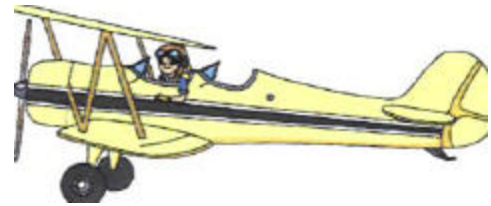


Help Maggie Rebuild Her Airplane!

A math activity for individual or group work

Teacher Directions



Motivation:

Talk about how Maggie's airplane has crashed. Now she will need a new and, hopefully, better airplane. Tell students that because Maggie goes on so many adventures, she will need an airplane that can fly great distances. The students will help in this design.

Purpose:

Measurement practice, computation practice, manipulation of geometric shapes to achieve specific purposes, mathematical reasoning skill development, problem solving practice.

Materials:

Save sheets of used paper over a period of several weeks. Use this "recycled/reused" paper in this activity. You may use any size paper. Duplicate the test log for use by individual students or groups.

Procedure:

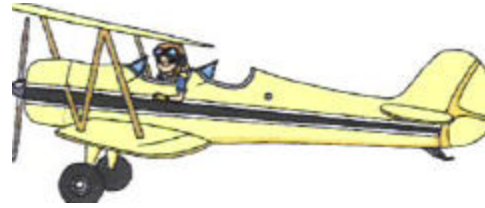
Students will design an airplane to fly a long distance.

- Students are to fold the papers (plane) to achieve maximum flight distance. Students may fold in any way they desire and they may cut their paper, but they cannot add to it.
- It is suggested that each student (or group of students) construct 6 test planes.
- Students must keep track of the shape of each test plane and the distance it flies. This information is noted on the test log.
- Each test plane should be flown 3 times and the average distance is noted on the test log.
- Students choose their best plane and determine why they think that plane flies the greatest distance.
- Each student or group should then design an advertisement that explains the features of their best plane.

- Hold an airplane flying contest.

Evaluation:

Students should be able to explain which features of the winning plane contributed to its success. They should write an evaluation of their own plane and compare its features to the winning plane. If their plane wins.....they get a free writing pass!!



Maggie's New Plane Test Log

Plane 1

Test Flight	Features	Distance Flown
1st		
2nd		
3rd		

Average distance
flown of Plane 1 is:

Plane 2

Test Flight	Features	Distance Flown
1st		
2nd		
3rd		

Average distance
flown of Plane 2 is:

Plane 3

Test Flight	Features	Distance Flown
1st		
2nd		
3rd		

Average distance flown of Plane 3 is:

Plane 4

Test Flight	Features	Distance Flown
1st		
2nd		
3rd		

Average distance flown of Plane 4 is:

Plane 5

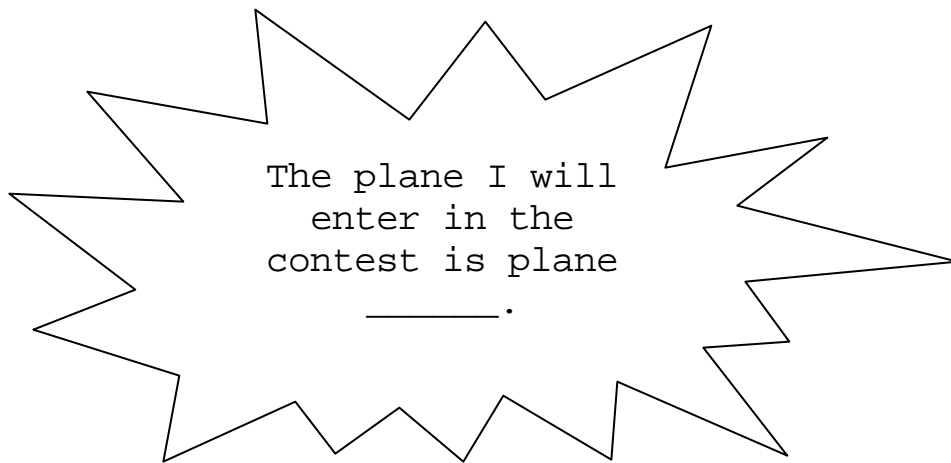
Test Flight	Features	Distance Flown
1st		
2nd		
3rd		

Average distance flown of Plane 5 is:

Plane 6

Test Flight	Features	Distance Flown
1st		
2nd		
3rd		

Average distance flown of Plane 6 is:



Here is a description of that plane and the features it has that make it the farthest flying plane.