

Aviation

L3 Balloon Rockets



Resources: [Balloon Rocket Science Experiment](#), video: 4 minutes, 39 seconds

Activity: What Pushes the Balloon Forward?

Procedure: After the intro video – Engage

Position two chairs about 10 feet apart and grab a piece of string.

Set up:

- Tie one end of the string to one of the objects. Make sure it is securely fashioned.
- Next, get a straight plastic drinking straw. If the straw is one of the “bendy” straws with the flexible piece, cut off the flexible part so you are left with a straight straw.
- Place two pieces of tape on the straw. Note: Be sure to position the two pieces of tape near the middle of the straw. If you put them near the ends of the straw it will bend when you blow up the balloon and the rocket won’t move as quickly.
- Thread the string through the straw. Tie the loose end of string to the back of your second object and make sure the string is tight. If the string isn’t tight, move the objects farther apart until it is.

Materials

- Computer and access to the Internet
- Balloon
- Drinking Straw
- String
- 2 Chairs
- Tape

Let’s Practice! Blow up the balloon and hold the end so the air can’t escape and use the two pieces of tape to secure the balloon to the straw. Move the straw and balloon to one end of the string. And once you are ready, Let go of the balloon and watch as it rockets across the string! Reinflate the balloon again and repeat again and again.

Why does the balloon fly along the string? The thrust of the air leaving the balloon pushes it forward along the string.

Standards

Standards addressed by this activity - Academic Standards: SC8/1/3.B, SC8/1/3.C, SC8/4/3.A, SC8/1/4.3.C, National Standards: ISTE – 4A, Benchmark: B/E2, 4B/E4, 3B/M4B, and NGSS: 3-5-ETS1.B.3, 3-5-ETS1.C.1, MS ETS1.B.3, 4-ETS1.B.2, 3-5-ETS1.B.1, MS-ETS1.B.6, MS-ETS1.B.1, and K-2-ETS1.C.1.



Beyond School Bells
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