

INTERMEDIATE SCIENCE 9

UNIT 1 SPACE: STUDY GUIDE FOR TEST 2



Know the following terms:

Gases (Jovian) Planets	Sun	Thermonuclear reaction
Terrestrial planets	Gases	Dwarf Planets
Asteroids	Comets	Meteoroids
Meteor	Meteorite	Rocket propulsion
Space Suits	Orbiting Satellite	Space probe
Rover	Optical telescopes	Radio telescopes
Impact Sites	Astronomical units	Light Year
Nebula	Black hole	Quasar

Know the following questions:

1. Describe the composition and characteristics of the following components of the solar system. Include:
 - i. the sun
 - ii. terrestrial and gas planets
 - iii. dwarf planets (Pluto)
 - iv. periodicity of comets
 - v. asteroids/meteors

2. Compare and contrast the composition of the four inner rocky (terrestrial) planets with the four outer gaseous (Jovian) planets

Criteria	Terrestrial Planets (Inner)	Jovian Planets (Outer)
Size	Small (all Earth size or smaller)	Large (4 to 11 times larger than Earth)
Motion	Slow spinning, small orbits	Faster spinning, large orbits
Composition	Solid and rocky	Gaseous
Distance from Sun	Closer	Further away
Temperature	Warmer, but temperatures vary	Colder, but temperatures vary
Density	Greater	Lesser

3. Explain why Pluto is now called a Dwarf Planet
4. Describe how Pluto differs from the other eight planets
5. Describe the composition of comets
6. Compare and contrast asteroid, meteor and meteorite
7. Recognize that Canada plays a major role in space research and exploration.
 - i. the Canadarm 1
 - ii. the International Space Station
 - iii. Canadian Space Station Remote Manipulator system (SSRMS) or Canadarm 2
 - iv. Special Purpose Dexterous Manipulator (SPDM) or Canadahand
8. Give examples of Canadian Astronauts. Include:
 - i. Roberta Bondar
 - ii. Marc Garneau
 - iii. Chris Hadfield
9. Describe the science underlying some technologies designed to explore space. Include:
 - i. Rocket Propulsion
 - ii. Space Suits
 - iii. Satellite Orbiting
 - iv. Probes
 - v. Rovers
 - vi. Optical Telescopes
 - vii. Radio Telescopes
10. Describe theories on the origin and evolution of the universe
 - i. Big Bang Theory
 - ii. Oscillating Theory
11. Describe past and present theories related to the formation of our solar system.
 - i. Stellar Collision Theory
 - ii. Nebular Hypothesis
12. Compare units used to measure distances in space. Include:
 - i. Astronomical units
 - ii. Light Year
13. Describe and classify the major components of the universe. Include:
 - i. Nebula
 - ii. Spiral and Elliptical Galaxies
 - iii. High Mass Stars
 - iv. Intermediate Mass Stars
 - v. Low Mass Stars
 - vi. Quasars
 - vii. Black Holes



KNOW THE FOLLOWING QUESTION

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