

Name \_\_\_\_\_

## Molecule Magic: How Shapes Matter in Chemistry

### Multiple Choice Questions

1. What type of bond plays a significant role in determining a molecule's shape?
  - A. Ionic bond
  - B. Covalent bond
  - C. Metallic bond
  - D. Hydrogen bond
  
2. Which type of electrons are responsible for pushing atoms apart in a molecule?
  - A. Bonding pairs
  - B. Non-bonding pairs
  - C. Protons
  - D. Neutrons
  
3. What factor influences the shape of a molecule by causing repulsion between electron pairs?
  - A. Number of bonding pairs
  - B. Number of lone pairs
  - C. Type of atoms
  - D. All of the above
  
4. Which molecule shape is associated with molecules having three bonding pairs and no lone pairs?
  - A. Linear
  - B. Bent
  - C. Trigonal planar
  - D. Tetrahedral
  
5. Why is the shape of a molecule important in drug design?
  - A. It determines the molecule's color.
  - B. It affects the molecule's size.
  - C. It plays a role in the molecule's effectiveness in binding to specific receptors.
  - D. It determines the molecule's mass.

