

Appendix A: Georgia Performance Standards

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These activities fit many of the Georgia Performance Standards for Science, as well as for various other subjects. The Science curriculum is designed to provide students with the knowledge and skills for proficiency in science. Relationships between science, our environment, and our everyday world are crucial to each student's scientific literacy. To become literate in science, therefore, students need to acquire understandings of "how to do science" (the Characteristics of Science Standards), and of "scientific concepts" (the Content Standards.) A full listing can be found at:

<http://www.doe.k12.ga.us/Curriculum-Instruction-and-Assessment/Curriculum-and-Instruction/Pages/Science.aspx>.

Explanation of Coding: The first letter of the GPS code indicates the subject (Science, English Language Arts, Art), the number indicates grade level, and the letters that follow refer to either the Characteristics of Science (CS) or a particular Content Standard (L for Life Science, E for Earth Science, R is for Reading, W is for Writing, RC is for Reading Convention), followed by the standard number. For example, S3CS4 indicates Science, Grade 3, Characteristics of Science, Standard 4 whereas S4L1 indicates Science, Grade 4, Life, Standard 1.

The following standards are targeted in these activities:

GRADE 3

Science

S3CS4. Students will use ideas of system, model, change, and scale in exploring scientific and technological matters.

- a. Observe and describe how parts influence one another in things with many parts.

[Activities on pp. 4-5 – A, C; pp. 6-7 – A, B; pp. 8-9 - A; pp. 22-23 – A]

S3L1. Students will investigate the habitats of different organisms and the dependence of organisms on their habitat.

- a. Differentiate between habitats of Georgia (mountains, marsh/swamp, coast, Piedmont, Atlantic Ocean) and the organisms that live there.
- b. Identify features of green plants that allow them to live and thrive in different regions of Georgia.
- c. Identify features of animals that allow them to live and thrive in different regions of Georgia.

[Activities on pp. 2-3 – A; pp. 4-5 – C; pp. 8-9 – A; pp. 10-11 – A, B; pp. 12-13 – A; pp. 18-19 – A, B; pp. 20-21 – A]

English, Language Arts

ELA3R2. The student acquires and uses grade-level words to communicate effectively. The student

- a. Reads literary and informational texts and incorporates new words into oral and written language.

[Activities on pp. 2-3 – B; pp. 4-5 – C]

ELA3R3. The student uses a variety of strategies to gain meaning from grade-level

text. The student

- a. Reads a variety of texts for information and pleasure.
- g. Summarizes text content.
- h. Interprets information from illustrations, diagrams, charts, graphs, and graphic organizers.

[Activities on pp. 2-3 – C]

ELA3W1. The student demonstrates competency in the writing process. The student

- a. Captures a reader’s interest by setting a purpose and developing a point of view.
- b. Begins to select a focus and an organizational pattern based on purpose, genre, expectations, audience, and length.
- c. Writes text of a length appropriate to address the topic or tell the story.
- f. Begins to use specific sensory details (e.g., strong verbs, adjectives) to enhance descriptive effect.

[Activities on pp. 2-3 – B]

Visual Arts

VA3PR.3 Creates artworks based on personal experience and selected themes.

- a. Creates artworks to express individual ideas, thoughts, and feelings from memory, imagination, and observation.

[Activities on pp. 14-15]

GRADE 4

Science

S4L1. Students will describe the roles of organisms and the flow of energy within an ecosystem.

- a. Identify the roles of producers, consumers, and decomposers in a community.

[Activities on pp. 2-3 - A; pp. 20-21 – A]

S4L2. Students will identify factors that affect the survival or extinction of organisms such as adaptation, variation of behaviors (hibernation), and external features (camouflage and protection).

- a. Identify external features of organisms that allow them to survive or reproduce better than organisms that do not have these features (for example: camouflage, use of hibernation, protection, etc.).

