



High Touch High Tech®

Science Experiences That Come To You

Chinese Kite

Supplies:

- 9x12 inch Construction Paper (Red)
- Black Marker
- Tissue Paper
- 2 x Drinking Straw
- Tape
- String or Yarn
- Cardboard tube (toilet paper tube)
- Ruler
- Scissors
- Dragon Face Template

Instructions:

1. Fold your construction paper in half (lengthwise)
2. Using your ruler, measure 4 inches down from the top of the page and mark with a small dot
3. Align your ruler from the top folded corner diagonally down to the small dot & trace a line
4. Align your ruler from the small dot to the bottom folded corner diagonally & trace a line
5. Cut along the lines you traced on the page – this will give your kite its shape
6. Decorate your kite shape using the black marker
 - a. You can use the Dragon Face Template as inspiration!
7. Cut 3-4 strips of tissue paper
 - a. Each strip should be about 24 inches in length
8. Using your tape, attach the tissue paper strips to the bottom of your kite
9. Using your tape, attach the drinking straws to the back of your kite
 - a. Drinking straws should be placed in the shape of a cross
10. Cut 2 lengths of string. Each should be 18 inches long
11. Thread one piece of string through each straw and knot the ends together
12. Cut a length of string long enough to fly your kite
 - a. Using your tape, attach the end of the kite flying string to the cardboard tube and wrap the string around the tube. This will be your handle for flying your kite!



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The Science Behind It:

The science of flight, also known as aeronautics, is a type of science involving physics. A scientist who specializes in aeronautics is called an aeronautical engineer. These engineers utilize the Four Forces of Flight when designing aircraft - and you can use them too as you build your own kite! It is these forces that will help lift your kite off the ground and into the air!

The first force is LIFT. When the wind blows on your kite, some of the wind hits the kite directly, some goes over the kite, and some goes under it. The wind that goes underneath helps lift the kite off the ground. If there is not enough wind, you may need to run with it, creating your own wind!

The opposite of lift is DRAG. Drag is the pressure of the wind against your kite that keeps it aloft. The purpose of aerodynamics is to reduce drag, but a kite is designed to offer just enough lift and drag to get it, and keep it, in the air.

The next force is GRAVITY. This is the force that holds your kite to the ground. Kites are typically lighter in weight, so that the wind can easily overcome gravity and lift the kite into the air. What would happen if your kite weighed the same as a rock collection or textbook? It certainly would not lift nearly as easily as your kite!

THRUST is the force that pushes your kite forward. Thrust is created either by the wind driving the kite forward or by pulling the kite forward with the string.

So, what we have learned is that to get your kite into the air, the force of the lift must overcome the force of gravity; to keep it in the air, the force of thrust must be equal to the force of drag.

Additional elements that help your kite to fly high include directionality (facing the wind) and stability (where on the kite the strings are attached).

When all of these forces work together, your kite lifts off the ground and remains in the air!

Who wants to go fly a kite?

Want to do more Flight-related Science Experiments? Check these out!

[Paper Helicopter](#)

[Tissue Paper Hot Air Balloon](#)

Source: <https://blog.learningresources.com/kites/>



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Step by Step Visual Guide

Materials



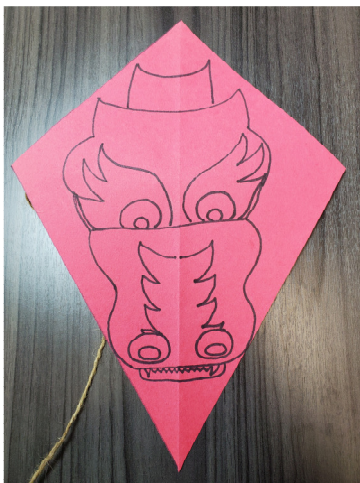
Step One

- Fold your construction paper in half (lengthwise)
- Using your ruler, measure 4 inches down from the top of the page and mark with a small dot
- Align your ruler from the top folded corner diagonally down to the small dot & trace a line
- Align your ruler from the small dot to the bottom folded corner diagonally & trace a line
- Cut along the lines you traced on the page – this will give your kite its shape



Step Two

- Decorate your kite shape using the black marker
 - You can use the Dragon Face Template as inspiration!



Step Three

- Cut 3-4 strips of tissue paper
 - Each strip should be about 24 inches in length
- Using your tape, attach the tissue paper strips to the bottom of your kite





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Step Four

- Using your tape, attach the drinking straws to the back of your kite
 - Drinking straws should be placed in the shape of a cross
- Cut 2 lengths of string. Each should be 18 inches long
- Thread one piece of string through each straw and knot the ends together



Step Five

- Cut a length of string long enough to fly your kite
 - Using your tape, attach the end of the kite flying string to the cardboard tube and wrap the string around the tube. This will be your handle for flying your kite!





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Dragon Face Template

