Northpoint Horizons

CAVS
Correlated to the
Texas Essential Knowledge and Skills *(TEKS)*

Grade 4

This document provides a sampling of the extensive math directives offered throughout the *CAVS* program that meet the Texas Essential Knowledge and Skills *(TEKS)*.

Texas Essential Knowledge and Skills	*CAVS* Grade 3-5 Teacher's Guide Examples/Lessons
Knowledge and Skills	
4.1 Scientific processes. The student conducts field and laboratory investigations following home and school safety procedures and environmentally appropriate and ethical practices.	
a. demonstrate safe practices during field and laboratory investigations	Lesson 2 – TG pp. 7-12 *How are plant and animal systems different?* Lesson 15 – TG pp. 85-90 *How do we measure matter?* Lesson 21 – TG pp. 121-126 *How does electricity move?*
b. make wise choices in the use and conservation of resources and the disposal or recycling of materials	Lesson 13 – TG pp. 73-78 *What are Earth's natural resources?*
4.2 Scientific processes. The student uses scientific inquiry methods during field and laboratory investigations.	
a. plan and implement descriptive investigations including asking well-defined questions, formulating testable hypotheses, and selecting and using equipment and technology	Lesson 2 – TG pp. 7-12 *How are plant and animal systems different?* Lesson 19 – TG pp. 109-114 *How does heat energy move?*
b. collect information by observing and measuring	Lesson 14 – TG pp. 79-84 *What makes up matter?* Lesson 15 – TG pp. 85-90 *How do we measure matter?*
c. analyze and interpret information to construct reasonable explanations from direct and indirect	Lesson 20 – TG pp. 115-120 *How does light energy move?*

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evidence	Lesson 21 – TG pp. 121-126 *How does electricity move?*
d. communicate valid conclusions	Lesson 10 – TG pp. 55-60 *What are the layers of Earth?* Lesson 11 – TG pp. 61-66 *What causes earthquakes and volcanoes?*
e. construct simple graphs, tables, maps, and charts to organize, examine and evaluate information.	Lesson 1 – TG pp. 1-6 *How are living things classified?* Lesson 3 – TG pp. 13-18 *How do plants reproduce?* Lesson 22 – TG pp. 127-132 *What is Earth's place in the universe?*
4.3 Scientific processes. The student uses critical thinking and scientific problem solving to make informed decisions.	
a. analyze, review, and critique scientific explanations, including hypotheses and theories, as to their strengths and weaknesses using scientific evidence and information	Lesson 17 – TG pp. 97-102 *What makes things move?* Lesson 19 – TG pp. 109-114 *How does heat energy move?*
b. draw inferences based on information related to promotional materials for products and services	n/a
c. represent the natural world using models and identify their limitations	Lesson 11 – TG pp. 61-66 *What causes earthquakes and volcanoes?* Lesson 12 – TG pp. 67-72 *How does Earth's surface change?* Lesson 22 – TG pp. 127-132 *What is Earth's place in the universe?*
d. evaluate the impact of research on scientific thought, society, and the environment	Lesson 4 – TG pp. 19-24 *What is an ecosystem?* Lesson 10 – TG pp. 55-60 *What are the layers of Earth?* Lesson 13 – TG pp. 73-78 *What are Earth's natural resources?*
e. connect Grade 4 science concepts with the history of science and contributions of scientists	Lesson 1 – TG pp. 1-6 *How are living things classified?*

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	Lesson 16 – TG pp. 91-96 *How can matter change?*
4.4 Scientific processes. The student knows how to use a variety of tools and methods to conduct science inquiry.	
a. collect and analyze information using tools including calculators, safety goggles, microscopes, cameras, sound recorders, computers, hand lenses, rulers, thermometers, meter sticks, timing devices, balances, and compasses	Lesson 2 – TG pp. 7-12 *How are plant and animal systems different?* Lesson 16 – TG pp. 91-96 *How can matter change?* Lesson 20 – TG pp. 115-120 *How does light energy move?*
b. demonstrate that repeated investigations may increase the reliability of results	Lesson 19 – TG pp. 109-114 *How does heat energy move?* Lesson 21 – TG pp. 121-126 *How does electricity move?*
4.5 Science concepts. The student knows that complex systems may not work if some parts are removed.	
a. identify and describe the roles of some organisms in living systems such as plants in a schoolyard, and parts in nonliving systems such as a light bulb in a circuit	Lesson 4 – TG pp. 19-24 *What is an ecosystem?* Lesson 5 – TG pp. 25-30 *How does energy flow in an ecosystem?* Lesson 21 – TG pp. 121-126 *How does electricity move?*
b. predict and draw conclusions about what happens when part of a system is removed	Lesson 17 – TG pp. 97-102 *What makes things move?* Lesson 20 – TG pp. 115-121 *How does light energy move?* Lesson 21 – TG pp. 121-126 *How does electricity move?*
4.6 Science concepts. The student knows that change can create recognizable patterns.	
a. identify patterns of change such as in weather, metamorphosis, and objects in the sky	Lesson 7 – TG pp. 37-42 *What makes up Earth's atmosphere?* Lesson 11 – TG pp. 61-66 *What causes earthquakes and volcanoes?* Lesson 23 – TG pp. 133-138

