Children's Museum OF RICHMOND

CONTINUE THE LEARNING

Thank you for spending time with the Children's Museum of Richmond. We hope you enjoyed your educational program, Magnificent Magnets!

To encourage learning to continue after your CMoR program, we invite you to try these activities to deepen understanding of magnets.

LESSON EXTENSIONS

- Magnetic Discovery Jars/Bottles (included below)
- Paper Clip Team Challenge (included below)

EXTRA RESOURCES

"Unbelievable Technology: See the Magic Behind Maglev Trains" (Interesting Engineering)
-Video about Maglev Trains use magnets to become the fastest trains in the world
https://youtu.be/8os4A4li674

"Magnets in the Real World" (The Good and the Beautiful)
-Video listing and describing different magnets in every-day life
https://youtu.be/Lt5qr9uQn8k

ACTIVITY INSTRUCTIONS

Magnetic Discovery Jar/Bottle

Students add multiple objects into a medium/large jar or bottle. Some of these objects are magnetic, but some are not. Students close the jar tightly. Then they must use a magnet (needs to be strong enough to make the objects move) to test out which objects will move or not move by placing the magnet on the outside of the jar and observing which objects move toward it. Students can then record (write or draw) what they observe on the activity sheet (below).

Additional idea:
If students are younger, the teacher may make the bottles beforehand (instead of having the younger students handle the smaller objects, as they will be potential choking hazard). Make sure the bottles are closed tightly and maybe even taped or glued shut.

Paper Clip Team Challenge

Students get into small groups of 3-6. They will be given a large magnet wand (whatever stronger magnet you have in the classroom) and a large cup of paper clips. In each group, each student takes turns putting one paper clip at a time onto the magnet. Their goal is to place as many magnets as they can to the magnet before one falls off. The team that has the most paper clips attached their magnet by the end of the time limit, wins the game (Suggested time is 1 minute).

If a paper clip falls before the time limit has stopped, then they have to freeze and wait until time is up.

Only one student places their paper clip at a time.

Additional idea:
After using paper clips, try using cut up pieces of pipe cleaners. A harder challenge is to use nails or screws, as they are heavier and may fall off quicker.

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NAME: _____

DATE: _____

MAGNETIC DISCOVERY BOTTLE/JAR

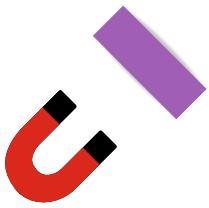
Recording Sheet

Goal:

Hold a magnet to the bottle and discovery which objects are magnetic or not magnetic! Draw or write what you discover on the table below.

Materials needed:

- Magnet wand (or whatever magnets you have)
- Medium/Large bottle or jar with lid
- Objects to put in bottle: cut pipe cleaners, paper clips, penny, crayon, pebble, pom-pom balls, screw, nail, or bolt, beads, marbles, etc.



NOT Magnetic

Magnetic

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TEAM NAME: _____

STUDENTS ON TEAM:_____

_____

_____

PAPER CLIP TEAM CHALLENGE

Recording Sheet

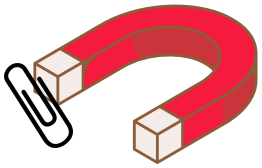
Goal:

The team that has the most paper clips attached their magnet by the end of the time limit, wins the game!

Materials needed:

- Magnet wand (or whatever magnets you have)
- Cup of paper clips

How many paper clips did you attract to the magnet (tally or draw)?



CHALLENGE: What other object did you test?_____

How many did you collect on the magnet (tally or draw)?