

Magnetism



UBC Physics
Felipe Iriondo



Overview

- 5 min: Intro
- 15 min: Magnetic Fields
- 5 min: Activity
- 15 min: Magnetic Levitation
- 5 min: Activity
- 5 min: Q & A



Intro

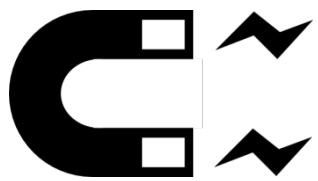
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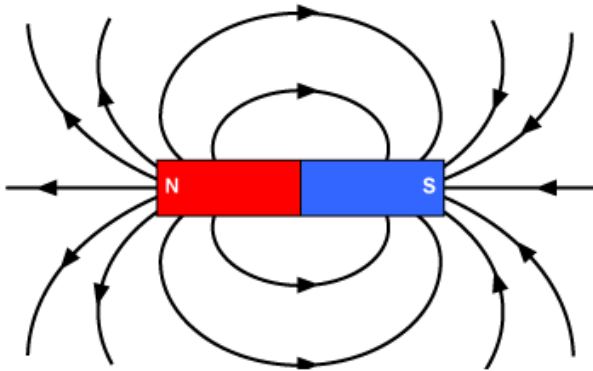
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Magnetism

What is a magnetic Field?



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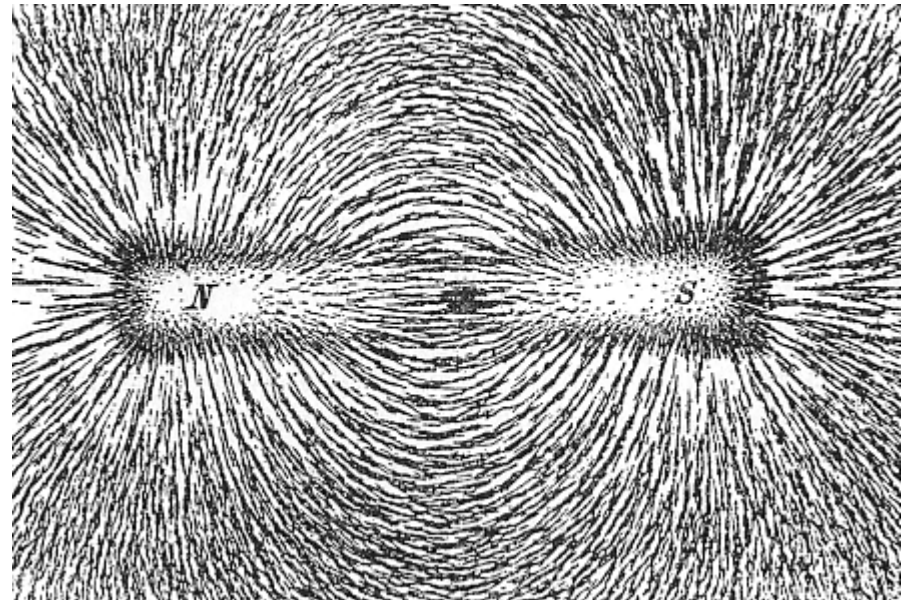
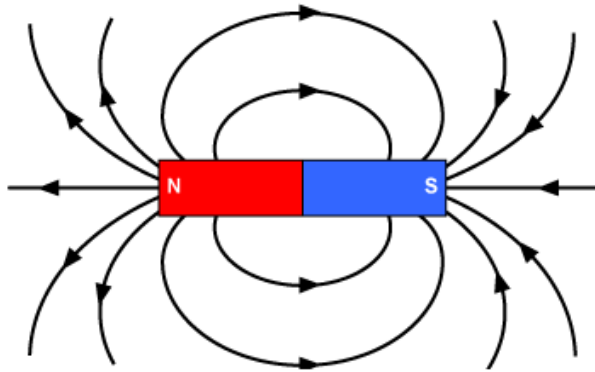
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What is a magnetic Field?



