



Paper Rockets

Background Information: The Paper Rockets activity demonstrates how rockets fly through the atmosphere. A rocket with no fins is much more difficult to control than a rocket with fins. The placement and size of the fins is critical to achieve adequate stability while not adding too much weight.

Materials and Tools:

Scrap bond paper	Cellophane tape
Scissors	Sharpened fat pencil
Straw (thinner than pencil)	Eye protection
Metric ruler	Pictures of the Sun and planets

SEE Paper Rockets Construction Page!
(to make a rocket)

Discussion:

What makes one rocket perform better than another? (Do not forget to examine the weight of each rocket. Rockets made with extra tape and larger fins weigh more.)

How small can the fins be and still stabilize the rocket?

How many fins does a rocket need to stabilize it?

What would happen if you placed the rocket fins near the rocket's nose?

What will happen to the rocket if you bend the lower tips of the fins pinwheel fashion?

Are rocket fins necessary in outer space?

SEE Paper Rockets Test Report Page!
(to test and redesign your rocket)

Assessment:

Ask the students to create bar graphs on a blank sheet of paper that show how far each of the three rockets they constructed flew.

Have students write a summarizing paragraph in which they pick which rocket performed the best and explain their ideas for why it performed as it did.

To make a scale model of the solar system go to:

http://www.exploratorium.edu/ronh/solar_system/index.html