

**Access M/J Comprehensive Science**

**2**

# (#7820016)

# Access M/J Comprehensive Science 2

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# Course Standards

## [SC.7.E.6.1:](https://www.cpalms.org/Public/PreviewStandard/Preview/1792)

Describe the layers of the solid Earth, including the lithosphere, the hot convecting mantle, and the dense metallic liquid and solid cores.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.E.6.In.1:](file:///C:\Public\PreviewAccessPoint\Preview\8021) | Identify that Earth has three layers (crust, mantle, and core) and describe the inside (core) as the hottest layer. |  |  |  |
| [SC.7.E.6.Su.1:](file:///C:\Public\PreviewAccessPoint\Preview\8022) | Recognize that the surface of Earth is called the crust. |  |  |  |
| [SC.7.E.6.Pa.1:](file:///C:\Public\PreviewAccessPoint\Preview\8023) | Recognize the ground as the outer surface (crust) of Earth. |  |  |  |
| Resources: |  |  |  |  |

## [SC.7.E.6.2:](https://www.cpalms.org/Public/PreviewStandard/Preview/1793)

Identify the patterns within the rock cycle and relate them to surface events (weathering and erosion) and sub-surface events (plate tectonics and mountain building).

**Clarifications:**  
Florida Standards Connections: MAFS.K12.MP.7: Look for and make use of structure.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.E.6.In.2:](file:///C:\Public\PreviewAccessPoint\Preview\8024) | 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.Su.2:](file:///C:\Public\PreviewAccessPoint\Preview\8025) | Recognize that mountains change size and shape over a long period of time. |  |  |  |
| [SC.7.E.6.Pa.2:](file:///C:\Public\PreviewAccessPoint\Preview\8026) | Discriminate between surface features of ground on Earth, such as rocky/sandy, flat/hilly, rough/smooth, or solid/liquid. |  |  |  |
| Resources: |  |  |  |  |

[SC.7.E.6.3:](https://www.cpalms.org/Public/PreviewStandard/Preview/1795)

Identify current methods for measuring the age of Earth and its parts, including the law of superposition and radioactive dating.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.E.6.In.3:](file:///C:\Public\PreviewAccessPoint\Preview\8027) | Demonstrate how older rock layers are deposited at the bottom before younger layers (Law of Superposition). |  |  |  |
| [SC.7.E.6.Su.2:](file:///C:\Public\PreviewAccessPoint\Preview\8025) | Recognize that mountains change size and shape over a long period of time. |  |  |  |
| [SC.7.E.6.Pa.3:](file:///C:\Public\PreviewAccessPoint\Preview\8028) | Recognize that ground on the Earth’s surface changes over time. |  |  |  |
| Resources: |  |  |  |  |

## [SC.7.E.6.4:](https://www.cpalms.org/Public/PreviewStandard/Preview/1796)

Explain and give examples of how physical evidence supports scientific theories that Earth has evolved over geologic time due to natural processes.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.E.6.In.4:](file:///C:\Public\PreviewAccessPoint\Preview\8029) | 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.Su.3:](file:///C:\Public\PreviewAccessPoint\Preview\8030) | Recognize that fossils are remains or imprints of living things from long ago. |  |  |  |
| [SC.7.E.6.Pa.3:](file:///C:\Public\PreviewAccessPoint\Preview\8028) | Recognize that ground on the Earth’s surface changes over time. |  |  |  |
| Resources: |  |  |  |  |

### [**SC.7.E.6.5:**](https://www.cpalms.org/Public/PreviewStandard/Preview/1797)

Explore the scientific theory of plate tectonics by describing how the movement of Earth's crustal plates causes both slow and rapid changes in Earth's surface, including volcanic eruptions, earthquakes, and mountain building

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.E.6.In.2:](file:///C:\Public\PreviewAccessPoint\Preview\8024) | 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.Su.4:](file:///C:\Public\PreviewAccessPoint\Preview\8031) | Recognize the effects of earthquakes and volcanoes. |  |  |  |
| [SC.7.E.6.Pa.2:](file:///C:\Public\PreviewAccessPoint\Preview\8026) | Discriminate between surface features of ground on Earth, such as rocky/sandy, flat/hilly, rough/smooth, or solid/liquid. |  |  |  |
| Resources: |  |  |  |  |

### [SC.7.E.6.6:](https://www.cpalms.org/Public/PreviewStandard/Preview/1798)

Identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air and water quality, changing the flow of water.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.E.6.In.5:](file:///C:\Public\PreviewAccessPoint\Preview\8032) | 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.Su.5:](file:///C:\Public\PreviewAccessPoint\Preview\8033) | Recognize that polluting the air and water can harm Earth. |  |  |  |
| [SC.7.E.6.Pa.3:](file:///C:\Public\PreviewAccessPoint\Preview\8028) | Recognize that ground on the Earth’s surface changes over time. |  |  |  |
| Resources: |  |  |  |  |

