

4th Grade

Earth & Space Science Chapter 9 Lesson 2

Page	Question	Answer(s)	Links/Sources
300	How is the model of the space shuttle the same as the actual space shuttle?	The design is the same.	
300	How is the model of the space shuttle different than the actual space shuttle?	The size is different.	
300	What are the benefits of making a scale model?	You can evaluate the design before you spend a lot of money building the real thing.	
301	How can you model distances in the Solar System?		
301	Why do you think we need to use a special unit of measurement to describe distances in the Solar System?	We need the special Astronomical Unit (AU) in order to break down complex data. For example it is confusing to say that the earth is 150,000,000 km from the sun and Saturn is 1,500,000,000 km. Humans don't operate with numbers that big. So now we just say earth is 1AU and Saturn is 10AU's.	
303	Name three different ways you can categorize planets.	Inside the Asteroid Belt - Outside the Asteroid Belt - Gaseous or Rocky.	
304	What different things does it say God created the "lights in the firmament" to do?	For separating day from night and for telling sacred times and seasons.	
305	Why are there different names for a meteoroid, a meteor, and a meteorite?	We use different names to show the different phases of space rocks in relation to earth. Meteoroid: Outside of Earth, Meteor: In Earth's atmosphere, Meteorite: On Earth.	
305	Why does a Comet's tail only become visible as it nears the sun?	You are seeing ionized gas that is pushed away from the sun by solar wind. It wouldn't even fill a swimming pool.	
306	Why do you think people once described Venus as Earth's twin?	Same size, same weight (mass), same material.	
307	Do you think it is possible that God created other worlds that support life?	Personal answer. According to Ellen White there are many "unfallen worlds."	
309	Why does Uranus not have craters like Mercury?	Because it is a gaseous planet. Even if it does have a solid core, we could never see it through the gas.	

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310	Why is there a decimal in the length of the Earth Year?	The extra 0.25, or quarter of a day, is why we have Leap Year February 29 every 4 th year.	
310	How is the length of each planetary year related to the planet's distance from the sun?	The farther away a planet is from the sun, the greater the distance it has to travel around the sun in order to complete one year. That's why one Mercury Year is only 59 Earth Days. But one Neptune Year is 164 Earth Years. We have seen Neptune complete only Year.	
311	How are asteroids and craters related?	Pieces of asteroids become meteors. When meteors hit Earth they create craters and leave behind meteorites.	
311	Which of these space objects is found in the asteroid belt?	A: Ceres.	
311	Explain what causes a meteor shower.	Earth passing through the tail of a comet which contains many meteoroids.	
311	Describe what happens to a comet as it comes near the Sun.	As a comet nears the sun, the radiant energy turns the ice particles, of varied compounds like water or ammonia, to gas then the solar winds push this gas away from the sun.	