

A close-up photograph of a hand holding a large, fluffy snowball. The snowball is white and has a soft, textured appearance. The hand is positioned in the lower-left corner, with the thumb and fingers visible. The background is a blurred, out-of-focus scene of falling snow, creating a sense of motion and depth. The overall tone is bright and wintry.

**Today's Challenge:
Catapult "Snowball" Fight**



Catapult Snowball Fight

Today, your engineering design challenge is to design and construct a catapult using only popsicle sticks, elastics and one spoon. Your team will be given limited supplies and a time limit. Your catapult must throw a cotton ball (snowball).

ASK: Who can build a catapult that can “throw” a snowball? Who’s can go the farthest?

Catapult Snowball Fight

Many STEM projects use critical thinking skills as well as math, and engineering skills and this one is no exception. Attention to detail is a must and pre-planning is encouraged!



Catapult Snowball Fight

IMAGINE/EXPLORE: Brainstorm with your partner/team what your strategy will be. Your supply list:

- 6 rubber bands
- Cotton ball
- 10 popsicle sticks
- 1 plastic spoon

Procedure

1. Get into groups of 2.
2. You will need: 6 rubber bands, cotton ball, 10 popsicle sticks, 1 plastic spoon
3. **DESIGN:** You will have 5 minutes to plan your design.
4. **CREATE:** You will have 25 minutes to build your catapult.
5. **TEST:** Test your catapult. Does it throw your snowball? If not, make adjustments to your design.

5:00

Procedure

1. Get into groups of 2.
2. You will need: 6 rubber bands, cotton ball, 10 popsicle sticks, 1 plastic spoon
3. **DESIGN:** You will have 5 minutes to plan your design.
4. **CREATE:** You will have 20 minutes to build your catapult.
5. **TEST:** Test your catapult. Does it throw your snowball? If not, make adjustments to your design.

25:00



IMPROVE, TEST and EVALUATE, SHARE SOLUTION

AFTER INDIVIDUAL TESTING:

Test your catapult against other groups. Does yours fly the farthest? If not, can you re-design to make it fly as far as possible?

