

STEM Connections

Egg Drop Tower



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What does the Egg drop tower do?

The egg drop tower is used to test the impact resistance of crash structures. Students would make a structure to save an egg from a weight falling from the top of the tower which is about 2m height. If they made a structure that could spread the impact and take the force, the eggs would survive.

How to do your own egg drop test

Suitable year groups: Year 3, Year 4, Year 5 and Year 6

Learning Objectives:

- To understand the force of gravity. (KS2)
- To be able to compare and classify everyday materials based on their properties of hardness. (KS2)

Materials required:

- eggs
- plastic bags
- different protective materials (e.g. cardboard, paper, and bubble wrap)
- marker pens to decorate egg

Time estimated: 30 minutes

Step by step instruction:

1. Decorate your egg with a marker pen.
2. Wrap your egg with different protective materials.
3. Place wrapped egg inside the plastic bag to avoid potential mess and drop it from a height.
4. Test the experiment at different heights with various protective materials to see which conditions protect your egg the best.

Ideas to explore topic further

- Which protective material was most effective?
- What happens when the distance of the floor and height that you drop an egg changes?
- What happens when you combine and use multiple protective materials?