



a WOW Lab

BLUEPRINT

Indoor Rockets

Lesson Logistics

Learning Outcomes

Grades 4-6
Geometric and Spatial Sense
Structure and Function

Class Organization

Divide the students into groups of two or three.

Ensure that each group has a *Student Handout*, construction paper, a craft knife, scissors, a bubble tea straw, sand paper and floral foam.

One rocket launcher will be constructed per class.

Notes

The activity can be easily completed in one class period.

Although design stencils for wings are provided in the *Student Handout*, students are encouraged to deviate from the stencils and create their own wing designs.

Further Exploration

In this activity, thrust is only a factor during launch. By reducing the amount of friction between the pump nozzle and the rocket body, students can increase the initial velocity of the rocket. Drag and lift are both components of the aerodynamic force. Students can experiment with different rocket designs, such as changing the number of rocket fins or the shape of the nose cone, to see which design results in a greater distance travelled.