

ZOOM SESSION LESSON PLAN

YDP Name(s): Veronica Flores

Creative Zoom Session Title: Ocean Layers

Creative Zoom Synopsis (1-2 sentences max.): When scientists studied the oceans long ago, they divided them into five major layers. Each layer, or zone, has unique characteristics, as well unique *characters* who live there.

Date and Time of Zoom Session: Monday, December 7th

Age Group: Kinder-1st

Group Size: 5-10

Core Program Area: Education

Priority Outcome: Science success in the Creative Trenches of the ocean

Session Main Activity Objective or Purpose: Dive deep into this surface tension experiment, which demonstrates each ocean zone: Trench, Abyss, Midnight, Twilight, and Sunlight.

Skills Practiced: Being engaged and focused

Brief Description of Warm Up:

The depth of the layers are characterized by the amount of light that each zone receives. The amazing thing about the ocean is that there are creatures/organisms that live in each of these zones, although most all

living creatures/plants live in the sunlight zone.



Brief Description of Main Activity:

Trench Zone: Each form of liquid will be measured as a half cup. But if your jar is bigger or smaller, feel free to adjust. **Abyss Zone:** Grab your blue dish soap for the next layer. Funnel in the half-cup of liquid. **Midnight Zone:** Drip in a few drops of food coloring to tepid water from the sink for the next layer. Be sure to use the funnel to *slowly* add the water to the layers. If you pour in too fast, the water will mix with the soap. **Twilight Zone:** Layer the vegetable oil on top of the water. Again, use a funnel and work slowly. **Sunlight Zone:** Lastly, using an eyedropper or old medicine dispenser, very slowly add the rubbing alcohol for the final layer.

Reflection Questions: Would you like to be a scuba diver and explore these trenches?

Feedback poll questions: YAY or Nay?

Session Preparation and Setup: Have clean area with plenty of space

Additional On the Spot Fun Ideas: **Trench zone:** This ocean layer lies at around 20,000 below sea level to the bottom of the deepest parts of the ocean. Invertebrates like starfish and worms call this zone home. **Abyss:** There is no light at all, and the water temperature is near freezing. Small

squids can be found in this layer, but there is very little life here. **Midnight:** Sperm whales can actually dive down to this level to search for their dinner. **Twilight:** Unusual looking fish live here. **Sunlight:** Life and light are abundant in the Sunlight layer, which extends to the surface of the sea to about 650 feet.

Supplies Needed:

A clear glass jar
¾ c Blue food coloring
¾ c Corn syrup
¾ c Vegetable oil
¾ c Blue dish soap
¾ c Water
¾ c Rubbing alcohol
Funnels
Labels

ZOOM SESSION LESSON PLAN

YDP Name(s): *Veronica Flores*

Creative Zoom Session Title: **Glow and the Dark Galaxy Jars**

Creative Zoom Synopsis (1-2 sentences max.): Learn how to make a Galaxy Jar, which is a perfect sensory bottle or calm down jar craft that kids and adults alike will love.

Date and Time of Zoom Session: **Tuesday, December 8**

Age Group: Kinder-1st

Group Size: 5-10

Core Program Area: Education

Priority Outcome: Academic Success

Session Main Activity Objective or Purpose: To envision how beautiful a galaxy can look like full of wonder and delight. Or to simply to be used as a calm down jar.

Skills Practiced: Engage and Share one another creativity ideas.

Brief Description of Warm Up: Hold the galaxy in your hands!
This creative and easy DIY Galaxy is fun, relaxing and will take you out of this world all at the same time.

Brief Description of Main Activity: Fill 1/3 of the [jar](#) with water to begin, add a bit of glitter to the water, these are stars in your galaxy. Put the contents of the GID powder then put the lid on. Make sure it is very tight, and shake!



Reflection Questions: What is a galaxy? (A galaxy is a gravitationally bound system of stars, stellar remnants, interstellar gas and dust, and dark matter)

What about adding more objects to it?

Feedback poll questions: Happy faces? Sideway faces? Frowny faces?

Session Preparation and Setup: Have materials ready and have demonstration to go!

Additional On the Spot Fun Ideas: Add more glitter for more stars. Put in a dark room for some light.

Supplies Needed:

Mason Jar with lid

Glow and the Dark powder

Glitter

Water

ZOOM SESSION LESSON PLAN

YDP Name(s): *Veronica Flores*

Creative Zoom Session Title: Lava Tubes

Creative Zoom Synopsis (1-2 sentences max.): homemade lava lamp that explores liquid density and a cool chemical reaction. **Simple science** for the win.

Date and Time of Zoom Session: Wednesday, December 9

Age Group: Kinder-1st

Group Size: 5-10

Core Program Area: Education

Priority Outcome: To notice that liquid is one of the three states of matter. It flows, it pours, and it takes the shape of the container you put it in.

Session Main Activity Objective or Purpose: Making a lava tube is a great way to observe how not all liquids weigh the same. Liquids are made up of different numbers of atoms and molecules. In some liquids, these atoms and molecules are packed together more tightly resulting in a denser or heavier liquid.

