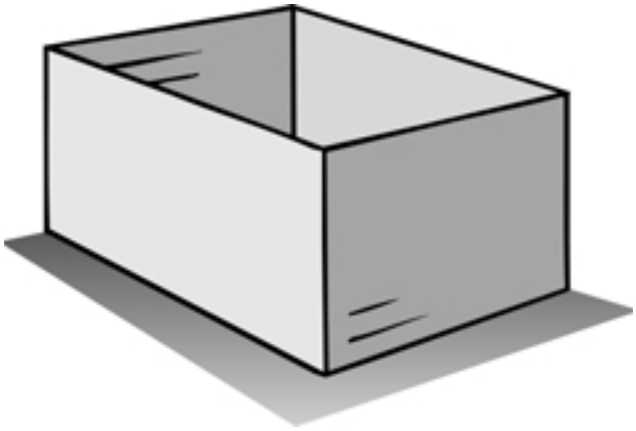
**Chapter Science Investigation** Name _____

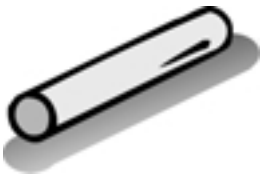
# Moving Boxes

## What You Need



**a big box**

**books**



**chalk**

### Find Out

Do this activity to see how hard it is to move a box.

### Process Skills

**Observing**
**Communicating**
**Inferring**
**Predicting**

### Time

- 20 minutes twice a day for two days

Don't place books in a stack in the box. Spread them out on the bottom and lean them against each other.

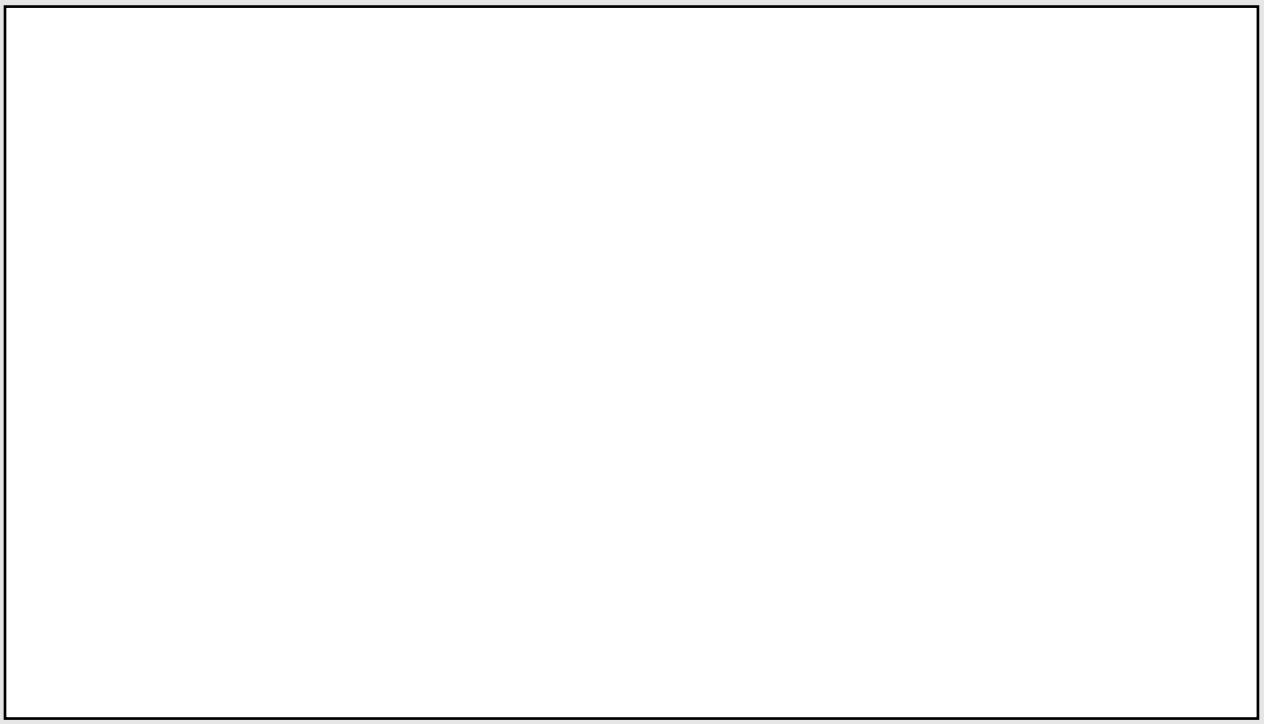
# What to Do

1. With chalk, mark a starting line on the floor. Put an empty box on the starting line.
2. Give the empty box a little push.
3. With chalk, mark the floor to show how far the box moved.

