Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**The Good Old-Fashioned Paper Airplane**

TEAM CHALLENGE #2

Participants will work together in teams for a total of 12 minutes to make a paper airplane to be used for the flight contest. When the teacher signals it is time to stop working, teams will take their airplanes into an open space for the contest.

The teacher will select groups of three to four for the team challenge and will assign a number to each group.

Once teams have been selected the teacher will indicate that teams will start the process. You will have exactly 12 minutes to get your team’s supplies and make your team’s airplane. Any team that continues to work on its plane at any point after the teacher has called time may be disqualified from the contest. Your team’s goal is to make a paper airplane that will travel the furthest distance.

Airplanes must be released into flight at approximately 5 feet from the ground. When the teacher gives the signal, you will release your airplane and measure the distance from the start point. The goals is to have your team’s plane complete the longest flight (in terms of distance, not time) from start to finish. Each team will have three flight opportunities. Distances must be recorded in the space provided.

Each team will take the best distance out of the three flight opportunities. Record the distances in the space below.

Flight #1 \_\_\_\_\_\_\_\_ yd \_\_\_\_\_\_\_\_\_ ft \_\_\_\_\_\_\_\_\_ in

Flight #2 \_\_\_\_\_\_\_\_ yd \_\_\_\_\_\_\_\_\_ ft \_\_\_\_\_\_\_\_\_ in

Flight #3 \_\_\_\_\_\_\_\_ yd \_\_\_\_\_\_\_\_\_ ft \_\_\_\_\_\_\_\_\_\_ in

Convert each flight into inches. Remember that each yard = 36 inches and each foot = 12 inches.

Flight #1 ( \_\_\_\_\_ yd x 36 = \_\_\_\_\_\_in) + (\_\_\_\_\_\_ ft x 12 = \_\_\_\_\_\_ in) + \_\_\_\_\_\_ in = \_\_\_\_\_\_ total inches

Flight #2 (\_\_\_\_\_\_ yd x 36 = \_\_\_\_\_\_in) + (\_\_\_\_\_\_ ft x 12 = \_\_\_\_\_\_ in) + \_\_\_\_\_\_ in = \_\_\_\_\_\_ total inches

Flight #3 (\_\_\_\_\_\_ yd x 36 = \_\_\_\_\_\_in) + (\_\_\_\_\_\_ ft x 12 = \_\_\_\_\_\_ in) + \_\_\_\_\_\_ in = \_\_\_\_\_\_ total inches

Compute the average inches traveled in flight.

Flight #1 \_\_\_\_\_\_ in + Flight #2 \_\_\_\_\_\_ in + Flight #1 \_\_\_\_\_\_ in = \_\_\_\_\_\_ inches ÷ 3 = \_\_\_\_\_\_ inches.

What was your longest flight? Flight # \_\_\_\_\_\_ for \_\_\_\_\_\_ inches

What was the average distance of all 3 flights? \_\_\_\_\_\_ inches

Comparison Information

Difference between best Flights (use inch conversions for your data)

Lesson 1 Best Flight \_\_\_\_\_\_\_\_\_\_\_\_ inches - Lesson 2 Best Flight \_\_\_\_\_\_\_\_\_\_\_\_ inches = \_\_\_\_\_\_\_\_\_\_\_\_ inches

Lesson 1 Average Flight \_\_\_\_\_\_\_\_\_\_ inches - Lesson 2 Average Flight \_\_\_\_\_\_\_\_\_\_ inches = \_\_\_\_\_\_\_\_\_\_ inches

Reflection

What worked better? What didn’t work as well? Which airplane had the best design and performed the best?

What insight do you have into aerodynamics?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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