

Name: _____

Whirlybird Experiment

Date: _____

Question: (What we hope to answer by performing the experiment)

How does the length of time for a whirlybird to fall depend on the number of paper clips attached to it?

Hypothesis: (A guess that answers your question. You could also provide a reason why you guessed this.)

Materials: (A list of the materials or items required for this experiment)

- whirlybird cutout template on regular paper
- at least 3 standard paper clips
- a stopwatch or other time recording device

Procedure: (A list of instructions that tell you, or anybody else, how to perform your experiment)

1. Carefully cut out the whirlybird shape from the paper template.
2. Along the dotted line, fold one wing forward and the other wing back.
3. Attach a paper clip to the bottom.
4. Hold your whirlybird at the maximum height you can reproduce consistently and drop it.
5. Measure the time required for the whirlybird to hit the floor and record it on your data sheet.
6. Repeat steps 4 and 5 two more times and record the data each time.
7. Attach 2 paper clips and repeat steps 4, 5, and 6.
8. Attach 3 paper clips and repeat steps 4, 5, and 6.

Observations: (A record of what you saw and measured during the experiment)

Number of Paper Clips	Flight Time (seconds)			Average Flight Time $t_{avg} = \frac{t_1 + t_2 + t_3}{3}$
	Trial			
	1	2	3	

Discussion: (Your thoughts on the experiment – what you observed, what went wrong, etc.)

1. Independent Variable: (What I'm changing, or controlling, in the experiment)

2. Dependent Variable: (What I'm measuring)

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3. Controlled Variables: (What stays the same each time I perform the experiment)

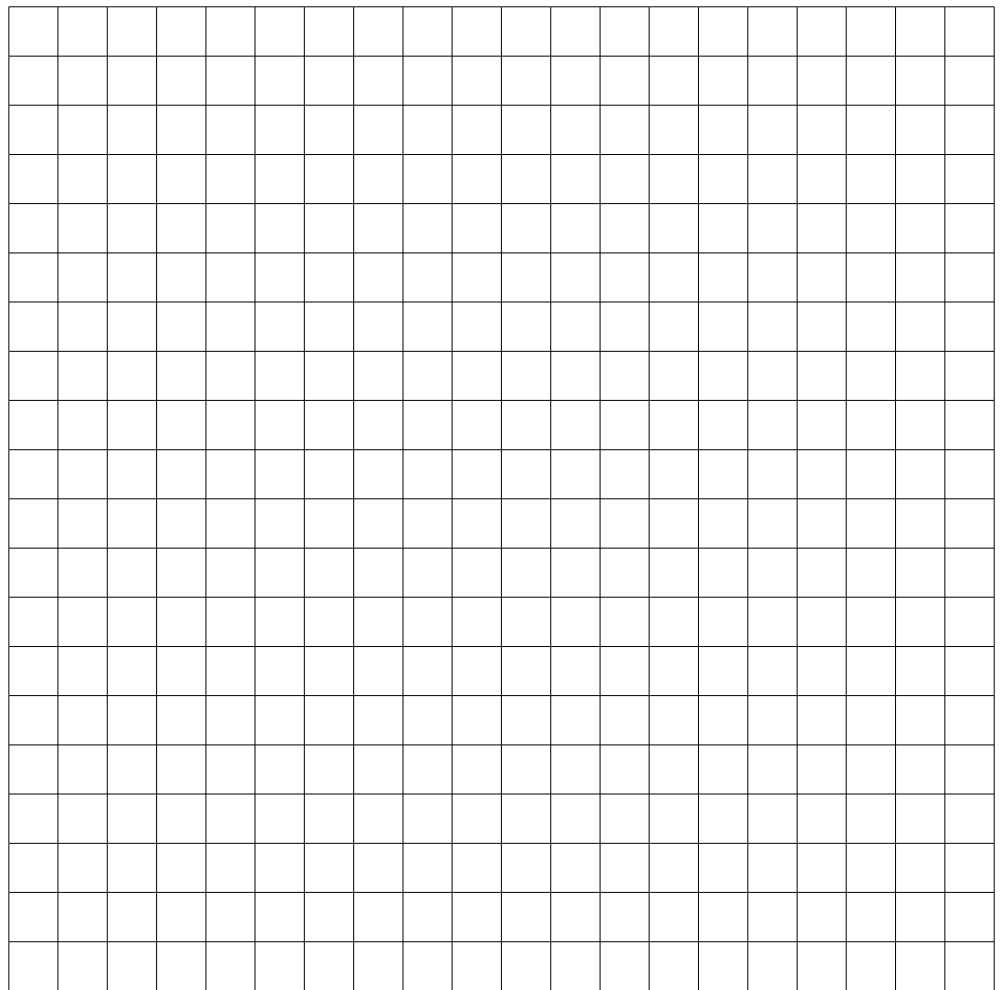
4. Graph: (A visual representation of our experimental data)

When graphing experimental data, we put the *independent data* on the horizontal axis, and the *dependent data* on the vertical axis.

Graphs should always include a title, and each of the axes should be labelled with a description and the units (if it has units).

Title: _____

Label Vertical Axis
(units in brackets):



Label Horizontal Axis (units in brackets): _____

Conclusion: (The answer to your question, based on experimental data. Was your hypothesis correct?)