

Critical Thinking Skills



The Solar System

Skills For Critical Thinking						Reading Comprehension							Hands-on Activities
LEVEL 1 Knowledge	LEVEL 2 Comprehension	LEVEL 3 Application	LEVEL 4 Analysis	LEVEL 5 Synthesis	LEVEL 6 Evaluation	Section 1	Section 2	Section 3	Section 4	Section 5	Section 6	Section 7	
<ul style="list-style-type: none"> • List Details/Facts • Recall Information • Match Vocab. to Definitions • Define Vocabulary • Label Diagrams • Recognize Validity (T/F) 	<ul style="list-style-type: none"> • Demonstrate Understanding • Explain Scientific Causation • Rephrasing Vocab. Meaning • Describe • Classify into Scientific Groups 	<ul style="list-style-type: none"> • Application to Own Life • Model Scientific Process • Organize and Classify Facts • Utilize Alternative Research Tools 	<ul style="list-style-type: none"> • Distinguish Roles/Meanings • Make Inferences • Draw Conclusions Based on Facts Provided • Classify Based on Facts Researched 	<ul style="list-style-type: none"> • Compile Research Information • Design and Application • Create and Construct • Imagine Self in Scientific Role 	<ul style="list-style-type: none"> • State and Defend an Opinion • Justify Choices for Research & Topics • Defend Selections and Reasoning 	SAMPLE	✓	✓	✓	✓	✓	✓	✓
							✓	✓	✓	✓	✓	✓	✓
							✓	✓	✓	✓	✓	✓	✓
							✓	✓	✓	✓	✓	✓	✓
							✓	✓	✓	✓	✓	✓	✓
							✓	✓	✓	✓	✓	✓	✓
							✓	✓	✓	✓	✓	✓	✓

Based on Bloom's Taxonomy



Introduction to the Solar System

1. Circle the word **TRUE** if the statement is TRUE or Circle the word **FALSE** if it is FALSE.

a) Planets that are made of gases tend to move more slowly than the smaller, rocky planets.

TRUE **FALSE**

b) Mercury, Venus, Earth and Mars are known as *inner planets* because they have rocks inside them.

TRUE **FALSE**

c) Moons are part of the solar system because they orbit around the Sun.

TRUE **FALSE**

d) The *gas planets* can have rings and often have many moons.

TRUE **FALSE**

e) Asteroids are known as "space trash" because they are left over from when the planets were formed.

TRUE **FALSE**

f) The farther a planet is from the Sun, the more difficult it is to visit it.

TRUE **FALSE**

g) The rings around Venus are made of ice and rock.

TRUE **FALSE**

h) The inner planets have few moons around them.

TRUE **FALSE**

i) The Earth is the center of the solar system.

TRUE **FALSE**

2. a) Cross out the words that are NOT part of the solar system.