### [SC.7.E.6.7:](https://www.cpalms.org/Public/PreviewStandard/Preview/1799)

Recognize that heat flow and movement of material within Earth causes earthquakes and volcanic eruptions, and creates mountains and ocean basins.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.E.6.In.4:](file:///C:\Public\PreviewAccessPoint\Preview\8029) | 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.Su.4:](file:///C:\Public\PreviewAccessPoint\Preview\8031) | Recognize the effects of earthquakes and volcanoes. |  |  |  |
| [SC.7.E.6.Pa.4:](file:///C:\Public\PreviewAccessPoint\Preview\8034) | Distinguish between clean and dirty water. |  |  |  |
| Resources: |  |  |  |  |

[SC.7.L.15.1:](https://www.cpalms.org/Public/PreviewStandard/Preview/1805)

Recognize that fossil evidence is consistent with the scientific theory of evolution that living things evolved from earlier species.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.L.15.In.1:](file:///C:\Public\PreviewAccessPoint\Preview\8052) | Recognize that fossils help people learn about living things that lived a very long time ago. |  |  |  |
| [SC.7.L.15.Su.1:](file:///C:\Public\PreviewAccessPoint\Preview\8053) | Identify fossils as parts of animals and plants that are no longer alive. |  |  |  |
| [SC.7.L.15.Pa.1:](file:///C:\Public\PreviewAccessPoint\Preview\8054) | Recognize that living things can die. |  |  |  |
| Resources: |  |  |  |  |

[SC.7.L.15.2:](https://www.cpalms.org/Public/PreviewStandard/Preview/1806)

Explore the scientific theory of evolution by recognizing and explaining ways in which genetic variation and environmental factors contribute to evolution by natural selection and diversity of organisms.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.L.15.In.2:](file:///C:\Public\PreviewAccessPoint\Preview\8055) | 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.Su.2:](file:///C:\Public\PreviewAccessPoint\Preview\8056) | 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.Pa.2:](file:///C:\Public\PreviewAccessPoint\Preview\8057) | Recognize a personal characteristic, such as hair color, that is different from the parents. |  |  |  |
| Resources: |  |  |  |  |

### [SC.7.L.15.3:](https://www.cpalms.org/Public/PreviewStandard/Preview/1807)

Explore the scientific theory of evolution by relating how the inability of a species to adapt within a changing environment may contribute to the extinction of that species.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.L.15.In.3:](file:///C:\Public\PreviewAccessPoint\Preview\8058) | Explain extinction and give examples. |  |  |  |
| [SC.7.L.15.Su.3:](file:///C:\Public\PreviewAccessPoint\Preview\8059) | Recognize that some plants and animals no longer exist (are extinct). |  |  |  |
| [SC.7.L.15.Pa.1:](file:///C:\Public\PreviewAccessPoint\Preview\8054) | Recognize that living things can die. |  |  |  |
| Resources: |  |  |  |  |

[SC.7.L.16.1:](https://www.cpalms.org/Public/PreviewStandard/Preview/1808)

Understand and explain that every organism requires a set of instructions that specifies its traits, that this hereditary information (DNA) contains genes located in the chromosomes of each cell, and that heredity is the passage of these instructions from one generation to another.

**Clarifications:**  
Integrate HE.7.C.1.4. Describe how heredity can affect personal health.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.L.16.In.1:](file:///C:\Public\PreviewAccessPoint\Preview\8060) | Explain that some characteristics are passed from parent to child (inherited). |  |  |  |
| [SC.7.L.16.Su.1:](file:///C:\Public\PreviewAccessPoint\Preview\8061) | Recognize that offspring have similar characteristics to parents. |  |  |  |
| [SC.7.L.16.Pa.1:](file:///C:\Public\PreviewAccessPoint\Preview\8062) | Recognize a characteristic passed from parents to self, such as eye color. |  |  |  |
| Resources: |  |  |  |  |

[SC.7.L.16.2:](https://www.cpalms.org/Public/PreviewStandard/Preview/1810)

Determine the probabilities for genotype and phenotype combinations using Punnett Squares and pedigrees.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.L.16.In.2:](file:///C:\Public\PreviewAccessPoint\Preview\8063) | Recognize that it is possible to predict whether a person is likely to inherit a particular trait from parents. |  |  |  |
| [SC.7.L.16.Su.2:](file:///C:\Public\PreviewAccessPoint\Preview\8064) | Recognize that animals, including humans, inherit some characteristics from one parent and some from the other. |  |  |  |
| [SC.7.L.16.Pa.1:](file:///C:\Public\PreviewAccessPoint\Preview\8062) | Recognize a characteristic passed from parents to self, such as eye color. |  |  |  |
| Resources: |  |  |  |  |

