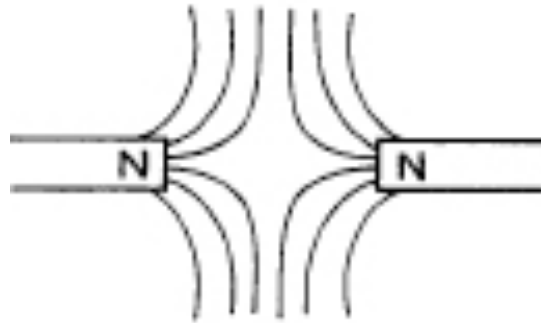


## Lab: Magnetic Force, Part Two

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When you hold two magnets close to one another, they feel either an attractive or a repulsive force between them, depending on their orientation. It appears that the magnitude of this force depends on the distance between the two magnets. But how?



**Question:** Describe quantitatively the relationship between magnetic force and distance between the magnets. Use whatever tools and techniques you'd like, as long as they can be explained to the rest of the class during the presentation.

### Timetable

|                              |                   |                    |
|------------------------------|-------------------|--------------------|
| <b>Planning the Analysis</b> | <b>10 minutes</b> | <b>Groups of 4</b> |
|------------------------------|-------------------|--------------------|

- *How are you going to illustrate your data?*
- *How are you accounting for uncertainty in the measurements?*
- *What seems to be the behavior or features of this relationship?*
- *How can you quantify this relationship so that it can be communicated to others?*

|                           |                   |                    |
|---------------------------|-------------------|--------------------|
| <b>Data Analysis</b>      | <b>50 minutes</b> | <b>Groups of 4</b> |
| <b>Class Discussion</b>   | <b>40 minutes</b> | <b>Whole Class</b> |
| <b>Writing the Report</b> | <b>10 minutes</b> | <b>Groups of 4</b> |