



Subject: Grade 5 Natural Sciences

Topic: Properties of metals and non-metals

Total: 31 Marks

1. aluminium, copper and nickel

2 marks

Explanation:

Metals used to make coins have to be light, durable and non-corrosive..

Aluminium is light, **copper** is durable en **nickel** is non-corrosive.

2. A: Copper is used for electrical wiring, because it conducts electricity well.

4 marks

Explanation:

Copper, a good conductor of electricity, is used for electrical wiring. Not all metals conduct electricity well.

Aluminium is an example of a metal that is not a good conductor of electricity.

3. false

2 marks

Explanation:

An **alloy** is a mixture of two or more metals, or a metal with a non-metal.

4. copper, because it will last long. | copper, because it is a good conductor of electricity.

4 marks

Explanation:

Copper is a non-corrosive metal and it is a very good conductor of electricity. Amongst the pure metals, only silver (at room temperature) has higher electrical conductivity than copper.

5. rust | iron oxide

3 marks

Explanation:

The iron reacts with the oxygen in the air, especially when there is moisture present. The substance that forms, is called **rust**.

6. copper

3 marks

Explanation:

Ductile means that a substance can be drawn (stretched) to form a wire.

Steel is much harder than copper, so it will not be as ductile as copper.

Glass is not ductile at room temperature. Glass can be drawn into a wire, but only at a very high temperature.

Copper is ductile at room temperature.

7. plated | gold plated | goldplated | gold-plated

3 marks

Explanation:

A thin layer of gold covers the copper. We say that the copper has been **plated** or **gold-plated**.

8. D: coat it with plastic, because plastic is a very poor conductor of electricity.

4 marks

Explanation:

The copper wire should be covered by a substance that will not conduct electricity. This is to prevent a person from being shocked. The copper wire should therefore be coated with plastic, because plastic is a very poor conductor of electricity.

9. true

2 marks

Explanation:

Glass is made from silica, found in sand. We say it's brittle, because if beaten with a hammer, it will shatter.

10. mercury | gold

4 marks

Explanation:

Mercury is a liquid at room temperature.

Aluminium and copper are both harder metals than **gold**.

Total: 31 Marks