

Name _____

The Marvelous Map of Elements: Exploring the Periodic Table

Open-Ended Response Answer Key

1. Answers may vary, but a scientist could use the periodic table to look at elements with similar properties in nearby groups and predict the new element's behavior based on those patterns.
2. Answers may vary, but everyday items like stainless steel (contains iron, chromium, and nickel) or table salt (contains sodium and chlorine) consist of elements from different groups, each with unique properties that contribute to the materials' characteristics.
3. The periodic table is often compared to a map or puzzle because it helps organize elements in a systematic and logical way, just like a map organizes geographic locations or a puzzle fits pieces together to create a complete picture.
4. In medicine, the periodic table is used to understand the properties of elements involved in medications and their effects on the body. In engineering, it helps in materials selection for specific applications, considering elements' properties like conductivity, strength, and corrosion resistance, among others.