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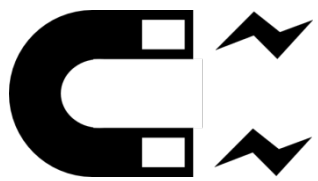
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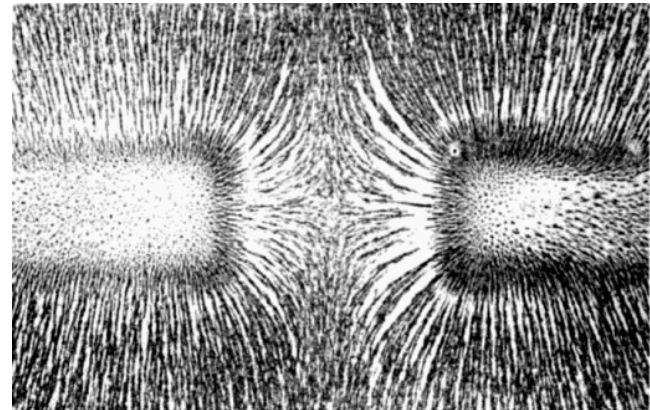
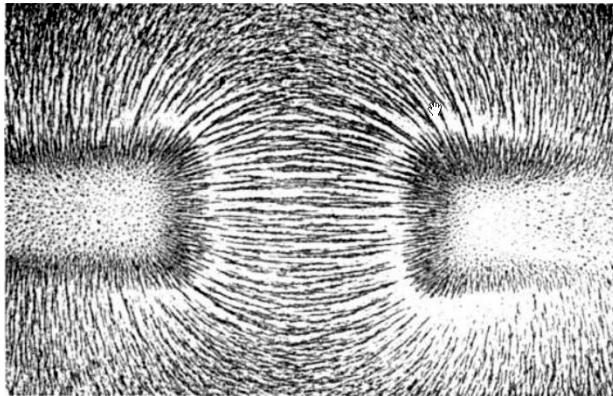
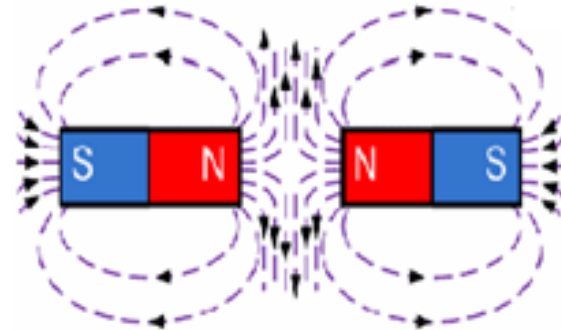
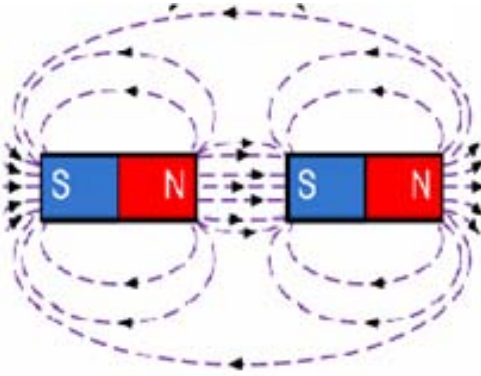
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What is a Magnetic Field?



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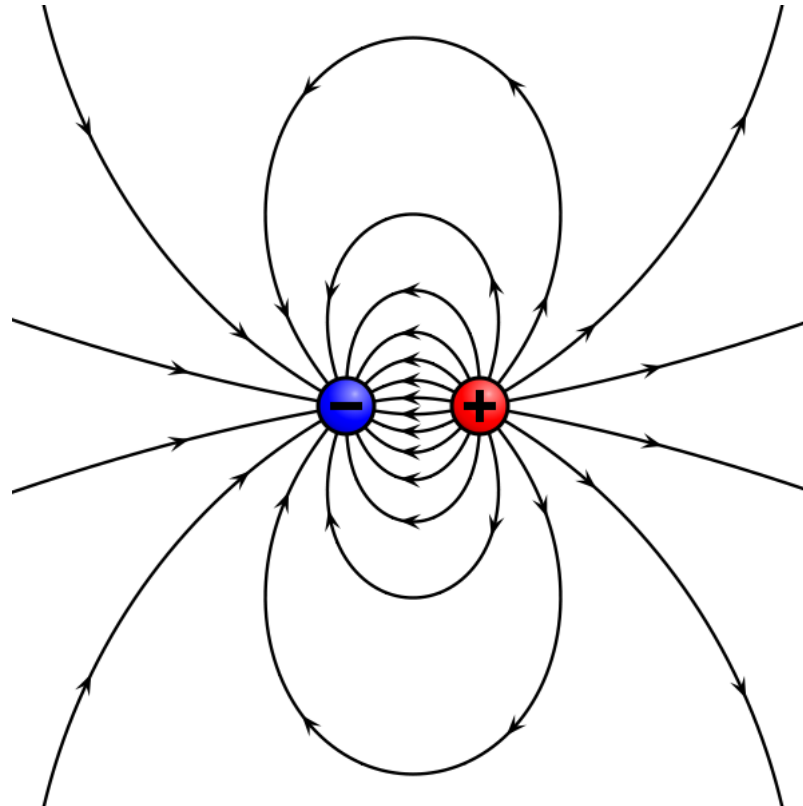
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What is a Magnetic Field?



