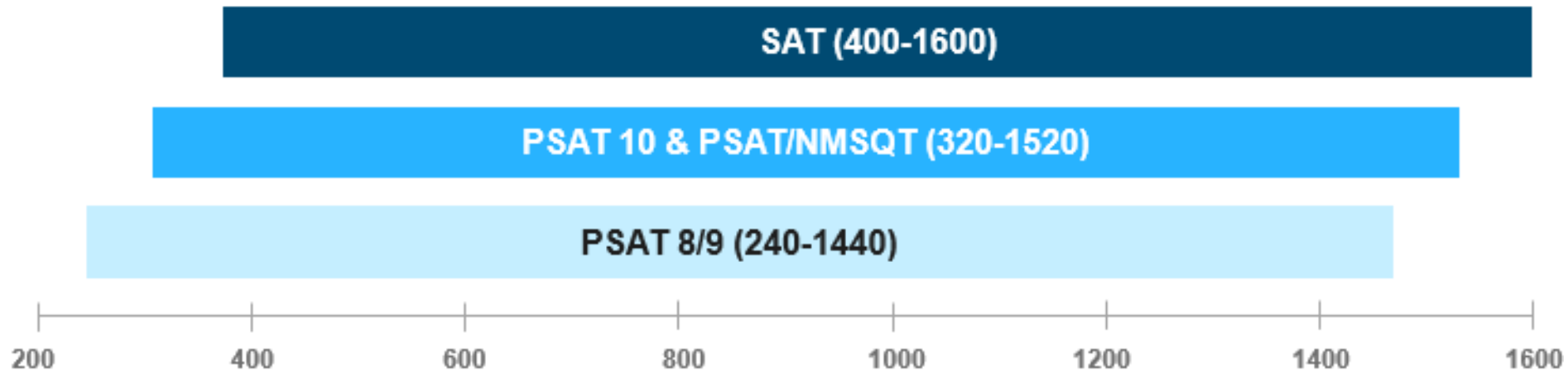
Concordance and Vertical Scale



“The digital SAT launched internationally in March 2023. Rigorous concordance and vertical scaling studies confirm that scores from the digital SAT can be used in the same manner as scores from the paper and pencil SAT.”

*- College Board Digital SAT Suite Concordance and Vertical Scaling Studies
(College Board, 2023)*

Digital SAT Suite of Assessments Vertical Scale



What criteria were used to establish concordance?

- Students would score the same on the historical paper-based SAT and the digital version
- Variability of scores would be the same
- Students rank order would be nearly identical (correlation >0.866)
- Students perform similarly for critical subgroups
- Considered mean, standard deviation and correlation

Public Concordance Results



Average Scores and Variability Across Modes of Administration

	Paper-Based Admin.		Digital-Based Admin.		Correlation
	<u>Mean</u>	<u>SD</u>	<u>Mean</u>	<u>SD</u>	
Reading and Writing	602	94	602	94	0.885
Math	600	113	600	113	0.919
Total Score	1202	195	1202	192	0.940

- Section means and standard deviations are essentially equal across two versions
- Total score means are essentially equal across the two versions
- Total score standard deviation is slightly different
- Correlations are high for both sections and total score

Conclusion: Scores from the digital SAT can be used in the same manner as scores from the historical paper-based version

-College Board Digital SAT Suite Concordance and Vertical Scaling Studies (College Board, 2023)

Sample Items

3.5.1.1. SAMPLE INFORMATION AND IDEAS QUESTIONS

To dye wool, Navajo (Diné) weaver Lillie Taylor uses plants and vegetables from Arizona, where she lives. For example, she achieved the deep reds and browns featured in her 2003 rug *In the Path of the Four Seasons* by using Arizona dock roots, drying and grinding them before mixing the powder with water to create a dye bath. To intensify the appearance of certain colors, Taylor also sometimes mixes in clay obtained from nearby soil.

Which choice best states the main idea of the text?

- A) Reds and browns are not commonly featured in most of Taylor's rugs.
- B) *In the Path of the Four Seasons* is widely acclaimed for its many colors and innovative weaving techniques.
- C) Taylor draws on local resources in the approach she uses to dye wool.
- D) Taylor finds it difficult to locate Arizona dock root in the desert.

- *Assessment Framework for the Digital SAT Suite* (College Board, 2023)

3.5.2.1. SAMPLE CRAFT AND STRUCTURE QUESTIONS

In recommending Bao Phi's collection *Sông I Sing*, a librarian noted that pieces by the spoken-word poet don't lose their _____ nature when printed: the language has the same pleasant musical quality on the page as it does when performed by Phi.

Which choice completes the text with the most logical and precise word or phrase?

- A) jarring
- B) scholarly
- C) melodic
- D) personal

- *Assessment Framework for the Digital SAT Suite* (College Board, 2023)

Iraqi artist Nazik Al-Malaika, celebrated as the first Arabic poet to write in free verse, didn't reject traditional forms entirely; her poem "Elegy for a Woman of No Importance" consists of two ten-line stanzas and a standard number of syllables. Even in this superficially traditional work, _____ Al-Malaika was breaking new ground by memorializing an anonymous woman rather than a famous man.

Which choice completes the text with the most logical transition?

- A) in fact,
- B) though,
- C) therefore,
- D) moreover,

- *Assessment Framework for the Digital SAT Suite* (College Board, 2023)

3.5.4.1. **SAMPLE STANDARD ENGLISH CONVENTIONS QUESTIONS**

According to Naomi Nakayama of the University of Edinburgh, the reason seeds from a dying dandelion appear to float in the air while _____ is that their porous plumes enhance drag, allowing the seeds to stay airborne long enough for the wind to disperse them throughout the surrounding area.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A) falling,
- B) falling:
- C) falling;
- D) falling

- *Assessment Framework for the Digital SAT Suite* (College Board, 2023)