**How Do We Compare?**

**Benchmark: SC.8.E.5.7 Compare and contrast the properties of objects in the Solar System, including the Sun, planets, and moons to those of Earth, such as gravitational force, distance from the Sun, speed, movement, temperature, and atmospheric conditions**. SC.8.E.5.4 Explore the Law of Universal Gravitation by explaining the role that gravity plays in the formation of planets, stars, and solar systems and in determining their motions.SC.8.E.5.8 Compare various historical models of the Solar System, including geocentric and heliocentric. SC.8.P.8.2 Differentiate between weight and mass recognizing that weight is the amount of gravitational pull on an object and is distinct from, though proportional to, mass.

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| **4** | I can **design a model** to show the properties of objects in the Solar System. | |
| **3** | I can **compare** and **contrast** the properties of objects in the solar system including the sun, planets, and moons to those of earth (such as gravitational force, distance from the sun, speed, movement, temperature, and atmospheric conditions). | |
| **2** | I can **define:**  \_\_\_ Light-year  \_\_\_ Terrestrial planets  \_\_\_ Gas giants  \_\_\_ Law of Universal Gravitation  \_\_\_ Milky Way Galaxy  \_\_\_ Solar system | \_\_\_ I can **explain** how gravity impacts the formation and motion of planets, stars, and the solar system.  \_\_\_ I can **explain** how distance from the sun impacts the length of year and average temperature of objects in our solar system |
|  | I can **define:**  \_\_\_ Gravitational force  \_\_\_ Astronomic units (AU)  \_\_\_ Sun  \_\_\_ Moons  \_\_\_ Planets  \_\_\_ Mass  \_\_\_ Weight  \_\_\_ Density  \_\_\_ Geocentric  \_\_\_ Heliocentric | \_\_\_ I can **explain** the relationship between mass, weight, and gravitational pull.  \_\_\_ I can **describe** the general properties (speed, temperature, atmospheric conditions, rotation, revolution, and orbit) of the specific planets.  \_\_\_ I can **describe** the orbital path  s of astronomical bodies  \_\_\_ I can **describe** the orbital paths of astronomical bodies |
| **1** | With help, students are able to have partial success with 2.0 and/or 3.0 content. | |