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*Virginia Standards of Learning Program

Beginning in Spring 1998, Virginia students participated in the Standards of Learning (SOL) assessments designed to test student knowledge of the content and skills specified in the state's standards. This document contains questions that approximately 80,000 students in grade 5 were required to answer as part of the SOL assessments. These questions are representative of the SOL tests and are provided to demonstrate the format of the test questions. Sample items are presented from the English tests for reading and writing, the mathematics test, the history and social science test, the science test, and the computer/technology test. A page with correct test answers is included. (SLD)
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Introducing the VIRGINIA STANDARDS OF LEARNING

Grade 5 Assessment

Our goal in Virginia is to raise student achievement through accountability for results so that all our schoolchildren, not just a lucky few, will be prepared to compete successfully in the global economy of the 21st century. With a desire to accomplish this goal, more than 5,000 qualified teachers, parents, business professionals, and others worked together to develop the nationally acclaimed Virginia Standards of Learning (SOL). Designed to provide Virginia students with a content-rich, rigorous academic foundation, these standards were adopted by the Board of Education in 1995.

Beginning in the Spring of 1998, students participated in the Virginia Standards of Learning Assessments. These assessments were designed to test student knowledge of the content information and skills specified in the Virginia Standards. Student proficiency in the academic areas of English, Mathematics, History and Social Science, Science, and Computer/Technology was and continues to be evaluated by these tests.

The SOL Assessments enable parents, teachers, and students to evaluate student knowledge and better prepare them for success.

Sample items for the grade 5 tests

On the following pages you will find questions that approximately 80,000 students in grade 5 were asked to answer as part of the Spring 1998 Virginia Standards of Learning (SOL) Assessments. These questions are representative of the content and skills included in the Virginia SOL tests and are provided to help you understand the format of the test questions.
The Spring 1998 SOL tests marked the first statewide administration of these questions and others like them in the grade 5 content areas: English: Reading/Literature and Research, English: Writing, Mathematics, History and Social Science, Science, and Computer/Technology.

Each question on an SOL test was assigned to a Reporting Category. A Reporting Category addresses related content or skills in the Standards of Learning. For example, a Reporting Category for the grade 5 Mathematics test is Computation and Estimation. The standards in this Reporting Category address computation using addition, subtraction, multiplication, and/or division of whole numbers, fractions, and decimals. Students also are asked to estimate the answer to a problem. Each test question in this booklet is identified with its Reporting Category. There are some Reporting Categories for which test questions have not yet been released.

A key for the correct answers to questions is on page 20 of this document.

All questions are multiple-choice, except for a writing prompt which asks students to write a composition. Every test question used on an SOL test is:

- reviewed and approved by a committee of Virginia teachers
- field tested (or tried out) with Virginia students
- reviewed again by Virginia teachers
- reviewed once again after the tests are put together.
Hedgehogs, the Prickly Pets

1 Pet lovers in the United States have discovered the hedgehog. People often think hedgehogs are members of the porcupine family. Actually, they're related to moles. These animals look like tiny porcupines because of the prickly spines covering their backs. Native to Europe, Asia, and Africa, hedgehogs can now be bought at pet stores in this country.

2 The spines, called quills, are about one inch long and have sharp, pointed ends. They protect the hedgehog from enemies. When frightened, hedgehogs curl up into tight balls to protect their faces, legs, and undersides.

3 They range in color from tan to black. They have small eyes, round little ears, short legs, pointed noses, and tiny tails. Unlike their prickly backs, the hedgehogs' undersides are covered with soft fur. They average 10 inches in length and weigh less than two pounds when fully grown. They can be kept in cages or aquariums.

4 Owners admit that hedgehogs are not cuddly. However, they say hedgehogs make fine pets because they're quiet, clean, gentle, and have no odor. Hedgehogs don't require a lot of care and eat only about two tablespoons of food a day. Their natural diet includes a variety of insects, worms, slugs, snails, and grubs. As pets they thrive on cat food, an occasional hard-boiled egg, and small amounts of raw vegetables and fruits. Hedgehogs have poor eyesight and must depend on their senses of hearing and smell to find their food.