### [SC.7.L.16.3:](https://www.cpalms.org/Public/PreviewStandard/Preview/1811)

Compare and contrast the general processes of sexual reproduction requiring meiosis and asexual reproduction requiring mitosis.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.L.16.In.3:](file:///C:\Public\PreviewAccessPoint\Preview\8065) | Explain that offspring receive half their genes from each parent in sexual reproduction. |  |  |  |
| [SC.7.L.16.Su.2:](file:///C:\Public\PreviewAccessPoint\Preview\8064) | Recognize that animals, including humans, inherit some characteristics from one parent and some from the other. |  |  |  |
| [SC.7.L.16.Pa.2:](file:///C:\Public\PreviewAccessPoint\Preview\8066) | Recognize that children are born from two parents. |  |  |  |
| Resources: |  |  |  |  |

### [SC.7.L.16.4:](https://www.cpalms.org/Public/PreviewStandard/Preview/1812)

Recognize and explore the impact of biotechnology (cloning, genetic engineering, artificial selection) on the individual, society and the environment.

**Clarifications:**  
Integrate HE.7.C.1.4. Describe how heredity can affect personal health.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.L.16.In.4:](file:///C:\Public\PreviewAccessPoint\Preview\8067) | Recognize that science processes (biotechnology) have been used to develop new foods and medicines. |  |  |  |
| [SC.7.L.16.Su.3:](file:///C:\Public\PreviewAccessPoint\Preview\8068) | Recognize that science (biotechnology) has been used to develop new products for use in daily life. |  |  |  |
| [SC.7.L.16.Pa.3:](file:///C:\Public\PreviewAccessPoint\Preview\8069) | Recognize common products, such as medicine, developed through science. |  |  |  |
| Resources: |  |  |  |  |

### [SC.7.L.17.1:](https://www.cpalms.org/Public/PreviewStandard/Preview/1813)

Explain and illustrate the roles of and relationships among producers, consumers, and decomposers in the process of energy transfer in a food web.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.L.17.In.1:](file:///C:\Public\PreviewAccessPoint\Preview\8070) | 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.Su.1:](file:///C:\Public\PreviewAccessPoint\Preview\8071) | 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.Pa.1:](file:///C:\Public\PreviewAccessPoint\Preview\8072) | Recognize that humans eat vegetables and fruits (plants) and meat (animals). |  |  |  |
| Resources: |  |  |  |  |

[SC.7.L.17.2:](https://www.cpalms.org/Public/PreviewStandard/Preview/1814)

Compare and contrast the relationships among organisms such as mutualism, predation, parasitism, competition, and commensalism.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.L.17.In.2:](file:///C:\Public\PreviewAccessPoint\Preview\8073) | 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.Su.2:](file:///C:\Public\PreviewAccessPoint\Preview\8074) | Recognize how living things affect each other in their habitat (ecosystem). |  |  |  |
| [SC.7.L.17.Pa.2:](file:///C:\Public\PreviewAccessPoint\Preview\8075) | Recognize a mutual relationship between people and other living things. |  |  |  |
| Resources: |  |  |  |  |

### [SC.7.L.17.3:](https://www.cpalms.org/Public/PreviewStandard/Preview/1815)

Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.L.17.In.3:](file:///C:\Public\PreviewAccessPoint\Preview\8076) | Recognize that living things compete with each other to get the things they need to live in their local environment. |  |  |  |
| [SC.7.L.17.Su.3:](file:///C:\Public\PreviewAccessPoint\Preview\8077) | Identify how a lack of food, water, or shelter affects plants and animals in their habitats. |  |  |  |
| [SC.7.L.17.Pa.3:](file:///C:\Public\PreviewAccessPoint\Preview\8078) | Recognize what happens when animals don’t get food and water. |  |  |  |
| Resources: |  |  |  |  |

### [SC.7.N.1.1:](https://www.cpalms.org/Public/PreviewStandard/Preview/1781)

Define a problem from the seventh grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.

**Clarifications:**

Florida Standards Connections: LAFS.68.RST.1.3. Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.N.1.In.1:](file:///C:\Public\PreviewAccessPoint\Preview\7998) | 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.Su.1:](file:///C:\Public\PreviewAccessPoint\Preview\7999) | 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.Pa.1:](file:///C:\Public\PreviewAccessPoint\Preview\8000) | Recognize a problem related to the seventh grade curriculum, observe and explore objects and activities, and recognize a solution. |  |  |  |
| Resources: |  |  |  |  |

### [SC.7.N.1.2:](https://www.cpalms.org/Public/PreviewStandard/Preview/1774)

Differentiate replication (by others) from repetition (multiple trials).

