

# DIY GLOW IN THE DARK LAVA LAMP

<b>SOURCE:</b>	<a href="#">The Wild Adventure Girls (YouTube)</a> <a href="#">Moomi Read Alouds (YouTube)</a>
<b>OBJECTIVE:</b>	Students will create a glow in the dark lava lamp using different materials.
<b>DISCIPLINE:</b>	Critical Thinking, Chemistry
<b>TIME:</b>	30 – 45 minutes
<b>QUANTITY:</b>	42 students
<b>PREFERRED AUDIENCE:</b>	Ages 3 – 18 Group 1 - Ages 3 through 6 Group 2 – Ages 7 through 12 Group 3 – Ages 13 through 18
<b>REQUIRED NO. VOLUNTEERS:</b>	Prefer 2 A/V for Group 1, 1 for Group 2 & 3
<b>STATION LAYOUT:</b>	PREFERRED - Each group will need 2 tables side by side

## SCIENCE BEHIND IT:

DIY Glow in the Dark Lava Lamp is designed to engage students in hands-on learning while exploring fundamental concepts in chemistry and critical thinking. This project will demonstrate the principles of density, solubility, and chemical reactions. Students will observe how different substances interact with each other and the effects caused, such as the movement of a lava lamp.

## MATERIALS:

- 8 oz container with twist lid
- Glow in the Dark Pigment Powder (2 tsp per 3 oz water)
- Highlighters (2 per student if using 8 oz container)
- Baby Powder (2 tbsp per student)
- Purified water (5 oz per lamp)
- Canola Oil (4 oz per student)
- Towels (2 rolls per group)
- Hot Glue (1 per table)\*\* Not Required
- Disposable Spoons
- Disposable Bowls
- Medicine (ounce) Cups
- Teaspoon (6)
- Pliers (4)
- Disposable Cups
- Alka-Seltzer Tablets (1 per student)
- Disposable gloves

Required Materials		
Group 1 (14 students)	Group 2 (14 students)	Group 3 (14 students)
<ul style="list-style-type: none"> <li>• 8 oz container with twist lid</li> <li>• Glow in the Dark Pigment Powder (2 tsp per 3 oz water)</li> <li>• Purified water (3 oz per student)</li> <li>• Canola Oil (4 oz per student)</li> <li>• Spoon (1 per student)</li> <li>• Bowl (1 per student)</li> <li>• 2 teaspoons</li> </ul>	<ul style="list-style-type: none"> <li>• 8 oz container with twist lid</li> <li>• Purified water (3 oz per student)</li> <li>• Canola Oil (4 oz per student)</li> <li>• Spoon (1 per student)</li> <li>• Bowl (1 per student)</li> <li>• Highlighter (1 per student)</li> </ul>	<ul style="list-style-type: none"> <li>• 8 oz container with twist lid</li> <li>• Purified water (3 oz per student)</li> <li>• Canola Oil (4 oz per student)</li> <li>• Spoon (1 per student)</li> <li>• Plastic Bowl (1 per student)</li> <li>• Highlighter (1 per student)</li> <li>• Face Powder (2 tbsp per student)</li> </ul>

### DIRECTIONS – GROUP 1:

1. Allow student to choose desired pigment powder. Place 2 tsp pigment powder in medicine cup. Set aside.
2. Give student 3oz purified water in cup.
3. In disposable bowl, student will add pigment powder then water; mix.
4. Once powder has dissolved, student will slowly add water to 8oz container.
5. Student will then slowly add canola oil to container. Ensure there is room left in the container.  
Preferred Method: Student will tilt container/cup to add oil slowly along the side of the container.
6. Give each student one Alka-Seltzer tablet to crush.
7. Add one small piece to the container, then close container with lid.
8. Turn off lights and watch the magic!!

### DIRECTIONS – GROUP 2:

1. Allow student to choose desired glowstick. Set aside.
2. Give student 3 oz purified water in cup.
3. Using Scissors/pliers, remove cap of glowstick and add desired amount of contents to bowl. Add water.  
Hint: Use medicine cup and spoon to measure approximate amount added – 1 spoon full = 1 teaspoon!! Be sure to take note of the amount used!!
4. Slowly mix until contents have dissolved. Add another ounce if necessary.
5. Add water mixture to 8oz container.
6. Student will then slowly add canola oil to container. Ensure there is room left in the container.  
Preferred Method: Student will tilt container/cup to add oil slowly along the side of the Container.
7. Give each student one Alka-Seltzer tablet to crush.
8. Add one small piece to the container, then close container with lid.
9. Turn off lights and watch the magic!!

### DIRECTIONS – GROUP 3:

1. Allow student to choose desired highlighter.
2. Allow students to measure 2 tbsp face powder into bowl.
3. Using Scissors/pliers, remove cap of highlighter and add desired amount of contents to bowl.  
Hint: Use medicine cup and spoon to measure approximate amount added – 1 spoon full = 1 teaspoon!! Be sure to take note of the amount used!!
4. Mix contents in bowl until contents are homogenous. Add 1 tbsp face powder if needed.
5. Allow students to add water to DIY pigment powder in bowl. Gently mix until combined. Add another ounce of water if necessary.
6. Slowly pour mixture into 8oz container.
7. Student will then slowly add canola oil to container. Ensure there is room left in the container.  
Preferred Method: Student will tilt container/cup to add oil slowly along the side of the Container.
8. Give each student one Alka-Seltzer tablet to crush.
9. Add one small piece to the container, then close container with lid.
10. Turn off lights and watch the magic!!

## PRICING:

Item	Link	Price
8 oz Container with Twist Lid		
Glow in the Dark Pigment Powder (2)	<a href="#">(.)</a> Amazon	15.99 (2)
Glowsticks	<a href="#">(.)</a> Amazon	29.69
Highlighters	<a href="#">(.)</a> Amazon	15.99
Baby Powder (22 oz)	<a href="#">(.)</a> Walmart	2.78
Purified Water (1 gal) -2	<a href="#">(.)</a> Walmart	1.47 (2)
Canola Oil ( 1 gal) + (48 fl oz)	<a href="#">(.)</a> Walmart   <a href="#">(.)</a> Walmart	9.98   4.12
Alka-Seltzer Tablets	<a href="#">(.)</a> Walmart	10.47
Paper Towels		
Disposable Bowls (50 ct)	<a href="#">(.)</a> Walmart	2.38
Disposable Cups (50 ct)	<a href="#">(.)</a> Walmart	1.72
Medicine (ounce) Cups (100 ct)	<a href="#">(.)</a> Amazon	4.84
Plastics Spoons (100 ct)	<a href="#">(.)</a> Walmart	1.98
Measuring cups/spoons		
Disposable Gloves (100 ct)	<a href="#">(.)</a> Walmart	7.47

## ESTIMATED TOTAL :

Total: \$126.34

10% tax \$12.63

**\$138.97 for 42 students**

**Approx \$4.00 per student depending on the materials purchased.**

Shipping Excluded due to listed merchants.