

Simple Science with Straws

Strawfully Good Music

Have your students create a musical band using straws! Here are some ideas to get you started:

Strawbone:



Cut a straw about $\frac{3}{4}$ of the way through, 3 cm from the end, with a pair of scissors. Submerge the long end of the straw into a glass of water. Bend the straw, at the cut, so that the two pieces are perpendicular. Blow into the short piece of straw so that your breath passes over the cut edge of the long piece. While holding the straw steady and blowing into the end, pick up the glass and move it up and down so that depth of the straw changes. Extend the exploration with straws of different diameter and length, or try using different liquids!

Stroboe and Straw-flute:



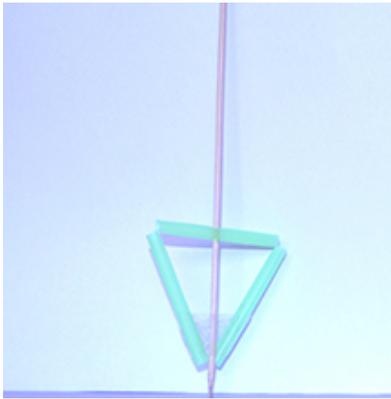
Stroboe: Cut one end of a straw into a V point. Flatten this end with your teeth or fingernails as flat as you can. Put at least 3 cm of the pointed end of the straw into your mouth. Make sure the straw isn't touching your tongue. Blow into the straw as hard as you can. Explore what happens when you change the length of the straw!

Straw-flute: Line seven straws up so that the ends are even. Tape together at the top and half-way down the length of the straws. Use scissors to cut the bottom of your taped straws diagonally, on a severe angle. Hold your straw flute away from your mouth and blow gently into the straws. Experiment with number and length of straws and angle of the cut to explore the variables!

Loopy Strawcraft

Cut two rectangles from a piece of card stock in the following dimensions: 2.5 cm X 24 cm and 2.5 cm X 12 cm. Form a loop from each rectangle, overlapping the end by 2-3 cm and secure them with tape. You should end up with one large loop and one smaller one. Place the seam of each loop down on your desk and tape the straw to the inside seam of the small loop. Tape the other end of the straw to the inside seam of the larger loop. Hold the straw in the middle and launch your aircraft. Experiment with the position and size of the loops, the length of the straw, how you hold the straw and the launch angle of your aircraft to see how this affects its flight path.

Straw-tastic Sprinkler System



Carefully push a skewer through the side of a straw so that the skewer and straw are perpendicular. Use scissors to make two cuts in the straw. The cuts should be about half way through the straw, 7cm or so from the end of the straw. Bend the straw at each cut so that both free ends are pointing towards the skewer. Tape the ends of the straw to the skewer. Place the taped end of the skewer/straw system you've built into an almost full bowl of water. The ends of the straw should be submerged. Spin the skewer and watch your sprinkler pump work. If you do this experiment on a large sheet of craft paper, you can measure the distance the water is thrown by your sprinkler system. Experiment with twirling speed, length of the straw, position of the cut and other variables to see how they affect the distance travelled by the water.