

THE SCIENCE BEHIND Fireworks

WHAT ARE FIREWORKS?

Fireworks are beautiful pyrotechnic displays that are used to celebrate the 4th of July and other events throughout the year. Different elements produce unique colors and the energy released can be seen and heard for miles. An exciting way to study the beautiful colors of different compounds is with flame tests in the classroom lab!

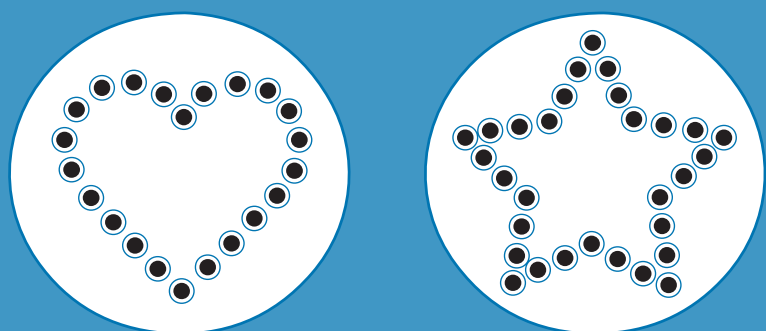
WHAT GIVES FIREWORKS THEIR COLORS?

Color	Compound(s)
Red	Strontium and Lithium Compounds
Orange	Calcium Compounds
Yellow	Sodium Compounds
Green	Barium Compounds
Blue	Copper Compounds
Purple	Mixture of Strontium and Copper Compounds
White/Silver	Magnesium and Aluminum

3 INTERESTING FACTS ABOUT FIREWORKS

1 It is said that the first fireworks originated around 200 B.C. in China and were made by placing bamboo stalks onto a fire. Eventually, the hollow stalks would explode.

2 To make different firework shapes, pellets are arranged in a pattern in the firework.



3 When fireworks burn, they can reach temperatures of up to 1800 °F (1000 °C).

WHAT IS INSIDE A FIREWORK?

The inside of a simple shell includes a bursting charge, black powder, and stars (small amounts of explosive materials that give the firework its colors).

