

Exploring the Modern Periodic Table

1. Look at your periodic table. Which elements are solids? Gases? Liquids? Use colors or symbols to indicate the state of the elements on your Element List.

Use a square to show that the element is a solid (■). Use a raindrop to show that the element is a liquid (💧). Use a cloud to show that the element is a gas (☁)

- a. Name three elements that are gases at room temperature.

- b. Name the two elements that are liquids at room temperature.

2. Look at the symbols and the atomic numbers of the elements.

- a. What is the atomic number of helium (symbol He)? _____
- b. What is the atomic number of gold (symbol Au)? _____
- c. What is the symbol of the element with the atomic number 22? _____
- d. What is the symbol of the element with the atomic number 33? _____

3. Look at the atomic masses of the elements.

- a. What is the atomic mass of aluminum (symbol Al)? _____
- b. What is the atomic mass of silver (symbol Ag)? _____
- c. What is the symbol of the element with an atomic mass of 40.1? _____
- d. What is the symbol of the element with an atomic mass of 83.8? _____

4. Mendeleev used atomic masses to organize the elements in his periodic table.

- a. Which two elements are out of order according to atomic mass in the fifth row?

5. Elements 1, 3, 11, and 19 are in group 1.

- a. Draw Bohr-Rutherford diagrams for these elements.

