



BUILDERS BONANZA

Lesson: Balloon Rocket

CURRICULUM REFERENCE: Movement

LESSON OBJECTIVE

Watch how air pressure works to push the balloon forward while air is escaping from the back.

THE SCIENCE BEHIND

Newton's Third Law of Motion states that "for every action, there is an equal and opposite reaction." We are going to witness this by pressurizing air in a balloon and then focussing its release. When the air rushes out of the balloon, it will push the balloon in the opposite direction.

VIDEO: <https://youtu.be/C0hZrW1j7Ow>

FOLLOW-UP QUESTIONS

1. What is the impact on society and the environment of simple machines that allow movement?
2. Why does the balloon only move forward?
3. What were some of the challenges in designing and making your mechanism?



LEARNING OUTCOMES

- Investigate and describe different kinds of movement.
- Describe different ways in which objects move.
- Identify ways in which the position of an object can be changed.



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MATERIALS (PER PERSON)

- Balloons
- String
- Straws
- Tape

INSTRUCTIONS

1. Feed a straw through the string and place the straw at one end of the string.
2. Tie the string tightly across an open space (such as between two chairs or trees).
3. Blow up a balloon (but do not tie it closed).
4. Now, tape the top middle of the balloon to the straw.
5. Get ready and let go of the balloon at one end of your string and watch it speed across the string.

VIDEO: <https://youtu.be/YMm6q0eJKqg>

