

## ENTRY AND ADVANCED LEVELS

# BLOWING IN THE WIND

### FOCUS

Innovation and Design Process, Technical Design and Construction, Teamwork

### CHALLENGE

Your TASK is to create a structure that will move when wind blows on it.

### TIME

You will have up to 5 minutes to use your IMAGINATION and the CREATIVE PROCESS to build and test your structure and then up to 30 seconds to make the structure move using a fan.

### SETUP

In the middle of the room on the floor is a fan. In front of the fan is the outline of a square, formed by tape. There is also a table with materials.

### PROCEDURE

- **Part One (5 minutes):** Use the materials on the table to build a structure as tall as possible that will move when the fan is turned on. The structure should be built within the outline of the square formed by the tape. You may practice moving your structure with the fan on in Part One. However, at the end of Part One, your structure needs to be within the outline of the square. The Appraisers will then measure the height of your structure.
- **Part Two (30 seconds):** Turn on the fan to move your structure. You will receive points for how far the structure moves out of the taped area during Part Two. If you did not complete your structure in Part One, you may continue to work on it in Part Two. However, once you turn the fan on in Part Two, you may not touch the structure again.

### MATERIALS

- |  |   |
|--|---|
| <input type="checkbox"/> 4 Straws                          | <input type="checkbox"/> 4 Mailing Labels |
| <input type="checkbox"/> 3 Paper Clips                     | <input type="checkbox"/> 2 Rubber Bands   |
| <input type="checkbox"/> 3 Chenille Sticks (Pipe Cleaners) | <input type="checkbox"/> 1 Piece of Paper |
| <input type="checkbox"/> 1 Plastic Spoon                   |   |

Your team will also have a yardstick (meterstick), but this may NOT be damaged and may NOT be part of your structure.

### SCORING

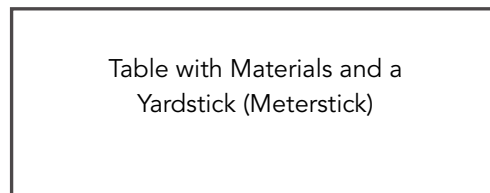
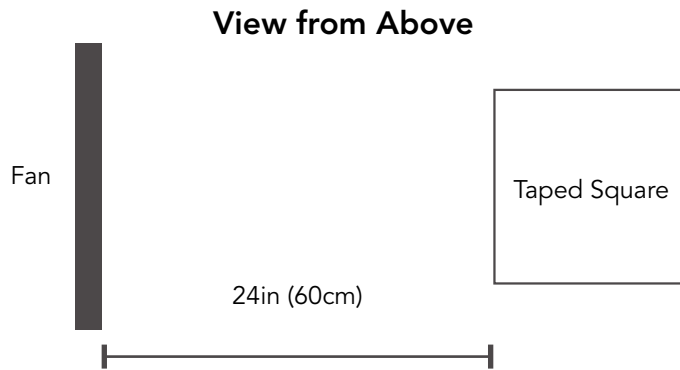
- 10 points if your structure is complete by the end of Part One.
- 1 point (20 points maximum) for each inch (2.5cm) of height of your structure.
- 2 points (30 points maximum) for each inch (2.5cm) of distance your structure moves out of the taped area in Part Two when the fan is turned on.
- Up to 20 points for the creativity of your structure.
- Up to 20 points for how well your team works together.

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# BLOWING IN THE WIND

**FOR APPRAISERS ONLY**

1. The setup consists of a fan on the floor with a 12in X 12in (30cm X 30cm) taped square located 24in (60cm) from a fan. Only 3 sides of the square are taped.



2. Measure the closest point of the structure to the taped area to determine how far it has moved.