

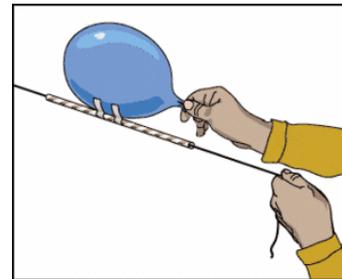


Activity # 4 - Balloon Rocket

Introduction: In this activity, you will create rockets made out of balloons!

Supplies Needed:

- 2 Chairs
- Balloon (10-12” round is suggested but you may want to have other sizes and shapes to try out)
- Straw
- 10-15 feet of cotton string
- Tape



Instructions:

1. Cut a piece of string 10 to 12 feet long.
2. Tie one end of the string to a chair or doorknob.
3. Put the other end of the string through the straw and then tie the string to a chair or doorknob. Make sure it is pulled tightly between the chairs and/or doorknob.
4. Blow up the balloon but do NOT tie it.
5. While pinching the balloon so you don't let any air out, tape the balloon to the straw (*see picture above*). Make sure the end of the balloon is facing you and not towards the other side of the room.
6. Let go of the balloon and watch the balloon rocket fly.
7. You can try different types (sizes and shapes) of balloons and see if they move faster or farther across the string. You can also use a different type of string or fishing line to see if it changes the speed of the rocket or the distance it travels across the string.

Summary: This activity is about the air and thrust. Once you let out the air inside of the balloon, it creates a forward motion called thrust. Thrust is a pushing force created by energy that pushes the balloon all the way across your string.

Activity adapted from Penn State (<https://behrend.psu.edu/school-of-science/research-outreach/science-story-time/experiment-balloon-rocket>)

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