

# **Virginia**

**Standards of Learning Assessments**

**Test Blueprint**

**Grade 4 Reading**

**2017 English**

**Standards of Learning**

**This test blueprint will be effective with the administration of the spring 2024 Reading Standards of Learning (SOL) tests.**

## Grade 4 Reading Test Blueprint Summary Table

Beginning in spring 2023, the computer adaptive Standards of Learning tests will include a section of additional passages/items at the end of the test. The computer algorithm may deliver passages/items one grade level above or one grade level below a student's current grade based upon the student's responses to the on-grade-level passages/items. The Test Scaled Score (0 to 600) and corresponding performance level (i.e., pass/proficient, pass/advanced, fail/basic, fail/below basic) are based upon a student's performance on the on-grade-level Operational Passages/Items only. The student's responses to the on-grade-level Operational Passages/Items *and* the Additional Passages/Items that may be on grade level, one grade level above, or one grade level below the current grade level will be reflected in the student's Vertical Scaled Score.

Reporting Category	Grade 4 SOL	Number of Items Computer Adaptive Test (CAT) Format	Number of Items Paper Format
Demonstrate comprehension of fictional texts and use word analysis strategies*	4.4a-d 4.5a-j	15	22
Demonstrate comprehension of nonfiction texts and use word analysis strategies*	4.4a-d 4.6a-g	13	18
<b>Number of Operational Passages/Items</b>		<b>28</b> <b>4 passages</b>	<b>40</b> <b>6 passages</b>
<b>Number of Field-Test Passages/Items**</b>		<b>5</b> <b>1 passage</b>	<b>0</b>
<b>Number of Additional On- or Off-Grade-Level Passages/Items***</b>		<b>5</b> <b>1 passage</b>	<b>0</b>

A seal code will appear after the third passage and set of items in the computer adaptive test. A stop sign will appear after the third passage and set of items on the paper test.

\*Using word analysis strategies and word reference materials will be tested with both fictional and nonfictional texts.

\*\*Field-test items will be administered to students for potential use on subsequent tests and will not be used to compute the final test score.

\*\*\* Legislation passed in the 2021 Virginia General Assembly ([HB2027](#) and [SB1357](#)) requires these assessments have the ability to contain additional test items at, below, and above a student's grade level as appropriate for the student. All test items will be delivered online via the computer adaptive algorithm. Students who meet the criteria for a paper test will receive only on-grade-level items.

# **Grade 4 Reading Expanded Test Blueprint**

## **Reporting Category: Demonstrate comprehension of fictional texts and word analysis strategies**

**Number of Items: 15 (CAT)**

### **Standards of Learning:**

4.4 The student will expand vocabulary when reading.

- a) Use context to clarify meanings of unfamiliar words.
- b) Use knowledge of roots, affixes, synonyms, antonyms, and homophones to determine the meaning of new words.
- c) Use word-reference materials.
- d) Use vocabulary from other content areas.

4.5 The student will read and demonstrate comprehension of fictional texts, literary nonfiction, and poetry.

- a) Describe how the choice of language, setting, and characters contributes to the development of plot.
- b) Identify the theme(s).
- c) Summarize events in the plot.
- d) Identify genres.
- e) Identify the narrator of a story and the speaker of a poem.
- f) Identify the conflict and resolution.
- g) Identify sensory words.
- h) Draw conclusions/make inferences about text using the text as support.
- i) Compare/contrast details in literary and informational nonfiction texts.
- j) Identify cause-and-effect relationships.

## **Reporting Category: Demonstrate comprehension of nonfiction texts and use word analysis strategies**

**Number of Items: 13 (CAT)**

### **Standards of Learning:**

4.4 The student will expand vocabulary when reading.

- a) Use context to clarify meanings of unfamiliar words.
- b) Use knowledge of roots, affixes, synonyms, antonyms, and homophones to determine the meaning of new words.
- c) Use word-reference materials.
- d) Use vocabulary from other content areas.

