



Egg-tastic Engineering (Structures)

Materials:

- Plastic Eggs
- Modeling Dough
- Flat surface
- Access to something that can take a picture (optional)
- Access to Google Drawings (optional)
- Box fan or hair dryer (For extension)

Description: During this activity students will engage in the engineering design process to build a structure with plastic eggs and modeling dough. This can be done individually or as a group project.

Standards:

Next Generation Science Standards

2-PS1-3 Matter and its Interactions: Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object.

2-PS1-1 Matter and its Interactions: Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.

K-2-ETS 1-2 Engineering Design: Develop a simple sketch, drawing or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

Procedure:

1. Have the students sort the plastic eggs based on size and/or color.
2. Ask the students to try and balance an egg or build a structure without the modeling clay with the plastic eggs.
3. Once you have allowed a reasonable amount of time ask the students what their observations were.
 - Possible answers: "It kept falling", "It was hard", "If you take the eggs apart you can stack them" "They kept rolling".
3. Next, introduce the modeling clay and ask the students to now build a structure. The goal being who can build the tallest structure.
4. Have the students document their process. This can be done with photos, having them draw and write in a paper journal or on Google Drawings
5. Then, have the students disassemble their structure and attempt to reassemble.
6. Have the students document their process. This can be done with photos, having them draw and write in a paper journal or on Google Drawings.

Extension:

Instead of reassembling their structure for height, have the students reassemble their structure for strength. Have the students test it by putting their structure in front of a box fan or hair dryer.