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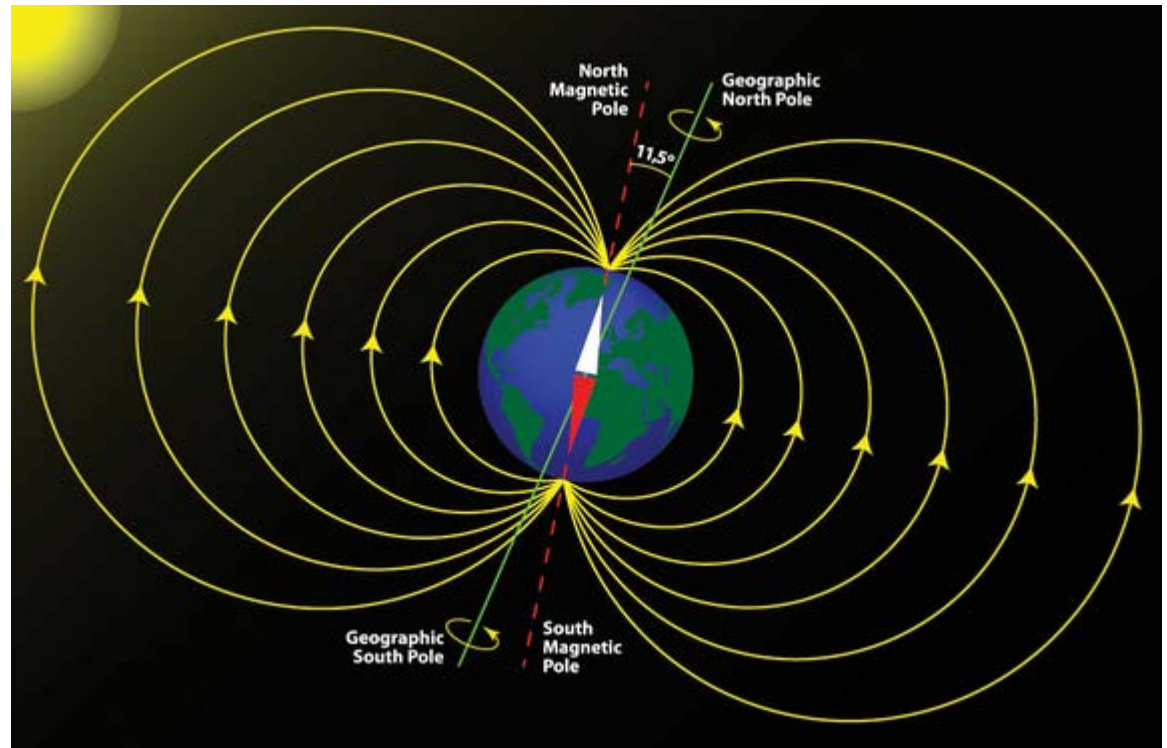
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What is A Magnet?



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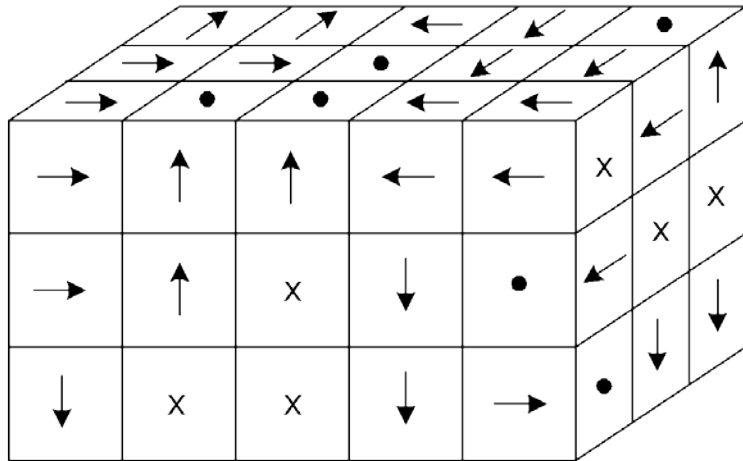
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How do we Magnetize things?



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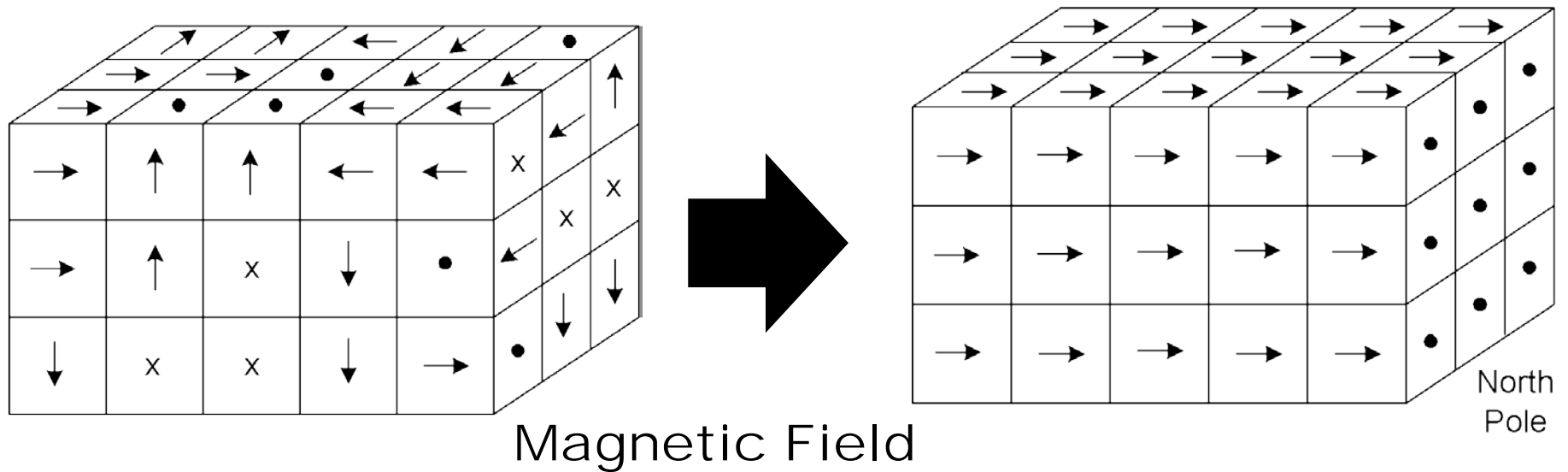
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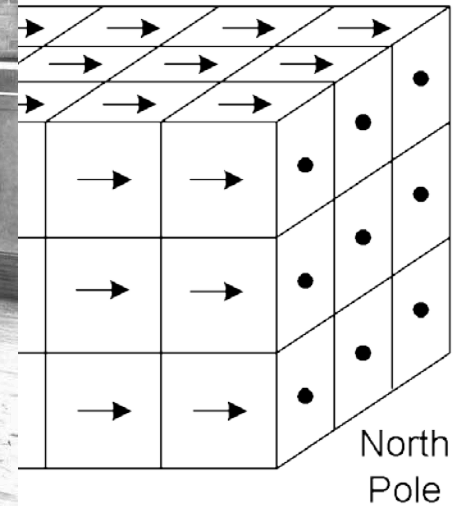
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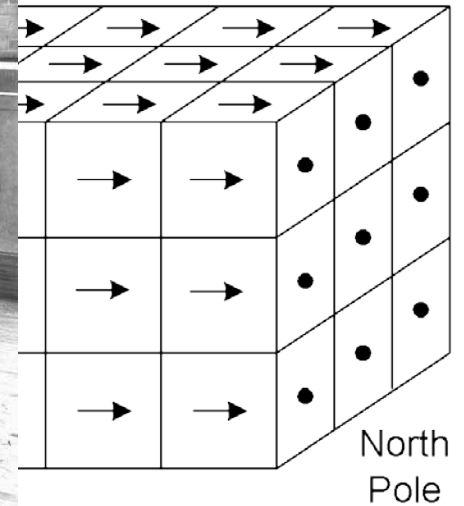
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Breaking a magnet?