5 Hedgehogs are nocturnal animals. They are active at night and sleep during the day. In their natural habitat, they build nests under bushes, shrubs, and hedges. That is why it's important to provide a special spot in their cage where they can hide.

6 In the wild, the hedgehogs hibernate in winter, living off stored body fat. Those that live in milder climates or those kept as pets generally do not hibernate.

7 Hedgehogs are as smart as they are cute. They can be taught to drink from a water bottle. Like cats, they can be trained to use a litter pan.

8 A hedgehog gives birth to a litter of four to eight babies. The newborns are two to three inches long and have tiny white spines covering their backs.

9 Though they live to be only about six years old in the wild, hedgehogs can live to 10 when raised as pets. People who enjoy keeping guinea pigs and hamsters may want to consider hedgehogs when they look for new pets.
ENGLISH TEST: Reading—continued

The questions on the grade 5 Reading test cover the English Standards of Learning for grades 4 and 5. The questions accompanying this reading selection are in the following Reporting Categories:

- Use Word Analysis Strategies (question 1)
- Understand a Variety of Printed Materials/Resource Materials (questions 2, 3, 4, 5, and 6)
- Understand Elements of Literature (question 7)

RELEASED ITEMS

1. In paragraph 6, the word litter could be replaced with the word —
   A babies
   B group
   C clutter
   D bedding

2. A hedgehog’s spines are used for —
   F burrowing into the ground
   G frightening its prey
   H spearing food
   J defending itself

3. The idea that hedgehogs can be kept in an aquarium is supported by the fact that they —
   A eat only small amounts of food
   B are only 10 inches long
   C are active only at night
   D are nest builders

4. Which question does paragraph 3 answer?
   F Where are hedgehogs found?
   G What is the diet of a hedgehog?
   H What do hedgehogs look like?
   J How can hedgehogs protect themselves?

5. If the author added a sentence at the end of paragraph 5, which of these would fit best?
   A You might want to visit a pet shop to see hedgehogs.
   B You might also want to make nesting materials available.
   C Hedgehogs curl up when they are frightened.
   D Hedgehogs can be taught to drink from a water bottle.

6. Which would be the best heading for paragraph 4?
   F Care and Feeding
   G Physical Appearance
   H Night Habits
   J Training Your Hedgehog

7. The author probably wrote this article in order to —
   A provide detailed information
   B tell an amusing story
   C present the pros and cons of pet ownership
   D describe experiences with pets
**ENGLISH TEST: Writing**

The grade 5 English: Writing test includes two components: a multiple-choice component and a direct-writing component in which students write a composition about a topic presented to them in a writing prompt.

**Multiple-Choice Component**

The questions included in the multiple-choice component are designed to mirror the process students follow as they write their own compositions. Students are presented with a writing task, followed by test questions like Questions 1 and 2 shown below, that address activities students might pursue as they prepare to write. These questions are followed by a rough draft of a response to the writing task, written by a fictional student.

### Neighborhood Newsletter

Denise has decided to write a newsletter for her neighbors. She wants to write about events that she thinks would be of interest to her neighbors.

Before she began writing her newsletter, Denise made these notes. Use them to answer questions 1 and 2.

**News in the Neighborhood**

1. **People**
   - Rosa Garcia is going away to college.
   - Mr. and Mrs. Parker had twin babies.
   - Kevin Henderson won a music competition.
   - The Carters moved to Virginia City.

2. **Pets**
   - A puppy named Fred moved in with the Hendersons.
   - The Smiths' cat, Tessa, had kittens.
   - The Bartons had a garage built.

3. **Houses and Yards**
   - The Hays had their house painted.
   - Mrs. Jones planted a new flower garden.
   - The Wongs put a fish pond in their back yard.

