

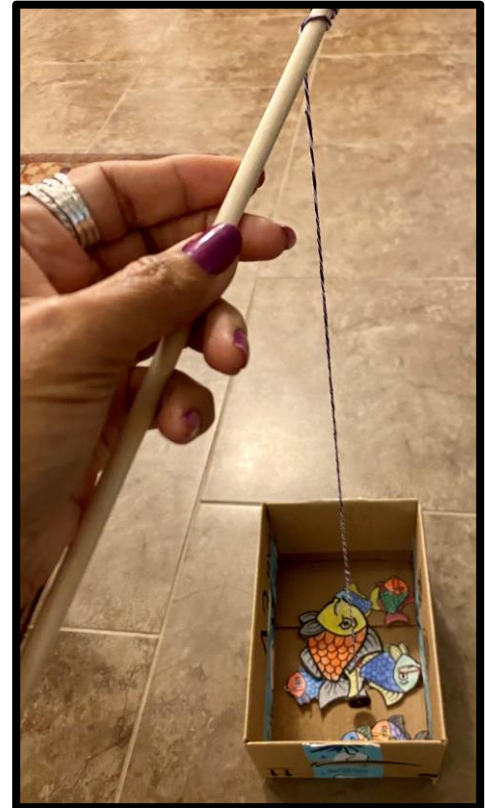
Magnets: Fish Tales

NOTE: Children should always be given ample time to experiment, notice, and wonder before they are provided an explanation.

Always engage children with our two favorite questions:

What do you notice? What do you wonder?

Resist the urge to answer any questions children have while exploring. Instead, respond back with questions to children and let them make sense of the world. Sample questions you might use: What do you think? Do you notice any patterns? What could we change? Can we test something else? What can we try next? If children ask a testable question, which they could answer by doing an experiment, talk through with them how they might design a test to help answer their question/ As much as possible and within reason, let them actually test their questions by trying the experiments they propose.



Learning Objectives

Children will...

- make a fishing game.
- quantify the strength of magnets by how many big fish and little fish they capture.
- use their imaginations to tell stories about their fishing experiences.

Key Question

How many big fish compared to small fish can you catch?

Vocabulary

Magnet	Magnetic force	Attraction
Magnetic	Permanent	Magnetic
Strength	Magnetism	Repel
Magnetic poles	Temporary	

Materials

Cardboard for drawing a fish shape

2 four foot ½” dowels

30 inch-long piece of string

Tape

Paper clips (big and small)

Markers or crayons

Cardboard box

Magnets

Paper bag

Notice and Wonder Developmentally Appropriate Practice

1. Draw some fish shapes on thin cardboard, cereal box works great for this. Color them in and cut them out. Attach a steel paper clip to each fish.
2. Find a large, clean cardboard box. Decorate the outside so that it looks like the water in a pond.
3. Make two fishing rods. Tie and tape a 30 inch-long piece of string to each dowel. Tie and tape a magnet to the other end of the string. Tape a magnet or tie it, if possible.
4. Using the fishing rods, compete with a friend to see who can “catch” the most fish.
 - Who captured the most fish?
 - How many big fish compared to small fish did you catch?
5. Have students make up stories about the fish they caught. These stories should include details like how many, how long, how hard they were to reel in, etc.



Extensions for Additional Learning

Mix big and little paper clips in one bag. Fish for clips by dipping the magnet in the bag once. Measure by number. Separate, count, record, and total the catch.

#STEMAZingPictureBook Recommendations:

Magnets Push, Magnets Pull by David A. Adler and Anna Raff

Read on YouTube - (<http://bit.ly/MagnetsPushMagnetsPullReadAloud>)

Connections to the activity: Guide for young children learning about magnetism.

References

Adapted from a project described in Science for Fun Experiments with Easy-To-Make Projects on Magnets, Sound, Light, Electricity and Much, Much More. By Gary Gibson.

What the heck? Fish Tales

The number of fish caught will vary based on the number available.

AZ Early Learning Standards

Science Standard - Strand 1: Inquiry & Application - Concept 1: Exploration, Observation & Hypotheses

The child observes, explore, and interacts with materials, others, and the environment.

Science Standard - Strand 1: Inquiry & Application - Concept 2: Investigation

The child researches their own predictions and the ideas of others through active exploration and experimentation.

