

Critical Thinking Skills

The Solar System

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

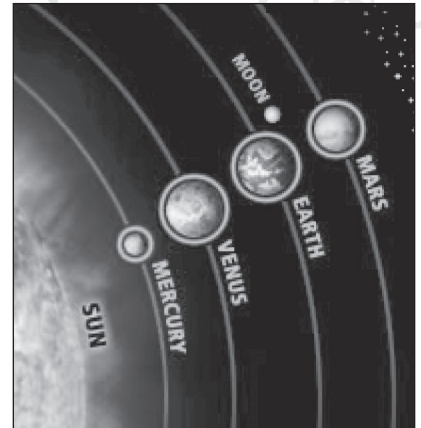
Based on Bloom's Taxonomy



The Inner Planets



The eight planets of our solar system are organized into **inner planets** and **outer planets**. The inner planets are the first four planets from the Sun: Mercury, Venus, Earth and Mars. They are rocky planets. An **asteroid belt** divides the inner planets from the outer planets.



Mercury is the planet closest to the Sun. It has a very weak **atmosphere**, which means it has very little air. There is no water on Mercury. It has many deep scars on its surface from huge **meteorites** that crashed into it more than three billion years ago. On Mercury, the days are very hot and the nights are very cold. Mercury has no moons. Scientists do not think there can be life on Mercury.

Venus is the second planet from the Sun, and it is the brightest planet. You could not live on Venus because there is a layer of thick, yellowish clouds around it. These are not like the clouds we have on Earth. They are poisonous clouds made of **sulfuric acid**. Both days and nights are very hot on Venus, and it is very windy there. There does not seem to be any water on Venus. Nothing lives on Venus. Venus has no moons. It is often called Earth's "**twin planet**" because it is almost the same size as Earth, and it is next to Earth. Venus is also very different from Earth in many ways.

SAMPLE



MAKE AN INFERENCE: Why are Mercury, Venus, Earth and Mars called inner planets?

Earth is the third planet from the Sun. It has everything that living things need: sunlight, water, and certain gases. Earth has an **atmosphere** made up of mostly **nitrogen** and **oxygen**. It also has a **magnetic field** all around it that comes from the core of the Earth. The magnetic field acts like a magnet and pulls everything in. This keeps you from floating away! You may know this as **gravity**. The magnetic field also works with the atmosphere to protect us from the deadly rays of the Sun. The Earth spins around, or **rotates**, the Sun like the other planets. It makes a full rotation every twenty-four hours. This means that almost every part of the Earth has a night and a day. The Earth has one moon that **orbits** (circles around) it, called Luna. Earth supports many different life forms, like humans, animals, plants, and bacteria.



Graph It!

You read a great deal of information about each of the planets in our solar system. This is an opportunity to sort out what you know. Look back in the book to fill in all of the blanks on the table below:

PLANET CHART

PLANET	Position from the Sun	Inner or Outer?	Rocky or Gas?	# of Moons	# of Rings	Other interesting feature
	1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					

SAMPLE

When you have completed this task, re-create this table on a poster board to display in your classroom. Make your poster attractive so that others will want to read it. Consider adding a Visual Representation column for a drawing or photo of each planet.

You will need:

- poster-sized paper or bristol board
- a long ruler for making lines in table
- markers

Stars of the Northern Hemisphere