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.N.1.In.2:](file:///C:\Public\PreviewAccessPoint\Preview\8001) | Recognize the relationship between the end product (dependent variable) and in the input (independent variable) in an experiment. |  |  |  |
| [SC.7.N.1.Su.2:](file:///C:\Public\PreviewAccessPoint\Preview\8002) | Recognize what is tested in a simple experiment (dependent variable). |  |  |  |
| [SC.7.N.1.Pa.2:](file:///C:\Public\PreviewAccessPoint\Preview\8003) | Recognize observable changes in a simple experiment, such as plant growth. |  |  |  |
| Resources: |  |  |  |  |

[SC.7.N.1.3:](https://www.cpalms.org/Public/PreviewStandard/Preview/1782)

Distinguish between an experiment (which must involve the identification and control of variables) and other forms of scientific investigation and explain that not all scientific knowledge is derived from experimentation.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.N.1.In.3:](file:///C:\Public\PreviewAccessPoint\Preview\8004) | Identify questions that can be answered by scientific investigation, such as can a plant grow without sunlight? |  |  |  |
| [SC.7.N.1.Su.3:](file:///C:\Public\PreviewAccessPoint\Preview\8005) | Recognize a question that can be answered by scientific investigation, such as can a plant grow without sunlight? |  |  |  |
| [SC.7.N.1.Pa.3:](file:///C:\Public\PreviewAccessPoint\Preview\8006) | Associate objects and activities with science. |  |  |  |
| Resources: |  |  |  |  |

### [SC.7.N.1.4:](https://www.cpalms.org/Public/PreviewStandard/Preview/1783)

Identify test variables (independent variables) and outcome variables (dependent variables) in an experiment.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.N.1.In.2:](file:///C:\Public\PreviewAccessPoint\Preview\8001) | Recognize the relationship between the end product (dependent variable) and in the input (independent variable) in an experiment. |  |  |  |
| [SC.7.N.1.Su.2:](file:///C:\Public\PreviewAccessPoint\Preview\8002) | Recognize what is tested in a simple experiment (dependent variable). |  |  |  |
| [SC.7.N.1.Pa.2:](file:///C:\Public\PreviewAccessPoint\Preview\8003) | Recognize observable changes in a simple experiment, such as plant growth. |  |  |  |
| Resources: |  |  |  |  |

### [SC.7.N.1.5:](https://www.cpalms.org/Public/PreviewStandard/Preview/1784)

Describe the methods used in the pursuit of a scientific explanation as seen in different fields of science such as biology, geology, and physics.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.N.1.In.4:](file:///C:\Public\PreviewAccessPoint\Preview\8007) | 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.Su.4:](file:///C:\Public\PreviewAccessPoint\Preview\8008) | Recognize that science includes different areas, such as life science, earth and space science, and physical science. |  |  |  |
| [SC.7.N.1.Pa.3:](file:///C:\Public\PreviewAccessPoint\Preview\8009) | Associate objects and activities with science. |  |  |  |
| Resources: |  |  |  |  |

### [SC.7.N.1.6:](https://www.cpalms.org/Public/PreviewStandard/Preview/1785)

Explain that empirical evidence is the cumulative body of observations of a natural phenomenon on which scientific explanations are based.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.N.1.In.5:](file:///C:\Public\PreviewAccessPoint\Preview\8010) | Identify that scientific knowledge is based on a large body of evidence and observations. |  |  |  |
| [SC.7.N.1.Su.5:](file:///C:\Public\PreviewAccessPoint\Preview\8011) | Recognize that scientific knowledge is based on evidence and observations. |  |  |  |
| [SC.7.N.1.Pa.3:](file:///C:\Public\PreviewAccessPoint\Preview\8006) | Associate objects and activities with science. |  |  |  |
| Resources: |  |  |  |  |

### [**SC.7.N.1.7:**](https://www.cpalms.org/Public/PreviewStandard/Preview/1786)

Explain that scientific knowledge is the result of a great deal of debate and confirmation within the science community.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.N.1.In.3:](file:///C:\Public\PreviewAccessPoint\Preview\8004) | Identify questions that can be answered by scientific investigation, such as can a plant grow without sunlight? |  |  |  |
| [SC.7.N.1.Su.3:](file:///C:\Public\PreviewAccessPoint\Preview\8005) | Recognize a question that can be answered by scientific investigation, such as can a plant grow without sunlight? |  |  |  |
| [SC.7.N.1.Pa.3:](file:///C:\Public\PreviewAccessPoint\Preview\8006) | Associate objects and activities with science. |  |  |  |
| Resources: |  |  |  |  |

