Name _____

Chemical Properties of Elements Answer Key

1. The atomic symbol represents a shorthand notation for an element, usually based on its English or Latin name.

2. The f-block, also known as the inner transition metals, is located below the main body of the periodic table and consists of two series: the lanthanides and the actinides.

3. Elements in the same period have the same number of electron shells, but their electron configurations differ as more electrons are added.

4. The number of valence electrons and the electron configuration are the main factors that determine an element's chemical properties.

5. The rare earth elements are a group of chemically similar elements that belong to the lanthanide series. They are typically soft, malleable, and have high melting points.

6. Electronegativity generally increases across a period from left to right due to increasing nuclear charge and decreasing atomic radius.

7. Elements in the same group share similar chemical properties and tend to have similar reactivity due to having the same number of valence electrons.

8. Metalloids, also known as semimetals, exhibit properties intermediate between metals and nonmetals. They have characteristics of both, such as varying electrical conductivity.

9. The halogens are highly reactive nonmetals located in Group 17 of the periodic table. They are typically diatomic molecules and have a wide range of physical and chemical properties.

10. The periodic table provides information about trends in physical properties such as atomic size, boiling point, melting point, and density, allowing us to make predictions based on an element's position.