Will it Sink or Float?

WHAT ARE WE INVESTIGATING?

Will the objects that you put in your eggs sink or float? Why?

MATERIALS:

- Bowl of Water
- Plastic Eggs
- Items to put inside the eggs (coins, buttons, rice, rocks, paper clips, etc.)
- Strive Academy's Engineering Design Process Handout (found at www.striveacademy.org)
- Pencil or Pen

EXTENSION:

* Try a different liquid that is not water. Repeat the same experiment. Do you get the same results?

* What is the density of an object? Google this!

* How can something like a big log be very heavy but still float on water?

Will it Sink or Float?

DIRECTIONS:

1. Gather all your materials. Our materials are just suggestions - feel free to add other things too!

2. On your handout (found at www.striveacademy.org), fill in the title of your experiment (Will it Sink or Float?).

3. On your handout, fill in your hypothesis. You want to answer the question: Will your items sink or float? List the items that you will be using and next to each item write if you think it will sink or float. Feel free to add more items as you go!

4. On your handout, draw a picture of what you think will happen to each egg once you put the item inside and put it in the bowl of water.

5. Add water to your bowl or clear container.

6. Put the first item inside your egg. Carefully place the egg in the water. Let go and see what happens.

7. Under "Data Collection/Observation" write the item that was in the egg and next to it, write if it floats or sinks.

8. Repeat steps 6 & 7 for all of your items.

9. Under "Results", make 2 columns. Label one column "sinks" and one column "floats". List the items that you tested in the correct columns.

10. Try the experiment again with other items if you want!

11. Answer the "analysis" questions on your handout:
    - Were any of your hypotheses correct? Which items did you guess correctly?
    - Are the items that float more or less dense than water? Are the items that sink more or less dense than water?
    - Water has a density of 1.0 g/mL. For the items that sink, is their density greater or less than 1.0? For the items that float, is their density greater or less than 1.0?

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