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| **Science – Grade 8 Earth and Space Sciences** |
| **SC.8.11 Space Systems** | **Access Points** |
| **Standard / Indicator** | **Extension** |
| SC.8.11.6 Gather, analyze, and communicate evidence of the interactions among bodies in space. |   | **A** | **B** | **C** |
| SC.8.11.6.A Develop and use a modelof the Earth-sun-moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, and seasons. | Use models of the Earth-sun-moon system to investigate cycles that cause observable monthly lunar patterns and yearly seasonal patterns on Earth. | Use models of the Earth-sun-moon system to observe and describe the cycles that cause the illumination of the moon (new, quarter, half, full), and the seasons (winter, spring, summer, autumn) on Earth. | Identify moon phases (new, half, full) or seasons (winter, spring, summer, autumn) and recognize that they occur in a recurring pattern. | Recognize the moon when it is lit by the sun, or recognize summer and winter as recurring seasons. |
| SC.8.11.6.B Develop and use a modelto describe the role of gravity in the motions within the galaxy and the solar system. Assessment does not include Kepler'sLaws of orbital motion or the apparent retrograde motion of planets as viewed from Earth. | Use simple models of the solar system to investigate the motion of the moon around Earth and Earth around the sun due to the pull of gravity.  | Use models of the sun, Earth, and the moon to describe that these bodies are kept in predictable orbits by the pull of gravity. | Use a model to identify the sun, Earth, and the moon as parts of the solar system or that they orbit together. | Recognize the sun or Earth as parts of the solar system. |
| SC.8.11.6.C Analyze and interpret datato determine scale properties of objects in the solar system. Assessment does not include recalling facts about properties of the planets and other solar system bodies. | Use scaled models to compare and describe the size of the sun, planets, and moons in the solar system.  | Use scaled models to compare and describe the sizes of the sun, Earth, and the moon.  | Use scaled objects or pictures representing the sun, Earth, and the moon to identify which is largest or smallest. | Recognize which of two objects in the Earth-sun- moon system is larger. |

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| **Science – Grade 8 Earth and Space Sciences** |
| **SC.8.14 History of Earth** | **Access Points** |
| **Standard / Indicator** | **Extension** |
| SC.8.14.7 Gather, analyze, and communicate evidence to explain Earth's history. |   | **A** | **B** | **C** |
| SC.8.14.7.A Construct a scientific explanationbased on evidence from rock strata for how the geologic time scale is used to organize Earth's 4.6-billion-year-old history. Assessment does not include recalling the names of specific periods or epochs and events within them. | Participate in making or using models of Earth’s rock strata to explain that rock layers are very old and that their age is relative to their position within rock strata. | Participate in making or using models to explain that Earth’s surface is made of rock layers that are very old and that older rock layers are found below younger rock layers. | Identify which layers are the oldest and the youngest when using a model of rock strata with more than two layers.  | Recognize the bottom layer as older when using a model of rock strata with two distinct layers.  |