[Activities on pp. 8-9 – A; pp. 10-11 – A, B; pp. 12-13 -A; pp. 20-21 – A]

English Language Arts

ELA4R1. The student demonstrates comprehension and shows evidence of a warranted and responsible explanation of a variety of literary and informational texts.

- c. Identifies and uses knowledge of common graphic features (e.g., charts, maps, diagrams, illustrations).

[Activities on pp. 2-3 – C]

ELA4W1. The student produces writing that establishes an appropriate organizational structure, sets a context and engages the reader, maintains a

coherent focus throughout, and signals a satisfying closure. The student

- a. Selects a focus, an organizational structure, and a point of view based on purpose, genre expectations, audience, length, and format requirements.
- b. Writes texts of a length appropriate to address the topic or tell the story.

[Activities on pp. 2-3 – B, C]

ELA4W3. The student uses research and technology to support writing.

[Activities on pp. 2-3 – C]

Visual Arts

VA4PR.1 Creates artworks based on personal experience and selected themes.

- d. Generates artworks to express individual ideas, thoughts, and feelings from memory and/or imagination.
- g. Combines materials in new and inventive ways to make a finished work of art.

GRADE 5

Science

S5E1. Students will identify surface features of the Earth caused by constructive and destructive processes.

- a. Identify surface features caused by constructive processes.
 - Deposition (Deltas, sand dunes, etc.)
- b. Identify and find examples of surface features caused by destructive processes.
 - Erosion (water—rivers and oceans, wind)

[Activities on pp. 4-5 – A, C; pp. 6-7 – A, B; pp. 8-9 – A, B]

S5L1. Students will classify organisms into groups and relate how they determined the groups with how and why scientists use classification.

- a. Demonstrate how animals are sorted into groups (vertebrate and invertebrate) and how vertebrates are sorted into groups (fish, amphibian, reptile, bird, and mammal).
- b. Demonstrate how plants are sorted into groups.

[Activities on pp. 18-19 – A, B]

English Language Arts

ELA5R1. The student demonstrates comprehension and shows evidence of a warranted and responsible explanation of a variety of literary and informational texts. For informational texts, the student reads and comprehends in order to develop understanding and expertise and produces evidence of reading that:

- c. Identifies and uses knowledge of common graphic features (e.g., charts, maps, diagrams, captions, and illustrations).

[Activities on pp. 2-3 – C]

ELA5R3. The student understands and acquires new vocabulary and uses it correctly in reading and writing.

[Activities on pp. 2-3 – B]

ELA5W1. The student produces writing that establishes an appropriate organizational structure, sets a context and engages the reader, maintains a coherent focus throughout, and signals a satisfying closure. The student

- a. Selects a focus, an organizational structure, and a point of view based on purpose, genre expectations, audience, length, and format requirements.
- b. Writes texts of a length appropriate to address the topic or tell the story.

[Activities on pp. 2-3 – B]

Visual Arts

VA5C.1 Applies information and processes from other disciplines to enhance the understanding and production of artworks.

- a. Makes interdisciplinary connections applying art skills, knowledge, and ideas to improve understanding in other disciplines.

GRADE 6

Science

S6E1. Students will explore current scientific views of the universe and how those views evolved.

- d. Explain the motion of objects in the day/night sky in terms of relative position.
- e. Explain that gravity is the force that governs the motion in the solar system.

[Activities on pp. 14-15 – B]

S6E2. Students will understand the effects of the relative positions of the earth, moon and sun.

- a. Demonstrate the phases of the moon by showing the alignment of the earth, moon, and sun.

[Activities on pp. 14-15 – B]

S6E3. Students will recognize the significant role of water in earth processes.

- a. Explain that a large portion of the Earth's surface is water, consisting of oceans, rivers, lakes, underground water, and ice.
- d. Explain the causes of waves, currents, and tides.

[Activities on pp. 2-3 – C; pp. 4-5 – A; pp. 6-7 – A, B; pp. 8-9 – A]

S6E5. Students will investigate the scientific view of how the earth's surface is formed.

