

Roto-copter Lab

Problem

What effect does the number of paper clips have on how fast the roto-copter falls?

Materials

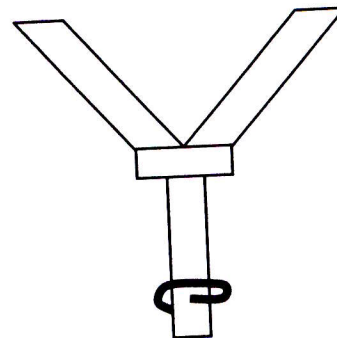
- Paper roto-copter outline
- Paper clips
- Scissors
- Timer

Hypothesis

- Write your own hypothesis using the "If... then..." format.
- E.g.: "If I double the *time* (independent variable) that I study for tests, then my test *marks* (dependent variable) will be higher."

Procedure

- 1) Cut out the roto-copter and fold the wings. (see diagram).
- 2) Attach 1 paper clip to your roto-copter.
- 3) Drop the roto-copter from a high place and time how long it takes to hit the floor.
- 4) Record your results in a chart like the one below.
- 5) Repeat step 2 two more times.
- 6) Repeat the procedure with 2 paper clips.
- 7) Repeat the procedure with 3 paper clips.
- 8) Repeat the procedure with 4 paper clips.



Observations

Number of Paper Clips	Trial 1	Trial 2	Trial 3	Average Time
1				
2				
3				
4				

Questions

- a. What was your independent variable?
- b. What was your dependent variable?
- c. What were 3 controlled variable sin your experiment?
- d. Why is it a good idea to calculate an average of 3 trials for your results?

→ Write a formal lab report. Include the following headings: **Title, Problem, Hypothesis, Materials, Procedure, Observations, Conclusion and Questions.**

Remember

- Lab reports are written in the 3rd person. Do not use I, we, us, he, she, etc.