



**Subject:** Grade 7 Natural Sciences

**Topic:** Periodic Table of Elements

**Total:** 37 Marks

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1. D: low boiling point

4 marks

**Explanation:**

Pure metals are shiny. Metals are malleable, so they can be hammered or pressed into a shape without breaking. Metals are ductile, so they can be stretched into wires without breaking. Most metals are solids at room temperature, which means that they have high melting and boiling points.

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2. C: Na

4 marks

**Explanation:**

The name **sodium** comes from the English word **soda**, used to refer to sodium compounds. **Na** is the first two letters of the Latin word **natrium**, which refers to soda ash or sodium carbonate. In Afrikaans the word **natrium** is also used for the element sodium.

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3. true

2 marks

**Explanation:**

The symbol for an element is either a capital letter or starts with a capital letter. This allows us to distinguish a new element in a chemical formula. For example, **Co** represents the element **cobalt**. **CO** represents a compound made up of two elements, **carbon and oxygen**.

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4. false

2 marks

**Explanation:**

The symbol for **magnesium** is **Mg**. **Mn** is the symbol for **manganese**.

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5. potassium

3 marks

**Explanation:**

The name **potassium** comes from the English word **potash**, the everyday name for potassium carbonate. **K** is the first letter of the Latin word **kalium**, which refers to potash or potassium carbonate. In Afrikaans the word **kalium** is also used for the element potassium.

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6. B: He

4 marks

**Explanation:**

Helium (He) is an unreactive gas with a low density. This means that it is safe to use and easily rises above air. Hydrogen (H) is flammable, Argon (Ar) is denser than air and fluorine (F) is very reactive and highly toxic.

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7. element | elements

3 marks

**Explanation:**

An element consist of only one type of atom. You cannot isolate different substances from a specific element.

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8. aluminium | nitrogen | carbon | chlorine

8 marks

**Explanation:**

(1) Aluminium is suitable for cooldrink cans because it is light, does not have a taste and does not rust.

(2) Nitrogen is an unreactive gas; about 80% of Earth's atmosphere consists of nitrogen.

(3) Graphite is what we know as the "lead" of a pencil; it is a form of carbon.

(4) Chlorine is widely used to disinfect water.

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9. C: poor conductor of heat

4 marks

**Explanation:**

Sulfur is a non-metal. Non-metals are generally poor condutors of heat. Most metals are shiny solids and good electrical conductors that can be shaped without breaking.

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10. mercury

3 marks

**Explanation:**

Symbol; The melting point of mercury is  $-38, 83\text{ }^{\circ}\text{C}$ . That means it is a liquid at room temperature. All the other metals have melting points above room temperature.

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**Total:** 37 Marks