Glow in the Dark Science

Things that **GLOW IN THE DARK** are pretty cool, right? But why do they **GLOW**? They **GLOW** because they contain a special kind of material called a **PHOSPHOR. PHOSPHORS** are a type of material that have a special ability to absorb light (visible light and sometimes ultraviolet light) and then SLOWLY give-off (or emit) light of a different color. Depending on the type of **PHOSPHOR** the **GLOW IN THE DARK** material can **GLOW** for a few minutes or many hours.

CLOW IN THE DARK materials are make up of different chemicals. These chemicals determine the CLOW time and even the color! The BLUE and GREEN colors normally come from chemicals like Calcium Sulfide (CaS) and Strontium Sulfide (StS) mixed with a little Bismuth. RED and ORANGE colors normally come from different variations of Zinc Sulfide (ZnS).

Many **GLOW IN THE DARK** paints will have a very pale color or no color at all in normal light. This makes them great for hidden messages and surprising nighttime designs.





Glow in the Dark Activities

There are many different things you can do with **GLOW IN THE DARK** paint. Here are a couple of our favorites.

1. Secret messages or pictures

Start by creating your picture or message with normal paint. Then use the GITD GLOW IN THE DARK paint to add a hidden message, a second picture or just highlight parts of your first picture.

2. GLOW IN THE DARK sidewalk chalk

- i. What you need: 1 cup of plaster of Paris; 1 tbsp. GLOW IN THE DARK paint; 2/3 cup warm water; and a silicone ice cube tray.
- ii. Mix the paint and water. Add the plaster of Paris and mix well. Fill the ice cube trays and then let dry for 1 day. Pop into freezer for 15 minutes immediately before use.

3. Nighttime decorations

- i. Paint designs on colorless plastic bottles or glass jars.
- ii. Place jars and bottles in windows or outside to add color to the evenings. Note Paints are often washable so make sure they stay dry if placed outside.

4. GLOW IN THE DARK slime or oobleck

Add about 1 tbsp. of **GLOW IN THE DARK** paint to your favorite slime or oobleck recipe.

Send us pictures of your GLOW IN THE DARK creations.

<u>Kath@creosityspace.com</u> subject line – Glow in the dark

