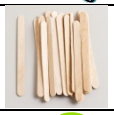
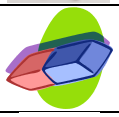
Discovering STEM Program

What will a Magnet Attract?

Procedure:

1. **Draw a circle** around the pictures of the objects that you think will attract the magnet.
2. **Test the object** with the magnet.
3. **Circle "yes"** if the magnet is attracted to the object.
4. **Circle "no"** if the magnet is not attracted to the object.

	Ping Pong Ball	Yes	No			Key	Yes	No
	Nail	Yes	No			Safety Pin	Yes	No
	Chalk	Yes	No			Washer	Yes	No
	Rubber Band	Yes	No			Penny	Yes	No
	Screw	Yes	No			Paper Clip	Yes	No
	Wood stick	Yes	No			Twist Tie	Yes	No
	Eraser	Yes	No			Crayon	Yes	No
	Bolt	Yes	No					

Write a sentence about what you learned.

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_____

Magnet Data Table

Object tested	Attracted by magnet	Not attracted by magnet
Nail		
Pin		
Eraser		
Penny		
Crayon		
Paper clip		

Magnet Data Table II

Material Tested	Magnet can attract through	Magnet cannot attract through
Paper		
Wood		
Plastic		

Tips for Magnets

- It is recommended that the supervisor carefully read the teacher background ahead of time for more detailed information about magnets.
- Talk about the concepts before handing out the bags to students.
- Students are asked to make a prediction about which of the objects in the bag will be attracted by a magnet and which ones will not be attracted.
- Students can sort the objects or look at the table on their worksheet and put a **P** for prediction in the column next to the name of the object. Then after they test their prediction, they can add **A** for actual in the correct column.
- A worksheet with graphics is available for the younger students.
- The magnetic marbles can be demonstrated to the group if time permits.

Please be sure that all materials are returned to the bags before the group leaves the table.

Tips for Magnetic Marbles

- Build a marble snake and see how long it can get before it pulls apart. What holds the snake together?
- Experiment with other materials to see what surfaces the marbles will be attracted to. What do the surfaces that attract the marbles have in common? *
- Learn about attraction and repulsion by trying to stick two marbles together and then turning one of them around and trying again. Identical poles, such as north and north, repel each other whereas opposite poles, north and south attract each other.
- Pick up a magnetic marble and attach a paper clip to it. Now attach a second paper clip to the first one, making a chain of paper clips. See how long you can make the paper clip chain. Magnetic force is traveling through the paper clips to hold them together.

*All the surfaces that attract the marbles contain iron. Other metals such as aluminum will not attract them.

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Revised April 2014_DM