

Name _____

Space Cadet Training Manual

Mission Objective: Welcome, Cadet! You're preparing for your first deep-space observation mission. Your training manual has a few key sections missing. Fill in the blanks using the correct space science terms from the word bank below. These terms are essential for identifying and describing the small bodies of our solar system.

Word Bank (10 Words)

meteorite	coma	meteor	meteoroid	asteroid
asteroid belt	Oort Cloud	comet	Kuiper Belt	meteor shower

Space Cadet Training Brief – Section 7.2: Small Solar System Bodies

As a cadet, you'll be observing objects that formed during the earliest stages of our solar system. One of the most well-known areas filled with rocky objects is called the **(1)** _____, located between Mars and Jupiter. This region is home to many **(2)** _____, which are irregularly shaped, rocky bodies that orbit the Sun.

Further out in the solar system, beyond Neptune, lies the **(3)** _____, a region filled with icy bodies and dwarf planets. Even farther is the **(4)** _____, a distant spherical shell of icy objects that may take millions of years to orbit the Sun.

When an icy object from these outer regions enters the inner solar system, it becomes a **(5)** _____. As it approaches the Sun, the heat causes it to release gas and dust, forming a glowing cloud called a **(6)** _____ and often a long tail.

Sometimes, a small piece of rock or debris travels through space. This object is called a **(7)** _____. If it enters Earth's atmosphere and burns up, it is called a **(8)** _____, producing a streak of light in the sky. If part of it survives the descent and lands on Earth's surface, it is called a **(9)** _____.

Finally, when Earth passes through the trail of particles left behind by a comet, we observe a **(10)** _____, which can light up the night sky with dozens or even hundreds of visible streaks.

1. _____

6. _____

2. _____

7. _____

3. _____

8. _____

4. _____

9. _____

5. _____

10. _____