

**WHAT ARE WE INVESTIGATING?**

How can we make an egg float?

**MATERIALS:**

- 2 Tall Clear Cups
- 2 Eggs
- Water
- Salt (4 tablespoons)
- Spoon
- Strive Academy's Engineering Design Process Handout (found at [www.striveacademy.org](http://www.striveacademy.org))
- Pencil or Pen

**EXTENSION:**

- \* Try this variable - see if the experiment will work the same in other liquids. You can try vinegar, milk, or soda.
- \* Try this variable - see if the experiment will work the same with sugar instead of salt.
- \* This is all about density! Do some research and see if you can determine how density affected this experiment.

## DIRECTIONS:

1. Gather all of your materials. Our materials are just suggestions - feel free to add other things too!
2. On your handout (found at [www.striveacademy.org](http://www.striveacademy.org)), fill in the title of your experiment (Salty Science).
3. On your handout, fill in your hypothesis. You want to answer the question: How can I make an egg float?
4. On your handout, sketch a design of your experimental setup. You will be putting a raw egg in a glass of water and salt water. Feel free to use color and label the materials that you will be using!
5. Fill the first glass about  $\frac{3}{4}$  full with water.
6. Place the first egg in the glass. Observe what the egg does. Under “Data Collection /Observations”, draw a picture of what you see the egg doing.
7. Now fill the second glass about  $\frac{1}{2}$  full with water. Add 4 tablespoons of salt to the water and stir. Then add more water to this cup until it is almost full.
8. Place the second egg in the glass. Observe what the egg does. Under “Data Collection /Observations”, draw a picture of what you see the egg doing.
9. Under “Results”, compare the 2 glasses. What are the similarities and what are the differences?
10. Answer the “Analysis” questions on your handout:
  - Which egg sunk when added to the glass? Why do you think it sunk?
  - Which egg was floating when added to the glass? Why do you think it was floating?
  - Which material do you think determined if the egg would float or sink when added to the glass?

**\*\* Try the extension activities on the first page for more fun! \*\***