

Science: Duck Race

Description: The children will combine a variety of elements to create a **chemical reaction** to help a duck win a race.

Time: 15-20 minutes

Materials

3 plastic trays 6"x8"x1/2" filled approximately halfway with water
1-4 oz. clear plastic fruit container filled approximately halfway with soap
1-4 oz. clear plastic fruit container filled approximately halfway with baby oil
1-4 oz. clear plastic fruit container filled approximately halfway with rubbing alcohol
3 eye-droppers
3 small pre-cut duck from 1 cm thick foam sheet (any color) with a hole in the middle

Vocabulary

- **Chemical Reaction** is when two or more elements are combined to form new element.
- **Experiment** is a test that is set up the same way each time with just one material changing.
- **Observation** is the process of using our sense to collect information.
- **Prediction** is a statement of something that we think will happen in the future.
- **Propel** is the action of moving something forward or onward.



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Lesson

1. Say to the children, “Today we are going to do an **experiment**”. Encourage the children to repeat the word “**experiment**”. Explain to the children an **experiment** is a test that is set up the same way each time with just one element changing.
2. Say to the children, “Today’s **experiment** is called **Duck Race**”.
3. Begin by letting the children know that you have three containers with three different liquids. Start with the soap; encourage the children to name the liquid and determine if it has a scent to it. Repeat this process with the baby oil and the rubbing alcohol.
4. Show the ducks to the children and encourage the children to count the ducks. Repeat this step for the baby oil and the rubbing alcohol.
5. Let the children know you just made three **predictions**. Explain to the children a **prediction** is a statement of something that we think will happen in the future. Encourage the children to repeat the word **prediction**.
6. Place the foam duck on the edge of one of the trays, have the children assist you on squeezing one drop of soap in the hole. Encourage the children to discuss their **observations**. For example, you might want to ask if the duck is moving, did it move fast/slow and will that duck win the race.
7. Repeat step 6 with the baby oil and the rubbing alcohol. (Tip: make sure all the liquids are squeezed directly into the hole)
8. Engage in a brief discussion as to which duck won the race and why.
9. Explain to the children that when the rubbing alcohol was squeeze from the eye dropper it began to dissolve in the water causing a **chemical reaction** causing the duck to **propel** through the water.

TIP: Cut different templates of animals from the foam; maybe you can create a frog race or even a lion race.