

Fireworks

Chemical elements in fireworks

Chemical element	Symbol	Metal/Non-metal?	What it does in fireworks
Lithium			Colouring agent - red
	Na		Colouring agent - gold and yellow
	K		Fuel and orange-red sparks; colouring agent - lilac
Magnesium			Fuel and bright white flames
Calcium			Colour enhancer - helps make colours deeper; colouring agent - brick red
	Sr		Colouring agent - red (crimson)
Barium			Colouring agent - green
Titanium			Fuel and produces silver-white sparks
	Fe		Produces gold coloured sparks
	Cu		Colouring agent - blue/green
Zinc			Fuel and smoke agent
Aluminium			Fuel and makes yellow-white sparks eg in sparklers
	C		Fuel, component of black powder
	P		Fuel
	Sb		Fuel, glitter effects
Sulfur			Fuel, component of black powder

Questions

- Complete the **Chemical elements in fireworks table** (above) by adding the missing element names and symbols. Then work out and fill in which elements are metals and which are non-metals. Use a Periodic Table to help you if necessary.
- Which chemical elements could be combined in a firework to make:
 - turquoise?
 - violet?
 - citron (pale yellow)?

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Questions

3. Look at the projected photograph of fireworks. Which chemical elements can be seen?

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