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	What are patterns in the sky? Lesson 24 – TG pp. 139-144 *What patterns does Earth repeat?*
b. illustrate that certain characteristics of an object can remain constant even when the object is rotated like a spinning top, translated like a skater moving in a straight line, or reflected on a smooth surface	Lesson 20 – TG pp. 115-121 *How does light energy move?* Lesson 22 – TG pp. 127-132 *What is Earth's place in the universe?* Lesson 24 – TG pp. 139-144 *What patterns does Earth repeat?*
c. use reflections to verify that a natural object has symmetry	Lesson 20 – TG pp. 115-121 *How does light energy move?*
4.7 Science concepts. The student knows that matter has physical properties.	
a. observe and record changes in the states of matter caused by the addition or reduction of heat	Lesson 16 – TG pp. 91-96 *How can matter change?* Lesson 19 – TG pp. 109-114 *How does heat energy move?*
b. conduct tests, compare data, and draw conclusions about physical properties of matter including states of matter, conduction, density, and buoyancy	Lesson 14 – TG pp. 79-84 *What makes up matter?* Lesson 15 – TG pp. 85-90 *How do we measure matter?* Lesson 16 – TG pp. 91-96 *How can matter change?*
4.8 Science concepts. The student knows that adaptations may increase the survival of members of a species.	
a. identify characteristics that allow members within a species to survive and reproduce	Lesson 1 – TG pp. 1-6 *How are living things classified?* Lesson 2 – TG pp. 7-12 *How are plant and animal systems different?* Lesson 3 – TG pp. 13 – 18 *How do plants reproduce?*
b. compare adaptive characteristics of various species	Lesson 2 – TG pp. 7-12 *How are plant and animal systems different?* Lesson 4 – TG pp. 19-24 *What is an ecosystem?*

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	Lesson 5 – TG pp. 25-30 *How does energy flow in an ecosystem?* Lesson 6 – TG pp. 31-36 *What helps an organism live in its ecosystem?*
c. identify the kinds of species that lived in the past and compare them to existing species	Lesson 4 – TG pp. 19-24 *What is an ecosystem?* Lesson 5 – TG pp. 25-30 *How does energy flow in an ecosystem?* Lesson 6 – TG pp. 31-36 *What helps an organism live in its ecosystem?*
4.9 Science concepts. The student knows that many likenesses between offspring and parents are inherited or learned.	
a. distinguish between inherited traits and learned characteristics	Lesson 2 – TG pp. 7-12 *How are plant and animal systems different?* Lesson 4 – TG pp. 19-24 *What is an ecosystem?* Lesson 5 – TG pp. 25-30 *How does energy flow in an ecosystem?* Lesson 6 – TG pp. 31-36 *What helps an organism live in its ecosystem?*
b. identify and provide examples of inherited traits and learned characteristics	Lesson 2 – TG pp. 7-12 *How are plant and animal systems different?* Lesson 4 – TG pp. 19-24 *What is an ecosystem?* Lesson 5 – TG pp. 25-30 *How does energy flow in an ecosystem?* Lesson 6 – TG pp. 31-36 *What helps an organism live in its ecosystem?*
4.10 Science concepts. The student knows that certain past events affect present and future events.	
a. identify and observe effects of events that require time for changes to be noticeable including growth, erosion, dissolving, weathering, and flow	Lesson 8 – TG pp. 43-48 *How are rocks classified?* Lesson 10 – TG pp. 55-60 *What are the layers of Earth?* Lesson 12 – TG pp. 67-72

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	How does Earth's surface change?
b. draw conclusions about "what happened before" using fossils or charts and tables	Lesson 8 – TG pp. 43-48 *How are rocks classified?* Lesson 11 – TG pp. 43-48 *What causes earthquakes and volcanoes?* Lesson 12 – TG pp. 67-72 *How does Earth's surface change?*
4.11 Science concepts. The student knows that the natural world includes earth materials and objects in the sky.	
a. test properties of soils including texture, capacity to retain water, and ability to support life	Lesson 10 – TG pp. 55-60 *What are the layers of Earth?* Lesson 12 – TG pp. 67-72 *How does Earth's surface change?*
b. summarize the effects of the oceans on land	Lesson 7 – TG pp. 37-42 *What makes up Earth's atmosphere?* Lesson 9 – TG pp. 49-54 *What is the water cycle?*
c. identify the Sun as the major source of energy for the Earth and understand its role in the growth of plants, in the creation of winds, and in the water cycle	Lesson 2 – TG pp. 7-12 *How are plant and animal systems different?* Lesson 7 – TG pp. 37-42 *What makes up Earth's atmosphere?* Lesson 9 – TG pp. 49-54 *What is the water cycle?*