

Grade 7: Access Points

Earth and Space Science

Earth Structures

Independent

- 1 Identify that Earth has three layers (crust, mantle, and core) and describe the inside (core) as the hottest layer. [SC.7.E.6.IN.1](#)
- 2 Recognize that slow changes, such as mountain-building, and fast changes, such as volcanic eruptions, are caused by shifts below Earth's surface. [SC.7.E.6.IN.2](#)
- 3 Demonstrate how older rock layers are deposited at the bottom before younger layers (Law of Superposition). [SC.7.E.6.IN.3](#)
- 4 Identify physical evidence, such as fossils and sedimentary rock, which show how Earth has changed over a very long period of time. [SC.7.E.6.IN.4](#)
- 5 Recognize that humans have had an impact on Earth, such as polluting the air and water and expanding urban areas and road systems. [SC.7.E.6.IN.5](#)

Supported

- 1 Recognize that the surface of Earth is called the crust. [SC.7.E.6.SU.1](#)
- 2 Recognize that mountains change size and shape over a long period of time. [SC.7.E.6.SU.2](#)
- 3 Recognize that fossils are remains or imprints of living things from long ago. [SC.7.E.6.SU.3](#)
- 4 Recognize the effects of earthquakes and volcanoes. [SC.7.E.6.SU.4](#)
- 5 Recognize that polluting the air and water can harm Earth. [SC.7.E.6.SU.5](#)

Participatory

- 1 Recognize the ground as the outer surface (crust) of Earth. [SC.7.E.6.PA.1](#)
 - 2 Discriminate between surface features of ground on Earth, such as rocky/sandy, flat/hilly, rough/smooth, or solid/liquid. [SC.7.E.6.PA.2](#)
 - 3 Recognize that ground on the Earth's surface changes over time. [SC.7.E.6.PA.3](#)
 - 4 Distinguish between clean and dirty water. [SC.7.E.6.PA.4](#)
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Diversity and Evolution of Living Organisms

Independent

- 1 Recognize that fossils help people learn about living things that lived a very long time ago. [SC.7.L.15.IN.1](#)
- 2 Recognize that physical characteristics of living things are adapted to deal with the conditions of the environment, such as skin color or gills on a fish. [SC.7.L.15.IN.2](#)
- 3 Explain extinction and give examples. [SC.7.L.15.IN.](#)

Supported

- 1 Identify fossils as parts of animals and plants that are no longer alive. [SC.7.L.15.SU.1](#)
- 2 Recognize that common plants or animals have special features that enable them to live in their environment, such as a as a fish has gills so it can live underwater. [SC.7.L.15.SU.2](#)
- 3 Recognize that some plants and animals no longer exist (are extinct). [SC.7.L.15.SU.3](#)

Participatory

- 1 Recognize that living things can die. [SC.7.L.15.PA.1](#)
- 2 Recognize a personal characteristic, such as hair color, that is different from the parents. [SC.7.L.15.PA.](#)

Heredity and Reproduction

Independent

- 1 Explain that some characteristics are passed from parent to child (inherited). [SC.7.L.16.IN.1](#)
- 2 Recognize that it is possible to predict whether a person is likely to inherit a particular trait from parents. [SC.7.L.16.IN.2](#)
- 3 Explain that offspring receive half their genes from each parent in sexual reproduction. [SC.7.L.16.IN.3](#)
- 4 Recognize that science processes (biotechnology) have been used to develop new foods and medicines. [SC.7.L.16.IN.4](#)

Supported

- 1 Recognize that offspring have similar characteristics to parents. [SC.7.L.16.SU.1](#)
- 2 Recognize that animals, including humans, inherit some characteristics from one parent and some from the other. [SC.7.L.16.SU.2](#)
- 3 Recognize that science (biotechnology) has been used to develop new products for use in daily life. [SC.7.L.16.SU.3](#)

Participatory

- 1 Recognize a characteristic passed from parents to self, such as eye color. [SC.7.L.16.PA.1](#)
- 2 Recognize that children are born from two parents. [SC.7.L.16.PA.2](#)
- 3 Recognize common products, such as medicine, developed through science. [SC.7.L.16.PA.3](#)

Interdependence

Independent

- 1 Identify that in a simple food chain, energy transfers from the Sun to plants (producers), to animals (consumers), and to organisms that cause decay (decomposers). [SC.7.L.17.IN.1](#)
- 2 Describe how organisms interact with other organisms in an ecosystem to help each other (mutualism), to obtain food (predation), and to benefit at the expense of the other (parasitism). [SC.7.L.17.IN.2](#)
- 3 Recognize that living things compete with each other to get the things they need to live in their local environment. [SC.7.L.17.IN.3](#)

Supported

- 1 Identify different types of consumers in a food chain, including animals that eat plants, animals that eat other animals, and animals that eat plants and animals. [SC.7.L.17.SU.1](#)
- 2 Recognize how living things affect each other in their habitat (ecosystem). [SC.7.L.17.SU.2](#)
- 3 Identify how a lack of food, water, or shelter affects plants and animals in their habitats. [SC.7.L.17.SU.3](#)

