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 magnet, the surface, and the object which creates a gap between the two.

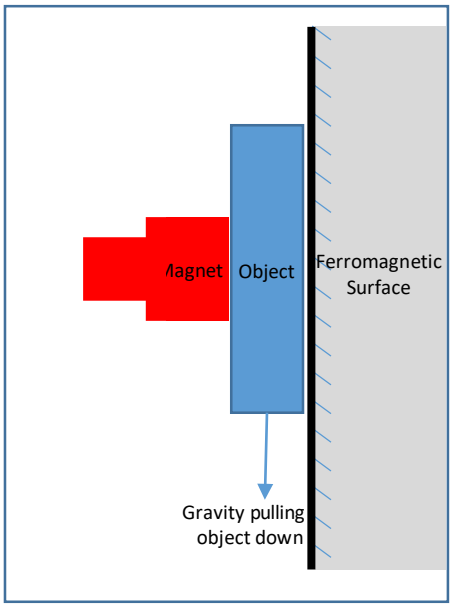


Diagram of our system.

How would you expect the size of the magnet affect the amount of weight it can hold?

_____

_____

How might you test this hypothesis? _____

_____

How would the thickness of the object affect the amount of weight the magnet can hold?

_____

Measure the thickness and weight of each paper packet and record it below.

____ # of sheets _____ mm _____ grams

____ # of sheets _____ mm _____ grams

____ # of sheets _____ mm _____ grams

____ # of sheets _____ mm _____ grams

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 surface: _____

____ # of sheets _____ grams ____ # of sheets _____ grams ____ # of sheets _____ grams

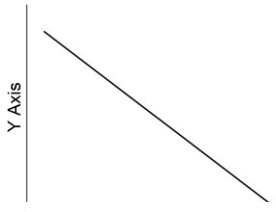
____ # of sheets _____ grams ____ # of sheets _____ grams

Once you have all the data, label the axes, choose the scale, and graph them.

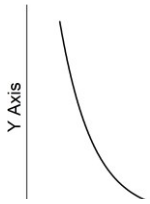
Y Label: _____

X Label: _____

Circle the graph which is most similar to your data.



Linear Decrease



Exponential Decrease