## **Magnetic Strength Activity**

| What are some ways magnets are commonly used?  |                              |                 |  |
|--|------------------------------|-----------------|--|
| In museums, we often use magnets to display artwork To the right is a diagram of our system with the magnethe surface, and the object which creates a gap betwe the two. | c. et,                       | agnetic<br>face |  |
| How would you expect the size of the magnet affect the amount of weight it can hold?   | he Diagram of our system.    | our system.     |  |
| How might you test this hypothesis?  |                              |                 |  |
| How would the thickness of the object affect the amount  | unt of weight the magnet can |                 |  |
| hold?  Measure the thickness and weight of each paper packet.  | et and record it below       |                 |  |
|  | # of sheets mm g             | grams           |  |
| # of sheets mm grams   | # of sheets mm g             | grams           |  |

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In order to test your thickness hypothesis, we will use the magnet to hold paper packets of different thicknesses against the ferromagnetic surface and add weight until it falls. Find the largest amount of weight it can hold before falling. Write this weight below

| Ferromagnetic su    | ırface:           |                  |                |                  |       |
|---------------------|-------------------|------------------|----------------|------------------|-------|
| # of sheets         | grams             | # of sheets      | grams _        | # of sheets      | grams |
|                     | # of sheets       | grams            | # of she       | ets grams        |       |
| Once you have a     | ll the data, lab  | el the axes, cho | ose the scale, | and graph them.  |       |
|                     |                   |                  |                |                  |       |
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|                     |                   |                  |                |                  |       |
| <u>e</u> :          |                   |                  |                |                  |       |
| Y Label:            |                   |                  |                |                  |       |
| X Label: _          |                   |                  |                |                  |       |
| Circle the graph wh | ich is most simil | ar to your data. |                |                  |       |
|                     |                   |                  |                |                  |       |
| ≺ Axis              |                   |                  | Y Axis         |                  |       |
|                     | Linear Decre      | ase              | Expon          | nential Decrease |       |

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