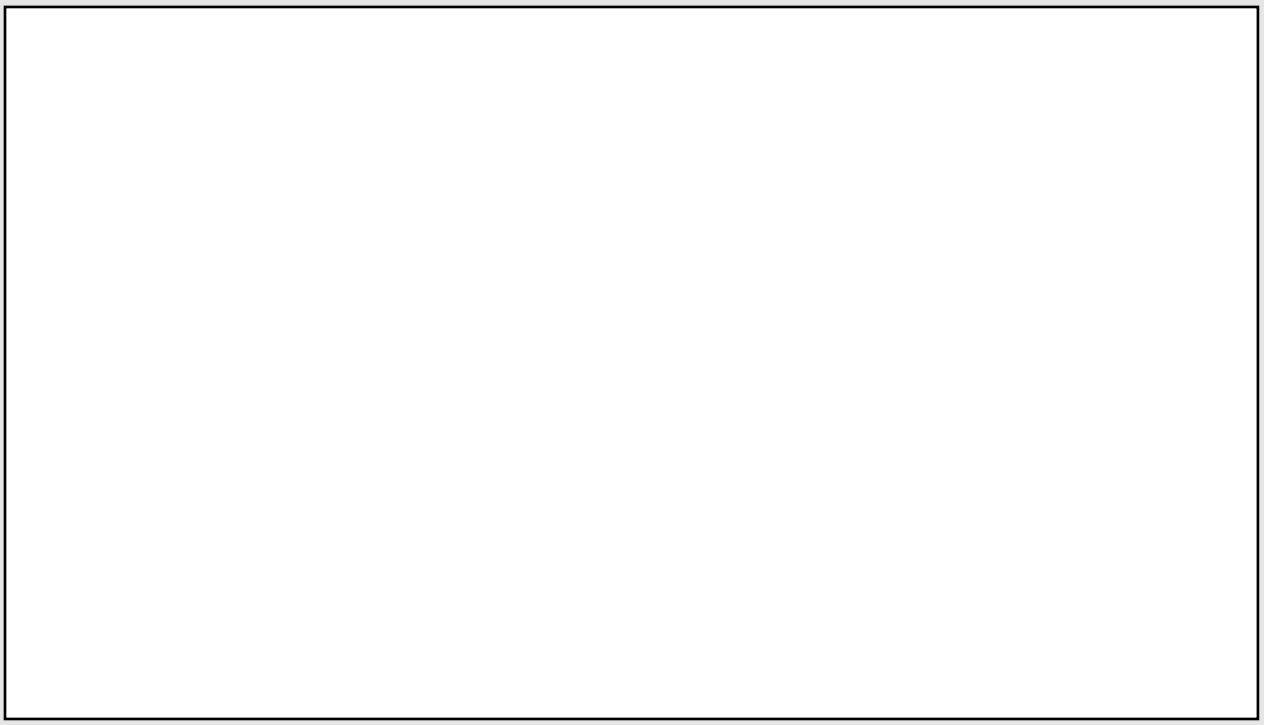
4. Put the box back on the starting line. Put five books in the box.
5. Give the box a little push.
6. With chalk, mark the floor to show how far the box moved.

# How Far Did It Move?

**Draw** what happened when you pushed.



**Empty Box**



**Full Box**

Drawings should show that the empty box moved farther than the full box.

# Conclusions

**1.** Which box moved farther?

The empty box moved farther when pushed.

**2.** Why do you think this is?

It takes a bigger push to move something that is heavy the same distance as something that is light.

# New Questions

**1.** How would this activity be different if you put the full box in a wagon before you pushed it?

Answers will vary. Most students will infer that the addition of wheels would make it much easier to move the full box.

**2.** Ask one new question you have about the way things move.

Accept all new questions.

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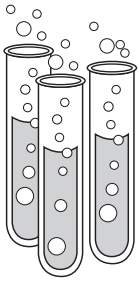


# ACTIVITY

# Telling Where It Is

**Show** where things are.

**Draw** them on the paper.

Drawings should mark the relative locations of each of the objects.

Name _____

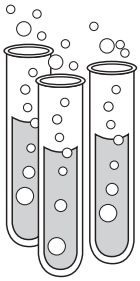
**Draw** where they are now.

**Look** at both drawings.

Circle the thing that moved the farthest.

Drawings should mark the relative locations of each of the objects.
Objects should be in different positions than in the first drawing.

Name _____



# ACTIVITY

# Moving Toy Cars

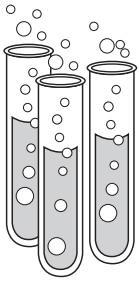
Give the car a little push.
Show where it stops.
Mark the place with an A.

