

Name \_\_\_\_\_

## Element or Compound? Deciphering the Building Blocks of Matter

### Short Answer Key

1. An example of an element is oxygen (O) because it cannot be broken down into simpler substances by chemical means. It consists of only one type of atom.
2. Elements are composed of one type of atom, while compounds are formed by chemically bonding different elements. An example of a compound is water (H<sub>2</sub>O), which consists of hydrogen and oxygen.
3. The atomic number of an element represents the number of protons in the nucleus, which is unique to each element and helps scientists identify and distinguish elements.
4. Covalent bonds involve the sharing of electrons between atoms, while ionic bonds involve the transfer of electrons between atoms.
5. The periodic table organizes elements by their increasing atomic number and groups elements with similar properties together, providing a valuable tool for understanding element characteristics.

