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**Findley Oaks STEM Connect**

**1st Grade Design Brief**

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| **Challenge**  **Magnet Maze** | **Unit**  **Magnets** |

**Standard:** Prioritized Standard: S1P2.b Obtain, evaluate, and communicate information to demonstrate effects of magnets on other magnets and other objects. Plan and carry out an investigation to demonstrate how magnets attract and repel each other and the effect of magnets on common objects.

Students should follow the engineering design process.

**Background/Problem:** During your study of magnets you’ve learned how they attract and repel, have a north and south pole and a magnetic field. We’ve learned which kinds of materials are magnetic.

**Design Challenge:** Use what you’ve learned about magnets to design and construct a magnetic maze and be able to guide an object through the maze using a magnet.

**Criteria:**

Your project must:

* Have a clear start and finish
* Be neat and colorful
* Include an object that is magnetic
* Include your signature on the outside of the maze

**Constraints:** You can only use the materials provided.

**Materials: per student**

* Things that are round - paper plates – different sizes – cardboard that could be cut into circles. Give students choices to select from.
* Templates/some students may be able to design a maze without a template.
* Magnets 2 each
* Cardstock

**Tools:**

Markers and / or crayons

Scissors

Paper (For design planning)

Pencils



Examples: Students should create their maze connect puzzles.

Dog – doghouse/bone

Bird – birdhouse

Bee – beehive

Penguin – igloo

Cat - mouse

Rabbit – carrot

Rocket ship - moon

