



1. **What is the significance of the periodic table of elements? Choose the best answer.**

- a. It lists all the different metals known to humans
- b. It predicts and lists all the chemical elements in the universe
- c. It explains where different atoms can be found
- d. It proves that atoms are the building blocks of matter

2. **What do electrons in the same shell have in common?**

- a. They have the same amount of energy
- b. They are all positively charged
- c. They are all made up of atoms
- d. They all have neutral charges

3. **Which of the following is an example of a subatomic particle?**

- a. Carbon
- b. Oxygen
- c. Electron
- d. Hydrogen

4. **What might happen if the strong force didn't exist?**

- a. Electrons would have positive charges
- b. Atomic nuclei would fly apart
- c. It would be more difficult to split atoms
- d. Neutrons would not exist

5. **What two types of particles exist within an atomic nucleus?**



- a. Protons and neutrons
- b. Neutrons and electrons
- c. Protons and neutrinos
- d. Positrons and neutrons

6. **Oxygen has an atomic number of 8. What can you conclude from this fact?**

- a. An atom of oxygen weighs 8 grams.
- b. An atom of oxygen has 4 protons and 4 electrons.
- c. An atom of oxygen has 8 positrons.
- d. An atom of oxygen has 8 protons.

7. **The word "atom" comes from a Greek word for "indivisible." In what way are atoms indivisible?**

- a. They cannot be separated once they've bonded with other atoms
- b. They cannot be broken apart without losing their chemical properties
- c. They cannot form bonds with other atoms
- d. They cannot gain or lose electrons

8. **How are molecules different from atoms?**

- a. They consist of several atoms bonded together.
- b. They do not contain neutrons.
- c. They do not have nuclei.
- d. Their particles do not have electrical charges.

9. **What can you conclude from the fact that electrons orbit far away from atomic nuclei?**

- a. Electrons are extremely small
- b. Atoms are comprised mostly of empty space
- c. Protons have a positive charge
- d. Atoms consist of subatomic particles

10. **In the following diagram, what does the number 12 represent?**

	6	
B	C	Nitr
on	Carbon	
8	12.0	14
	14	

- a. An atomic number
- b. A number of electrons
- c. An atomic mass
- d. A chemical symbol