

Title: Amazing Atoms

Word Study

Fill in the blanks using the words.

weight	gap	ore	bond	tunnel
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1. There was a gap between the boat and the dock.
2. They became rich after discovering silver ore on their land.
3. The weight of this bag is more than you're allowed to bring on the plane.
4. There is a long tunnel through the mountain.
5. My best friend and I have a special bond.

Reading Comprehension

A. Circle T for true or F for false.

1. All matter is made up of atoms. T / F
2. Electrons are much smaller than protons and neutrons. T / F
3. Helium is the Greek word for "sun." T / F
4. Fission helps humans make electricity. T / F
5. Scientists didn't start working on atomic bombs until after World War II. T / F

B. Circle the correct word(s).

1. John Dalton said that atoms cannot be (seen / created) or destroyed.
2. Electrons have a (positive / negative) charge.
3. An element's atomic number is equal to the number of (protons / electrons) it has.
4. Most of an atom's mass comes from its (neutrons / nucleus).
5. One way scientists study atoms is by (smashing / sliding) them together.

C. Choose the best answer.

1. According to the book, what would happen to a person's mass if they were on the moon?

- a. It would go down.
- b. It would go up.
- c. It would stay the same.
- d. It would be equal to their weight.

2. What is NOT true about elements?

- a. Gold is an example of an element.
- b. Elements are made of several kinds of atoms.
- c. There are ninety-two elements found in nature.
- d. Some elements have been made by scientists.

3. Which is true about the periodic table?

- a. It was invented by a British scientist.
- b. It gives each element an atomic number equal to its mass.
- c. All the elements on the table have Greek or Latin names.
- d. Au is what gold is called on the periodic table.

4. Why do atoms bond?

- a. To fill their outer shell with electrons
- b. To create electricity
- c. To add a neutron to their nucleus
- d. To try to become a different element

5. What have scientists learned about protons and neutrons?

- a. They can be used to make matter.
- b. They can both have a negative charge.
- c. They have even smaller particles in them.
- d. They can move faster than the speed of light.

Summary

Fill in the blanks with the words.

nucleus	protons	matter	electrons	element
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Long ago, the Greeks wondered about matter. The smallest piece, they said, would not be able to be cut. They called that an atom. They were right. Everything in the world is made up of atoms. They cannot be created or destroyed. At the center of an atom is a(n) nucleus. It is made up of protons and neutrons. Electrons circle around them. Almost all of an atom's mass comes from the protons and neutrons. When something is made of only one kind of atom, it is called an element. There are ninety-two of them in nature. Scientists have created a few more in labs. They are all listed on the periodic table. It lists each element by its atomic number. This number tells how many protons an element has. The table gives a lot of information about each element. Sometimes atoms bond together. They do this by sharing electrons. Today, scientists continue to study atoms. They are learning more things about them all the time.