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# Developing Questions For the Purpose of an Investigation

— Concept Attainment —

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# Teacher Notes:

This activity is used to introduce the criteria of a question that relates to purpose of investigation.

- Start with students think-pair-share what is the same & different about the yes/no examples on each slide as you show them
- At the end, students share

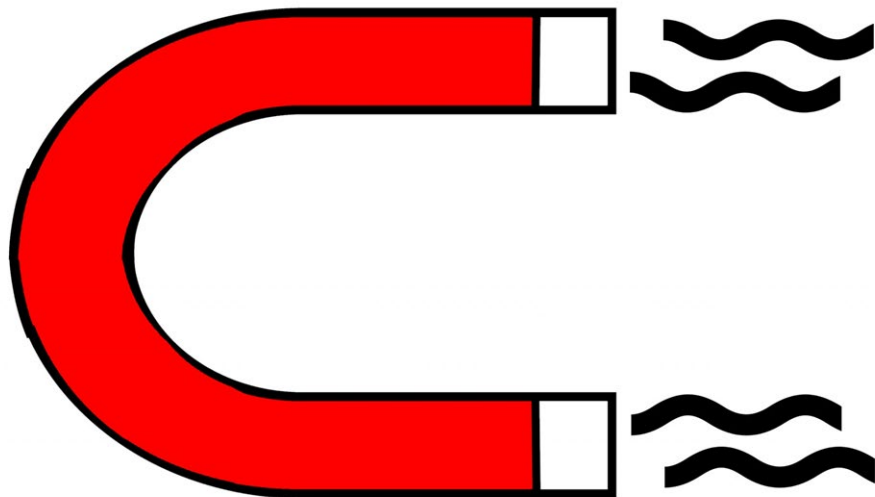
## Directions

Review the images and read the statements.

Yes is an example

No is not an example

# Example 1

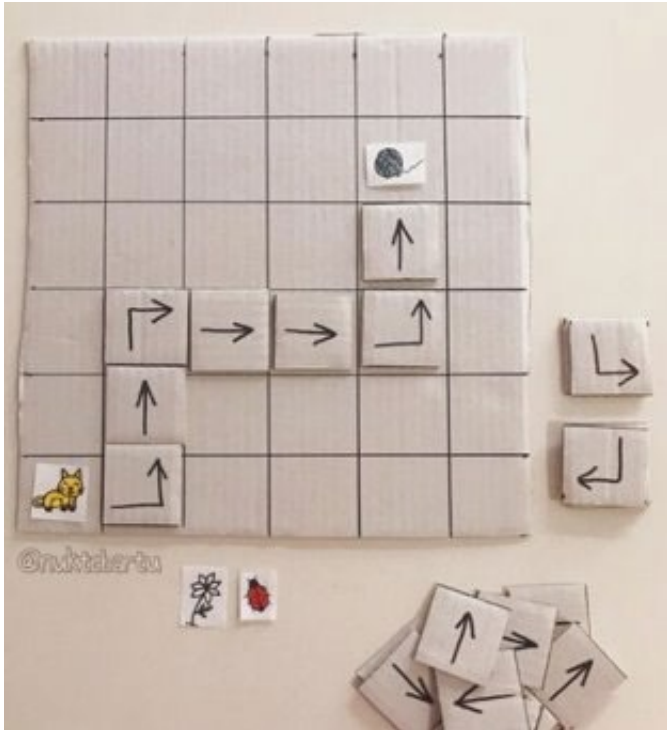


Yes - What will magnets stick to?



No - The magnet is strong.

## Example 2



Yes - How can we help the kitty get to her ball of yarn?



No - What time should I feed the cat?

## Example 3

✓ Yes- How do animals stay warm when it is really cold?

✗ No- The water is really cold.



## Example 4



1. Yes - How many pennies can the bridge hold?



1. No- How much money is in the bag?



**All the yes are examples of questions that help us investigate what we are looking to find out**

What makes a good question for the purpose (goal) of an investigation



# All the yes questions are examples of questions asked that can be investigated.

What makes a good question for the purpose of an investigation:

- ☐ Must be a question
- ☐ Be focused on what we are trying to find out
- ☐ Can be investigated in the classroom (Ex: Can't go to outer space and observe the moon)

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# Find the Purpose

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# Teacher Notes:

This second learning engagement helps students read brief scenarios to practice identifying the purpose.

## Teacher Tip:

- Scaffold according to your context
- Gradual release of “thinking” modeling the first example through a think aloud
- We think together- open to class think-pair-share - circulate & prompt with “what are they trying to find out?”
- Work in partners to solve - circulate to formatively assess & prompt

# What is the purpose of the investigation?



Sarah wants to find out what material keeps her drink the coldest. She decides to test three different cups: one made of plastic, one made of glass, and one made of metal. She fills each cup with the same amount of cold water and measures the temperature over time.

The purpose of the investigation is

# What is the purpose of the investigation?



Jake wants to explore the behavior of magnets. He collects different objects made of metal and tests whether they are attracted to a magnet or not. He records his observations and tries to identify patterns.

The purpose of the investigation is

# What is the purpose of the investigation?



Alex notices that some plants in his garden grow taller than others. He wonders if the amount of sunlight affects the plant's growth. He sets up an experiment where he places three plants in different locations: one in a sunny spot, one in a shady spot, and one indoors near a window. He waters them equally and measures their height over several weeks.

The purpose of the investigation is

# What is the purpose of the investigation?



Emma is curious about how different types of paper absorb water. She collects different types of paper, such as newspaper, tissue paper, and construction paper. She places a droplet of water on each type of paper and observes how quickly it is absorbed.

The purpose of the investigation is