

Science Choice Menu

Topic(s): STEAM (2.1)

6/10/2020

Directions: Choose activities that you may like. Try some or all. Have a wonderful and safe summer!

STEAM Challenge~ Kite from recyclable bags

Construct a kite from items in your home that will stay in the air a long time! Go outside and fly your kite.



Offline directions for constructing a kite are attached

Materials:

- *2 Thin Dowels (Spars) or sticks (90cm or bigger)
- *1 Thick Plastic Bag
- *String
- *Kite Line
- *scissors
- *tape

STEAM Challenge -Energy with Balls

Energy is constantly changing and moving. Use 2 balls, (1-big and 1- small) to “move” energy from a big ball to a smaller one. Write down your observations.



STEAM Recycle Challenge~ Tissue Box Challenge

Fill empty boxes with the same amount of materials (cotton balls, ping pong balls or whatever you have). Tie the box around your waist and your family member’s. Goal: Wiggle your hips and see who can drop all their objects the fastest.

Materials needed:

- *empty boxes- (tissue boxes, shoe boxes etc.)
- * belt or a strap
- * cotton balls, pompoms, or ping pong balls

Rules:

1. Player’s hands or arms may not touch the box or belt.
2. A player may only touch the floor with his or her feet.
3. To complete the game, a player must get all items out of their box.



STEAM Energy Challenge~ CD Hovercraft

Click and watch how to construct a hovercraft to learn how objects can float in midair and what factors affect the hovercraft’s “flight.” You can also compete to see whose machine travels farthest!



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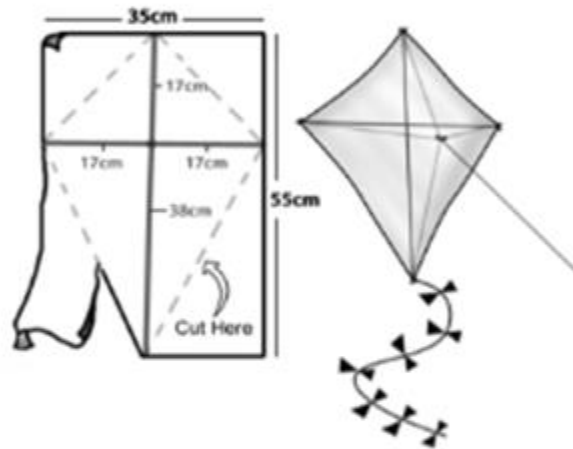
HOW TO BUILD A DIAMOND KITE

1. Measuring The Sail

Place your plastic bag flat on the floor, with the closed end at the top. Starting from just below the top-left corner of the bag, measure and mark 3 dots on the plastic.

2. Cutting The Sail

Take your ruler and connect the dots with the felt-tip pen, Flip the plastic over and trace over all the lines. Cut along the top and right side of the bag, and open it out to show the complete sail outline. Take your scissors and cut along all the lines.



3. Adding The Spars

Lay a length of your dowel down the center-line of the sail, line it up with the top sail corner and saw it off at the bottom corner. Cut off a 5 cm (2 inch) length of insulation tape, and stick down the dowel to the plastic.

- Do the bottom end of the dowel the same way.
- Do the other dowel similarly, so the kite looks like the photo on the right.

4. Attach The Flying Line

Poke a hole in the plastic sail, right over where the dowels cross each other. Thread the free end of your flying line through the hole, and tie it firmly around the crossing-point

5. Attach The Tail

From spare scraps of sail plastic, make up a long narrow strip no shorter than 5 times the length of the kite itself.

The strip should be about 5 cm wide. Tie the tail to the dowel at the bottom with a simple knot