**1** These notes will help Denise to —

A. check her newsletter for spelling mistakes  
B. sell her newsletter to interested neighbors  
C. plan and organize her newsletter  
D. decide on a name for her newsletter

**2** Which of these is in the wrong section in Denise's notes?

- F. The Bartons had a garage built.
- G. Mr. and Mrs. Parker had twin babies.
- H. The Smiths' cat, Tessa, had kittens.
- J. Mrs. Jones planted a new flower garden.
**English Test: Writing—continued**

The rough draft is divided into two sections. The first section, which is shown below, contains errors such as an incorrectly written sentence or two sentences that need to be combined. Test items that follow this section require the students to correct these errors by choosing the correct revision from the choices provided.

**The multiple-choice questions from the Spring 1998 test that are shown on these pages are in these Reporting Categories:**

- Plan, Compose, and Revise Writing in a Variety of Forms for a Variety of Purposes (questions 1 and 2 on page 8; 3 and 4 below)
- Edit for Correct Use of Language, Capitalization, Punctuation, and Spelling (questions 5, 6, 7, 8, and 9)

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**Here is the first part of Denise's rough draft. Use it to answer questions 3 and 4.**

1. This is the first issue of the Neighborhood News ever printed.
2. My name is Denise Shaughnessy, and I am the editor.
3. I've lived in this neighborhood my entire life. (4) Ten and a half years.
4. There are many newspapers put out in cities across the country every single day.
5. I hope you'll enjoy the newsletter. (7) It contains news items about people, pets, and places in our neighborhood.
6. Let's begin with the people. (9) The people are the most important part of any neighborhood.
7. A month ago Mr. and Mrs. Parker had twins, Brian and Bonnie.
8. Rosa Garcia graduated from high school and will attend college in Greensboro in the fall.
9. After the Carters moved out of their house on Burton Lane, the Esquivels moved into it.

**3 Which of these is not a complete sentence?**

A 3
B 4
C 7
D 12

**4 Which of these sentences could best be added at the end of the second paragraph?**

F A new house was built on Diamond Avenue last month.
G Now the Parker family is much bigger than it used to be.
H This newsletter contains a lot of information about your neighbors and their homes.
J We welcome our new neighbors and send good wishes to those who leave.
ENGLISH TEST: Writing—continued

The second section of the rough draft includes errors in grammar, capitalization, spelling, and punctuation. Items following this section refer to underlined words in the rough draft and require the student to choose the answer that includes correct grammar and mechanics. In some cases the underlined word or words will include no error, and the correct answer is "as it is."

Questions 5 and 6 are in the Reporting Category of Edit for Correct Use of Language, Capitalization, Punctuation, and Spelling.

5 In sentence 15, performed good should be written —
   A performs good
   B performed well
   C performs well
   D as it is

6 In sentence 15, concert at Hoben Hall should be written —
   F concert at Hoben hall
   G Concert at Hoben Hall
   H Concert at Hoben hall
   J as it is
ENGLISH TEST: Writing—continued

Questions 7, 8, and 9 are in the Reporting Category of Edit for Correct Use of Language, Capitalization, Punctuation, and Spelling.

7 In sentence 18, I'm sure that there are should be written —
   A I'm sure that their are
   B I'm sur that there are
   C I'm sure that there are
   D as it is

8 In sentence 21, Five kittens was born should be written —
   F Five kittens will be born
   G Five kittens were born
   H Five kittens were borned
   J as it is

9 In sentence 27, "It is just beautiful, should be written —
   A It is just beautiful"
   B It is just beautiful
   C "It is just beautiful,"
   D as it is
ENGLISH TEST: Writing—continued

Direct Writing Component

In the direct writing component, students write a composition about a topic presented to them in a writing prompt. The writing prompt page also includes a "Checklist for Writers" that lists points for students to keep in mind as they write. A writing prompt from the Spring 1998 administration is shown below. Writing compositions are scored on each of the following domains:

- Composing
- Written Expression
- Usage/Mechanics

Scores in the Composing and Written Expression domains are reported as part of the Reporting Category called Plan, Compose, and Revise Writing in a Variety of Forms for a Variety of Purposes. Scores in the Usage/Mechanics domain are reported as part of the Reporting Category called Edit for Correct Use of Language, Capitalization, Punctuation, and Spelling.