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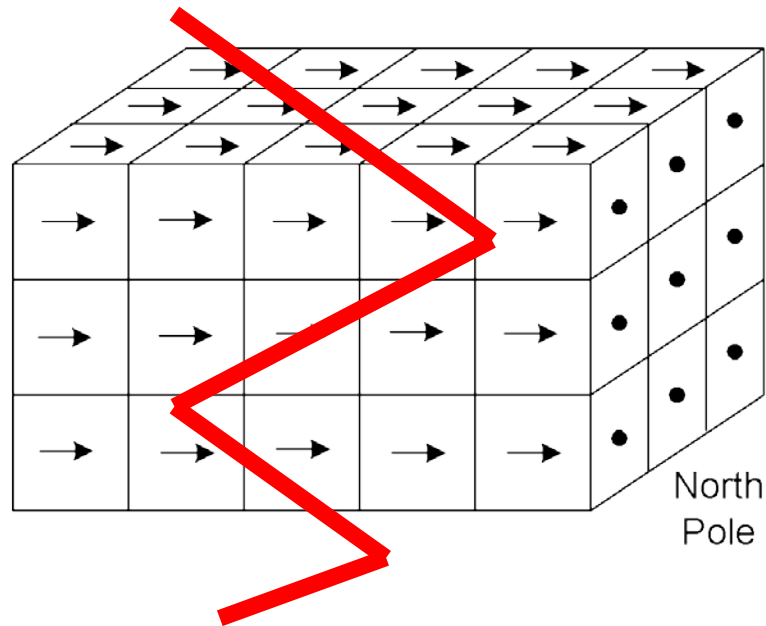
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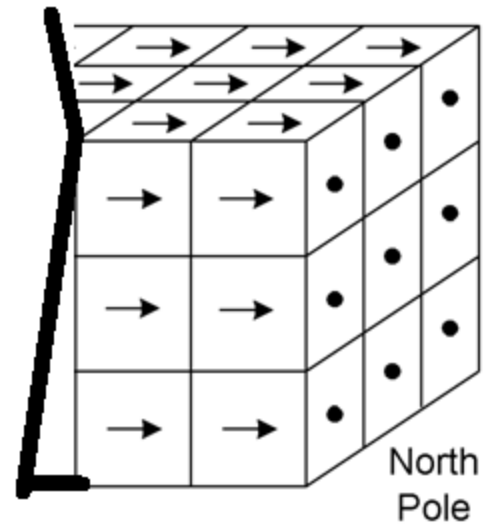
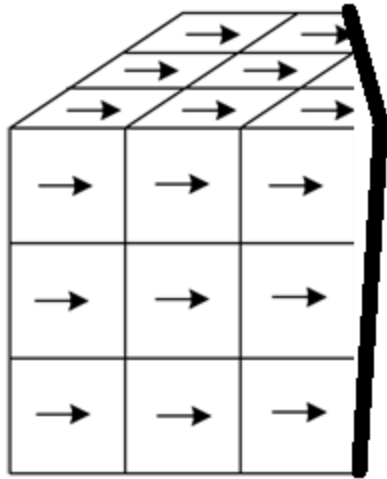
Breaking a magnet?





