

**CLASS: JSS1**

**TOPIC: CLASSIFICATION OF NON-LIVING THINGS (METALS AND NON-METALS)**

**INTRODUCTION:** Non-living things are all around us. Some are human-made and some are natural. Some things have always been non-living, for example glass, stones, copper and chemicals. Some non-living things were once living, but are now non-living. Example, chair made from wood, fuel are naturally occurring and non-living. They are made from plants that lived millions of years ago.

**CLASSIFICATION OF NON-LIVING THINGS**

Non-living things are classified into **metals and non-metals**

**EXAMPLE OF METALS**

- I. Aluminium
- II. Iron
- III. Copper
- IV. Steel
- V. Brass, bronze, gold
- VI. zinc

**EXAMPLE OF NON-METALS**

- I. Sulphur
- II. carbon
- III. plastic
- IV. piece of wood
- V. paper

**PROPERTIES OF METALS AND NON-METALS**

S/N	METALS	NON-METALS
1.	Metals are hard	Non-metals are generally soft, except diamond.
2.	Metals can be beaten or hammered into thin sheets, i.e, they are malleable	Non-metals cannot be hammered, i.e they are very brittle.
3.	Metals are shiny and can be polished	Non-metals are not shiny
4.	Metals can be draw into wires i.e, they are ductile	They cannot be drawn into wires.
5.	Metals tend to be heavy in weight i.e, they have high density.	Non-metals are usually light i.e they have low density.
6.	Metals are good conductors of heat	Non-metals are poor conductors of heat.
7.	Metals are good conductors of electricity	Non-metals are poor conductors of electricity.
8.	Metals generally have a high melting point	Non-metals have a lower melting point.
9.	Metals can rust.	Non-metals do not rust.

## **Uses of metals and non-metals**

### **USES OF METALS**

1. For constructing of ship, roofing sheets and refrigerator.
2. They are used to make bell and some other musical instrument.
3. For manufacturing of motor vehicles and aeroplane.
4. Copper, iron, aluminium, gold, silver and other metals are drawn into wire and used in the production of cutleries ( spoons, knives, fork), hoes, trophies, ornaments (rings, bracelets).
5. For making cooking utensils.

### **USES OF NON-METALS**

1. For roofing of houses, eg., planks, asbestos
2. As an insulator for most electrical appliances, i.e., to protect substances from electrical shock, e.g., handle of knife, screwdriver, rubber that covers flexible wires.
3. Decoration of houses and buildings, furniture (eg, tables, chairs), etc.
4. Plastics are used to make utensils, chairs and bucket.

### **HOME-WORK**

1. What are non-living things?
2. State the two classification of non-living things
3. State 4 characteristics of metals and non-metals.
4. List four features which are common to both plants and animals.