

Understanding Compound Machines

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Review of Force Interactions and Systems

Name: _____

Date: _____

Answer the following questions based on the lesson about compound machines.

1. What is a compound machine?

- A. A machine that uses only one simple machine
- B. A machine that combines multiple simple machines
- C. A machine that does not require any force

2. Why is mechanical advantage important in compound machines?

3. Proverbs 8:30 describes God as the craftsman and His delight in ___ designs.

4. Compound machines can only be designed using advanced technology.

- True False

5. Which of the following is an example of a compound machine?

- A. A lever
- B. A bicycle
- C. A wheel

6. Simple machines work together in a compound machine to increase ___ and reduce force needed.

7. What was the most challenging part of designing your compound machine?

8. God's design in nature can inspire human-made machines.

- True False

9. How do compound machines demonstrate creative problem-solving?

- A. They require no thought to build
- B. They can be made from random parts
- C. They combine simple machines to achieve complex tasks

10. Give an example of a compound machine you see in your home and explain its simple machines.

Answer Key

1. A machine that combines multiple simple machines 2. Mechanical advantage helps us use less force to perform tasks, making machines more efficient. 3. creative 4. False 5. A bicycle 6. efficiency 7. The most challenging part was figuring out how each simple machine would work together effectively. 8. True 9. They combine simple machines to achieve complex tasks 10. A washing machine is a compound machine that uses a motor (simple machine) to spin and a lever to open the lid.