Give the car a big push.
Show where it stops.
Mark the place with a B.

Name _____

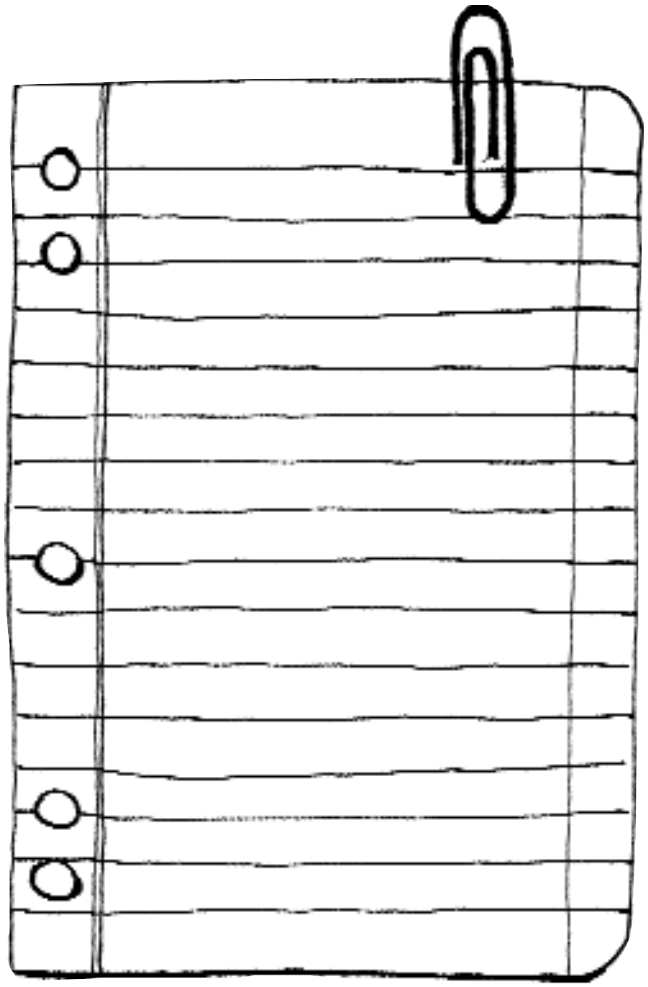
**Predict** how far this car will move.
Mark the place with a C.

Name _____



# ACTIVITY

# Using Magnets



**Observe** when the paper clip starts to move. **Draw** where the magnet is.

Drawings should show a magnet below the paper clip, approximately the same distance from the clip as the real magnet is when the clip begins to move.

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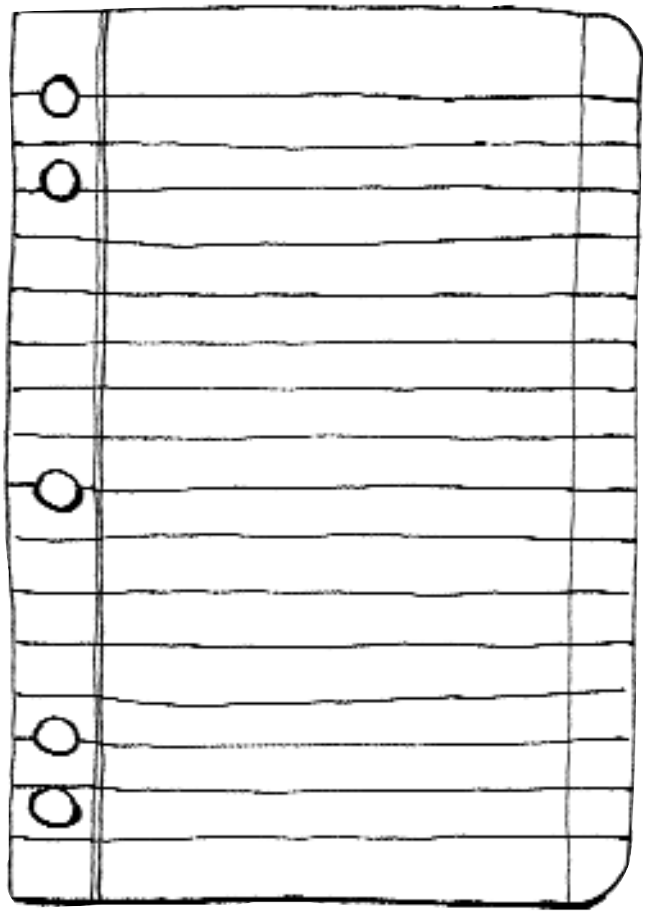
Move the magnet closer. **Draw** what happens to the paper clip.



Drawings should show the paper clip stuck to the magnet.