



Welcome to ESL Safety Sparks! This quiz is all about having fun while learning how to stay safe around electricity. Put your safety knowledge to the test and see how many hazards you can spot whilst discovering simple ways you can help keep yourself, your family and others safe at home and outdoors.

Name:		Age:	
School:		Quiz Score:	/ 20

ROUND 1: OUTDOOR SAFETY CHALLENGE



In the picture above, The ESL team has arrived but there are some serious electrical hazards. Answer the questions below, choosing one answer for each question:

1. The outdoor plug is sparking. What could the sparks be a sign of?

- A. A normal electrical connection
- B. An electrical fault, damaged connection or arcing
- C. The appliance is fully charged
- D. The socket is waterproof

2. Why should you NEVER touch a sparking plug or socket?

- A. It might make your hands dirty
- B. It could damage your shoes
- C. You could receive an electric shock or burn
- D. The sparks might turn off the lights

3. Look at the power board sitting on the wet ground. Why is this dangerous?

- A. Water can increase the risk of current travelling through unintended conductive paths
- B. Water makes electricity run faster
- C. The power board will become too heavy
- D. The plugs will use more electricity

4. What is an electrical conductor?

- A. A material that allows electric current to flow through it easily
- B. A material that completely stops electricity from flowing
- C. A safety device that switches electricity off
- D. A covering used to protect electrical cables

5. What does it mean when an electrical wire or conductor is “live”?

- A. It is carrying electrical voltage and could give you an electric shock
- B. It is a wire that is moving
- C. It is any wire that is coloured red
- D. It is a wire that has been recently installed

6. How can you tell if a wire is live?

- A. It will always make a buzzing sound
- B. It will always spark
- C. You cannot safely tell just by looking at it - ALWAYS treat exposed electrical wires as live and stay away
- D. Live wires always glow

7. Can you spot exposed wires in the picture above? Circle them!

8. You come across an area like the one in the picture. You can see water on the ground, electrical leads and a powerboard in the wet area, a damaged cable with exposed wires, and a plug that appears to be sparking. What is the safest thing to do?

- A. Walk over carefully and unplug everything
- B. Pick up the powerboard and move it somewhere dry
- C. Stay well away from the area, warn others not to go near it, and tell a responsible adult immediately
- D. Touch the cable quickly to see whether it is live

9. You see a fallen or damaged electrical line on the ground. It isn't sparking. What should you do?

- A. Stay at least 10 metres away, warn others to keep away and get an adult to report it
- B. Walk up to it but don't touch it
- C. Move it with a piece of wood
- D. Check whether it is live by touching it quickly

10. Why is touching an exposed live conductor dangerous?

- A. Electricity always stops when it reaches your hand
- B. Your body could become part of the electrical path, allowing current to flow through you
- C. Human skin cannot conduct electricity
- D. Electricity can only travel through copper

ROUND 2: HOME SAFETY CHALLENGE



The picture above shows a living room with serious electrical hazards. Answer the questions below, choosing one answer for each question:

1. **The cable beside the dog is damaged and the inner wires are exposed. Why is this dangerous?**
 - A. The cable will charge more slowly
 - B. Someone could contact an energised conductor and receive an electric shock
 - C. The cable will become heavier
 - D. The appliance will use less electricity
2. **Why should a damaged electrical cable be taken out of use?**
 - A. Damaged insulation may expose conductive parts that could be live
 - B. It will make the room colder
 - C. Electricity cannot travel through damaged wires
 - D. The cable automatically becomes safe when damaged
3. **There is liquid spilled beside a phone and charging cable. What is the main electrical danger?**
 - A. The phone might become dirty
 - B. Water can create additional conductive paths and increase the risk of electric shock or an electrical fault
 - C. The charger will charge twice as fast
 - D. Water makes electricity disappear
4. **Look at the outlet behind the heater. There appears to be heat or scorch damage around it. What could this indicate?**
 - A. The outlet has recently been cleaned
 - B. Possible overheating, a loose connection or another electrical fault
 - C. The outlet is waterproof
 - D. The electricity supply is stronger than usual
5. **What should you do if you notice an outlet that is damaged, hot, sparking or has burn marks?**
 - A. Touch it to see how hot it is
 - B. Keep using it until it stops working
 - C. Stay clear, stop using it and tell an adult
 - D. Pour water over it
6. **There are several electrical cords running across the floor. Why is this a problem?**
 - A. People could trip over them and the cables could become damaged
 - B. Cables only work when they are straight
 - C. Electricity travels faster across floors
 - D. The cables will change colour

7. **The dog is lying beside a damaged electrical lead. Why can pets make damaged cords an additional concern?**

- A. Pets can chew, pull or further damage cables and may receive an electric shock
- B. Pets stop electricity from flowing
- C. Fur makes every electrical cable safe
- D. Animals cannot conduct electricity

8. **Why can the human body become part of an electrical path?**

Answer:

9. **Can you tell whether an exposed electrical wire is live just by looking at it?**

- A. Yes - live wires always glow
- B. Yes - live wires are always red
- C. No - an energised conductor may look completely normal
- D. Yes - live wires always make a noise

10. **A powerboard has every socket being used, with several high-power appliances connected. Why could this be dangerous?**

- A. The appliances will all run more slowly
- B. Too much current could cause the powerboard, plug or wiring to overheat and potentially start a fire
- C. The powerboard will automatically produce more electricity
- D. Electricity will stop flowing when all the sockets are full

ESL Safety Sparks: Spot the hazard. Stay clear. Tell an adult.

Don't forget to return your completed quizzes to ESL, 24 Roberston Street by 4pm on Thursday the 8th of October to be entered into the prize draw!