



BUILD: Straw and Paper Airplane Launcher

CHALLENGE: Build a paper airplane that you can launch to great heights with a straw! If you had your own airline what would its name be? If you could design your own plane, what would it look like? Would you make it your favorite color, or give it wings that looked like a butterfly? The sky's the limit when designing your plane.

BIG IDEA: Ever heard of a guy by the name of Sir Isaac Newton? He loved to watch things in nature and explain their movement. He came up with three laws based on his observations of these movements.

1. for every action there is an equal and opposite reaction
2. an object in motion will stay in motion unless acted on by an outside force
3. the acceleration of an object is based on the mass of the object and the amount of force applied

INSTRUCTIONS:

1. Draw a design or color 2 index cards (one for wings and one for the body of the plane).
2. Carefully cut or tear out the airplane wings.
3. Loosely roll the body index card around straw.
4. Tape the long edge so it won't unroll.
5. Carefully make a fold at the end of the airplane body (do not bend the straw please).
6. Tape or glue your airplane wings to the body of the plane and draw in windows with a marker.
7. Take a deep breath and launch your plane by blowing air on the open portion of the straw.

Materials:

Index cards
Straw
Tape or glue





Want to know more?:

<http://d3tt741pwxqwm0.cloudfront.net/WGBH/aeroeng/aeroeng-int-engdesign/index.html>

Build a jetliner interactive

WE WANT TO SEE & SHARE YOUR CREATIONS!

Send us a picture or video by October 19, 2020 and be entered into a drawing for a gift card! Three ways to share:

1. Tweet us using the hashtag #aBitofSTEM
2. Text us at 314-285-9663
3. Use this google form and we'll show off your creation. [Submit Here](#) (tinyurl.com/STLsubmit)

For more challenges visit: STEMchallenges.wustl.edu