

## Magnetism Station 1 Part B: Make a Magnet

Materials needed: 2 magnets, 2 nails, 10 paper clips

1. First, set the magnets and nails off to the side of your desk. Let's just work with the paperclips. Do you think you would be able to pick up one paperclip using one other paperclip, just by touching it?  
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2. Next, take one magnet and place one paper clip underneath it (so it is hanging down from the magnet). Do you think you can now pick up a second paper clip by touching it with the first paperclip you placed on the magnet?  
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3. Why or why not?  
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4. How many more paperclips can dangle from the "magnetic" paperclip?  
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5. If you added another magnet, would you be able to pick up twice as many?  
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6. Next, connect only 2 paper clips with one magnet. What will happen to the paperclips when you remove the magnet?  
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7. Could more paper clips become magnetized if you added them onto these two paper clips?  
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8. If so, how many? \_\_\_\_\_ Why? \_\_\_\_\_

9. Your last step is to rub a nail with a magnet in one direction 50 times. NOTE: DO NOT GO BACK AND FORTH. Start at the top of the nail and slide down the nail, come back up to the top and slide down the nail again, and repeat.

10. Now bring the nail close to the paper clips. Are these two items attracted or repelled from one another? \_\_\_\_\_  
Why? \_\_\_\_\_

11. De-magnetize the nail by dropping it or hitting it against a hard surface. Repeat until the nail is no longer magnetic. Why does this work?  
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12. Please put the materials back in place for the next group.