Forces in Action Challenge Review

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Understanding Pushes and Pulls

Name: _____ Date: _____

Answer the following questions based on what you've learned about forces in action.

1. What is net force?

- **A.** The total force acting on an object
- **B.** The force that is always pushing
- **C.** The force that is always pulling

2. What did you learn about forces today? Describe one key concept.

3. Forces can only add together and never cancel each other out.

◯ True ◯ False

4. In God's creation, forces interact to create ___ and maintain balance.

5. How do forces work together in God's creation? Give an example.

6. What is important for a scientifically valid experiment?

- **A.** Using colorful materials
- **B.** Careful measurement and observation
- **C.** Making it fun and exciting

7. Colossians 1:17 teaches us that all things are held together by God.

◯ True ◯ False

8. When testing force interactions, it is important to design an experiment that is ___ and can be repeated.

9. Why is it important to calculate net force in an experiment?

10. What happens when two forces acting on an object are equal and opposite?

- **A.** The object accelerates
- **B.** The object stays still
- **C.** The object moves in one direction

Answer Key

1. The total force acting on an object 2. I learned that net force determines how an object moves. If forces are balanced, the object won't move. If they are unbalanced, it will move in the direction of the greater force. 3. False 4. motion 5. Forces work together by interacting in various ways, such as gravity pulling objects down while a push can move them upward. An example is when a ball is thrown; gravity pulls it down, but the force of the throw pushes it up. 6. Careful measurement and observation 7. True 8. valid 9. Calculating net force helps us understand how the forces acting on an object will affect its motion. It allows us to predict what will happen when different forces are applied. 10. The object stays still