Participatory

- 1 Recognize that humans eat vegetables and fruits (plants) and meat (animals). [SC.7.L.17.PA.1](#)
 - 2 Recognize a mutual relationship between people and other living things. [SC.7.L.17.PA.2](#)
 - 3 Recognize what happens when animals don't get food and water. [SC.7.L.17.PA.3](#)
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Nature of Science

The Practice of Science

Independent

- 1 Identify a problem from the seventh grade curriculum, use reference materials to gather information, carry out an experiment, collect and record data, and report results. [SC.7.N.1.IN.1](#)
- 2 Recognize the relationship between the end product (dependent variable) and in the input (independent variable) in an experiment. [SC.7.N.1.IN.2](#)
- 3 Identify questions that can be answered by scientific investigation, such as can a plant grow without sunlight? [SC.7.N.1.IN.3](#)
- 4 Identify ways that science can be used to study different areas, such as life science, earth and space science, and physical science. [SC.7.N.1.IN.4](#)
- 5 Identify that scientific knowledge is based on a large body of evidence and observations. [SC.7.N.1.IN.5](#)

Supported

- 1 Recognize a problem from the seventh grade curriculum, use materials to gather information, conduct a simple experiment, and record and share results. [SC.7.N.1.SU.1](#)
- 2 Recognize what is tested in a simple experiment (dependent variable). [SC.7.N.1.SU.2](#)
- 3 Recognize a question that can be answered by scientific investigation, such as can a plant grow without sunlight? [SC.7.N.1.SU.3](#)
- 4 Recognize that science includes different areas, such as life science, earth and space science, and physical science. [SC.7.N.1.SU.4](#)
- 5 Recognize that scientific knowledge is based on evidence and observations. [SC.7.N.1.SU.5](#)

Participatory

- 1 Recognize a problem related to the seventh grade curriculum, observe and explore objects and activities, and recognize a solution. [SC.7.N.1.PA.1](#)
- 2 Recognize observable changes in a simple experiment, such as plant growth. [SC.7.N.1.PA.2](#)
- 3 Associate objects and activities with science. [SC.7.N.1.PA.3](#)
- 4 Associate objects and activities with science. [SC.7.N.1.PA.](#)

The Characteristics of Scientific Knowledge

Independent

- 1 Identify an example of a change in scientific knowledge based on new evidence or new interpretations. [SC.7.N.2.IN.1](#)

Supported

- 1 Recognize an example of a change in scientific knowledge based on new evidence. [SC.7.N.2.SU.1](#)

Participatory

- 1 Recognize information related to science. [SC.7.N.2.PA.1](#)
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The Role of Theories, Laws, Hypotheses, and Models

Independent

- 1 Identify that scientific theories are explanations and laws describe relationships, and both are supported by evidence. [SC.7.N.3.IN.1](#)
- 2 Identify a benefit of using a model to explain how things work. [SC.7.N.3.IN.2](#)

Supported

- 1 Recognize that scientific theories and laws are supported by evidence. [SC.7.N.3.SU.1](#)
- 2 Recognize a benefit of using a model to explain how things work. [SC.7.N.3.SU.2](#)

Participatory

- 1 Recognize that people use science to solve problems. [SC.7.N.3.PA.1](#)
 - 2 Recognize a model of a common activity. [SC.7.N.3.PA.2](#)
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Physical Science

Forms of Energy

Independent

- 1 Identify that white (visible) light has many colors, such as when viewed with a prism. [SC.7.P.10.IN.1](#)
- 2 Recognize that light can be reflected or absorbed. [SC.7.P.10.IN.2](#)
- 3 Identify that light and sound travel in wave patterns. [SC.7.P.10.IN.3](#)

Supported

- 1 Recognize that white (visible) light contains many colors, such as viewed with a prism or rainbow. [SC.7.P.10.SU.1](#)
- 2 Recognize that light can be reflected. [SC.7.P.10.SU.2](#)
- 3 Recognize that sound and light travel. [SC.7.P.10.SU.3](#)

Participatory

- 1 Recognize primary colors of a rainbow. [SC.7.P.10.PA.1](#)
- 2 Recognize reflections of objects. [SC.7.P.10.PA.2](#)
- 3 Match light and sound to their sources. [SC.7.P.10.PA.](#)

Energy Transfer and Transformations

Independent

- 1 Identify that when heat is added or taken away, a temperature change occurs. [SC.7.P.11.IN.1](#)
- 2 Recognize that one form of energy can change to other forms of energy, such as solar panels change light into electricity. [SC.7.P.11.IN.2](#)
- 3 Identify examples of the predictable movement of heat, such as hot air rises and heat transfers from hot to cold objects. [SC.7.P.11.IN.3](#)

Supported

- 1 Recognize what happens to the temperature when heat is added. [SC.7.P.11.SU.1](#)
- 2 Recognize that energy can change forms, such as electricity produces light and heat in a lamp. [SC.7.P.11.SU.2](#)
- 3 Identify that heat rises. [SC.7.P.11.SU.3](#)

Participatory

- 1 Recognize that a hot object can make a cold object warm when they touch. [SC.7.P.11.PA.1](#)
- 2 Recognize that electrical devices need energy to work. [SC.7.P.11.PA.2](#)