

Balloon Rocket



QUESTION: What factors affect the distance and speed of a balloon rocket?

MATERIALS:

balloon
scissors

straw
tape

PROCEDURE:

1. Select a balloon from the assortment provided.
2. Construct a balloon rocket by blowing the balloon up and taping a straw (cut to whatever length you want) to its side so that it can be loaded on to a launch string.
3. Load your rocket and release it. On the data chart record the distance your balloon traveled and the time it took.
4. Use the formula $r = d \div t$ to calculate the speed of your rocket.
5. Repeat step 3 and 4 two more times.
6. Construct a bar graph that compares your results to the class average.

DATA: See Data Sheet attached

QUESTIONS:

1. How does the distance and speed of your balloon compare with that of your classmates?
2. What force pushes the balloon down the line?
3. What forces interfere with the balloon's forward motion?
4. Which type of balloon works best for going the greatest distance? Why?
5. Which type of balloon works best for reaching the fastest speed? Why?
6. Which of these straw lengths would work best for this activity? Why?

5 cm 10 cm 15 cm

7. What factors affected the speed and distance that the balloon rockets traveled?

CONCLUSION: Write 3-5 sentences about what you learned from this activity.

PS - Activity

DATA SHEET:

TRIAL	DISTANCE (m)	TIME (sec)	SPEED (m/sec)
1			
2			
3			
AVERAGE			