Metal is a broad term that identifies a group of materials used in industry. Below is a set of tables that describe some of the common metals used in everyday life and the applications they are commonly used in.

They fall into 2 groups:

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| 1. **FERROUS METALS** - Metals that contain iron.
2. **NON-FERROUS METALS** - Metals that do not contain iron.
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| **SOME FERROUS METALS AND PROPERTIES** |
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| **NAME** | **ALLOY OF** | **PROPERTIES** | **USES** |
| **Mild Steel** | Carbon 0.1 - 0.3%Iron 99.9 - 99.7% | Tough. High tensile strength. Can be case hardened. Rusts very easily. | Most common metal used in school workshops. Used in general metal products and engineering. |
| **Carbon Steel** | Carbon 0.6 - 1.4%Iron 99.4 - 98.6% | Tough. Can be hardened and tempered. | Cutting tools such as drills. |
| **Stainless steel** | Iron, nickel and chromium. | Tough, resistant to rust and stains. | Cutlery, medical instruments. |
| **Cast iron** | Carbon 2 - 6%Iron 98 - 94% | Strong but brittle. Compressive strength very high. | Castings, manhole covers, engines. |
| **Wrought iron** | Almost 100% iron | Fibrous, tough, ductile, resistant to rusting. | Ornamental gates and railings. Not in much use today. |

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| **SOME NON - FERROUS METALS AND PROPERTIES** |
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| **NAME** | **COLOUR** | **ALLOY OF;** | **PROPERTIES** | **USES** |
| **Aluminium** | Light grey | Aluminium 95%Copper 4%Manganese 1% | Ductile, soft, malleable, machines well. Very light. | Window frames, aircraft, kitchen ware. |
| **Copper** | Reddish brown | Not an alloy | Ductile, can be beaten into shape. Conducts electricity and heat. | Electrical wiring, tubing, kettles, bowls, pipes. |
| **Brass** | Yellow | Mixture of copper and zinc 65% - 35% most common ratio. | Hard. Casts and machines well. Surface tarnishes. Conducts electricity. | Parts for electrical fittings, ornaments. |
| **Silver** | Whitish grey | Mainly silver but alloyed with copper to give sterling silver. | Ductile, Malleable, solders, resists corrosion. | Jewellery, solder, ornaments. |
| **Lead** | Bluish grey | Not an alloy. | Soft, heavy, ductile, loses its shape under pressure. | Solders, pipes, batteries, roofing. |

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