



1.8 — Ferrous and Non-Ferrous Metals

Worksheet — Simplified Edition

Qualification: Pearson Edexcel GCSE (9–1) Design and Technology ■ Chapter: 1.8

Name: _____ Class: _____ Date: _____

Section 1 — Material Properties: Fill in the Missing Word

1. _____ means a metal can be stretched into a thin wire without snapping.
2. _____ means a metal can be hammered flat without cracking.
3. A metal with good _____ lets heat or electricity pass through it.
4. _____ means a material resists being scratched or dented.
5. _____ means a metal can be pulled without breaking.
6. A _____ material can take a knock or impact without cracking.
7. _____ means a metal does not rust or rot easily.
8. A _____ metal is easy to cut, drill or shape with tools.

Word Bank: Machinability, Hardness, Conductivity, Ductility, Toughness, Corrosion resistance, Malleability, Tensile strength

Section 2 — Name the Material: Fill in the Missing Word

1. _____ is a ferrous metal that contains a small amount of carbon and is used for car body panels.
2. _____ is a very hard ferrous metal that does not rust because chromium is added to it.
3. _____ is a reddish-brown metal that conducts electricity very well.
4. _____ is a very lightweight metal that conducts heat and electricity and is used for aircraft.
5. _____ is an alloy made from copper and zinc that is harder than pure copper.
6. _____ is a ferrous metal that has a lot of carbon in it and is used for manhole covers.
7. _____ is a ferrous metal that is very hard but brittle and can snap if hit.
8. _____ is a non-ferrous metal that is used for electrical wire and water pipes.

Word Bank: Copper, Cast Iron, Mild Steel, Aluminium, Brass, Stainless Steel

Section 3 — Connect the Pairs: Match Each Material to Its Description

Draw a line to match each material to its correct description.

A. Mild Steel	1. An alloy made from copper and zinc. Harder than pure copper.
B. Stainless Steel	2. A very hard and brittle ferrous metal used for manhole covers.
C. Cast Iron	3. A very lightweight metal that does not rust and is used for aircraft.
D. Aluminium	4. A reddish-brown metal that is the best common conductor of electricity.
E. Copper	5. A ferrous metal with chromium added so it does not rust. Used for cutlery.
F. Brass	6. A ferrous metal with a small amount of carbon. Used for car body panels.

Section 4 — Example Uses: Fill in the Missing Word

- _____ is used to make electrical wires because it conducts electricity very well.
- Stainless steel is used for _____ because it does not rust.
- _____ is used for aircraft because it is very lightweight and does not rust.
- Mild steel is used for _____ because it is strong and easy to weld.
- _____ is used for brake discs because it is very hard.
- Brass is used for _____ because it is harder than pure copper and does not rust.
- _____ is used for roofing and water pipes because it is a good conductor of heat.
- Cast iron is used for _____ because it is very hard and durable.

Word Bank: cutlery, sinks and kitchenware, Aluminium, manhole covers, car body panels, screws and nails, plumbing fittings and locks, Copper, Cast Iron