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START YOUR JOURNEY

Welcome to Rocket Research 103

"Kind of a Drag" - WATER ROCKET DRAG

There are three features of a water rocket that affect drag:

- 1. The nose cone.
- 2. The fairing (a 'skirt' that goes around the nozzle).
- 3. The fins.

Use the simulator to experiment with the drag effects of each feature.

1. The nose cone.

To experiment with drag effects of the nose cone, try these options:

- a) no nose cone.
- b) rounded nose cone.

Keep all other settings the same (i.e., the amount of water, the amount of pressure, the lift-off weight, the type and number of fins, and the fairing style).

Why should you hold other settings constant while trying different nose cones? Were you correct?

RESULTS: Which shape caused the rocket to reach the highest altitude?



- a) Rounded nose cone.
- b) No nose cone.

Let's continue.



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> Any comments, concerns, or questions should be addressed to: Developer: David Mazza Responsible NASA Official: Jo Ann Charleston



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