MAGNETIC MADNESS

PURPOSE: To find out the strength of various magnets Name _____ #_____

QUESTION: How can I find the strength of a magnet? Date _____

HYPOTHESIS: (State your thoughts on how you can determine the strength of a magnet. Be sure NOT to begin your statement with the words "I think".)

_____

_____

MATERIALS: Various types and sizes of magnets, paperclips

PROCEDURE:

1. Choose one magnet.
2. Put one paperclip on the end of the magnet.
3. Add paperclips one at a time to form a chain from the magnet.
4. Record a picture of the magnet and the number of paperclips it held.
5. Repeat 2 more times with that magnet.
6. Choose a different magnet and repeat.

TESTING-DATA COLLECTION:

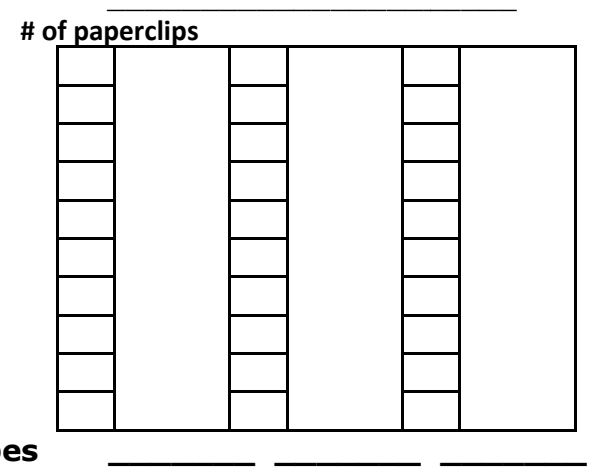
		Number of Paperclips		
Type of Magnet	**Sketch of Magnet**	**Trial 1**	**Trial 2**	**Trial 3**

RESULTS: Did one magnet pick up more paperclips than another? _____

If so, which one? _____

Graph your results below in a bar graph.

You will need to decide how to number the y-axis. Look at your data collection table above. Can you number by 1's and have all the numbers represented? If not, decide if you should number by 2's or 3's.



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CONCLUSION: After studying your data, make an inference about the strength of different magnets. Does size matter? Does the type of magnet matter?

_____

_____

_____

EXTENSION:

1. Compare your data with another person's data. What similarities/differences did you find? Does it make you want to repeat any part of the experiment to double-check your results?

2. Did you have any outliers in your data? What do you think you should do about that? What do you think a scientist would do if one piece of data was enormously different from the other data collected?

3. As you were writing your conclusion, did you think of any additional tests you would want to conduct in order to support your conclusion? What additional tests would be helpful?

4. What do you suppose would happen if you put 2 or more magnets together? Make a prediction and then test your prediction. Record your findings here.

SUMMARY

Write 3 statements about what you have learned today.

1. _____

_____

2. _____

_____

3. _____

_____

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