

G9 Science: Class 15 Homework

1. Arrange the following objects from biggest to smallest: Galaxy, Moon, Star, Planet, Universe. **[5 marks]**

2. Why do astronomers use astronomical units to measure distances in the Solar System? How many kilometres make up 1AU? **[2 marks]**

3. State the definition of a planet. Why is Pluto no longer considered a planet in the solar system? **[4 marks]**

4. Identify the errors in the following quotations by referring to the definition of meteoroid, meteorite and meteor. **[3 marks]**
 - a. "I saw a really bright meteorite flash across the sky!"
 - b. "The meteoroid made a huge hole in the ground when it crashed into Earth"
 - c. "Meteors sometimes hit spacecraft when they are travelling through deep space"

9. Draw and label a diagram of the different layers of the Sun. Briefly describe each layer.
[6 marks]

10. Which planets have larger orbital radii, terrestrial planets or gas giants? Explain.
[2 marks]

11. Match each term on the left with the most appropriate description on the right:
[7 marks]

	Star	A) The study of objects beyond Earth
	Asteroid	B) A celestial object that does not dominate their orbit
	Comet	C) A celestial object sometimes human-made that travel around a larger celestial object
	Meteorite	D) A lump of metal and rock that has hit Earth's surface
	Satellite	E) A celestial body composed of hot gases that radiates large amounts of energy
	Dwarf Planets	F) A chunk of ice, rock and dust that travels in a very long orbit around the Sun
	Astronomy	G) A small celestial object made of rock and metal that orbits the Sun between Mars and Jupiter

12. Neptune's average distance from the Sun is 4 497 000 000 km. What is Neptune's average distance from the Sun in astronomical units (AU)? Use GRASS method. **[5 marks]**

13. The average distance between Venus and the Sun is 0.72AU. What is this distance in kilometers? Use the GRASS method. **[5 marks]**

14. Compare and contrast the following:

a) Aurora Borealis and Aurora Australis **[3 marks]**

b) Solstice and Equinox **[3 marks]**

c) Terrestrial Planets and Gas Giants **[3 marks]**