

## **Bioluminescent Works of Art**

With items you have at home, make your own bioluminescent works of art. Bioluminescence is a light produced from a chemical reaction inside the body of a living organism. Many ocean animals, including comb jellies & sea slugs, have this ability. For more information about these amazing animals, watch our BIMS Bites Kids “Bioluminescence” episode on Youtube.

### **Materials**

- For each paint color you will need:
- 1-2 teaspoons of glow in the dark pigment powder
- 3-4 tablespoons acrylic paint
- Small jars or other containers for mixing
- Craft sticks for stirring
- Black or dark blue construction paper
- Flashlight

*Optional: A BIMS Coloring Sheet printed on dark colored paper*

### **Directions**

1. Add 1-2 teaspoons of pigment powder to a container.
2. Slowly start adding your 3-4 tablespoons of paint to the container.
3. Mix everything together with the craft sticks.
4. Repeat steps 2 & 3 for each paint color in a new container.
5. Paint a picture of a fish or a jellyfish on the construction paper or paint one of the coloring sheets.
6. Allow your painting to dry.
7. “Charge” your painting with a flashlight or another light source like a window. The longer the painting “charges”, the longer the glow will last!
8. View your painting in a dark room. Look at it glow!
9. *Optional: Email a picture of your artwork to [outreach@bims.org](mailto:outreach@bims.org) or post your artwork and tag us on social media*

### **Tips**

When making your paint, use a 1 part powder: 2 parts paint ratio. The more powder you use, the thicker the paint will get. However if you want to have a thinner consistency, add more paint.

### **Discussion Questions**

- Why do we have to “charge” the painting for it to glow?
- The dark pigment powder absorbs light and re-emits the light to create the glow.
- Name an animal that uses bioluminescence.
- Why would an animal living in the water need to glow?
  - Would this be helpful to those animals living near sunlight at the top of the water or those deep in the depths of the ocean? Why?
- Can you think of any bioluminescent animals that do not live in water? Give an example.
- One bioluminescent animal that does not live in the water is a firefly. How do fireflies use their bioluminescence?