Paper Airplane Activity

GOAL
- Fold a paper plane that can fly the farthest.

RULES & CRITERIA
(from Red Bull Paper Wings website)
- All paper planes will be thrown down the same hallway behind the same starting line.
- Paper planes must only be constructed out of one piece of paper handed out in the classroom: standard Letter format (8.5-in by 11-in), not more than 100 grams. The sheet must be modified by folding only! No ripping, gluing, cutting, stapling or ballasting is allowed!
- Paper planes have to be built at site with the provided official paper.
- The aircraft must be launched by one person throwing the aircraft unaided from behind a straight launch line marked on the floor. After completion of the launch, the thrower may move beyond the launch line.
- Different planes can be used, the better attempt counts.
- The LONGEST DISTANCE will be measured in m/mm by measuring tape.

ASSIGNMENT TIMELINE
- ☐ Build and fly Prototype 1
- ☐ Write a report for Prototype 1
- ☐ Build and fly Prototype 2
- ☐ Write a report for Prototype 2
- ☐ Build and fly Prototype 3

ASSIGNMENT MARKS
1. A mark will be given for improvement between Prototype 1 and Prototype 2
2. A mark will be given for improvement between Prototype 2 and Prototype 3
3. A mark will be given for the written report for Prototype 1.
4. A mark will be given for the written report for Prototype 2.
5. A mark will be given for the distance traveled by Prototype 3

RUBRICS

1. Improvement Rubric

Emerging (1)	Developing (2)	Proficient (3)	Extending (4)
25% improvement from previous prototype	50% improvement from previous prototype	75% improvement from previous prototype	100% improvement from previous prototype

2. Written Report Rubric

Emerging (1)	Developing (2)	Proficient (3)	Extending (4)
Address the problems that arose in the previous prototype.	Address why the problems in the previous prototype arose.	Address how the problems in the previous prototype will be solved.	Address how the solutions may give rise to other issues in the next prototype.

3. Distance Traveled by Prototype 3 Rubric

Emerging (1)	Developing (2)	Proficient (3)	Extending (4)
Final prototype travels 5m.	Final prototype travels 10m.	Final prototype travels 15m.	Final prototype travels 20m.