



RIPPIN' ROCKETS

4-H Aerospace Lesson

BUILD A DRINKING STRAW AND BALLOON ROCKET

Project Skills:

Building a straw and balloon rocket

Life Skills:

Problem solving
WI Academic Standards:
Science A.4. Science
Connections; C.4. Science
Inquiry

Time:

25-30 minutes

Supplies:

- 2 flexible drinking straws per person
- Cellophane tape
- 1 sheet of paper per person
- 1 balloon per person
- 1 pair of scissors per person
- Rippin' Rockets Experiment Log

Getting Ready:

- Cut at least one 3" square of paper per person.
- Practice making a balloon rocket.
- Make one copy of the Rippin' Rockets Experiment Log per person.

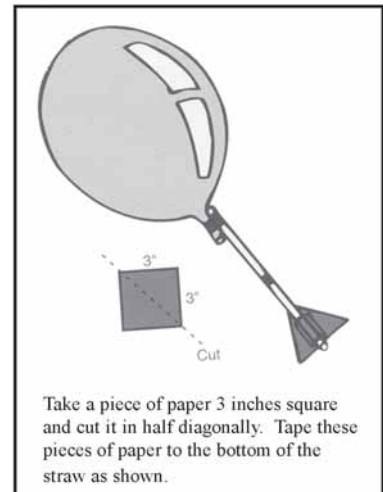


Adapted from 4HCCS
Aerospace project series
Stage 3, Reaching New
Heights (BU-6844), pages 6-7.

WHAT TO DO

Make a balloon rocket referring to the drawing on this page. Have youth work with a friend to do the experiments below.

1. Inflate a balloon. Let it go. Record Experiment #1 Observation.
2. Cut the rim off the balloon. Cut 1" piece off one of the straws, just below the bend. Insert it into the balloon opening and tape securely to the unbendable, 1" cut piece of straw. Inflate the balloon with the straw piece. Let it go. Record Experiment #2 Observation.
3. Take the remaining piece of straw and insert its end into the non-bendable end of another plastic straw. Tape the 1" straw with balloon to the bendable end of the long attached straw. Inflate the balloon. Let it go. Record Experiment #3 Observation.
4. Cut the 3" square paper in half diagonally. Tape the pieces to the end of the straw opposite the balloon to make fins. Inflate the balloon rocket. Let it go. Record Experiment #4 Observation.
5. Experiment with the balloon rocket until you can control its direction of flight. Record Experiment #5 Observations.



HINTS: Have youth discard straws after they have been in their mouth. Try to develop an orderly system during the experiment so that the rockets don't hurt or disturb others.

TALK IT OVER

Try to get each youth to express his or her feelings and experiences.

Reflect:

- How did you and your friend's results compare?
- What did you learn about directional control of a rocket?

Apply:

- What did you learn about conducting an experiment?
- How do experiments help to solve problems?

ENHANCE

Conduct a contest to see who can fly their balloon rocket closest to a target-landing zone.

Rippin' Rockets Experiment Log

RIPPIN' ROCKETS

OBSERVATION	WHAT HAPPENED AND WHY?	FRIEND'S RESULT AND WHY?
#1		
#2		
#3		
#4		
#5		

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