

Name _____



The Glow Behind the Stick

Have you ever cracked a glow stick and watched it light up in the dark? That glowing light is more than just fun—it's science at work! When a glow stick glows, it's because of a chemical reaction that gives off energy in the form of light.

Glow sticks contain two main liquids inside. One is in the outer tube, and the other is

sealed inside a tiny glass tube. When you bend a glow stick, the glass inside breaks, and the two liquids mix together. This starts a chemical change.

A chemical change happens when substances combine and create something new. In this case, the new thing is light! The energy released during the reaction is not heat, like when you burn wood. It's called chemical energy, and here it turns into light energy. This special process is called chemiluminescence.

Glow sticks come in many colors because of dyes added to the liquids. The chemical reaction stays the same, but the color depends on the dye. Some glow sticks shine for only a few hours, while others glow all night long.

Temperature also affects glow sticks. If you put one in warm water, it will glow brighter—but for a shorter time. If you place it in the freezer, it will glow dimly but last longer. This is because heat speeds up the chemical reaction, while cold slows it down.

Glow sticks are useful for more than just parties and holidays. Emergency workers use them to light up dark places. Scuba divers take them underwater where flashlights don't work as well. Since they don't need batteries or electricity, they're very handy in the dark.

So next time you snap a glow stick, remember: you're watching a chemical reaction in action. It's science lighting up the night!