

Name: _____

FORCES AND INTERACTIONS

Directions: Match the word to its definition. Write the letter of the definition on the blank by the word.

1. _____ Push

2. _____ Pull

3. _____ Force

4. _____ Gravity

A. A force that pulls objects toward the center of the earth.

B. Moving an object toward you.

C. A push or a pull on an object.

D. Moving an object away from you.

Directions: Read each question. Then **circle** the best answer.

5. Every force has a _____ and a _____ .

A. Location and a height

B. Strength and a direction

C. Magnitude and a length

D. Purpose and a route

6. What is the term for the overall forces acting on an object?

A. Absolute Force

B. Full Force

C. Net Force

D. Rapid Force

7. Forces that do not cause an object to move because they are equal in strength and opposite in direction.

A. Balanced Forces

B. Natural Forces

C. Unbalanced Forces

D. Static Forces

8. Forces that cause a change of motion because there are unequal forces acting on the object.

A. Balanced Forces

B. Natural Forces

C. Unbalanced Forces

D. Static Forces

9. In what ways can forces change an objects motion?

- A. Distance or Magnitude
- B. Length

- C. Height
- D. Speed or Direction

Directions: Look at each picture. Determine if the picture is showing a push or a pull. Then **circle** the best answer.



10. Tug-of-War

- A. Push
- B. Pull



11. Rollerblading

- A. Push
- B. Pull



12. Baseball

- A. Push
- B. Pull



13. Nail and Hammer

- A. Push
- B. Pull

Read the directions.

1 point for drawing the **line** and placing a **dot** in the center.
1 point for using correct **arrows** to represent the forces.

14. Draw a diagram of **balanced forces**. Draw a line to show a rope and place a dot in the center to mark where the middle of the rope is. Use arrows to represent the forces.

15. Draw a diagram of **unbalanced forces**. Draw a line to show a rope and place a dot in the center to mark where the middle of the rope is. Use arrows to represent the forces.

Directions: Read the sentence. Determine if it is an example of a balanced or unbalanced force. **Write balanced or unbalanced on the line.**

16. Arm wrestling someone the same strength as you. _____

17. A soccer player kicking a ball. _____

18. A book sitting on your dining room table. _____