4.6 The student will read and demonstrate comprehension of nonfiction texts.

- a) Use text features, such as type, headings, and graphics, to predict and categorize information.
- b) Explain the author's purpose.

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This test blueprint will be effective beginning with the spring 2024 test administration.

- c) Identify the main idea.
- d) Summarize supporting details.
- e) Draw conclusions and make inferences using textual information as support.
- f) Distinguish between cause and effect.
- g) Distinguish between fact and opinion.

# **Virginia**

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## Standards of Learning Assessments

Test Blueprint  
**Grade 4 Mathematics**  
2016 Mathematics  
Standards of Learning

**This test blueprint will be effective with the administration of the spring 2024 Mathematics Standards of Learning (SOL) tests.**

## Grade 4 Mathematics Test Blueprint Summary Table

Beginning in spring 2023, the computer adaptive Standards of Learning tests will include a section of additional items at the end of the test. The computer algorithm may deliver items one grade level above or one grade level below a student's current grade based upon the student's responses to the on-grade-level items. The Test Scaled Score (0 to 600) and corresponding performance level (i.e., pass/proficient, pass/advanced, fail/basic, fail/below basic) are based upon a student's performance on the on-grade-level Operational Items only. The student's responses to the on-grade-level Operational Items *and* the Additional Items that may be on grade level, one grade level above, or one grade level below the current grade level will be reflected in the student's Vertical Scaled Score.

Reporting Category	Grade 4 SOL	Number of Items Computer Adaptive Test (CAT) Format	Number of Items Paper Format
<b>Number and Number Sense</b>	4.1a-c 4.2a*, b*, c 4.3a-c, d*	9	12
<b>Computation and Estimation</b>	4.4a*, b*, c*, d 4.5a, b*, c 4.6a*, b	10	14
<b>Measurement and Geometry</b>	4.7 4.8a-d 4.9 4.10a-b 4.11 4.12	8	12
<b>Probability, Statistics, Patterns, Functions, and Algebra</b>	4.13a-c 4.14a-c 4.15 4.16	8	12
<b>Number of Operational Items</b>		<b>35</b>	<b>50</b>
<b>Number of Field-Test Items**</b>		<b>5</b>	<b>0</b>
<b>Number of Additional On- or Off-Grade-Level Items***</b>		<b>6</b>	<b>0</b>

A seal code will appear approximately halfway through the operational and field-test items on a computer adaptive test. The exact placement of the seal code may vary by 2-3 items on the computer adaptive test. A stop sign will separate the no-calculator-active test questions from the calculator-active test questions on a paper test.

\*Items measuring these SOL will be completed without the use of a calculator. Calculator-active items will have the online calculator included with the item. Grade 3 SOL test items will be measured without the use of a calculator. For additional information, please refer to the list of Online Mathematics Tools available on the Grades 3-8 Mathematics Growth Assessments.

\*\*Field-test items will be administered to students for potential use on subsequent tests and will not be used to compute the final test score.

\*\*\* Legislation passed in the 2021 Virginia General Assembly ([HB2027](#) and [SB1357](#)) requires these assessments have the ability to contain additional test items at, below, and above a student's grade level as appropriate for the student. All test items will be delivered online via the computer adaptive algorithm. Students who meet the criteria for a paper test will receive only on-grade-level items.

## Grade 4 Mathematics Expanded Test Blueprint

### Reporting Category: Number and Number Sense

Number of Items: 9 (CAT) 12 (Traditional)

#### Standards of Learning:

- 4.1 The student will
- a) read, write, and identify the place and value of each digit in a nine-digit whole number;
  - b) compare and order whole numbers expressed through millions; and
  - c) round whole numbers expressed through millions to the nearest thousand, ten thousand, and hundred thousand.
- 4.2 The student will
- a) compare and order fractions and mixed numbers, with and without models;
  - b) represent equivalent fractions; and
  - c) identify the division statement that represents a fraction, with models and in context.
- 4.3 The student will
- a) read, write, represent, and identify decimals expressed through thousandths;
  - b) round decimals to the nearest whole number;
  - c) compare and order decimals; and
  - d) given a model, write the decimal and fraction equivalents.

