

# Newton's Third Law: Action-Reaction

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## Understanding Forces in Motion

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

Date: \_\_\_\_\_

Answer the following questions based on the lesson about Newton's Third Law of Motion.

1. What is Newton's Third Law of Motion?

- A. For every action, there is an equal and opposite reaction
- B. An object at rest stays at rest
- C. Force equals mass times acceleration

2. What happens when a balloon is released? Explain the action-reaction principle.

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3. Action-reaction pairs occur only when objects collide with each other.

- True       False

4. For every action, there is an equal and opposite \_\_\_\_.

5. Which of the following is an example of Newton's Third Law?

- A. Walking
- B. Sitting still
- C. Reading a book

6. How does Newton's Third Law demonstrate God's design in creation?

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7. Rocket propulsion is an example of Newton's Third Law in action.

- True       False

8. When you push down on the ground while walking, the ground pushes \_\_\_\_ on you.

9. What did we create in the activity to visualize action-reaction principles?

- A. Balloon rockets
- B. Paper airplanes
- C. Kites

10. Can you think of another example where something pushes back when force is applied? Describe it.

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Answer Key

1. For every action, there is an equal and opposite reaction 2. When a balloon is released, the air rushes out in one direction, causing the balloon to move in the opposite direction. This demonstrates action-reaction because the force of the air leaving pushes the balloon forward. 3. False 4. reaction 5. Walking 6. Newton's Third Law shows God's design by illustrating how everything in the universe is interconnected and works according to consistent laws, reflecting His order and purpose. 7. True 8. up 9. Balloon rockets 10. When you swim, your hands push the water backward, and in response, the water pushes you forward. This is another example of action-reaction in action.