

**STEM Lesson Kits** 

## Straw Rocket Inquiry Lab

## Lesson: Forces and Motion

## Materials Needed:

- Plastic Straws
- Paper (white or colored)
- Glue Stick
- Tape
- Scissors
- Yard Stick (Optional)



## Steps:

- Have students get into groups of 3-4; students will assemble their rockets using materials provided to include constructing a nose and fins.
- Set up a starting line using tape (or set up 5-7 yard sticks) for each group to launch their rocket. Set up a paper target for each group.
- To test launch readiness, the rocket must land nose first when dropped horizontally. Students must test and correct their rocket until it is stable enough to launch.
- Have student groups launch their rockets from the starting line and test variables—fin shape, size, etc. by measuring the flight time/length.
- Have students graph their data showing the impact of variables on their flight length.
- Students can also predict which type of design will fly furthest and why.