### [SC.7.N.2.1:](https://www.cpalms.org/Public/PreviewStandard/Preview/1787)

Identify an instance from the history of science in which scientific knowledge has changed when new evidence or new interpretations are encountered.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.N.2.In.1:](file:///C:\Public\PreviewAccessPoint\Preview\8012) | Identify an example of a change in scientific knowledge based on new evidence or new interpretations. |  |  |  |
| [SC.7.N.2.Su.1:](file:///C:\Public\PreviewAccessPoint\Preview\8013) | Recognize an example of a change in scientific knowledge based on new evidence. |  |  |  |
| [SC.7.N.2.Pa.1:](file:///C:\Public\PreviewAccessPoint\Preview\8014) | Recognize information related to science. |  |  |  |
| Resources: |  |  |  |  |

### [**SC.7.N.3.1:**](https://www.cpalms.org/Public/PreviewStandard/Preview/1791)

Recognize and explain the difference between theories and laws and give several examples of scientific theories and the evidence that supports them.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.N.3.In.1:](file:///C:\Public\PreviewAccessPoint\Preview\8015) | Identify that scientific theories are explanations and laws describe relationships, and both are supported by evidence. |  |  |  |
| [SC.7.N.3.Su.1:](file:///C:\Public\PreviewAccessPoint\Preview\8016) | Recognize that scientific theories and laws are supported by evidence. |  |  |  |
| [SC.7.N.3.Pa.1:](file:///C:\Public\PreviewAccessPoint\Preview\8017) | Recognize that people use science to solve problems. |  |  |  |
| Resources: |  |  |  |  |

### [SC.7.N.3.2:](https://www.cpalms.org/Public/PreviewStandard/Preview/1775)

Identify the benefits and limitations of the use of scientific models.

**Clarifications:**  
Florida Standards Connections: MAFS.K12.MP.4: Model with mathematics.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.N.3.In.2:](file:///C:\Public\PreviewAccessPoint\Preview\8018) | Identify a benefit of using a model to explain how things work. |  |  |  |
| [SC.7.N.3.Su.2:](file:///C:\Public\PreviewAccessPoint\Preview\8019) | Recognize a benefit of using a model to explain how things work. |  |  |  |
| [SC.7.N.3.Pa.2:](file:///C:\Public\PreviewAccessPoint\Preview\8020) | Recognize a model of a common activity. |  |  |  |
| Resources: |  |  |  |  |

[SC.7.P.10.1:](https://www.cpalms.org/Public/PreviewStandard/Preview/1800)

Illustrate that the sun's energy arrives as radiation with a wide range of wavelengths, including infrared, visible, and ultraviolet, and that white light is made up of a spectrum of many different colors.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.P.10.In.1:](file:///C:\Public\PreviewAccessPoint\Preview\8035) | Identify that white (visible) light has many colors, such as when viewed with a prism. |  |  |  |
| [SC.7.P.10.Su.1:](file:///C:\Public\PreviewAccessPoint\Preview\8036) | Recognize that white (visible) light contains many colors, such as viewed with a prism or rainbow. |  |  |  |
| [SC.7.P.10.Pa.1:](file:///C:\Public\PreviewAccessPoint\Preview\8037) | Recognize primary colors of a rainbow. |  |  |  |
| Resources: |  |  |  |  |

### [SC.7.P.10.2:](https://www.cpalms.org/Public/PreviewStandard/Preview/1788)

Observe and explain that light can be reflected, refracted, and/or absorbed.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.P.10.In.2:](file:///C:\Public\PreviewAccessPoint\Preview\8038) | Recognize that light can be reflected or absorbed. |  |  |  |
| [SC.7.P.10.Su.2:](file:///C:\Public\PreviewAccessPoint\Preview\8039) | Recognize that light can be reflected. |  |  |  |
| [SC.7.P.10.Pa.2:](file:///C:\Public\PreviewAccessPoint\Preview\8040) | Recognize reflections of objects. |  |  |  |
| Resources: |  |  |  |  |

### [SC.7.P.10.3:](https://www.cpalms.org/Public/PreviewStandard/Preview/1801)

Recognize that light waves, sound waves, and other waves move at different speeds in different materials.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.P.10.In.3:](file:///C:\Public\PreviewAccessPoint\Preview\8041) | Identify that light and sound travel in wave patterns. |  |  |  |
| [SC.7.P.10.Su.3:](file:///C:\Public\PreviewAccessPoint\Preview\8042) | Recognize that sound and light travel. |  |  |  |
| [SC.7.P.10.Pa.3:](file:///C:\Public\PreviewAccessPoint\Preview\8043) | Match light and sound to their sources. |  |  |  |
| Resources: |  |  |  |  |

### [SC.7.P.11.1:](https://www.cpalms.org/Public/PreviewStandard/Preview/1802)

Recognize that adding heat to or removing heat from a system may result in a temperature change and possibly a change of state.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.P.11.In.1:](file:///C:\Public\PreviewAccessPoint\Preview\8044) | Identify that when heat is added or taken away, a temperature change occurs. |  |  |  |
| [SC.7.P.11.Su.1:](file:///C:\Public\PreviewAccessPoint\Preview\8045) | Recognize what happens to the temperature when heat is added. |  |  |  |
| [SC.7.P.11.Pa.1:](file:///C:\Public\PreviewAccessPoint\Preview\8046) | Recognize that a hot object can make a cold object warm when they touch. |  |  |  |
| Resources: |  |  |  |  |

