## Balancing equations card sort

magnesium	magnesium	magnesium
Mg	Mg	Mg
magnesium oxide	magnesium oxide	magnesium oxide
MgO	MgO	MgO
copper	copper	copper
Cu	Cu	Cu
copper(II) oxide	copper(II) oxide	copper(II) oxide
CuO	CuO	CuO
oxygen	oxygen	oxygen
O <sub>2</sub>	O <sub>2</sub>	O <sub>2</sub>



codium	codium	codium
sodium	sodium	sodium
Na	Na	Na
sodium	sodium oxide	sodium oxide
Na	Na₂O	Na₂O
sodium chloride	sodium chloride	sodium chloride
NaCl	NaCl	NaCl
iron	iron	iron(III) oxide
Fe	Fe	
16	16	Fe <sub>2</sub> O <sub>3</sub>
		. /111
iron	iron -	iron(III) oxide
Fe	Fe	Fe <sub>2</sub> O <sub>3</sub>



chlorine	chlorine	chlorine
Cl <sub>2</sub>	Cl <sub>2</sub>	Cl <sub>2</sub>
iron(II) chloride	iron(III) chloride	iron(III) chloride
FeCl <sub>2</sub>	FeCl <sub>3</sub>	FeCl₃
+	+	+
+	$\rightarrow$	$\rightarrow$

## Instructions

- 1. Print the sheets onto separate sheets of paper.
- 2. Cut out the cards and sort them into four piles:
  - all the metals
  - all the non-metals

- all the compounds
- the plus and arrow cards
- 3. Work out how you can arrange the cards to make word and symbol equations.
- 4. Eleven reactions are possible with this kit:
  - sodium with:
    - oxygen
    - o chlorine
    - o magnesium oxide
    - o copper(II) oxide
    - iron(III) chloride
  - copper with oxygen

- magnesium with:
  - oxygen
  - iron(III) oxide
- iron with:
  - oxygen
  - chlorine
  - o copper(II) oxide
- 5. Make sure there are equal numbers of atoms of each element either side of the arrow.
- 6. Write out the word equations and balanced symbol equations you have made.