- f. Explain the effects of physical processes (plate tectonics, erosion, deposition, volcanic eruption, gravity) on geological features including oceans (composition, currents, and tides).

[Activities on pp. 2-3 – C; pp. 4-5 – A; pp. 6-7 – A, B; pp. 8-9 – A]

English Language Arts

ELA6R1. The student demonstrates comprehension and shows evidence of a warranted and responsible explanation of a variety of literary and informational texts. For informational texts, the student reads and comprehends in order to develop understanding and expertise and produces evidence of reading that:

d. Identifies and analyzes main ideas, supporting ideas, and supporting details.
[Activities on pp. 2-3 – B]

ELA6R2. The student understands and acquires new vocabulary and uses it correctly in reading and writing.
[Activities on pp. 2-3 – B]

ELA6R1. The student demonstrates comprehension and shows evidence of a warranted and responsible explanation of a variety of literary and informational texts. For informational texts, the student reads and comprehends in order to develop understanding and expertise and produces evidence of reading that:

- b. Applies knowledge of common graphic features (i.e., graphic organizers, diagrams, captions, illustrations, charts, tables, graphs).

[Activities on pp. 2-3 – C]

ELA6RC3. The student acquires new vocabulary in each content area and uses it correctly. The student

- a. Demonstrates an understanding of contextual vocabulary in various subjects.
- b. Uses content vocabulary in writing and speaking.

[Activities on pp. 2-3 – B; pp. 4-5 – C]

ELA6W1. The student produces writing that establishes an appropriate organizational structure, sets a context and engages the reader, maintains a coherent focus throughout, and provides a satisfying closure. The student

- a. Selects a focus, an organizational structure, and a point of view based on purpose, genre expectations, audience, length, and format requirements.
- b. Writes texts of a length appropriate to address the topic or tell the story.

[Activities on pp. 2-3 – B]

Visual Arts

VA6PR.2 Creates artwork reflecting a range of concepts, ideas, and subject matter

- a. Uses selected sources for artworks (e.g., direct observation, personal experience, self-perception, memory, imagination, fantasy, traditional events, pop culture).

VA6MC.1 Engages in the creative process to generate and visualize ideas.

- a. Visualizes new ideas by using mental and visual imagery.

VA6C.1 Applies information from other disciplines to enhance the understanding and production of artworks.

[Activities on pp. 14-15 – B]

GRADE 7

S7CS5. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.

- a. Observe and explain how parts can be related to other parts in a system such as predator/prey relationships in a community/ecosystem.

[Activities on pp. 4-5 – A, C; pp. 6-7 – A, B; pp. 8-9 – A; pp. 20-21 – A; pp. 22-23 – A]

S7L1. Students will investigate the diversity of living organisms and how they can be compared scientifically.

B. Classify organisms based on physical characteristics

[Activities on pp. 2-3 – A; pp. 10-11 - A; pp. 12-13 -A; pp. 18-19 – A, B; pp. 20-21 – A]

S7L4. Students will examine the dependence of organisms on one another and their environments.

e. Describe the characteristics of Earth’s major terrestrial biomes (i.e. tropical rain forest, savannah, temperate, desert, taiga, tundra, and mountain) and aquatic communities (i.e. freshwater, estuaries, and marine).

[Activities on pp. 2-3 – A; pp. 8-9 – A; pp. 10-11 - A; pp. 20-21 – A]

ELA

ELA7R2. The student understands and acquires new vocabulary and uses it correctly in reading and writing.

[Activities on pp. 2-3 – B, C]

ELA7RC3. The student acquires new vocabulary in each content area and uses it correctly.

a. Demonstrates an understanding of contextual vocabulary in various subjects.
b. Uses content vocabulary in writing and speaking.

[Activities on pp. 2-3 – B; pp. 4-5 – C]

ELA7W1. The student produces writing that establishes an appropriate organizational structure, sets a context and engages the reader, maintains a coherent focus throughout, and provides a satisfying closure.

[Activities on pp. 2-3 – B]