

Anticipation Guide

Name: _____

Directions: *Before reading the article*, in the first column, write “A” or “D,” indicating your Agreement or Disagreement with each statement. Complete the activity in the box.

As you read, compare your opinions with information from the article. In the space under each statement, cite information from the article that supports or refutes your original ideas.

Me	Text	Statement
		1. Gold conducts electricity and keeps electrical components from corroding.
		2. Gold was formed during the Big Bang.
		3. Stars were formed during the Big Bang.
		4. During nuclear fusion, the hydrogen nuclei in stars fuse to form helium nuclei.
		5. Iron is the most stable form of matter.
		6. Neutron stars create heavy elements.
		7. There is gold in Earth’s core.
		8. 24-karat gold is pure gold.
		9. Some gold mines are more than 10 miles deep.
		10. Some of Earth’s gold came from meteorites.

Student Reading Comprehension Questions

Name: _____

Directions: Use the article to answer the questions below.

1. What are positrons? How do they relate to neutron stars?
2. What is the composition of a neutron star?
3. Geologically speaking, where are the two places on Earth that gold is found?
4. What is an alloy?
5. List four characteristics that make gold and explain how at least one characteristic impacts gold's function in electronic devices.
6. How did neutron stars generate the energy they needed to survive?
7. Why is iron credited with causing the collapse of neutron stars?
8. What percent of pure gold is in 10-karat gold?
9. How did the gold that we are able to mine become part of Earth?

Student Reading Comprehension Questions, cont.

Questions for Further Learning

Write your answers on another piece of paper if needed.

1. Describe how gold became part of Earth's core.
2. The article explains how white gold and pink gold are made. Research two other gold alloys and explain how they are made.
3. Describe the differences between gold and gold alloys. How does the structure of a gold alloy contribute to its function?
4. Describe the process of nuclear fusion in neutron stars.
5. Read the Open for Discussion article, "The Asteroid Next Door." Should we attempt to mine gold and other precious metals from asteroids? Why or why not?
6. Perform some research to determine how ownership rights in space are determined. How do you think ownership rights should be determined?

Graphic Organizer

Name: _____

Directions: As you read, complete the graphic organizer below to describe how gold came to be found on Earth.

Process	Description	End result	How long ago?
Big Bang			
Nuclear Fusion			
Neutron Star Collision			
Meteorite Bombardment			

Summary: Write three new things you learned about gold from reading the article.