

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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