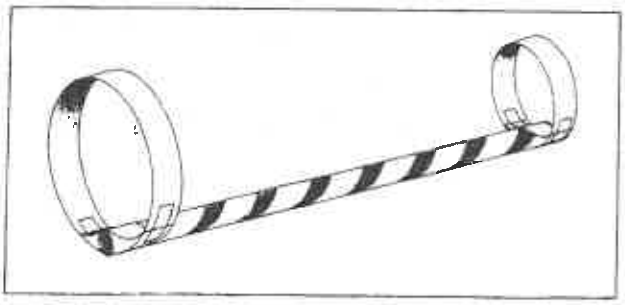
Physical Science 9 Chapter 1.1 - Scientific Method

LOOPER AIRPLANE LAB

PURPOSE: to identify and manipulate variables in an experiment.



MATERIALS: straw, paper, tape, scissors, ruler, ?

BACKGROUND: Control _____
Independent Variable _____
Dependent Variable _____

PROCEDURE:

1. Cut two strips of paper using the following dimensions:
   1.5 cm x 9 cm 2 cm x 12 cm

2. Make a loop out of each strip of paper, overlapping the ends and taping them inside and outside of the loop. The overlapped ends will form a pocket into which you can slip the straw.

3. Make observations of several test flights of the looper. Record them here.

4. Make a list of the factors that affect the looper's flight. Record them here.

5. Choose one factor to experiment with. Hold all the other factors constant. Test the looper three times and record the data in a table. Change your chosen factor two times and record the test flight data each time. Construct the table here. Include a reproduction of this table on your lab report.

6. Analyze your results. Which setting resulted in the best flight?

7. Enter your answer to #6 on the board at the front of the room.

QUESTIONS

8. What were independent and dependent variables in your experiment?

9. What were the controlled variables?

10. List the steps of the scientific method and identify where you used each one in this lab.