

# Halloween Windsock

## Materials:

- Paper
- Plastic streamers, tissue paper, or another lightweight material
- Tape
- Scissors
- Pencil
- String or yarn

## Activity Overview:

Windsocks give us a quick visualization about what direction the wind is blowing and how strong that wind is. By creating your own ghost windsock, you might be able to see the speed and direction of the wind near you.

## The Science:

The aerodynamics of a windsock are complex but at a basic level they involve the compression of air. The compression is small, but it is enough to force the sock up and out. When wind enters the sock at the large end it is forced down the tapered tube. As the tube gets smaller, the pressure and speed of the wind is increased.

Windsocks will change direction based on the wind. The large end always points into the wind, with the small end indicating the direction the wind is blowing to.

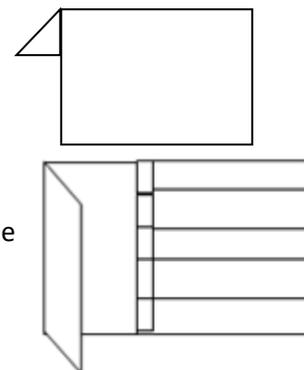
The white and orange blocks on a windsock indicate relative wind speeds. If just the first block is inflated but the rest is not, then the wind is approximately 3 knots. Each block represents an additional 3 knots. This windsock indicates a wind speed of at least 15 knots.



## How to build your own:

### Ghost windsock

1. Fold a piece of paper in half.
2. Decorate a one half with a ghost face or a Halloween scene.
3. Cut several streamers out of plastic, tissue paper, or another lightweight material.
4. Turn the paper over and line up streamers on the bottom edge of the paper. Make sure to place streamers at least one inch above the edge of the paper.
5. Tape the streamers into place.



6. Tape the two halves of the paper together with the streamers layered between them.
7. Pick up the paper and bring the two ends together keeping the streamers on the inside of the roll shape. Tape the two ends together.
8. Punch 2-3 holes equal distance apart on the windsock.
9. Cut 2-3 lengths of string/yarn at least 18 inches long.
10. Tie the string/yarn through the top holes. Gather all the loose ends into a knot and create a loop to hang the sock from and you are ready to fly your ghostly craft!