Skills Practiced: Academic Success

Brief Description of Warm Up:

This homemade lava lamp does not use heat to move the water through the oil, it just simply flows.



Brief Description of Main Activity:

Fill your jar(s) about 2/3 of the way with oil. Next, you want to fill your jar(s) the rest of the way with water. These steps are great for helping your kids hone fine motor skills and learn about approximate measurements. Add drops of food coloring to your oil and water and watch what happens.

Reflection Questions: How else can you change up this lava lamp science experiment? What if you didn't add oil at all? Or what if you change the temperature of the water? What would happen?

Feedback poll questions: Thumbs up or down

Session Preparation and Setup: Have an example ready, clean area and space

Additional On the Spot Fun Ideas: You can keep for a long time and bring some calmness

Supplies Needed:

Lava Tube

1C Water

Food coloring

$\frac{2}{3}$ c Vegetable oil

ZOOM SESSION LESSON PLAN

YDP Name(s): *Veronica Flores*

Creative Zoom Session Title: Static Electricity Butterfly

Creative Zoom Synopsis (1-2 sentences max.): This fun static electricity experiment where children charged a balloon and could magically make butterfly wings flutter up and down.

Date and Time of Zoom Session: Thursday, Dec. 10

Age Group: Kinder-1st

Group Size: 5-10

Core Program Area: Education

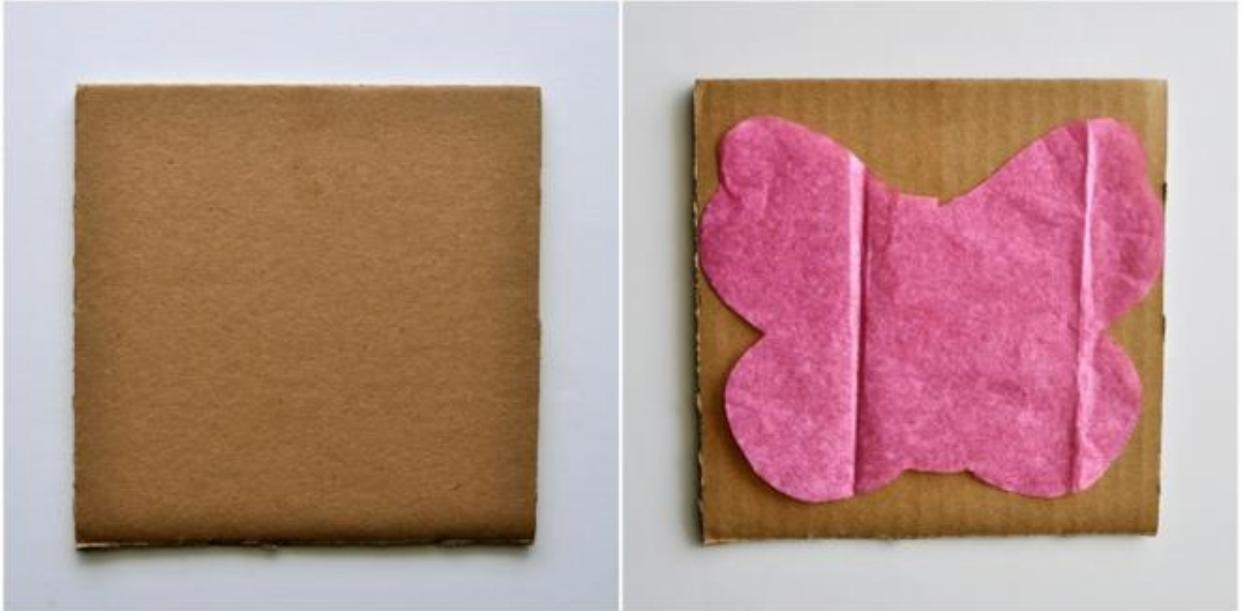
Priority Outcome: Just how does a negatively charged balloon get close to the positively charged tissue paper they are attracted to, and the pull of attraction is so great that the lightweight tissue paper moves toward the balloon.

Session Main Activity Objective or Purpose: To demonstrate the effects of static electricity. What will happen if we charge a balloon by rubbing it in our hair, and then hold it over tissue paper wings of a butterfly?

