



# THE SCIENCE OF GLOW STICKS

## GRAB A GLOW STICK AND GET CRACKING!

Stored energy is called **potential energy**. Glow sticks contain potential energy in the form of chemicals: fluorescent dyes and a chemical called hydrogen peroxide. No light can be released until the chemicals are mixed together.

When you mix the chemicals together by cracking the glow stick, they instantly react to make new chemicals and in the process release excess **energy** in the form of light, transforming chemical energy into light energy. How brightly the sticks glow depends on the temperature of their environment.

Adding heat to a chemical reaction makes it happen faster, so adding heat to a glow stick makes it produce more light energy for a short period of time. However, a colder glow stick will glow longer since it's reacting and releasing light energy more slowly.

A great way to see this chemical reaction in action is to place one glow stick in hot water and one in cold water and see what happens!

## SAFETY NOTICE

*Glow sticks contain chemicals and dyes and should never be opened or ingested. Do not put the glow sticks in your mouth or chew on them. Never cut or break them open allowing the chemicals to leak. If a leak occurs, immediately tell an adult and take proper precautions.*