

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

## Wind-Powered Sail Cars Rules Sheet

### Description

Competitors build wind-powered sail cars, using drinking straws, beads, paper and tape.

EVENT PREPARATION: Practice (design and test) prior to the competition

GRADE LEVEL: K-6

TEAM SIZE: 1 or 2 students per team

MAXIMUM NUMBER OF ENTRIES: unlimited

### Materials Provided at the Competition

- M.1 10 disposable plastic drinking straws
- M.2 4 wooden macramé beads, used for wheels
- M.3 1 sheet 8.5”x 11” copy paper
- M.4 40 cm masking tape
- M.5 A nine-inch electric fan

### Competition Rules

- R.1 Only the provided M.1-4 materials may be used to build the sail car. Fewer than the provided amounts of materials may be used.
- R.2 The paper and straws may be cut, folded, bent, etc., but the beads may not be modified.
- R.3 A 30-minute construction time is permitted, after which no modifications may be made.
- R.4 The race course is a six-foot wide race track the length of a classroom marked with masking tape. A fan is placed behind the starting line facing towards the race course.
- R.5 Practice runs are permitted, depending on available time. Only one judged run is permitted. The judged run must be clearly requested by the competitor prior to starting.
- R.6 To start the race, the sail car rear wheel axle must be aligned on the starting line.
- R.7 Competitors may adjust the fan angle and position prior to the test. After being turned to the high setting, the fan may not be touched for the remainder of the race. The oscillation option may not be used.
- R.8 The fan is turned off when any part of the car crosses the track boundaries or the car comes to a complete stop.
- R.9 To determine the distance, measure the perpendicular distance from the starting line to the rearmost part of the stopped car or where the car crossed over the track boundary.

### Scoring and Awards

- S.1 The winning team is the one whose sail car traveled the greatest distance per R.9.
- S.2 In the case of a tie, the lightest weight car wins.