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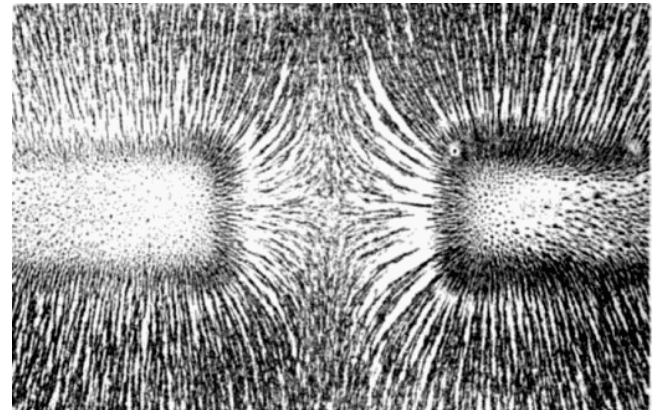
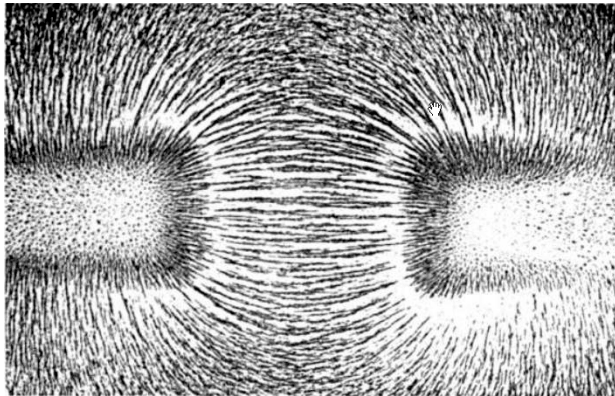
Breaking a magnet?



Magnetic Field Lines Activity

Students were asked to attempt to replicate the pictures below with their own magnets and iron fillings.

Activity was approximately 10 minutes long.

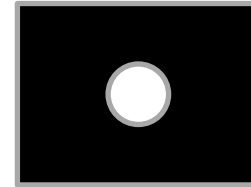




Magnetic Field Lines Activity

Why do the fillings stand on end?

Where is the alignment of the poles of the magnets?



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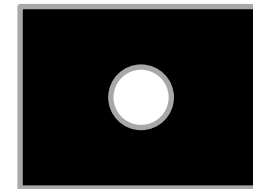
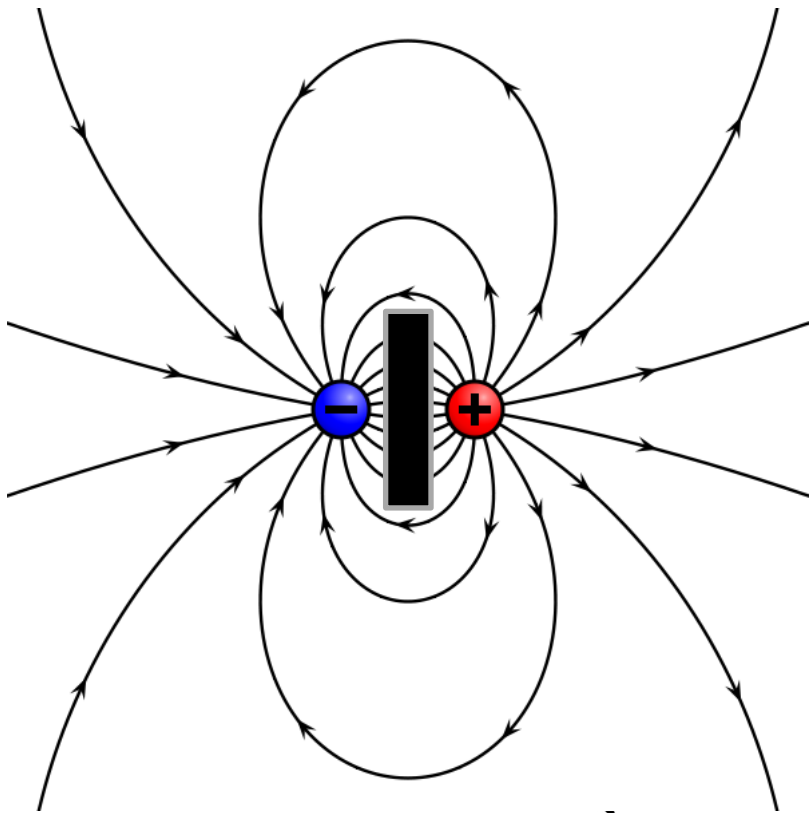
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Magnetic Field Lines Activity