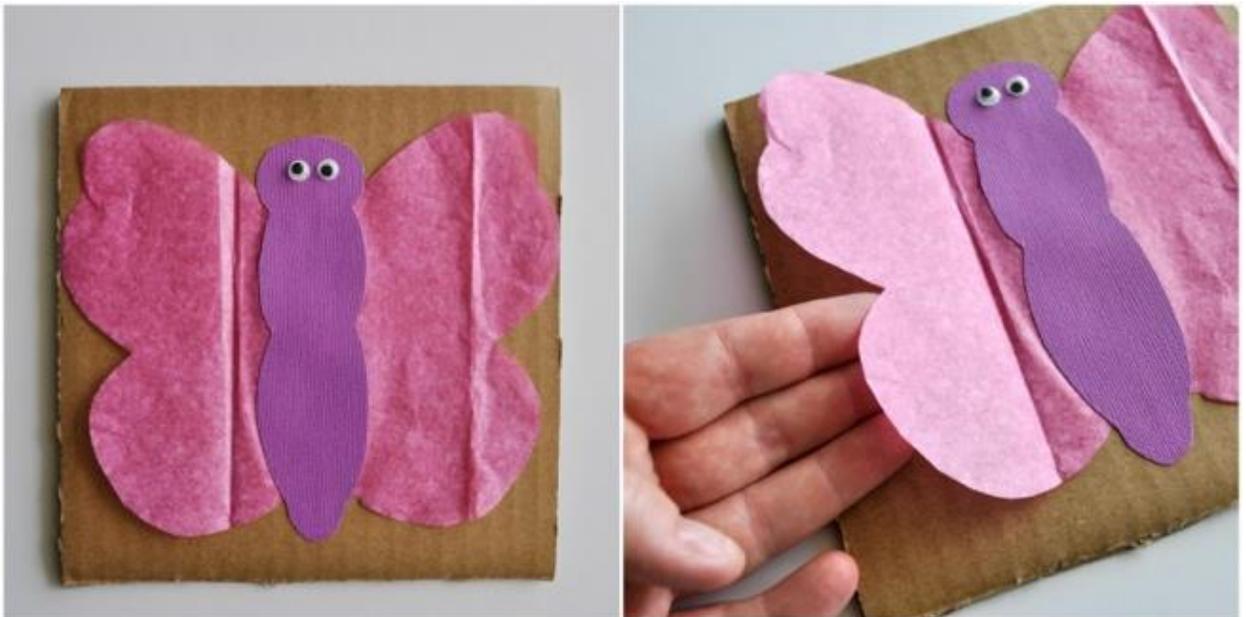
Skills Practiced: Being Engaged and Focused

Brief Description of Warm Up: Static Electricity is a fascinating subject, especially for the little ones. Let's get ready to explore exactly what it is just by using our hair and a balloon.

Brief Description of Main Activity: Start by cutting a square of cardboard.



2. Use your pencil to draw butterfly wings on your tissue paper. Cut them out and set them onto your cardboard. **DO NOT** glue them onto the cardboard! 3. Cut a butterfly body out of your cardstock paper and glue it down the middle of your butterfly and overlapping it onto your cardboard. Again, **DO NOT** glue the tissue paper wings down. You will want the wings loose like shown in my picture below. Glue your googly eyes down onto your butterfly.



4. Now comes the fun part. Blow up your balloon.



5. Rub your balloon in your hair to give it an electric charge. Now hold the balloon on top of your butterfly, close but not touching it, and watch twings raise and lower as you move the balloon closer and farther away.



Additional On the Spot Fun Ideas: if your balloon loses electricity, rub balloon on your hair again

Supplies Needed:

Cardboard, Tissue paper, Card stock, Pencil, Scissors, Googly eyes, Balloon, Glue

ZOOM SESSION LESSON PLAN

YDP Name(s): *Veronica Flores*

Creative Zoom Session Title: **Emoji Stress Balls**

Creative Zoom Synopsis (1-2 sentences max.): A fun way for kids to get rid of the grumpies - help them make a homemade stress ball for squeezing away those frustrations.

Date and Time of Zoom Session: **Friday, December 11**

Age Group: Kinder-1st

Group Size: 5-10

Core Program Area: Education

Priority Outcome: Academic success in Patience *hehe*

Session Main Activity Objective or Purpose: Stress balls, if you're not familiar with them, are small squishy balls that fit nicely in your hand, that can be squeezed, tightly squeezed, fiercely squeezed, and then squeezed some more! You can give them angry squeezes! Frustrated squeezes! Nervous squeezes!

Skills Practiced: Listen to detail, engaging and sharing one another's ideas.

Brief Description of Warm Up: Sometimes "grumpies" happens. And telling ourselves not to be grumpy . . . well, that might just make us more grumpy. Instead, it's good to have an outlet for the nervous energy that can go along with grumpies. And that's where a homemade stress ball can come in handy and fun at the same time.

Brief Description of Main Activity:

Prepare water beads according to instructions on packet. Drain. Fill the water bottle with beads. Blow up one of the balloons and place it over the top of the bead-filled bottle. Turn the water bottle upside down, shake and

squeeze the bottle until all of the water beads have been transferred from the bottle to the balloon. Tie the end of the balloon and *cut the larger tie off the end of the balloon. Repeat the steps with the other balloon(s).



Reflection Questions: Do you think it will help you take the grumpies away? Did you find this easy to make?

Feedback poll questions: Thumbs up, Thumbs down, Thumbs sideways?

Session Preparation and Setup: Have materials ready, a clean area and have demonstration to go.

Additional On the Spot Fun Ideas: make additional ones with different emoji faces

Supplies Needed: Balloons (Mine were 9", bought at the dollar store),
Water beads, Funnel, Sharpie and Yarn