WRITING PROMPT © PAGE

Grade 5

Prompt No. 597

Commonwealth of Virginia

Standards of Learning Assessment

Write about a happy memory you have. Tell what that memory is and why it is important to you.

CHECKLIST FOR WRITERS

___ I planned my paper before writing it.

___ I revised my paper to be sure that

___ the central idea of my paper is clear;

___ everything in my paper talks about my central idea;

___ my paper is logically organized so readers will understand my message;

___ my words and information make my paper interesting to readers;

___ my sentences make sense, sound like me, and read smoothly.

___ I edited my paper to be sure that

___ I used good grammar;

___ I used capital letters and punctuation marks correctly;

___ I made my spelling correct; and

___ I let my readers know where I started new paragraphs.

___ I checked my paper to make sure that it is the way that I want readers to read it.
MATHEMATICS TEST

The questions on the grade 5 Mathematics test address the knowledge and skills contained in the Mathematics Standards of Learning for grades 4 and 5. As much as possible, "real-life" situations, as in Question 6 on page 14, are used. Students are permitted to use rulers, protractors, and scratch paper on the test.

The questions from the Spring 1998 test that are shown on these pages are in these Reporting Categories:

- Computation and Estimation (question 1)
- Number and Number Sense (questions 2 and 3)
- Measurement and Geometry (questions 4 and 5)
- Probability and Statistics (questions 6 and 7)
- Patterns, Functions, and Algebra (question 8)

1. $122 + 3 = \text{ ?}$
   - A 4 R2
   - B 4 R20
   - C 40 R2
   - D 400

2. Which has a 5 in the tenths place?
   - F 832.759
   - G 657.142
   - H 685.324
   - J 689.523

3. Which is not a true statement?
   - A 7.398 < 7.401
   - B 9.81 = 9.810
   - C 5.075 > 5.09
   - D 3.6782 < 3.7805

4. Happy Holiday Park is in the shape of a circle. If Jessica walks around the outside edge of the park, what part of a circle has she walked?
   - F Chord
   - G Circumference
   - H Diameter
   - J Radius

5. What are the coordinates of Point A?
   - A (6, 7)
   - B (6, 5)
   - C (5, 6)
   - D (5, 4)
MATHEMATICS TEST—continued

The grade 5 Mathematics test has two sections. In the first section, students cannot use calculators. Question 1, for example, is from the first section of grade 5 Mathematics. In the second section of the test, students are allowed to use calculators. Questions 2, 3, 4, 5, 6, 7, and 8 are from the second section of the grade 5 test.

6 Reed’s class voted for the date they wanted to have their field trip. This tally chart shows the results.

<table>
<thead>
<tr>
<th>Date</th>
<th>Number of Votes</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 5</td>
<td>III</td>
</tr>
<tr>
<td>April 12</td>
<td>II</td>
</tr>
<tr>
<td>April 25</td>
<td>III</td>
</tr>
<tr>
<td>April 30</td>
<td>II</td>
</tr>
</tbody>
</table>

Which shows this information correctly graphed?

7 These are Malachi’s test scores for this semester: 81, 76, 75, 88, 65. What is Malachi’s mean test score?
   A 75
   B 77
   C 80
   D 82

8 What are the next three numbers in this number pattern?
   21, 28, 36, 45, ...
   F 54, 63, 72
   G 53, 61, 69
   H 55, 66, 78
   J 55, 65, 75
HISTORY AND SOCIAL SCIENCE TEST

The test covers the grade 4 Standards of Learning—Virginia Studies: 1607 to Present. Students are asked questions that range from knowledge of the history, geography, and economy of Virginia to the understanding of the types of services provided by each level of government. Test questions are often presented with a map, graph, or chart, as in Question 2.

The questions that appear below are in these Reporting Categories:

- History (question 1)
- Geography (question 2)
- Economics (question 3)
- Civics (question 4)

1. The English Parliament treated the Virginia colony as —
   A equal to England
   B English property
   C a state within England
   D more important than England

2. WE MM C.:,
   A Preamble to the Constitution
   We the people of the United States,
   in order to form a more perfect Union, establish Justice, insure domestic Tranquility, provide for the common defense, promote the general Welfare, and secure the blessings of Liberty to ourselves and our Posterity, do ordain and establish this Constitution for the United States of America.

