

Marshmallow Moosh-Primary

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Title: Marshmallow Moosh

Level: Primary - Middle (1 - 8)

Time: 45 minutes

Academic Expectations: 1.3, 1.5 - 1.9, 2.1, 2.2, 2.5, and 5.1

Objective:

1. Investigate the effect of weight on compression.

Materials:

tall bottles
Large colored marshmallows
Cardboard
Compass
Ruler
Pen
Scissors
Masking tape
Various weights

Activity:

1. Stack several different colored marshmallows—one on top of the other—in the tall cylindrical container.
2. Cut a cardboard disk to fit snugly inside of the container on top of the marshmallow stack. You may need to use a compass.
3. Place the disk on top of the marshmallow column.
4. Using the ruler and masking tape, mark the bottle in 1 cm units. A wide-mouthed graduated cylinder would be ideal, as it already has measured markings on it.
5. Record the initial height of the uncompressed marshmallows.
6. Place various weights on top of the cardboard disk (on top of the marshmallow column) and measure the height of the marshmallows with each weight on top. Record these values on the compressed marshmallows.
7. Compression = the initial height of the marshmallows - the height of the compressed marshmallows.
8. Record the compression value for each weight value.

Discussion:

1. How is compression affected by various weights?
2. Are all of the marshmallows equally compressed?
3. Does the number of marshmallows affect the results?

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4. What other objects can you use to show compression?

Marshmallow Moosh
Observation Sheet

| Initial height of uncompressed marshmallows (cm) | Final height of compressed marshmallows (cm) | Compression | Amount of weight used |
|--|--|-------------|-----------------------|
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Interpret the results. Write a few sentences about how compression is affected by various weights.

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