

Paper Airplane Olympics – Spring 2015



The Paper Airplane Olympics is a series of four events and 1 exhibition event involving paper airplanes. You will participate in this project in pairs.

Airplanes:

- All airplanes will be built outside of class time or during the test day.
- Any type of paper and glue can be used to construct the planes.
- Each group of contestants can bring up to 5 airplanes to be used for any of the events.
- Each group will be allowed three launches in each event.

Timeline:

- Introduction to project will be one week prior to testing.
- You will be given 2 days of class time for testing.
- The Olympics will commence with Event #1 and finish with Event #5.

Scoring

- Each event has a top score of 10 points.
- Scoring will depend upon the event.
- Your teams total score will be determined by the 4 highest event point totals.

Event #1

The Amelia Earhart: The plane shall be launched from the corner of the gym.

- The horizontal distance from the launch position to the first location the plane touches anything is the distance recorded.
- The greatest distance achieved will receive 10 points. Others will = $10 - [(Max-Score)/10]$

Event #2

The Chuck Yeager: Planes must first touch the floor as close to a predetermined "X" as possible.

- The launches will be conducted as in Event #1.
- The plane that touches the floor closest to the "X" will be awarded 10 pts.
- Other scores will be determined by the following method: You will lose 0.25 pts for every 12" from the closest plane. If the closest plane touches 12" away from the "X" and your plane touches 36" away from the "X" then your score will be 9.5 pts.

Event #3

The Wright Flight: Planes will be launched from the mezzanine in the gym. The goal is the longest flight time.

- The time from the launch until the plane strikes any surface will be measured.
- The plane with the longest flight time will be the winner and will be awarded 10 pts. Others will lose 0.5 pts for every 1 sec less than the winner.

Event #4

The Jim Marshall: Planes must go outside the jump circle from the launch position, turn and return to the launch point.

- A plane that does not go outside the jump circle will be disqualified and earn 0 pts.
- The location is determined by where the plane comes to rest not where it hits the ground.
- The plane that lands closest to the launch point is the winner and will receive 10 points.
- Other scores will lose 0.25 pts for each 12" from the winner.

Event #5 - Exhibition event

The Curtis LeMay: The idea is to get your plane to execute a series of turns.

- The launches will be conducted in the center of the gym floor.
- The plane with the highest numbers of turns will be awarded 10 pts. Others will lose 0.5 pts for every turn less than the winner.