Assessment 11: Solar System and Beyond Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| 1. What are some similarities between the Earth and Mars? | Both are rocky and inner planets; both are tilted and have seasons |
| 1. What does a meteor look like? | Shooting star; a bright flash of light in the sky |
| 1. What feature should a planet have if it is to support life? | water |
| 1. What theory explains how the planets in our solar system formed? | Nebular theory: they came from a cloud of dust and gas in space called a nebula |
| 1. Which scientist discovered the shape of a planet’s orbit? | Kepler; ellipse |
| 1. Why do we put telescopes in space? | 1. To remove light pollution issue 2. No atmospheric distortions 3. To see wavelengths of light blocked by the atmosphere |
| 1. What is at the center of the geocentric system? | Earth |
| 1. Where is our solar system located in the Milky Way? | Orion Spur which is about 2/3 of the way out from the center |
| 1. List the gas giants? | Jupiter, Saturn, Uranus, Neptune |
| 1. What are the two pieces of evidence that prove the Big Bang Theory? | 1. Galaxies moving away from each other/universe expanding 2. Cosmic background radiation |
| 1. Copernicus explained what model of the solar system? | Heliocentric |
| 1. What evidence did Galileo discover in support of heliocentrism? | 1. Jupiter’s moons orbit Jupiter 2. Venus goes through phases |
| 1. What two forces keep the planets in orbit? | Gravity and inertia |
| 1. What is the difference between a comet and an asteroid? | Asteroids are large rocks in space mostly located in the asteroid belt; comets are dirty snowballs that mostly orbit in the Kuiper Belt and Oort cloud |
| 1. What is the shape of most comets’ orbits? | Long, narrow ellipses |
| 1. Where do meteoroids come from? | Dust and small rocks left behind by comets and asteroids |
| 1. What is the purpose of reflecting and refracting telescopes? | Focus and gather visible light |
| 1. What is the name of the theory used to describe the formation of the Universe? | The Big Bang Theory |
| 1. How do we study the solar system besides using telescopes? | Satellites and probes (including fly-bys, orbiters, landers, and rovers) |
| 1. Where is the Milky Way in the universe? | The local group which is in the Virgo Super Cluster |
| 1. What is gravity? | Force of attraction between objects that pulls stars together |
| 1. What is inertia? | An object in motion will stay in motion moving in a straight line unless acted on by an outside force |