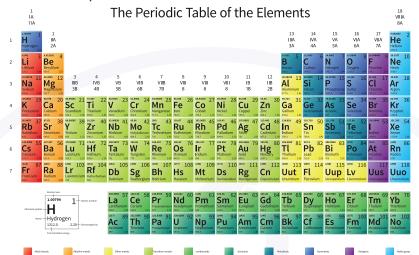
# THE PERIODIC TABLE

### **Key Concepts**

- The periodic table organizes elements based on their properties.
- Elements are arranged by increasing atomic number.
- Groups are vertical columns; periods are horizontal rows.



## **Key Facts to Remember**

- Metals are on the left side of the periodic table and are generally good conductors of heat and electricity, malleable, ductile, and shiny.
- Non-metals are on the right side of the periodic table and are typically poor conductors of heat and electricity, brittle, and dull in appearance.
- Group 1 elements (alkali metals) are highly reactive and increase in reactivity as you move down the group.
- Group 18 elements (noble gases) are unreactive because their outer electron shells are full, making them very stable.
- The periodic table is divided into groups (columns) and periods (rows), with elements in the same group sharing similar chemical properties.

#### **Quick Questions**

- 1. What does the atomic number represent?
- 2. Name one property of metals.
- 3. What is special about Group 18 elements?
- 4. Why do elements in the same group have similar properties?
- 5. Which group contains the most reactive metals?
- 6. How does the reactivity of Group 1 elements change as you move down the group?
- 7. Why are noble gases used in balloons instead of hydrogen?

#### **Fun Fact**

Helium in the periodic table is lighter than air, which is why balloons float!

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