🔵 RUBRIC: FLIGHT SIMULATION

Live Performance at State Championship
Individual Student Event, 2 Students Per School Allowed To Apply
Elementary Only, BYOD

Often, students learn with the use of technology to understand a difficult concept. One program that is popular with students is Flight Simulation software, which helps students understand this STEM concept of flight. Students can visit local airport, talk to pilots to gain aviation/technical knowledge.

The Aviation Museum of Kentucky in Lexington http://www.aviationky.org/
KY Department of Aviation of the Transportation Cabinet http://transportation.ky.gov/Aviation/
Civil Air Patrol http://www.kywgcap.org/
Aircraft Owners and Pilots Association http://www.aopa.org

Software: Microsoft Flight Simulator

What the STLP Coordinator/Coach/Teacher should do:
  • Share the rubric with students
  • Determine which students should apply for this category
  • Ask for professional help in students understanding aviation better

What the student should do:
  • Review the rubric
  • Be ready to take a quiz (Examples: Basic aviation knowledge, parts of an airplane, 4 forces of flight, historic aviators)
  • Practice the following with the Flight Sim software using the Cessna 172 aircraft:
    o Take off at appropriate speed
    o Climb at constant rate
    o Maintain assigned altitude
    o Cessna 172 specs:
    o Take off speed is 65 knts
    o Climb at 80 knts, full throttle
    o Maintain altitude using 70% of throttle, within + or – 50 feet of assigned altitude

What will happen at State:
  • Each student will complete an Aviation quiz
  • Those scoring above 80% will be given a takeoff time to return to the area with their own laptop, Flight Sim loaded
  • Students set up own laptops for the short flight, judges will evaluate flight
  • Flight simulation sessions may be limited to no more than three (3) minutes
  • Best performances will be recognized at the awards program

STATE CHAMPIONSHIP	CRITERIA	POINTS
SET 1: QUIZ	The student takes the quiz	0-100% Possible
	Student that scores 80% or Higher will move to Flight Sim Software Set 2	
SET 2: FLIGHT	Take Off	1 2 3 4 5
	Controlled Climb	1 2 3 4 5
	TOTAL SCORE OF 10:	