

SWSC Science Competition Rules Template

Science Competition Title: Wright Stuff

Instructor's Name: Bob Champlin

School of Instructor: Lockport Township High School

Email Address of Instructor: rhamplin@lths.org

Date Competition Rules were created: 9/30/10

Description and Rules for Competition:

Description: Students will construct and test one rubber-powered model airplane to achieve maximum flight times. The event will be completed inside.

Construction

1. A rubberband-motor, propeller-driven airplane may be constructed from published plans, commercial kit, or a student's design. It must meet the following specifications:
 - a. Airplanes **cannot** be constructed with solid balsa wings or tail assemblies.
 - b. Except for propeller assemblies, kits must **not** contain pre-assembled parts, pre-glued joints or pre covered surfaces.
2. Airplanes must be constructed only from wood, paper, plastic film covering and glue except for the propeller assembly, and motor hooks.
3. The total mass of the airplane **without** rubberband motor must be larger than 10 grams.
4. The wingspan cannot exceed 40 cm, such that it will pass through uprights 40 cm apart
5. The propeller assembly may be purchased pre-assembled. The plastic propeller can have a maximum diameter of 20 cm.
6. The rubberband motor cannot exceed a mass of 3 grams.
7. All qualified airplanes will be impounded after check-in and will be available only for official flights.
8. The propeller cannot be turned vertically so that the airplane becomes a helicopter.
9. The airplanes must be marked with the last names, and school of participants.

How Scoring will be performed:

Competition

1. The airplane can be flown a total of three trials.
2. Time will be measured at the moment the plane is released till it lands or stops moving and lands another object.
3. 3 seconds will be subtracted to the airplane's flight time for each time it touches anything besides the floor.
4. The longest flight time per airplane will be used to compare the entries.

How Tie-Breaker will be performed (if needed): If there is a tie, the lighter airplane will be the winner.

Number of students allowed in each individual team: 2 students

Number of teams allowed to compete from each individual school: 1 team for each school