Simple Circuits

Grade 4 Science Worksheet - Challenge Me

Name _____ Date _____

Circle the answer.

1. A student builds a circuit with a battery, a bulb and a pencil lead in the gap. The bulb glows dimly. What does this show?
   pencil lead conducts some current
   the battery is not connected
   pencil lead is a perfect insulator
   pencil lead is an energy source

2. Which explains why a bulb can light but a motor in the same kind of loop might not spin?
   bulbs are insulators and motors are not
   motors work only with an open switch
   the motor may need more energy than the battery gives
   motors do not use electrical energy

3. Ravi adds a second bulb to the same loop with one battery. Both bulbs are dimmer. Why?
   the battery made more energy
   the battery's energy is shared by two bulbs
   the second bulb blocks all the current
   the wires became insulators

4. Jen tests five materials in a gap in her circuit. The bulb lights with only two of them. What are those two?
   energy sources switches insulators conductors

5. A circuit has a battery, a bulb, and a gap. Test results: nail = lights, foil = lights, cork = dark, glass = dark. Which conclusion fits?
   all four materials are insulators
   the battery failed during the glass test
   metals filled the gap as conductors
   cork and glass are conductors

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Answer Key - Grade 4 Science Worksheet - Challenge Me

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