Which part of the federal government has the main job of establishing justice?
   F House of Representatives
   G Senate
   H Supreme Court
   J President's Cabinet

3. Interstate highways have helped the economies of some rural towns and hurt the economies of others. The towns that have prospered are usually located —
   A near a river
   B near an exit
   C on the ocean
   D in the mountains

4. According to the map, which is a major industry in the Tidewater region of Virginia?
   F Fishing
   G Mining
   H Poultry
   J Fishing
SCIENCE TEST

The test questions cover the Science Standards of Learning for grades 4 and 5 and use text and visual information such as graphs, models, and illustrations. Questions 1 and 3, for example, are similar to work that students do when they collect, record, and report data. Other questions ask students to apply knowledge they have acquired in the classroom and/or use information that is in the question itself.

Students are permitted to use rulers on the grade 5 Science test.

The grade 5 Science questions that appear on the following pages are in these Reporting Categories:

- Scientific Investigation (questions 1, 2, and 3)
- Force, Motion, Energy, and Matter (questions 4 and 5)
- Life Processes and Living Systems (questions 6, 7, and 8)
- Earth/Space Systems and Cycles (questions 9 and 10)

1. About how many centimeters of rain were recorded in 1993?
   - A 50 cm
   - B 65 cm
   - C 70 cm
   - D 75 cm

2. Which of these would be used to measure the mass of a pencil?
   - F
   - H
   - G
   - J

3. According to this chart, which was the largest source of energy for the United States in 1990?
   - A Nuclear
   - B Coal
   - C Natural gas
   - D Petroleum

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Questions 4 and 5 are in the Reporting Category of Force, Motion, Energy, and Matter. Questions 6, 7, and 8 are in the Reporting Category of Life Processes and Living Systems.

4. H₂O
   Oxygen
   Hydrogen
   Hydrogen

Each of the circles shown above is a single atom. When atoms are bound together like this, they form —
- F solutions
- G molecules
- H elements
- J mixtures

5. How would the word “CAR” look in a mirror?

   CAR
   A
   RAC
   B
   HAV
   C
   CAR
   D

6. Which of these is made up of cells?
   - F Milk
   - G Onions
   - H Salt
   - J Bread

7. Which of these is the predator in this community?
   - A The lion
   - B The deer
   - C The grass
   - D The bacteria

8. Monera is the kingdom which contains the simplest cells. Monerans include —
   - F cacti
   - G bacteria
   - H fungi
   - J insects
Questions 9 and 10 are in the Reporting Category of Earth/Space Systems and Cycles.

**9 Which shadow was made closest to noon?**

- A
- B
- C
- D

**10 Which picture best represents a metamorphic rock?**

- F
- G
- H
- J

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COMPUTER/ TECHNOLOGY TEST

The test questions cover the Computer/Technology Standards of Learning for grade 5. Questions present many "real-life" situations a student encounters when using a computer. The questions shown here are typical of students' experiences with word processing, spreadsheets, and research on the Internet. Students do not use computers for this test, and no question is written to be specific to any particular type of computer.

The grade 5 Computer/Technology questions that appear below are in these Reporting Categories:

- Basic Understanding of Computer/Technology (question 1)
- Basic Operational Skills (question 2)
- Using Technology to Solve Problems (question 3)

1. If a file is accidentally erased, what is the best way to get the information back?
   A. Re-enter the information
   B. Use the back-up copy of the file
   C. Cut and paste the file
   D. Restart the computer

2. What is an effective way to find information on the World Wide Web?
   F. A CD-ROM encyclopedia
   G. An on-line search engine
   H. On-line help files
   J. An e-mail address

3. In a spreadsheet, data lined up vertically is called a —
   A. sum
   B. block
   C. column
   D. pointer
CORRECT ANSWERS

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NOTICE

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