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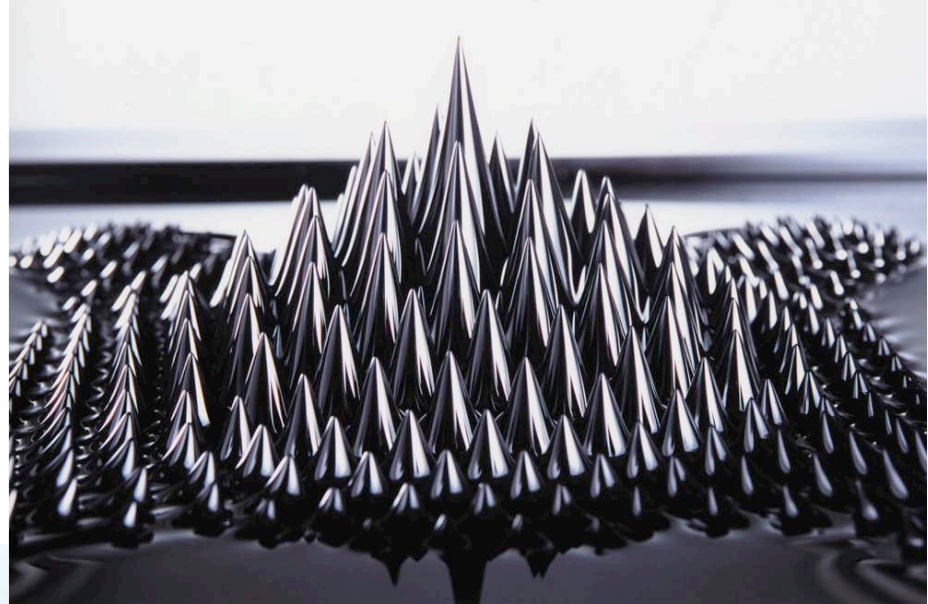
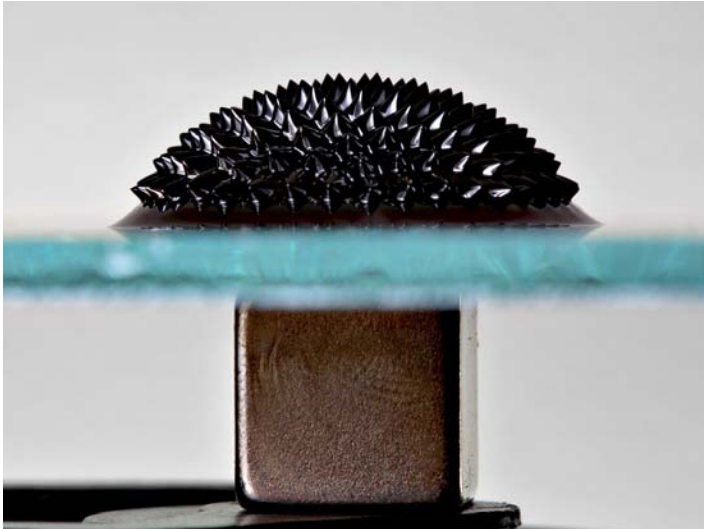
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Magnetic Levitation



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The principle of levitation:

Force of Weight = Repelling/Attracting Force



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Strength of Magnets:

Weak from Afar



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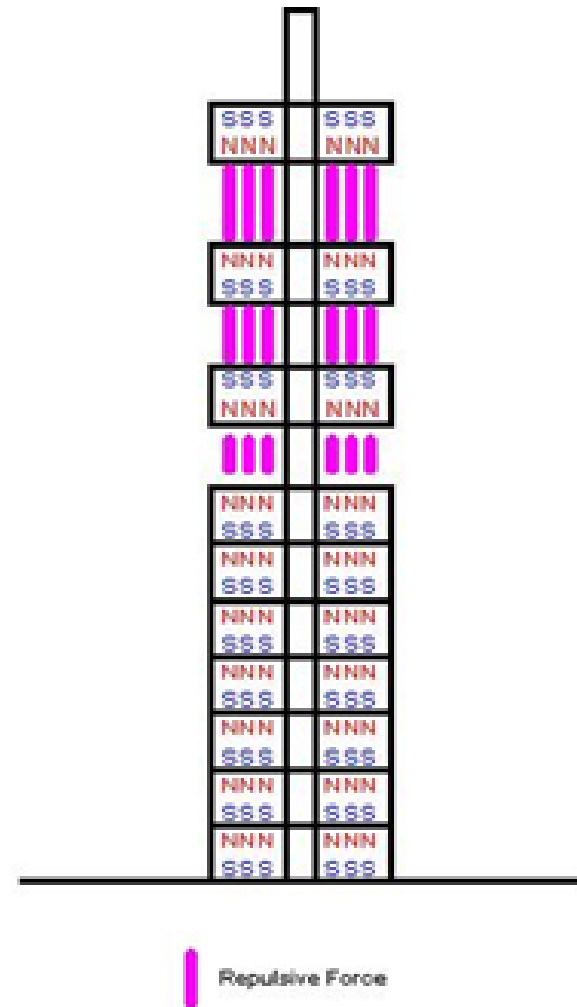
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Donuts Experiment



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The principle of levitation:

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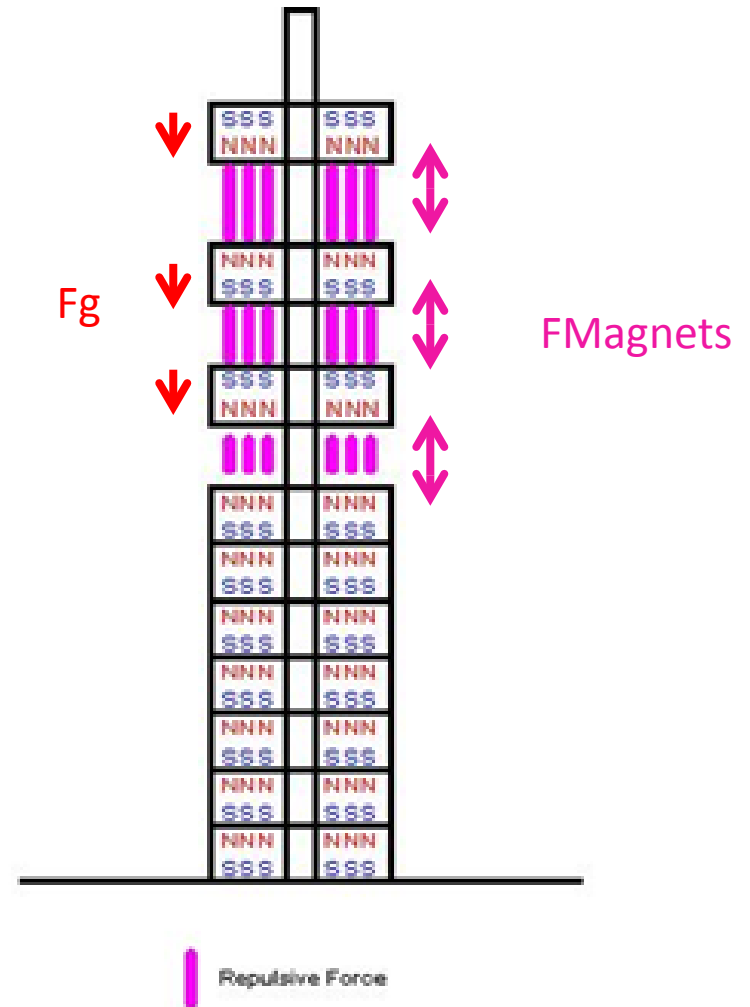
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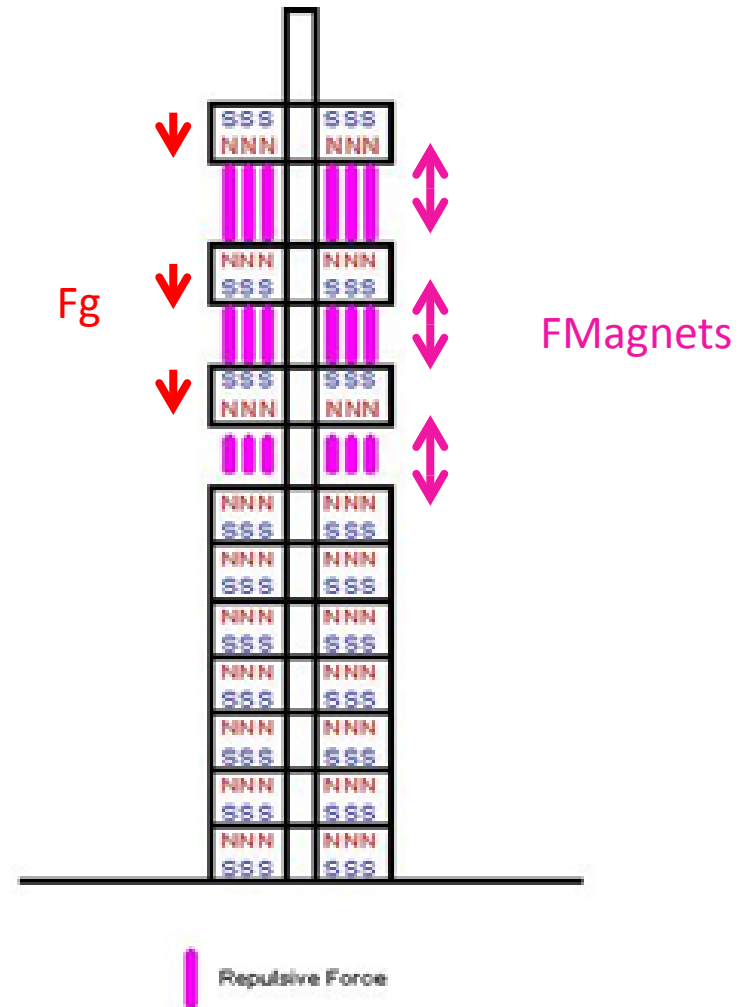
Activity

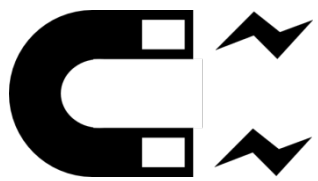
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Donuts Experiment