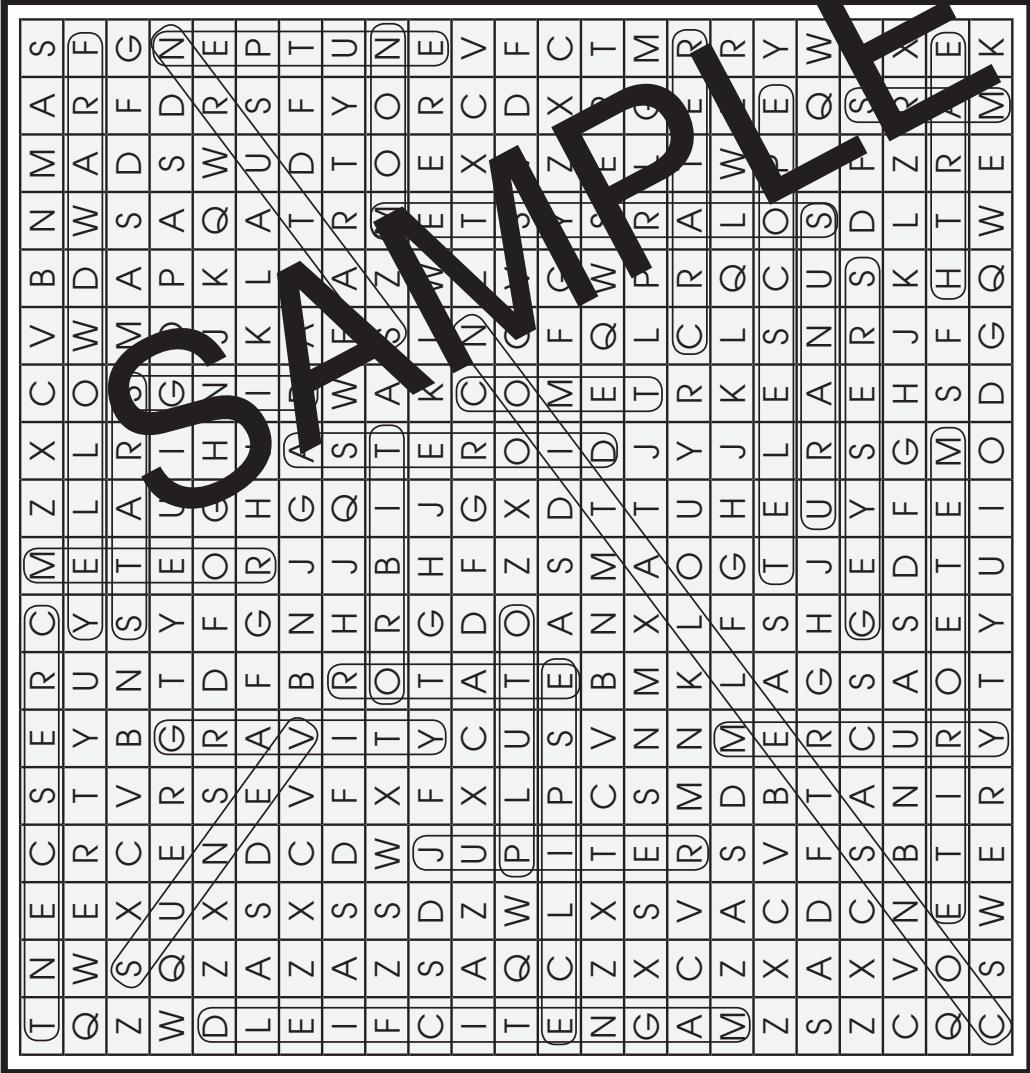
moon satellite planet comet asteroid quasar sun

- b) Underline planets that are light and fast.

Mercury Venus Saturn Jupiter Mars Neptune

- c) Circle all of the items in the list that planets can be made of.

helium rock dust fireballs hydrogen oxygen ice

Part A**Part C****Word Search Answers**

Like people, stars are born, grow up and then die. A star begins as a gas and dust cloud called a nebula that continues to pick up more dust and gas and get bigger and bigger. As it gets larger, it grows hotter and hotter. Eventually it just burns itself out and dies.

2.

It doesn't fit in with the other outer gas giants. It is tiny, it is made of rock and ice; it has just three moons, one of which is the same size as it.

3.

Venus, because it's almost exactly the same size and it's right next to Earth.

4.

An asteroid is a lumpy rock that is held in orbit in a belt between Jupiter and Mars. When an asteroid breaks free of the belt and flies through space on its own, it is called a meteor. If the meteor flies through the Earth's atmosphere without burning up, it's called a meteorite.

5.

A comet is made of dust and ice. It is usually located on the outer edge of the solar system, and when it flies through space it leaves a tail of gas behind.

1) True**2) True****3) False****4) True****5) False****6) True****7) False****8) False****Part B****1.**

- A** Neptune
- B** Uranus
- C** Saturn
- D** Jupiter
- E** Mars
- F** Earth
- G** Venus
- H** Mercury

2.

- a) D,E

- b) A

- c) F



19

17

Phases of the Moon

