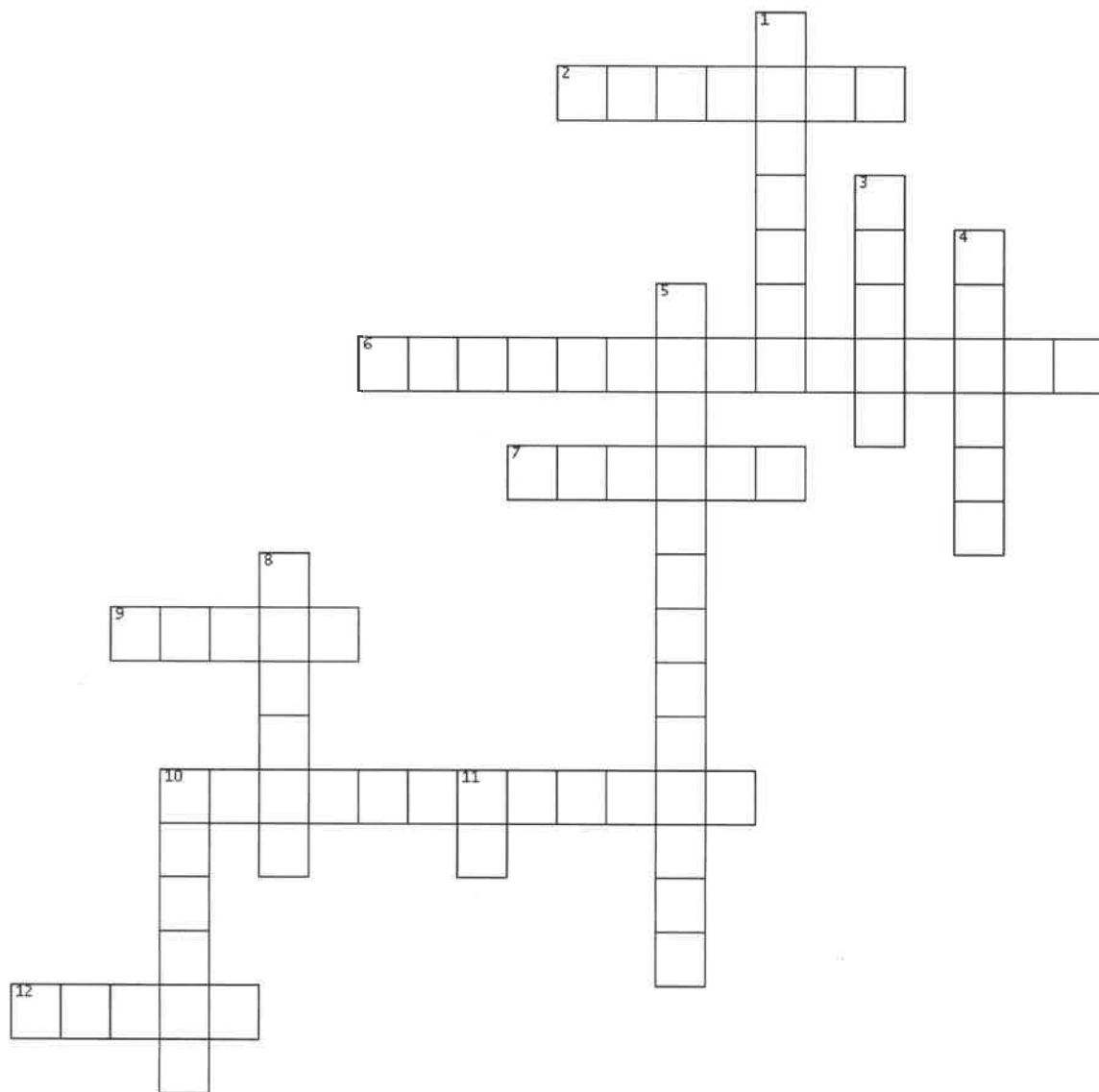


Circuits and Simple Machines Study Guide

Name _____



ACROSS

2. A complete, unbroken path through which electric charges can flow
6. a machine that utilizes two or more simple machines
7. A grooved wheel with a rope wrapped around it
9. A rigid bar that is free to pivot, or rotate, about a fixed point
10. the simple machine a doorknob uses
12. can be thought of as an inclined plane wrapped around a cylinder

