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| **GRADE LEVEL:** | | **Sixth Grade** | | |  |  |  |  |  |  |  | | | |  | |
| **COURSE / SUBJECT:** | | **Science** | | |  |  |  |  |  |  |  | | | |  | |
| **UNIT OF STUDY : Unit 5: Space Science** | | | | | | |  |  |  |  |  | | | |  | |
| **THEME / ESSENTIAL QUESTION(S):** | | | | |  |  |  |  |  |  |  | | | |  | |
| **What is the role of gravity in the solar system?**  **What effects do the positions of the sun, moon, and planets have in the solar system?**  **What are the characteristics for the objects in the solar system?** | | |  |  |  |  |  |  |  |  |  | | | |  | |
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| **STANDARDS** | | | | | **ENDURING UNDERSTANDINGS *What are the long term, big-ideas of content that I want students to understand?*** | | | **KNOWLEDGE / SKILLS *What do I want Students to Know & Be Able to Do?*** | | | | | | | **PACING Lesson # # of Days** | |
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| **Standard: 8.** Recognize that gravity is a force that pulls all things on and near the earth toward the center of the earth. Gravity plays a major role in the formation of the planets, stars, and solar system and in determining their motions.  **Standard: 9.** Describe lunar and solar eclipses, the observed moon phases, and tides. Relate them to the relative positions of the  earth, moon, and sun.  **Standard: 10.** Compare and contrast properties and conditions of objects in the solar system (i.e., sun, planets, and moons) to those  on earth (i.e., gravitational force, distance from the sun, speed, movement, temperature, and atmospheric conditions).  **Standard: 11.** Explain how the tilt of the earth and its revolution around the sun result in an uneven heating of the earth, which in turn causes the seasons.  **Standard: 12.** Recognize that the universe contains many billions of galaxies, and that each galaxy contains many billions of stars. | | | | | **- Gravity plays a major role in the formation of the planets, stars, and solar system and in determining their motions.**  **-The positions of the earth, sun, and moon affect the moon phases and tides.**  **-There are different characteristics for the objects in the solar system.** | | | -Recognize that gravity is a force that pulls all things on and near the earth toward the center of the earth.  -An eclipse occurs when one object passes into the shadow of another object.  -The moon’s revolution around earth causes both kinds of eclipses because the earth, moon, and sun line up in different ways.  -Tides are the regular rising and falling of the ocean’s surface caused mostly by the moon’s gravitational pull on Earth’s oceans.  -Moon phases are caused by the reflection of light off the sun.  -The planets in our solar system are divided into two groups: inner and outer planets.  -The inner planets each have a core, mantle, and a crust, whereas the outer planets all have satellites.  -The tilt of the Earth and revolution around the sun cause the seasons.  -The universe contains many billions of galaxies. Each galaxy contains billions of stars held together by gravity. | | | |  |  | | **May-June** | |
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| **ASSESSMENT: *HOW WILL I KNOW WHAT MY STUDENTS HAVE LEARNED? WHAT WILL BE THE EVIDENCE?*** | | | | | | | | | | | | |  |  | |  | |
| **-Plant Project**  **-Gravity Lab**  **-Moon Phases Calendar**  **-Tides Lab** | | |  |  |  |  |  |  |  | | | |  |  | |  | |
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| **TECHNOLOGY & RELATED CONTENT INTEGRATION:** | | | | | |  |  |  |  | | | |  |  | |  | |
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