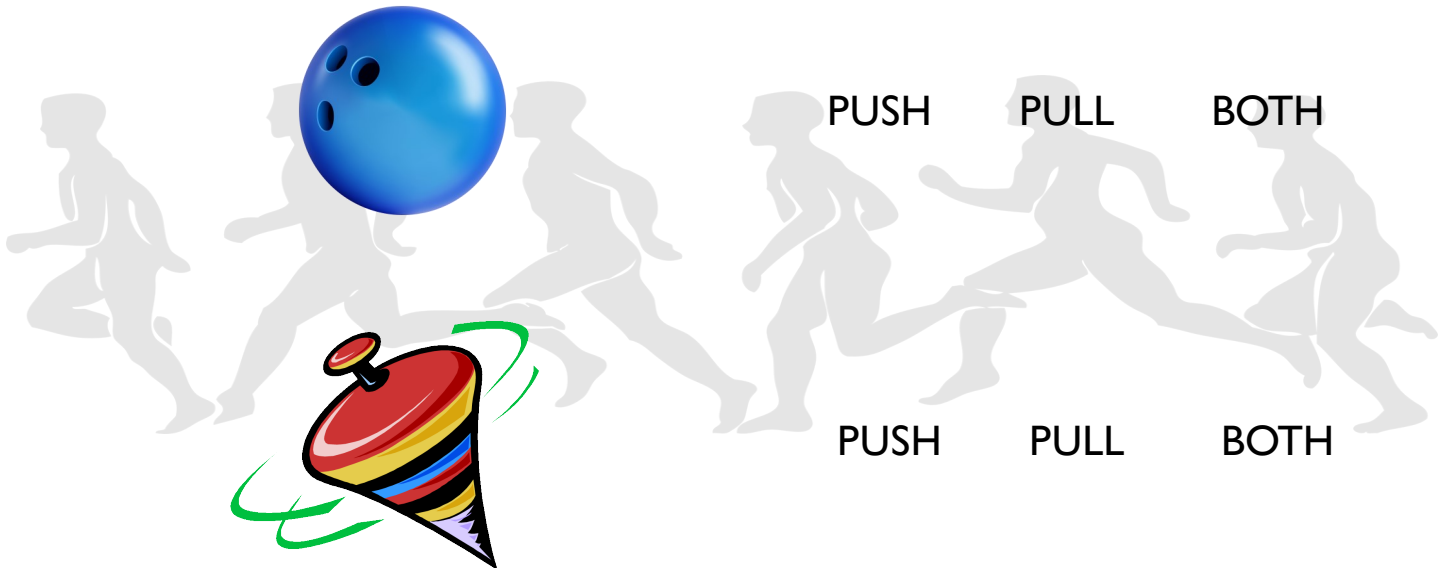


Name:

Push vs. Pull

Circle how the object can move. Push, Pull, or Both?



PUSH

PULL

BOTH

PUSH

PULL

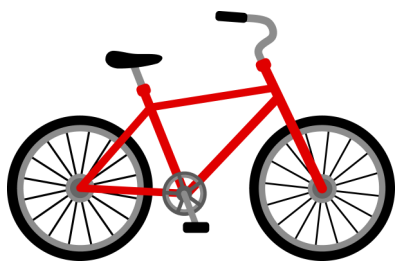
BOTH



PUSH

PULL

BOTH



PUSH

PULL

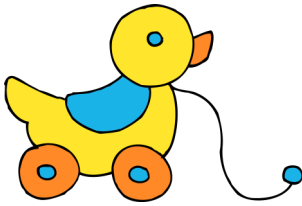
BOTH

Name



HOW TOYS MOVE

Please have your student cut out the images below and test their knowledge by having them record which toys showed which form of motion.



BOUNCE

ROLL

SPIN

MORE THAN ONE TYPE OF MOTION

Vocabulary:

Force:

A push or a pull

Motion:

The act of moving, or not staying still

Gravity:

Gravity is a pulling force that works across space.

Investigate:

To gather information by observing or testing.

Observing:

Using our senses to gather information.

Student Activities 1. Read: Forces Makes Things Move by Kimberly Bradley 2. Read: Gravity is a Mystery by Franklyn Branley 3. Which Way is Up?

- a. This activity will allow students to have a better understanding of the force of gravity as it applies to Earth.
- b. Provide each student with a copy of the activity sheet to complete (see template on following pages).
- c. Discuss how gravity affects objects within Earth's atmosphere.
- d. The force of gravity is much greater than the force we apply when throwing an object into the air. This is why all objects eventually fall back down after being projected into the air. 4. Falling Objects a. Provide students with a stopwatch (should be familiar). b. Students will compare the time it takes for two objects to fall from the same height. Mark the wall with a piece of masking tape as a reference to the objects' drop point. Measure the height from the floor to the tape. c. Drop a ping pong ball and golf ball; a baseball and tennis ball, tennis ball and basketball, feather and basketball, etc. i. Each item should reach the ground at approximately the same time, except for the feather. ii. The feather creates drag, or air resistance, causing it to fall at a slower rate. iii. Record results (see template on following pages).

Name

OBJECT	TIME IN SECONDS

