

WEEK 2: TALOKAN, UNDERWATER KINGDOM





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I AM STEM
presents...



WAKANDA FOREVER: BETTER TOGETHER

Monday, June 26, 2023

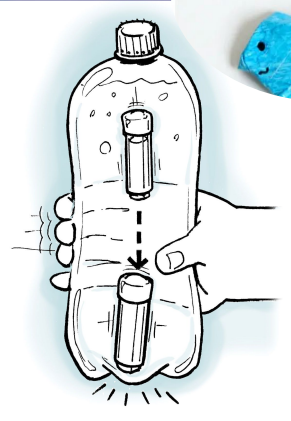
Cartesian Diver

Materials:

- Ketchup packet
- Water bottle
- Glue gun or tape
- Permanent markers
- Water

Instructions:

1. First, remove the label from your bottle, wash the bottle with warm, soapy water and set aside.
2. Transform your ketchup packets into fish. Turn the two narrow corners of the packet inward as if you were making a paper airplane. Keep the folds small, because if you fold it too much, either your ketchup packet will explode or the packet will sink when it is in the bottle and the experiment won't work. Hot glue or tape the tabs in place.
3. Gently push the ketchup packet into the bottle. Fill it with water all the way to the top of the bottle. If the packet sinks, then you will need to remove it and distribute the air inside the packet.
4. Screw on the bottle lid and squeeze the sides firmly. The fish will dive to the bottom of your bottle ocean floor. Release the pressure and the fish will float to the top. It's science!





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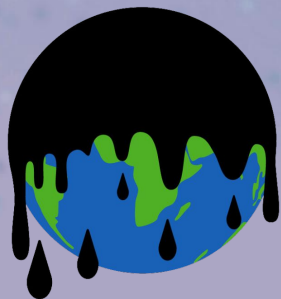
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Tuesday, June 27, 2023

Cleaning An Oil Spill Experiment



Materials:

- Aluminium pan
- Vegetable oil
- Cotton balls
- Dish soap
- Feathers
- Spoon
- Sponge
- Blue food coloring
- Plastic sea animals
- Toy boat - optional

Instructions:

1. Fill the pan halfway with water then mix in blue food coloring.
2. Place plastic toys and feathers inside of the pan.
3. Add $\frac{1}{4}$ cup of oil to the pan.
4. Observe the layer of oil, the toys, and the texture of the feather. How can oil affect wildlife living in the water?
5. Use the spoon, sponge, cotton ball, and dish soap to clean up the oil spill.



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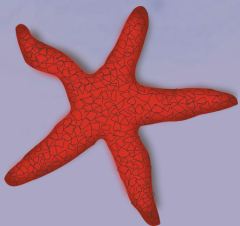
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Wednesday, June 28, 2023

Ocean In A Bottle



Click The Starfish
For Aquatic Animal
Coloring Sheet

Materials:

- Clear bottle
- Rubbing alcohol
- Oil
- Ocean creature toys
- Dish soap
- Corn syrup
- Food coloring
- Drawing paper
- Water

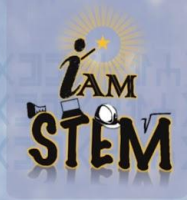
Instructions:

1. Pour corn syrup and black food coloring mix to create the trench layer.
2. Blue dish soap and purple food coloring mix to create the abyss layer.
3. Water, green, and blue food coloring to create the midnight zone.
4. Oil and blue food coloring mix to create twilight zone.
5. Rubbing alcohol and food coloring mix to create the sunlight zone.
6. Draw an aquatic animal that lives in each layer of the ocean and stick it to the layer the animal belongs to on the outside of the bottle. Add ocean creature toys that fit in the bottle.



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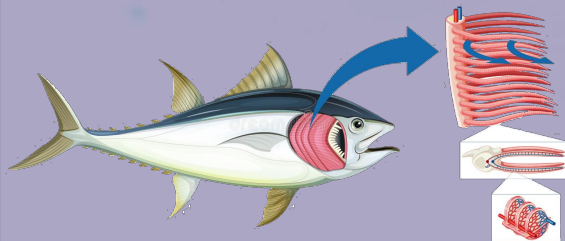
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Thursday, June 29, 2023

Aquatic Animal Respiration Investigation

HOW DOES IT WORK?

In the same way, this represents how sea water (coffee mixture) is pushed through a fish's gills (coffee filter) which capture all of the little oxygen molecules (coffee grounds)!



Materials:

- 3 clear Plastic cups
- 2 Rubber bands
- 2 Coffee filters
- ½ Cup of water
- Coffee grounds

Instructions:

1. In your cup of warm water, add in about a tablespoon of coffee grounds and mix.
2. Place a coffee filter on top of your second cup and secure with a hair tie.
3. Slowly pour your coffee mixture over your coffee filter and observe what happens.
4. Watch the linked videos to learn more!





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Friday, June 30, 2023

Salt Dough Starfish

Materials:

- 2 cups of flour
- 1 cup of salt
- 1 cup of water
- Baking pan
- Toothpick

Instructions:

1. In a large mixing bowl, combine the flour, water, and salt and mix well using a hand or stand mixer.
2. Form your dough into a small golf ball sized piece, break into 5 pieces and roll into log shapes.
3. Stick the 5 log pieces together to make a star.
4. Smooth out the star and use a toothpick to make a line into each star arm.
5. Use the toothpick to poke everywhere around the line indents on the star.
6. Bake for 2 hours at 250°F and then let cool. Alternatively, leave the salt dough out to air-dry!