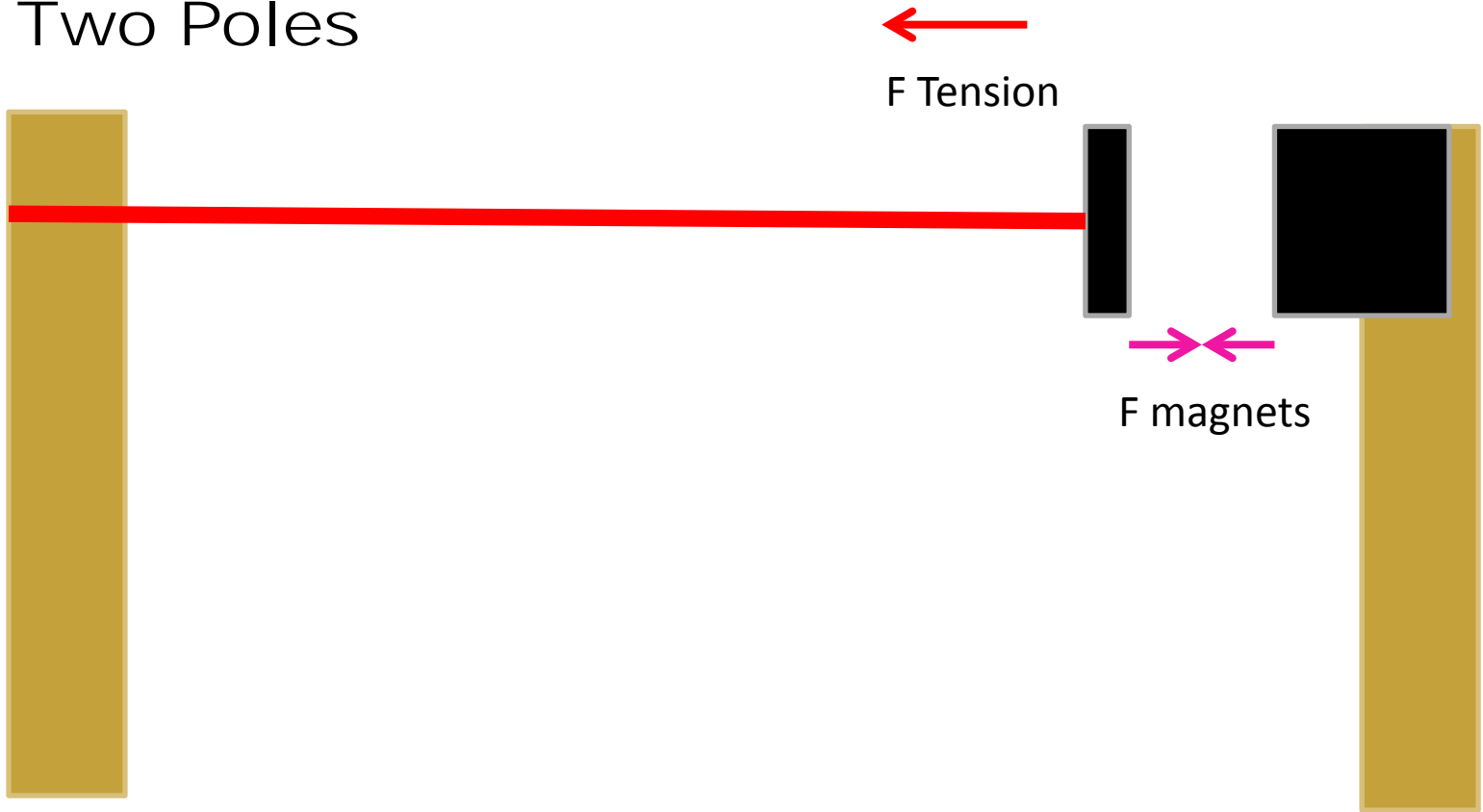
Can be modelled like a spring.





Magnetism

The Two Poles



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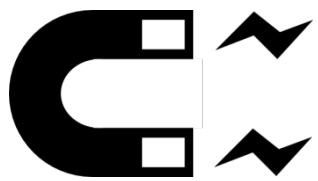
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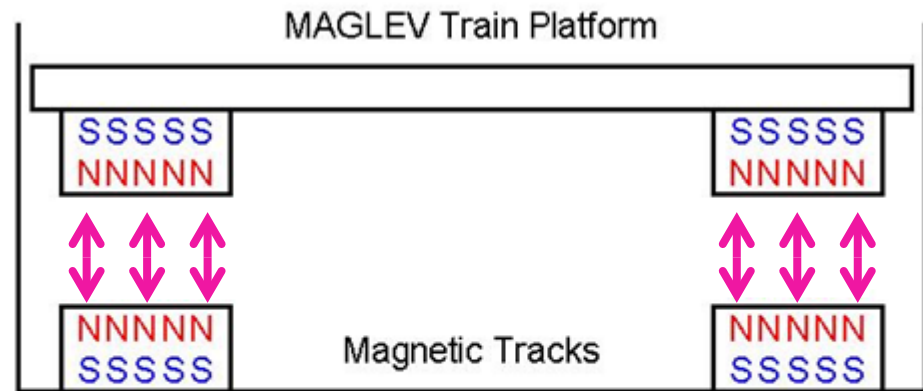
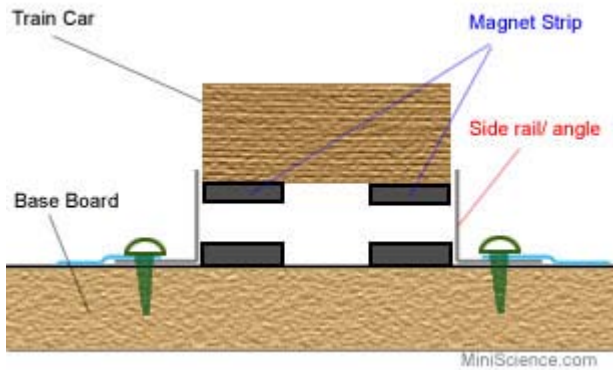
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Repulsive Force



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Question Period



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Please fill out the feedback form!



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END

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