### Reporting Category: Computation and Estimation

Number of Items: 10 (CAT) 14 (Traditional)

#### Standards of Learning:

- 4.4 The student will
- a) demonstrate fluency with multiplication facts through  $12 \times 12$ , and the corresponding division facts;
  - b) estimate and determine sums, differences, and products of whole numbers;
  - c) estimate and determine quotients of whole numbers, with and without remainders; and
  - d) create and solve single-step and multistep practical problems involving addition, subtraction, and multiplication, and single-step practical problems involving division with whole numbers.
- 4.5 The student will
- a) determine common multiples and factors, including least common multiple and greatest common factor;
  - b) add and subtract fractions and mixed numbers having like and unlike denominators; and

- c) solve single-step practical problems involving addition and subtraction with fractions and mixed numbers.

4.6 The student will

- a) add and subtract decimals; and
- b) solve single-step and multistep practical problems involving addition and subtraction with decimals.

**Reporting Category: Measurement and Geometry**

**Number of Items: 8 (CAT) 12 (Traditional)**

**Standards of Learning:**

4.7 The student will solve practical problems that involve determining perimeter and area in U.S. Customary and metric units.

4.8 The student will

- a) estimate and measure length and describe the result in U.S. Customary and metric units;
- b) estimate and measure weight/mass and describe the result in U.S. Customary and metric units;
- c) given the equivalent measure of one unit, identify equivalent measures of length, weight/mass, and liquid volume between units within the U.S. Customary system; and
- d) solve practical problems that involve length, weight/mass, and liquid volume in U.S. Customary units.

4.9 The student will solve practical problems related to elapsed time in hours and minutes within a 12-hour period.

4.10 The student will

- a) identify and describe points, lines, line segments, rays, and angles, including endpoints and vertices; and
- b) identify and describe intersecting, parallel, and perpendicular lines.

4.11 The student will identify, describe, compare, and contrast plane and solid figures according to their characteristics (number of angles, vertices, edges, and the number and shape of faces) using concrete models and pictorial representations.

4.12 The student will classify quadrilaterals as parallelograms, rectangles, squares, rhombi, and/or trapezoids.



**Reporting Category: Probability, Statistics, Patterns, Functions, and Algebra**

**Number of Items: 8 (CAT) 12 (Traditional)**

**Standards of Learning:**

- 4.13 The student will
- determine the likelihood of an outcome of a simple event;
  - represent probability as a number between 0 and 1, inclusive; and
  - create a model or practical problem to represent a given probability.
- 4.14 The student will
- collect, organize, and represent data in bar graphs and line graphs;
  - interpret data represented in bar graphs and line graphs; and
  - compare two different representations of the same data (e.g., a set of data displayed on a chart and a bar graph, a chart and a line graph, or a pictograph and a bar graph).
- 4.15 The student will identify, describe, create, and extend patterns found in objects, pictures, numbers, and tables.
- 4.16 The student will recognize and demonstrate the meaning of equality in an equation.

# **Virginia**

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## Standards of Learning Assessments

### **Test Blueprint**

## **Virginia Studies**

### **2015 History and Social Science Standards of Learning**

**This test blueprint will be effective with the administration of the spring 2020 History and Social Science Standards of Learning (SOL) tests.**

