

## 9 Metals and alloys – Part 1 —Answers

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### Answers

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Work through these after trying the questions yourself.

**9.1** Any two of: good conductor of heat; good conductor of electricity; malleable; ductile; high melting point.

**9.2** A mixture of a metal with one or more other elements; e.g. brass (copper + zinc) or steel (iron + carbon).

**9.3** The different-sized atoms stop the layers of atoms sliding over each other, so the alloy is harder and stronger.

**9.4** Magnesium.

**9.5** It will displace the copper (zinc is more reactive), forming zinc sulfate and copper metal.

**9.6** (a) Magnesium displaces the iron (magnesium is more reactive), forming magnesium sulfate and iron. (b) No reaction —copper is less reactive than iron, so it cannot displace it.