

Instructions/Guidelines for Math Projects

1. Select 5 small household items to test whether they will sink or float. Examples include a crayon, rubber band, paper clip, cotton ball, ice cube, penny, egg, q-tip, tea bag, foam cup, plastic knife, etc.
2. WITHOUT WEIGHING EACH OBJECT, estimate their order from the lightest (smallest) weight to the heaviest (greatest) weight. This order does not have to be correct. Write two sentences to describe how you decided to order your objects by weight without using a scale.
3. Comparing object weights instructions:

5TH GRADE: Make two separate multiplication sentences to compare the weights of two pairs of objects together. For example, if I were to compare a metal spoon and a q-tip, I might say "1,500 x 1 q-tip = 1 metal spoon." You must have two multiplication sentences that include the objects as your "units." These multiplication sentences will be an estimation and they do not need to be exact!!! Use your best reasoning to create them.

6TH GRADE: Make two separate ratios relating the weights of two pairs of objects. For example, if I chose a shoe and a hairbrush, I might decide that 6 hairbrushes would be the weight of 1 shoes, so my ratio would be 6:1 or 6 to one. You need two ratios, and the ratios should be made from the objects you have chosen to put into water. ***You do not need to find 6 hairbrushes to determine if that is an equal weight to your shoes!!!*** These ratios are still an estimation.

4. Write two sentences to summarize your experience with and comparisons of your object weights. In this summary, include your prediction for which objects will float in water, which ones will sink, and how you determined this prediction based on your comparisons.

5th/6th grade (Optional) Science Project

Spring 2020

This year we learned about different types of matter. In this project the students will complete an experiment to determine what matter sinks or floats.

Measurable Objects:

- Students will make predictions about what sinks or floats
- Students will record data

Concept: Recording data, learning what sinks and floats

Materials: • Water • Big clear bin (that can hold water) • Smaller clear water-holding containers (for each table)

• Varying objects to measure sinking or floating options-chocolate egg, button, crayon, rubber band, paper clip, cotton ball, apple, ice cube, play dough, tweezers, penny, q-tip, rock, key, rubber band, Troll doll, plastic egg, balloon, index card, tea bag, comb, eraser, foam cup, plastic knife • Can of colored soda and diet colored soda • Float or sink prediction worksheets • Float or sink results worksheets