## Virginia Studies Test Blueprint Summary Table

Reporting Category	Virginia Studies Standards of Learning	Number of Items
<b>Assessed with Other SOL</b>	<b>VS.1a-g</b>	
<b>History</b>	VS.2f-g VS.3a, e-g VS.5b-c VS.6a VS.7a-c VS.9b, d	<b>16</b>
<b>Geography</b>	VS.2a-e VS.3b VS.4b-c VS.5d VS.6c	<b>10</b>
<b>Civics</b>	VS.3c-d VS.5a VS.6b VS.8b VS.9c VS.10a	<b>7</b>
<b>Economics</b>	VS.4a, d-e VS.8a, c VS.9a VS.10b-c	<b>7</b>
<b>Number of Operational Items</b>		<b>40</b>
<b>Number of Field-Test Items*</b>		<b>10</b>
<b>Total Number of Items on Test</b>		<b>50</b>

\*Field-test items are being tried out with students for potential use on subsequent tests and will not be used to compute students' scores on the test.

## **Virginia Studies Expanded Test Blueprint**

### **Assessed with Other History and Social Science Standards of Learning**

The following skill-based standards will be assessed through the reporting categories by applying them to other Standards of Learning content:

- VS.1 The student will demonstrate skills for historical thinking, geographical analysis, economic decision making, and responsible citizenship by
- a) analyzing and interpreting artifacts and primary and secondary sources to understand events in Virginia history;
  - b) analyzing the impact of geographic features on people, places, and events to support an understanding of events in Virginia history;
  - c) interpreting charts, graphs, and pictures to determine characteristics of people, places, or events in Virginia history;
  - d) recognizing points of view and historical perspectives;
  - e) comparing and contrasting ideas and cultural perspectives in Virginia history;
  - f) determining relationships with multiple causes or effects in Virginia history; and
  - g) explaining connections across time and place.

### **Reporting Category: History**

**Number of Items: 16**

### **Standards of Learning:**

- VS.2 The student will demonstrate an understanding of the relationship between physical geography and the lives of the native peoples, past and present, of Virginia by
- f) describing how archaeologists have recovered new material evidence at sites including Werowocomoco and Jamestown; and
  - g) describing the lives of American Indians in Virginia today.
- VS.3 The student will demonstrate an understanding of the first permanent English settlement in America by
- a) explaining the reasons for English colonization;
  - e) identifying the impact of the arrival of Africans and English women to the Jamestown settlement;
  - f) describing the hardships faced by settlers at Jamestown and the changes that took place to ensure survival; and
  - g) describing the interactions between the English settlers and the native peoples, including the role of the Powhatan in the survival of the settlers.
- VS.5 The student will demonstrate an understanding of the role of Virginia in the American Revolution by
- b) identifying the various roles of American Indians, whites, enslaved African Americans, and free African Americans in the Revolutionary War era,

- including George Washington, Thomas Jefferson, Patrick Henry, the Marquis de Lafayette, and James Lafayette; and
- c) identifying the importance of the American victory at Yorktown.
- VS.6 The student will demonstrate knowledge of the role of Virginia in the establishment of the new American nation by
- a) explaining why George Washington is called the “Father of our Country” and James Madison is called the “Father of the Constitution”.
- VS.7 The student will demonstrate an understanding of the issues that divided our nation and led to the Civil War by
- a) explaining the major events and the differences between northern and southern states that divided Virginians and led to secession, war, and the creation of West Virginia;
- b) describing Virginia’s role in the war, including identifying major battles that took place in Virginia; and
- c) describing the roles of American Indians, whites, enslaved African Americans, and free African Americans.
- VS.9 The student will demonstrate an understanding of Virginia during the twentieth century and beyond by
- b) describing how national events, including women’s suffrage and the Great Depression, affected Virginia and its citizens; and
- d) describing the political, social, or economic impact made by Maggie L. Walker; Harry F. Byrd, Sr.; Oliver W. Hill, Sr.; Arthur R. Ashe, Jr.; A. Linwood Holton, Jr.; and L. Douglas Wilder.