[SC.7.P.11.2:](https://www.cpalms.org/Public/PreviewStandard/Preview/1789)

Investigate and describe the transformation of energy from one form to another.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.P.11.In.2:](file:///C:\Public\PreviewAccessPoint\Preview\8047) | 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.Su.2:](file:///C:\Public\PreviewAccessPoint\Preview\8048) | Recognize that energy can change forms, such as electricity produces light and heat in a lamp. |  |  |  |
| [SC.7.P.11.Pa.2:](file:///C:\Public\PreviewAccessPoint\Preview\8049) | Recognize that electrical devices need energy to work. |  |  |  |
| Resources: |  |  |  |  |

### [SC.7.P.11.3:](https://www.cpalms.org/Public/PreviewStandard/Preview/1803)

Cite evidence to explain that energy cannot be created nor destroyed, only changed from one form to another.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.P.11.In.2:](file:///C:\Public\PreviewAccessPoint\Preview\8047) | 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.Su.2:](file:///C:\Public\PreviewAccessPoint\Preview\8048) | Recognize that energy can change forms, such as electricity produces light and heat in a lamp. |  |  |  |
| [SC.7.P.11.Pa.2:](file:///C:\Public\PreviewAccessPoint\Preview\8049) | Recognize that electrical devices need energy to work. |  |  |  |
| Resources: |  |  |  |  |

### [SC.7.P.11.4:](https://www.cpalms.org/Public/PreviewStandard/Preview/1804)

Observe and describe that heat flows in predictable ways, moving from warmer objects to cooler ones until they reach the same temperature.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [SC.7.P.11.In.3:](file:///C:\Public\PreviewAccessPoint\Preview\8050) | 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.Su.3:](file:///C:\Public\PreviewAccessPoint\Preview\8051) | Identify that heat rises. |  |  |  |
| [SC.7.P.11.Pa.1:](file:///C:\Public\PreviewAccessPoint\Preview\8046) | Recognize that a hot object can make a cold object warm when they touch. |  |  |  |
| Resources: |  |  |  |  |

### [ELD.K12.ELL.SC.1:](https://www.cpalms.org/Public/PreviewStandard/Preview/8643)

English language learners communicate information, ideas and concepts necessary for academic success in the content area of Science.

[ELD.K12.ELL.SI.1:](https://www.cpalms.org/Public/PreviewStandard/Preview/8640)

English language learners communicate for social and instructional purposes within the school setting.

[HE.7.C.1.3:](https://www.cpalms.org/Public/PreviewStandard/Preview/7132)

Analyze how environmental factors affect personal health.

**Clarifications:**  
Food refrigeration, appropriate home heating and cooling, air/water quality, and garbage/trash collection.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [HE.7.C.1.In.c:](file:///C:\Public\PreviewAccessPoint\Preview\14809) | Identify ways environmental factors affect personal health, such as food refrigeration, appropriate home heating and cooling, water quality, and trash- collection services. |  |  |  |
| [HE.7.C.1.Su.c:](file:///C:\Public\PreviewAccessPoint\Preview\14810) | Recognize ways selected environmental factors can affect personal health, such as food refrigeration, appropriate home heating and cooling, water quality, and trash-collection services. |  |  |  |
| [HE.7.C.1.Pa.c:](file:///C:\Public\PreviewAccessPoint\Preview\14811) | Recognize an environmental factor that affects personal health, such as having appropriate heating and cooling at school or home. |  |  |  |
| Resources: |  |  |  |  |

[HE.7.C.1.8:](https://www.cpalms.org/Public/PreviewStandard/Preview/7143)

Explain the likelihood of injury or illness if engaging in unhealthy/risky behaviors.

**Clarifications:**  
Abuse of over-the-counter medications, sexually transmitted diseases and sexually transmitted infections from sexual relationships, injury, or death from unsupervised handling of firearms, and physical/emotional injury, or impact from abusive dating partner.

### Related Access Points

| **Name** | **Description** | **Date(s) Instruction** | **Date(s) Assessment** | **Date Mastery** |
| --- | --- | --- | --- | --- |
| [HE.7.C.1.In.h:](file:///C:\Public\PreviewAccessPoint\Preview\14827) | Identify health conditions that are passed from parent to child (inherited), such as sickle-cell anemia, diabetes, heart disease, and acne. |  |  |  |
| [HE.7.C.1.Su.h:](file:///C:\Public\PreviewAccessPoint\Preview\14828) | Recognize common health problems that are passed from parent to child (inherited), such as sickle-cell anemia, diabetes, and acne. |  |  |  |
| [HE.7.C.1.Pa.h:](file:///C:\Public\PreviewAccessPoint\Preview\14829) | Recognize a common health problem that is passed from parent to child (inherited), such as sickle-cell anemia, diabetes, or acne. |  |  |  |
| Resources: |  |  |  |  |

[MA.K12.MTR.1.1:](https://www.cpalms.org/PreviewStandard/Preview/15875) Actively participate in effortful learning both individually and collectively.