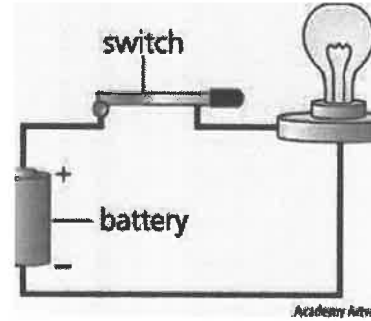
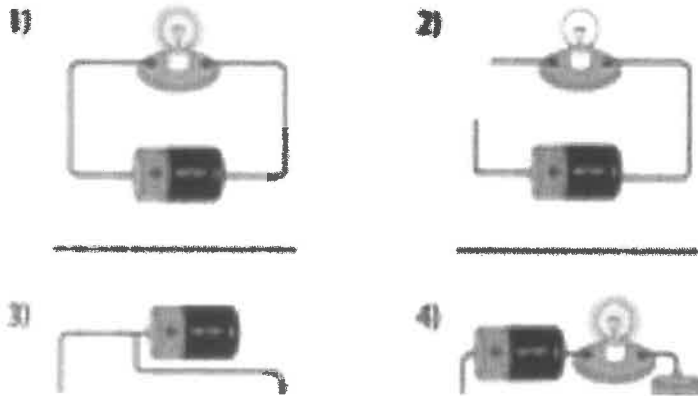
DOWN

1. the fixed point around which a lever rotates
3. a machine changes the direction or amount of _____
4. Controls whether the circuit is opened or closed
5. plane is a flat, slanted surface
8. Christmas tree lights are an example of this type of circuit
10. scissors are a compound machine composed of levers and _____
11. Kim pushed a hippo and it did not move. Did Kim do work?

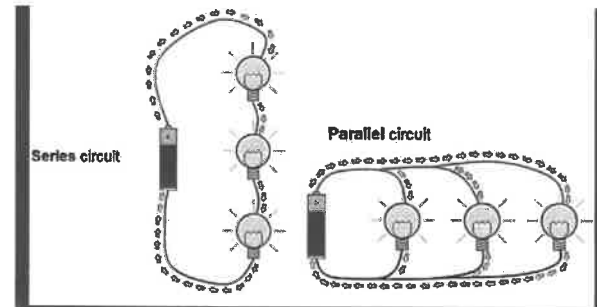
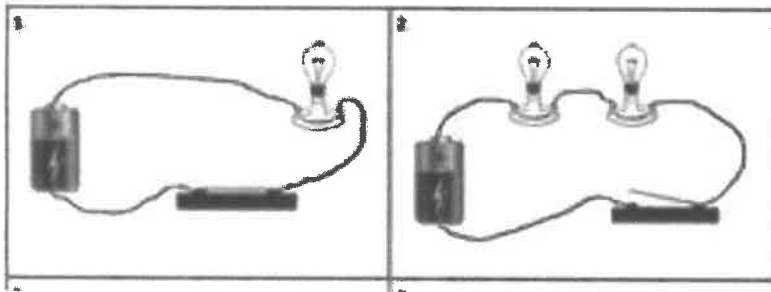
Vocab: For each of the following words write a definition in your own words and draw a picture.

Compound Machine	Wedge
Wheel and axle	Mechanical Advantage
Inclined plane	Efficiency
Pulley	Work
Screw	Lever/Fulcrum

Which ones will light up? Why or why not?



In which circuit, if one light goes out they all will go out?



1. A fulcrum is associated with this type of simple machine.
A. lever B. pulley C. inclined plane D. screw
2. What is the relationship between a simple machine and work?
A. Simple machines make work more difficult.
B. Simple machines make work easier.
C. Simple machines do not change the amount of work done.
D. none of the above
3. _____ are simple machines that allow objects to be rolled or slid to higher elevations.
A. screws B. pulleys C. inclined planes D. levers

4. If an inclined plane is steeper, _____ force is needed to move an object than in a less steep inclined plane.
A. more B. less C. the same amount D. none of the above
5. The first, second, or third class levers are different because
A. They are different simple machines.
B. They make work more difficult.
C. Their fulcrums are located in different places on the lever.
D. none of the above
6. A see-saw and wheelbarrow are both examples of
A. screws B. pulleys C. inclined planes D. levers
7. A flag pole is an example of
A. a screw B. pulley C. lever D. inclined plane
8. A _____ is a simple machine that uses grooved wheels and ropes to raise and lower loads.
A. screw B. lever C. screw D. pulley