

Northpoint Horizons

CAVS (Content Academic Vocabulary System) Correlated to the California State Science Content Standards

Grade 3

This document provides a correlation to the science directives offered throughout the CAVS program that meet the California Science Content Standards. The n/a signifies the standards that are not directly met for this grade level.

Science Content Standard	CAVS Science Grade 3 Teacher's Guide Lessons
Physical Sciences	
1.0 Energy and matter have multiple forms and can be changed from one form to another. As a basis for understanding this concept:	
a. Students know energy comes from the Sun to Earth in the form of light.	Lesson 22 – p. 127 <i>What is Earth's place in the Universe?</i>
b. Students know sources of stored energy take many forms, such as food, fuel, and batteries.	n/a
c. Students know machines and living things convert stored energy to motion and heat.	Lesson 17 – p. 97 <i>What makes things move?</i> Lesson 18 – p. 103 <i>How do simple machines help things move?</i>
d. Students know energy can be carried from one place to another by waves, such as water waves and sound waves, by electric current, and by moving objects.	Lesson 19 – p. 109 <i>How does heat energy move?</i>
e. Students know matter has three forms: solid, liquid, and gas.	Lesson 15 - p. 85 <i>How do we measure matter?</i> Lesson 19 – p. 109 <i>How does heat energy move?</i>
f. Students know evaporation and melting are changes that occur when the objects are heated.	Lesson 19 – p. 109 <i>How does heat energy move?</i>
g. Students know that when two or more substances are combined, a new substance may be formed with properties that are different from those of the original materials.	Lesson 16 – p. 91 <i>How can matter change?</i>
h. Students know all matter is made of small particles called atoms, too small to see with the naked eye.	Lesson 14 – p. 79 <i>What makes up matter?</i>

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i. Students know people once thought that earth, wind, fire, and water were the basic elements that made up all matter. Science experiments show that there are more than 100 different types of atoms, which are presented on the periodic table of the elements.	Lesson 14 – p. 79 <i>What makes up matter?</i> The periodic table can be introduced to assist with comprehension of this lesson.
2.0 Light has a source and travels in a direction. As a basis for understanding this concept:	
a. Students know sunlight can be blocked to create shadows.	n/a
b. Students know light is reflected from mirrors and other surfaces.	Lesson 20 – p. 115 <i>How does light energy move?</i>
c. Students know the color of light striking an object affects the way the object is seen.	Lesson 20 – p. 115 <i>How does light energy move?</i>
d. Students know an object is seen when light traveling from the object enters the eye.	n/a
Life Sciences	
3.0 Adaptations in physical structure or behavior may improve an organism's chance for survival. As a basis for understanding this concept:	
a. Students know plants and animals have structures that serve different functions in growth, survival, and reproduction.	Lesson 2 – p. 7 <i>How are plant and animal systems different?</i> Lesson 6 – p. 31 <i>What helps an organism live in its ecosystem?</i>
b. Students know examples of diverse life forms in different environments, such as oceans, deserts, tundra, forests, grasslands, and wetlands.	Lesson 4 – p. 19 <i>What is an ecosystem?</i>
c. Students know living things cause changes in the environment in which they live: some of these changes are detrimental to the organism or other organisms, and some are beneficial.	Lesson 5 – p. 25 <i>How does energy flow in an ecosystem?</i>
d. Students know when the environment changes, some plants and animals survive and reproduce; others die or move to new locations.	Lesson 3 – p. 13 <i>How do plants reproduce?</i>
e. Students know that some kinds of organisms that once lived on Earth have completely disappeared and that some of those resembled others that are alive today.	n/a

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Earth Sciences	
4.0 Objects in the sky move in regular and predictable patterns. As a basis for understanding this concept:	
a. Students know the patterns of stars stay the same, although they appear to move across the sky nightly, and different stars can be seen in different seasons.	Lesson 23 – p. 133 <i>What patterns are in the sky?</i>
b. Students know the way in which the Moon's appearance changes during the four-week lunar cycle.	Lesson 23 – p. 133 <i>What patterns are in the sky?</i>
c. Students know telescopes magnify the appearance of some distant objects in the sky, including the Moon and the planets. The number of stars that can be seen through telescopes is dramatically greater than the number that can be seen by the unaided eye.	In Lesson 22, under <i>Build Background</i> , students discuss types of instruments used to study the universe.
d. Students know that Earth is one of several planets that orbit the Sun and that the Moon orbits Earth.	Lesson 22 – p. 127 <i>What is Earth's place in the universe?</i>
e. Students know the position of the Sun in the sky changes during the course of the day and from season to season.	Lesson 24 – p. 139 <i>What patterns does Earth repeat?</i>
Investigation and Experimentation	
5.0 Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:	
a. Repeat observations to improve accuracy and know that the results of similar scientific investigations seldom turn out exactly the same because of differences in the things being investigated, methods being used, or uncertainty in the observation.	Lessons 1-24 As students work in small group activities they compare investigations and observe the differences and similarities in results.
b. Differentiate evidence from opinion and know that scientists do not rely on claims or conclusions unless they are backed by observations that can be confirmed.	Lessons 1-24 Scientific process and using evidence and opinion are discussed as students verify observations to make conclusions.
c. Use numerical data in describing and comparing objects, events, and measurements.	Lesson 14 – p. 79 <i>What makes up matter?</i> Lesson 20 – p. 115 <i>How does light energy move?</i>

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<p>d. Predict the outcome of a simple investigation and compare the result with the prediction.</p>	<p>Lesson 2 – p. 10 <i>How are plant and animal systems different?</i> Lesson 6 – p. 34 <i>What helps an organism live in its ecosystem?</i> Lesson 7 – p. 40 <i>What makes up Earth's atmosphere?</i> Lesson 9 – p. 52 <i>What is the water cycle?</i> Lesson 10 – p. 58 <i>What are the layers of Earth?</i> Lesson 11 – p. 64 <i>What causes earthquakes and volcanoes?</i> Lesson 12 – p. 70 <i>How does Earth's surface change?</i> Lesson 13 – p. 76 <i>What are Earth's natural resources?</i> Lesson 15 – p. 88 <i>How do we measure matter?</i> Lesson 17 – p. 100 <i>What makes things move?</i> Lesson 19 – p. 112 <i>How does heat energy move?</i> Lesson 20 – p. 118 <i>How does light energy move?</i></p>
<p>e. Collect data in an investigation and analyze those data to develop a logical conclusion.</p>	<p>Lessons 1-24 Each lesson has students using data in an investigation and reaching conclusions.</p>