**Directions**: Use the article to answer the questions below. Answer these questions on a sheet of lined paper.

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?

**Questions for Further Learning**

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?