

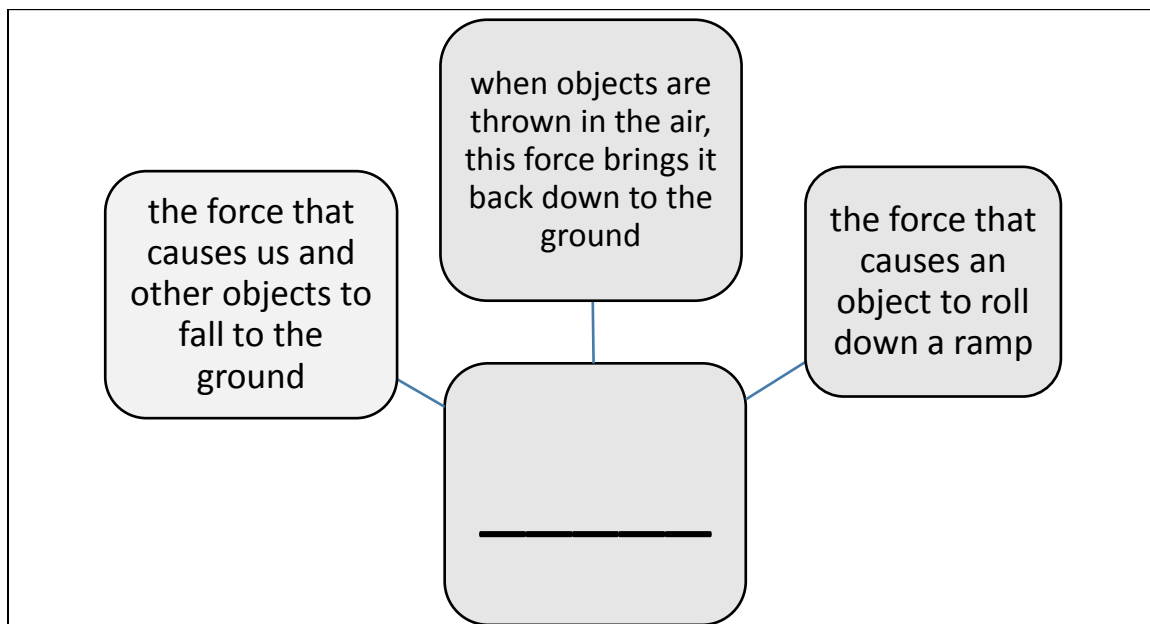
## Grade 3 Force and Motion Study Guide Test on:

### Force, Gravity and Direction

**WORD BANK:** Use these words to complete 1 – 5 below.

more	tires	gravity	direction	left
hands	heat energy	force	right	equal

1. \_\_\_\_\_ can change the direction of objects. An object moved to the left will change its direction to the \_\_\_\_\_. An object moved to the right will change its direction to the \_\_\_\_\_.
2. When you kick or hit a ball, the \_\_\_\_\_ of the ball will change.
3. Friction produces \_\_\_\_\_. An example of this is rubbing your \_\_\_\_\_ together or the \_\_\_\_\_ of a car rubbing against the road.
4. When 2 objects are pulling on each other with \_\_\_\_\_ force, the objects will not move. When one of the two objects pulls with \_\_\_\_\_ force, the other object will be moved.
- 5.



**Using time to measure force and speed:**

1. Put the following times in order from slowest to fastest.

**31 seconds, 50 seconds, 43 seconds, 48 seconds**

2. Mike ran 1 mile in 7 minutes and Molly ran 1 mile in 9 minutes.  
Who ran faster? Who ran slower? How do you know?

3. Put the following times in order and tell who ran the fastest

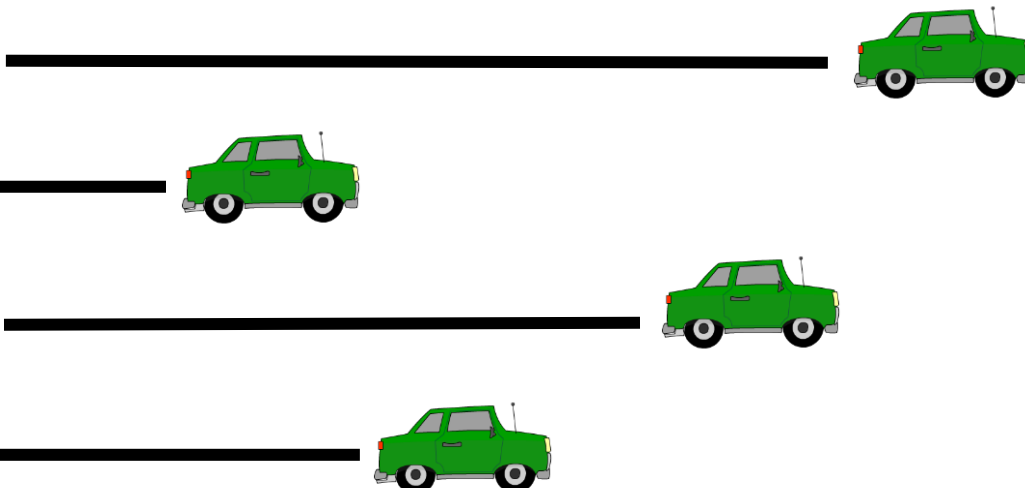
**Billy: 9 seconds**

**Bobby: 10 seconds**

**Betty: 7 seconds**

**Barbie: 12 seconds**

4. Which of these cars went the fastest in the 3 minute race? Look at where they stopped to help you decide.



Name: \_\_\_\_\_

## Force and Motion

Write the letter of the correct match next to each problem.

Created on TheTeachersCorner.net [Match-up Maker](#)

- |     |                   |  |
|-----|-------------------|--|
| 1.  | _____ direction   | a. moving or being moved                       |
| 2.  | _____ force       | b. the path which something moves              |
| 3.  | _____ speed       | c. force that attracts objects toward Earth    |
| 4.  | _____ produce     | d. rate that something moves (fast / slow)     |
| 5.  | _____ friction    | e. slope                                       |
| 6.  | _____ gravity     | f. energy from a physical action               |
| 7.  | _____ motion      | g. to make something                           |
| 8.  | _____ ramp        | h. energy created by molecules                 |
| 9.  | _____ distance    | i. objects rubbing together against each other |
| 10. | _____ heat energy | j. length (like in a race)                     |