

Name: _____

Date: _____

Forces Test

1. Circle **True** or **False**:

- | | | |
|--|------------------------------------|------------------------------------|
| a) A force can make something move. | <input checked="" type="radio"/> T | <input type="radio"/> F |
| b) Gravity pushes you down to the earth. | <input type="radio"/> T | <input checked="" type="radio"/> F |
| c) Gravity causes all things to fall at the same speed. | <input checked="" type="radio"/> T | <input type="radio"/> F |
| d) Muscular force causes the same movement in all objects. | <input type="radio"/> T | <input checked="" type="radio"/> F |
| e) Both air and water can give a buoyant force. | <input checked="" type="radio"/> T | <input type="radio"/> F |
| f) Two north poles together make a pulling force. | <input type="radio"/> T | <input checked="" type="radio"/> F |
| g) Two positive charges together make a pulling force. | <input type="radio"/> T | <input checked="" type="radio"/> F |
| h) Forces only act when things are touching. | <input type="radio"/> T | <input checked="" type="radio"/> F |

2. Identify the force being described.

- a) The force that pulls objects towards the earth:
Gravity
- b) The push or pull that happens with charged objects:
Static Electric
- c) The push or pull that happens when poles are aligned:
Magnetism
- d) The force caused by two objects rubbing together:
Friction
- e) The force that pushes objects upwards:
Buoyancy
- f) The push or pull that happens when a human uses energy:
Muscular Force

3. Choose two forces and explain how these forces are used in daily life.

Many possible answers. For example:

Magnetism - Fridge Magnets, Gravity - A Falling Ball

Friction - Walking, Muscular - Throwing a Ball

Static Electric - Rubbing a Balloon in your Hair to Make it Stick to the Wall

Buoyancy - Swimming

4. If a ball is rolling down the hall and you apply a force, what three things can that force change?

Change the speed.

*Change its shape.

Change the direction.

Stop it.

5. Magnets can both push and pull. These push and pull forces have special names:

a) What is the scientific word for the pulling force of magnets?

Attract

g) What is the scientific word for the pushing force of magnets?

Repel

6. Look at the picture to the right. Both the boy and the girl are pulling on a rope, but neither the boy nor the girl are moving. Who is pulling with a stronger force? Please explain your answer.



They are pulling with the same strength.

If one was stronger, then they would be moving. Things only move if the forces are unbalanced. They are not moving, meaning the forces are the same.

Forces



Balanced

Buoyancy

Contact

Direction

Energy

Force

Friction

Gravity

Magnetism

Movement

Muscular

Pull

Push

Rough

Smooth

Speed

Static Electric

Unbalanced