Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Exploring Magnets**

**Station 1**

**Q: Do magnets work through other non-magnetic materials?**

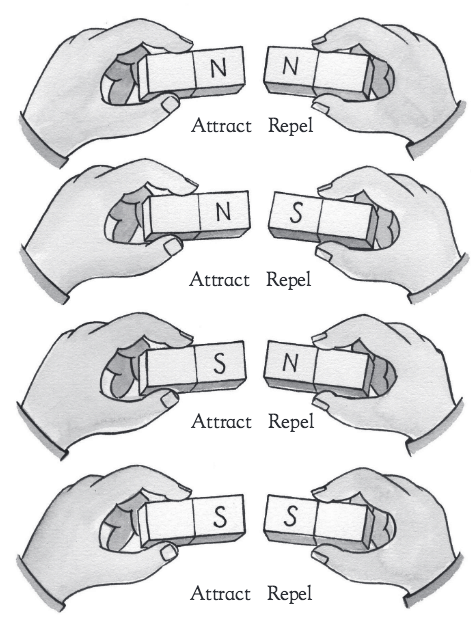
Capture as many paperclips as possible to the bottom of the magnet. Then do the same through each material. Record the number of paperclips picked up.

|  |  |
| --- | --- |
|  | # of paperclips |
| Just the magnet |  |
| Paper pad in between |  |
| Book in between |  |
| Plastic clipboard in between |  |
| Glass in between |  |
| Other \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |

**Station 2**

**Q. What poles attract and what poles repel?**

Use magnets to test which pairs will attract and which pairs repel each other. Circle your answers.



**Station 3 Teacher Demonstration**

**Q: Do magnets work when magnetic materials are mixed with other materials?**

Mix sugar and iron fillings.

Do you think they will separate? \_\_\_\_\_ yes \_\_\_\_\_ no

Try to separate with your wand. Could you separate? \_\_\_\_\_yes \_\_\_\_\_no

**Station 4**

**Q: What does a magnetic field look like?**

1. Place a magnet on a flat surface. Lay a piece of paper over the magnet so that the magnet is centered under the paper.

2. Lightly sprinkle the iron filings onto the paper over the magnet.

3. Draw the magnetic lines of force coming from the magnet? Can you see the strongest part of the magnet?

N

S

**Station 5 Ring Magnets**

Q: Can you float all magnets? \_\_\_\_\_ yes \_\_\_\_\_ no

Q: Can you group them in 2s? \_\_\_\_\_ yes \_\_\_\_\_ no

**Station 6**

**Design an experiment with magnets from the trays. Describe what you did and what you found out.**

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