Florida Science

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

Life Science

Diversity and Evolution of Living Organisms

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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

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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

Nature of Science **The Practice of Science**

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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

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Participatory

1 Recognize information related to science. SC.7.N.2.PA.1

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

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

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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