Mathematicians who participate in effortful learning both individually and with others:

* Analyze the problem in a way that makes sense given the task.
* Ask questions that will help with solving the task.
* Build perseverance by modifying methods as needed while solving a challenging task.
* Stay engaged and maintain a positive mindset when working to solve tasks.
* Help and support each other when attempting a new method or approach.

**Clarifications:**  
Teachers who encourage students to participate actively in effortful learning both individually and with others:

* Cultivate a community of growth mindset learners.
* Foster perseverance in students by choosing tasks that are challenging.
* Develop students’ ability to analyze and problem solve.
* Recognize students’ effort when solving challenging problems.

[MA.K12.MTR.2.1:](https://www.cpalms.org/PreviewStandard/Preview/15876) Demonstrate understanding by representing problems in multiple ways.

Mathematicians who demonstrate understanding by representing problems in multiple ways:

* Build understanding through modeling and using manipulatives.
* Represent solutions to problems in multiple ways using objects, drawings, tables, graphs and equations.
* Progress from modeling problems with objects and drawings to using algorithms and equations.
* Express connections between concepts and representations.
* Choose a representation based on the given context or purpose.

**Clarifications:**  
Teachers who encourage students to demonstrate understanding by representing problems in multiple ways:

* Help students make connections between concepts and representations.
* Provide opportunities for students to use manipulatives when investigating concepts.
* Guide students from concrete to pictorial to abstract representations as understanding progresses.
* Show students that various representations can have different purposes and can be useful in different situations.

[MA.K12.MTR.3.1:](https://www.cpalms.org/PreviewStandard/Preview/15877) Complete tasks with mathematical fluency.

Mathematicians who complete tasks with mathematical fluency:

* Select efficient and appropriate methods for solving problems within the given context.
* Maintain flexibility and accuracy while performing procedures and mental calculations.
* Complete tasks accurately and with confidence.
* Adapt procedures to apply them to a new context.
* Use feedback to improve efficiency when performing calculations.

**Clarifications:**  
Teachers who encourage students to complete tasks with mathematical fluency:

* Provide students with the flexibility to solve problems by selecting a procedure that allows them to solve efficiently and accurately.
* Offer multiple opportunities for students to practice efficient and generalizable methods.
* Provide opportunities for students to reflect on the method they used and determine if a more efficient method could have been used.

[MA.K12.MTR.4.1:](https://www.cpalms.org/PreviewStandard/Preview/15878) Engage in discussions that reflect on the mathematical thinking of self and others.

Mathematicians who engage in discussions that reflect on the mathematical thinking of self and others:

* Communicate mathematical ideas, vocabulary and methods effectively.
* Analyze the mathematical thinking of others.
* Compare the efficiency of a method to those expressed by others.
* Recognize errors and suggest how to correctly solve the task.
* Justify results by explaining methods and processes.
* Construct possible arguments based on evidence.

**Clarifications:**  
Teachers who encourage students to engage in discussions that reflect on the mathematical thinking of self and others:

* Establish a culture in which students ask questions of the teacher and their peers, and error is an opportunity for learning.
* Create opportunities for students to discuss their thinking with peers.
* Select, sequence and present student work to advance and deepen understanding of correct and increasingly efficient methods.
* Develop students’ ability to justify methods and compare their responses to the responses of their peers.

[MA.K12.MTR.5.1:](https://www.cpalms.org/PreviewStandard/Preview/15879) Use patterns and structure to help understand and connect mathematical concepts.

Mathematicians who use patterns and structure to help understand and connect mathematical concepts:

* Focus on relevant details within a problem.
* Create plans and procedures to logically order events, steps or ideas to solve problems.
* Decompose a complex problem into manageable parts.
* Relate previously learned concepts to new concepts.
* Look for similarities among problems.
* Connect solutions of problems to more complicated large-scale situations.

**Clarifications:**  
Teachers who encourage students to use patterns and structure to help understand and connect mathematical concepts:

* Help students recognize the patterns in the world around them and connect these patterns to mathematical concepts.
* Support students to develop generalizations based on the similarities found among problems.
* Provide opportunities for students to create plans and procedures to solve problems.
* Develop students’ ability to construct relationships between their current understanding and more sophisticated ways of thinking.

[MA.K12.MTR.6.1:](https://www.cpalms.org/PreviewStandard/Preview/15880) Assess the reasonableness of solutions.

