


**Directed Reading for
Content Mastery**
Section 3 ■ Simple Machines

Directions: Unscramble the five terms related to machines. The hints beside each scrambled term will help you. Write each unscrambled term in the boxes below. Use only one letter in each box. Use the circled letters to find the missing term in the equation.

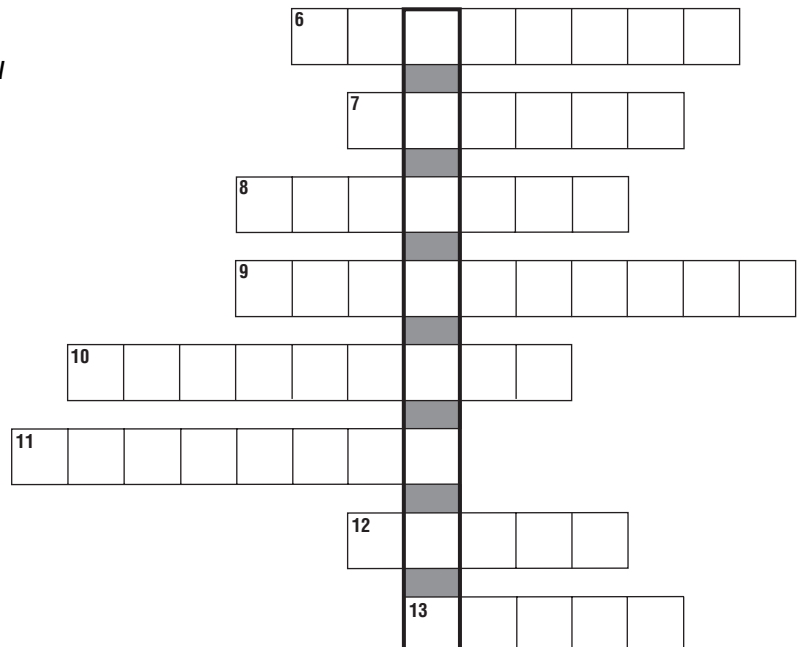
1. CEFRO push or pull
2. HELEW used with an axle
3. FCYENFCIEI measure of how much work put into a machine is changed to useful work put out by the machine
4. KROW exertion of a force through a distance
5. PODNUCMO type of machine made up of two or more simple machines

Equation: _____ = work/time

Directions: Solve the puzzle by writing the term that best fits each definition. You will find another term spelled vertically in the black box.

Definitions

6. An automobile is this kind of machine.
7. distance from center of a circle to its edge
8. fixed point on which a lever rotates
9. A measure of the amount a machine multiplies a force is its _____ advantage.
10. A fixed pulley changes the _____ of a force.
11. a force that opposes motion



12. simple machines made up of two inclined planes
13. inclined plane wrapped around a cylindrical post



Key Terms

Work and Machines

Directions: *Unscramble the terms in italics to complete the sentences below. Write the terms on the lines provided.*

- _____ 1. The force applied by a machine to overcome another force is the *stirnecesa* force.
- _____ 2. The force that is applied to the machine is the *oftref* force.
- _____ 3. When a force is applied through a distance, *krow* is done.
- _____ 4. A device that makes work easier is a *himcaen*.
- _____ 5. The work done to a machine is *iutnp* work.
- _____ 6. A machine in which input work is equal to output work is an *ilead* machine.
- _____ 7. A device that does work with only one movement is a *plimes* machine.
- _____ 8. The number of times a machine multiplies the effort force is the *leahincamc gavetadna*.
- _____ 9. The work done by a machine is the *touupt* work.
- _____ 10. A machine makes work easier by changing the size or direction of the *ceorf* exerted on an object.

Directions: *In the space at the left, write the term that best completes each statement. Use the terms listed below.*

block and tackle

screw

inclined planes

pulley

wheel and axle

- _____ 11. An inclined plane wrapped around a cylindrical post is a _____.
- _____ 12. A doorknob is an example of a _____.
- _____ 13. A grooved wheel with a rope or a chain running along the groove is a _____.
- _____ 14. Screws and wedges are types of _____.
- _____ 15. A system of pulleys is called a _____.