



1.8 — Categorisation of Ferrous and Non-Ferrous Metals

Pearson Edexcel GCSE (9–1) Design and Technology

Assessment Sheet — Multiple Choice Questions

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

Chapter: 1.8

Name: _____ Class: _____ Date: _____

Questions

Circle the letter next to the correct answer for each question.

Q1	What is the definition of a ferrous metal?
A	A metal that contains iron and is typically magnetic.
B	A metal that contains iron but is not magnetic.
C	A metal that does not contain iron and is not magnetic.
D	A metal that does not contain iron but is magnetic.
E	I don't know.
Q2	What is ductility?
A	The ability of a material to deform by bending, twisting, or stretching without breaking.
B	The ability of a material to be permanently deformed in all directions without fracture.
C	The ability of a material to resist scratching and indentation.
D	The ability of a material to resist penetration and deformation.
E	I don't know.
Q3	Which of the following describes a property of non-ferrous metals?
A	They are not magnetic and have a higher resistance to corrosion.
B	They are magnetic and have a higher resistance to corrosion.
C	They contain iron and are not magnetic.
D	They contain iron and are magnetic.
E	I don't know.
Q4	What is malleability?
A	The ability of a material to be permanently deformed in all directions without fracture.
B	The ability of a material to deform by bending, twisting, or stretching without breaking.
C	The ability of a material to resist scratching and wear.
D	The ability of a material to return to its original shape after force is removed.
E	I don't know.

Questions (cont.)

Q5	What is an alloy?
A	A mixture of two or more metals or elements designed to have improved properties.
B	A pure metal that has been strengthened through heat treatment.
C	A metal that contains iron and is resistant to corrosion.
D	A metal that contains iron and is strengthened with carbon.
E	I don't know.
Q6	Which of the following is a property of mild steel?
A	It is tough, ductile, and malleable, but has poor resistance to corrosion.
B	It is tough, ductile, and malleable, with excellent resistance to corrosion.
C	It is brittle and hard, with poor resistance to corrosion.
D	It is brittle and hard, with excellent resistance to corrosion.
E	I don't know.
Q7	Which property makes copper particularly suitable for use in electrical wiring?
A	Copper is a good electrical conductor.
B	Copper is a good thermal insulator.
C	Copper is highly magnetic.
D	Copper is extremely hard and brittle.
E	I don't know.
Q8	What is hardness?
A	The ability of a material to resist deformation, indentation, or scratching.
B	The ability of a material to deform permanently in all directions without fracture.
C	The ability of a material to deform by bending or stretching without breaking.
D	A low resistance to impact, causing materials to break easily.
E	I don't know.
Q9	Which of the following is a distinctive property of aluminium?
A	It has an excellent strength-to-weight ratio.
B	It has a very high density compared to other metals.
C	It is highly magnetic.
D	It is resistant to heat but a poor conductor of electricity.
E	I don't know.

Questions (cont.)

Q10	Which of the following correctly describes cast iron?
A	It has a hard outer skin but a brittle, softer core.
B	It has a soft outer skin but a hard, tough core.
C	It is lightweight and has high tensile strength.
D	It is lightweight and has low compressive strength.
E	I don't know.
Q11	Which of the following correctly describes the properties of stainless steel?
A	It is hard, tough, and resistant to corrosion.
B	It is tough and malleable, but rusts easily without a protective coating.
C	It is lightweight with an excellent strength-to-weight ratio.
D	It has a hard outer skin but a brittle, softer inner core.
E	I don't know.
Q12	Which of the following correctly describes brass?
A	It is an alloy of copper and zinc, with good corrosion resistance and an attractive golden colour.
B	It is an alloy of iron and carbon, known for being lightweight and strong.
C	It is a pure non-ferrous metal with excellent electrical conductivity and a silver appearance.
D	It is an alloy of aluminium and magnesium, commonly used in aircraft components.
E	I don't know.