**Reporting Category: Geography**

**Number of Items: 10**

**Standards of Learning:**

- VS.2 The student will demonstrate an understanding of the relationship between physical geography and the lives of the native peoples, past and present, of Virginia by
- a) locating Virginia and its bordering states on maps of the United States;
- b) locating and describing Virginia’s Coastal Plain (Tidewater), Piedmont, Blue Ridge Mountains, Valley and Ridge, and Appalachian Plateau;
- c) locating and identifying water features important to the early history of Virginia (Atlantic Ocean, Chesapeake Bay, James River, York River, Potomac River, Rappahannock River, and Lake Drummond and the Dismal Swamp);
- d) locating three American Indian language groups (the Algonquian, the Siouan, and the Iroquoian) on a map of Virginia; and
- e) describing how American Indians related to the climate and their environment to secure food, clothing, and shelter.
- VS.3 The student will demonstrate an understanding of the first permanent English

settlement in America by

- b) describing the economic and geographic influences on the decision to settle at Jamestown.

- VS.4 The student will demonstrate an understanding of life in the Virginia colony by
- b) describing how the culture of colonial Virginia reflected the origins of American Indians, European (English, Scots-Irish, German) immigrants, and Africans; and
  - c) explaining the reasons for the relocation of Virginia's capital from Jamestown to Williamsburg.

- VS.5 The student will demonstrate an understanding of the role of Virginia in the American Revolution by
- d) examining the reasons for the relocation of Virginia's capital from Williamsburg to Richmond.

- VS.6 The student will demonstrate an understanding of the role of Virginia in the establishment of the new American nation by
- c) explaining the influence of geography and technological advances on the migration of Virginians into other states and western territories in the first half of the 1800s.

**Reporting Category: Civics**

**Number of Items: 7**

**Standards of Learning:**

- VS.3 The student will demonstrate an understanding of the first permanent English settlement in America by
- c) describing the importance of the charters of the Virginia Company of London in establishing the Jamestown settlement; and
  - d) identifying the importance of the General Assembly (1619) as the first representative legislative body in English America.

- VS.5 The student will demonstrate an understanding of the role of Virginia in the American Revolution by
- a) identifying the reasons why the colonies went to war with Great Britain, as expressed in the Declaration of Independence.

- VS.6 The student will demonstrate an understanding of the role of Virginia in the establishment of the new American nation by
- b) identifying the ideas of George Mason, as expressed in the Virginia Declaration of Rights, and Thomas Jefferson, as expressed in the Virginia Statute for Religious Freedom.

- VS.8 The student will demonstrate an understanding of the reconstruction of Virginia following the Civil War by

- b) identifying the effects of segregation and “Jim Crow” on life in Virginia for American Indians, whites, and African Americans.
- VS.9 The student will demonstrate an understanding of Virginia during the twentieth century and beyond by
- c) describing the social and political events in Virginia linked to desegregation and Massive Resistance and their relationship to national history.
- VS.10 The student will demonstrate an understanding of Virginia government, geography, and economics by
- a) identifying the three branches of Virginia government and the function of each.

**Reporting Category: Economics**

**Number of Items: 7**

**Standards of Learning:**

- VS.4 The student will demonstrate an understanding of life in the Virginia colony by
- a) explaining the importance of agriculture and its influence on the institution of slavery;
  - d) describing how money, barter, and credit were used; and
  - e) describing everyday life in colonial Virginia.
- VS.8 The student will demonstrate an understanding of the reconstruction of Virginia following the Civil War by
- a) identifying the effects of Reconstruction on life in Virginia; and
  - c) describing the importance of railroads, new industries, and the growth of cities to Virginia’s economic development.
- VS.9 The student will demonstrate an understanding of Virginia during the twentieth century and beyond by
- a) describing the economic and social transition from a rural, agricultural society to a more urban, industrialized society.
- VS.10 The student will demonstrate an understanding of Virginia government, geography, and economics by
- b) describing the major products and industries important to Virginia’s economy; and
  - c) explaining how advances in transportation, communications, and technology have contributed to Virginia’s prosperity and role in the global economy.