Mathematicians who assess the reasonableness of solutions:

* Estimate to discover possible solutions.
* Use benchmark quantities to determine if a solution makes sense.
* Check calculations when solving problems.
* Verify possible solutions by explaining the methods used.
* Evaluate results based on the given context.

**Clarifications:**  
Teachers who encourage students to assess the reasonableness of solutions:

* Have students estimate or predict solutions prior to solving.
* Prompt students to continually ask, “Does this solution make sense? How do you know?”
* Reinforce that students check their work as they progress within and after a task.
* Strengthen students’ ability to verify solutions through justifications.

[MA.K12.MTR.7.1:](https://www.cpalms.org/PreviewStandard/Preview/15881) Apply mathematics to real-world contexts.

Mathematicians who apply mathematics to real-world contexts:

* Connect mathematical concepts to everyday experiences.
* Use models and methods to understand, represent and solve problems.
* Perform investigations to gather data or determine if a method is appropriate. • Redesign models and methods to improve accuracy or efficiency.

**Clarifications:**  
Teachers who encourage students to apply mathematics to real-world contexts:

* Provide opportunities for students to create models, both concrete and abstract, and perform investigations.
* Challenge students to question the accuracy of their models and methods.
* Support students as they validate conclusions by comparing them to the given situation.
* Indicate how various concepts can be applied to other disciplines.

[ELA.K12.EE.1.1:](https://www.cpalms.org/PreviewStandard/Preview/15201) Cite evidence to explain and justify reasoning.

**Clarifications:**  
K-1 Students include textual evidence in their oral communication with guidance and support from adults. The evidence can consist of details from the text without naming the text. During 1st grade, students learn how to incorporate the evidence in their writing.

2-3 Students include relevant textual evidence in their written and oral communication. Students should name the text when they refer to it. In 3rd grade, students should use a combination of direct and indirect citations.

4-5 Students continue with previous skills and reference comments made by speakers and peers. Students cite texts that they’ve directly quoted, paraphrased, or used for information. When writing, students will use the form of citation dictated by the instructor or the style guide referenced by the instructor.

6-8 Students continue with previous skills and use a style guide to create a proper citation.

9-12 Students continue with previous skills and should be aware of existing style guides and the ways in which they differ.

[ELA.K12.EE.2.1:](https://www.cpalms.org/PreviewStandard/Preview/15202) Read and comprehend grade-level complex texts proficiently.

**Clarifications:**  
See [Text Complexity](https://cpalmsmediaprod.blob.core.windows.net/uploads/docs/standards/best/la/appendixb.pdf) for grade-level complexity bands and a text complexity rubric.

[ELA.K12.EE.3.1:](https://www.cpalms.org/PreviewStandard/Preview/15203) Make inferences to support comprehension.

**Clarifications:**  
Students will make inferences before the words infer or inference are introduced. Kindergarten students will answer questions like “Why is the girl smiling?” or make predictions about what will happen based on the title page. Students will use the terms and apply them in 2nd grade and beyond.

[ELA.K12.EE.4.1:](https://www.cpalms.org/PreviewStandard/Preview/15204) Use appropriate collaborative techniques and active listening skills when engaging in discussions in a variety of situations.

**Clarifications:**  
In kindergarten, students learn to listen to one another respectfully.

In grades 1-2, students build upon these skills by justifying what they are thinking. For example: “I think \_\_\_\_\_\_\_\_ because \_\_\_\_\_\_\_.” The collaborative conversations are becoming academic conversations.

In grades 3-12, students engage in academic conversations discussing claims and justifying their reasoning, refining and applying skills. Students build on ideas, propel the conversation, and support claims and counterclaims with evidence.

[ELA.K12.EE.5.1:](https://www.cpalms.org/PreviewStandard/Preview/15205) Use the accepted rules governing a specific format to create quality work.

**Clarifications:**  
Students will incorporate skills learned into work products to produce quality work. For students to incorporate these skills appropriately, they must receive instruction. A 3rd grade student creating a poster board display must have instruction in how to effectively present information to do quality work.

[ELA.K12.EE.6.1:](https://www.cpalms.org/PreviewStandard/Preview/15206) Use appropriate voice and tone when speaking or writing.

**Clarifications:**  
In kindergarten and 1st grade, students learn the difference between formal and informal language. For example, the way we talk to our friends differs from the way we speak to adults. In 2nd grade and beyond, students practice appropriate social and academic language to discuss texts.

[ELD.K12.ELL.SC.1:](https://www.cpalms.org/Public/PreviewStandard/Preview/8643)

English language learners communicate information, ideas and concepts necessary for academic success in the content area of Science.

[ELD.K12.ELL.SI.1:](https://www.cpalms.org/Public/PreviewStandard/Preview/8640)

English language learners communicate for social and instructional purposes within the school setting.