## Metals and **Non-Metals**

- 1. Shade in the area on the periodic table below to show which elements are metals. [1]
- 2. In a different colour, shade in the area on the periodic table below to show which elements are non-metals. [1]

																	He helium
<b>Li</b> lithium	Be beryllium	H hydrogen										B	C	<b>N</b> nitrogen	<b>O</b> oxygen	<b>F</b> fluorine	Ne neon
<b>Na</b> sodium	Mg magnesium											<b>Al</b> aluminium	<b>Si</b> silicon	<b>P</b> phosphorous	<b>S</b> sulfur	<b>Cl</b> chlorine	Ar argon
<b>K</b> potassium	Ca calcium	Sc scandium	<b>Ti</b> titanium	<b>V</b> vanadium	Cr chromium	<b>Mn</b> manganese	Fe	Co cobalt	<b>Ni</b> nickel	Cu	Zn zinc	<b>Ga</b> gallium	<b>Ge</b> germanium	As arsenic	Se selenium	<b>Br</b> bromine	Kr krypton
<b>Rb</b> rubidium	<b>Sr</b> strontium	<b>Y</b> yttrium	<b>Zr</b> zirconium	<b>Nb</b> niobium	Mo molybdenum	Tc technetium	<b>Ru</b> ruthenium	Rh rhodium	Pd palladium	Ag silver	Cd cadmium	<b>In</b>	Sn tin	Sb antimony	Te tellurium	<b> </b> iodine	Xe
<b>Cs</b> caesium	<b>Ba</b> barium	La lanthanum	<b>Hf</b> hafnium	Ta tantalum	<b>W</b> tungsten	Re rhenium	Os osmium	<b>Ir</b> iridium	Pt platinum	Au <sup>gold</sup>	Hg	<b>Ti</b> thallium	Pb lead	<b>Bi</b>	Po polonium	At astatine	Rn radon
<b>Fr</b> francium	Ra radium	Ac actinium	<b>Rf</b> rutherfordium	Db dubnium	Sg seaborgium	Bh bohrium	Hs hassium	Mt meitnerium	Ds darmstadtium	<b>Rg</b> roentgenium							



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- 3. Cross out one of the options (shown in bold and brackets), so that each sentence reads with the correct answer. [15]
  - a. Metals (can / cannot) usually conduct electricity.
  - b. Non-metals (can / cannot) usually conduct electricity.
  - c. Metals are good (conductors / insulators) of heat energy.
  - d. Non-metals are good (conductors / insulators) of heat energy.
  - e. Metals are (dull / shiny) when polished or freshly cut.
  - f. Metals are (brittle / malleable).
  - g. Metals have (high / low) melting and boiling points.
  - h. Non-metals have (high / low) melting and boiling points.
  - i. Metals have a (high / low) tensile strength.
  - j. Non-metal particles are held by (strong / weak) forces.
  - k. Metals have a (high / low) density.
  - l. Non-metals have a (high / low) density.
  - m. Metals (can / cannot) be drawn into wires.
  - n. (Steel / Aluminium) is an example of a metal alloy.
  - o. (Nickel / Gold) is an example of a magnetic metal.

## Learning Outcomes (tick if achieved)

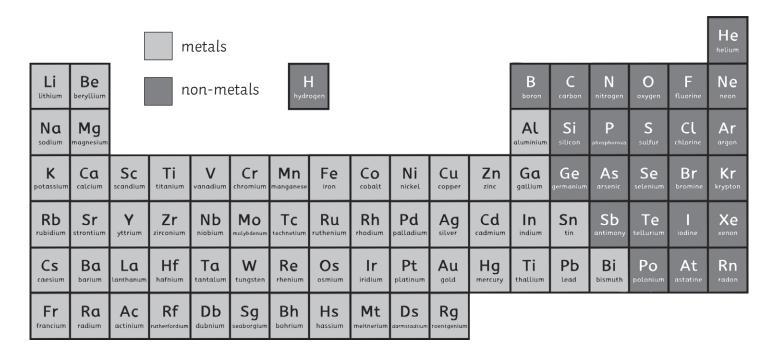
Q1	I can identify metals on the periodic table					
Φ2	I can identify non-metals on the periodic table					
Q3	I can describe properties of metals and non-metals					





## Metals and Non-Metals Answers

- 1. Shade in the area on the periodic table below to show which elements are metals. [1]
- 2. In a different colour, shade in the area on the periodic table below to show which elements are non-metals. [1]



- 3. Cross out one of the options (shown in bold and brackets), so that each sentence reads with the correct answer. [15]
  - a. Metals (**can** / <del>cannot</del>) usually conduct electricity.
  - b. Non-metals (can / cannot) usually conduct electricity.
  - c. Metals are good (conductors / insulators) of heat energy.
  - d. Non-metals are good (conductors / insulators) of heat energy.
  - e. Metals are (dull / shiny) when polished or freshly cut.
  - f. Metals are (brittle / malleable).
  - g. Metals have (high / low) melting and boiling points.
  - h. Non-metals have (high / low) melting and boiling points.
  - i. Metals have a (high / low) tensile strength.
  - j. Non-metal particles are held by (strong / weak) forces.
  - k. Metals have a (high / low) density.
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  - m. Metals (**can** / <del>cannot</del>) be drawn into wires.
  - n. (Steel / Aluminium) is an example of a metal alloy.
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