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	A. A force that pulls objects toward the center of the earth.
2 Pull	B. Moving an object toward you.
3 Force	C. A push or a pull on an object.
4 Gravity	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

- C. Net Force
- B. Full 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 C. Unbalanced Forces
- B. Natural Forces D. Static Forces

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

- A. Balanced Forces C. Unbalanced Forces
- B. Natural Forces

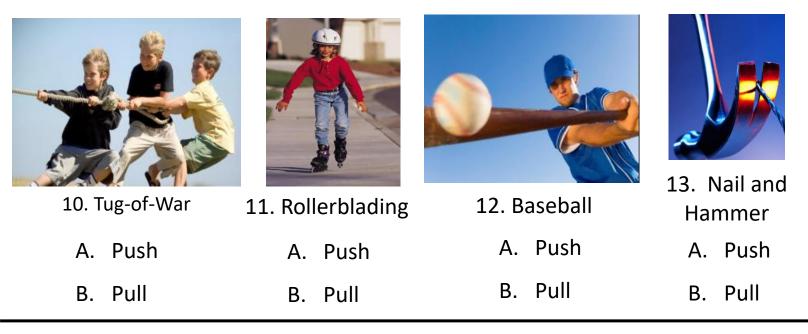
D. Static Forces

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.



Read the directions.

<u>1 point</u> for drawing the **line** and placing a **dot** in the center. <u>1 point</u> 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.