

Next, tie the string to or around the car. Use the string to move the car. What kind of force did you use?

A pull.

Is it possible to use a pushing force to use the string to move the car?

No.

Let's try something a little different. Place the car on top of your board or cardboard at one end. Begin to raise the end of board with the car on it up off the table/floor. What force are you using?

If your student raises the board from the top side, like lifting a cup off the table, this is a pull. If your student raises the board from the bottom, like might be done if it were hanging off the edge of a table, this is a push.

Continue to raise the board until the car rolls down it. What force caused the car to roll down the board?

Gravity.

Our last one. This might be a little trickier to identify. In an area where there is no risk of breaking something, toss the tennis ball to a sibling or parent. What force did you use to toss the ball?

A push.

CLASS 42 Physics: Gravity, Part 1

1. pulling force
2. True
3. come down, of the force of gravity
4. the earth's, gravity
5. farther from, weaker

CLASS 43 Physics: Gravity, Part 2

1. a, c
2. True
3. farther from, weaker
4. gravity
5. two
6. a force, an interaction
7. all

CLASS 44 Physics: Gravity, Part 3

1. b, c, e
2. the mug, the bowl
3. b
4. too small
5. fall down
6. very large
7. matter, mass
8. mass, gravity
9. mass, stronger

CLASS 45 Physics: Gravity, Part 4

1.
 - a. pulling
 - b. farther, weaker
 - c. All
 - d. more mass, stronger
2. force
3. push, pull
4. pulling
5. mass
6. the moon
7. weaker, less massive

CROSSWORD

Across

3. More
4. Force
5. Pulling Force
7. All

Down

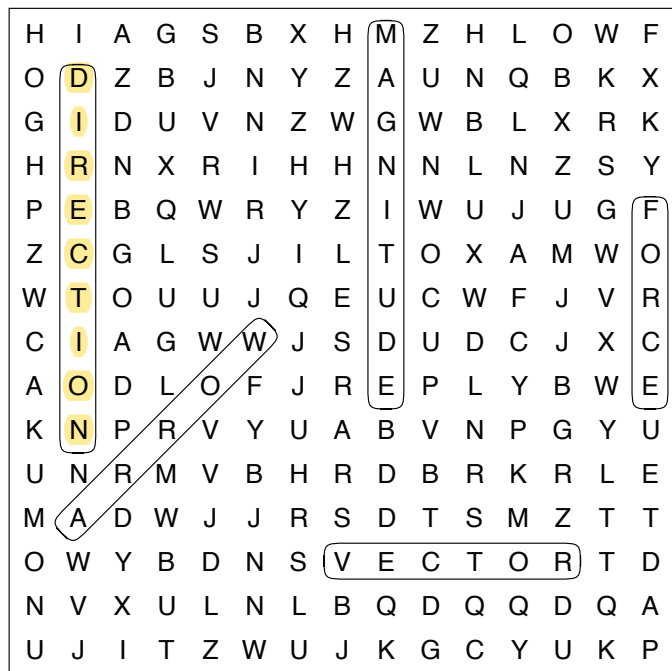
1. Push or Pull
2. Weaker
6. Gravity

CLASS 46 Physics: Vectors, Part 1

1. force
2. vector
3. c
4. direction, magnitude
5. Magnitude
6. to the right
7. Up

- Diagram 'b' is not a vector because it does not have a magnitude. 'a' and 'c' both have a direction, indicated by the arrow itself, and a magnitude, indicated by the "miles per hour" notation. To be a vector, both direction and magnitude must be present.
- down, 495 pounds

WORD SEARCH



CLASS 47 Physics: Vectors, Part 2

- c and e are correctly labeled
- a, d and f show magnitudes but are missing directions and b shows a direction but is missing a magnitude.

CLASS 48 Physics: Vectors, Part 3

- magnitude, size/length of the arrow
- Crane b is, because its vector is bigger.
- a
- c
- c
- a
- a

CROSSWORD

Across

- Magnitude
- Less
- Vector

Down

- Direction
- Size
- More

CLASS 49 Physics: Forces

- False
- vectors
- push, pull
- force, motion
- normal
- c
- tension
- buoyancy
- lift

WORD SEARCH



CLASS 50 Physics: Newton's 3rd Law of Motion, Part 1

- theory
- law
- Newton's 3rd law of motion
- two
- The man and the earth.
- True