

Lesson 6

Teacher Notes – Electrical Safety Situations

Outcomes Written In line With The New South Wales Board of Studies

Personal Development, Health and Physical Education Syllabus	Science & Technology Syllabus	English Syllabus
<u>Stage 3 Outcome</u> SLS 3.13 • Describes safe practices that are appropriate to a range of situations and environments.	<u>Stage 3 Outcome</u> PP S3.4 • Identifies and applies processes involved in manipulating, using and changing the form of energy.	<u>Stage 3 Outcome</u> TS 3.2 • Interacts productively and with autonomy in pairs and groups of various sizes and composition, uses effective oral presentation skills and strategies, and listens attentively.

Lesson Objective: Students will gain knowledge on how to respond to emergency situations in a safe and appropriate manner.

Resources:

- Picture 6 – Fallen Power Line.
- Worksheet – Lesson 6 Electrical Safety Situations.

Lesson Plan Outline

1. Discuss Picture 6 – Fallen power line. Explain fallen power lines are very dangerous to go near because the electricity in the live power line can jump to you or travel through the ground to you forming a circuit. There is enough electricity running through these power lines to electrocute you. You should always keep away from them. Don't assume that the electricity is off just because there are no sparks. Discuss reasons that power lines may fall down. Include trees falling on them, cars and tractors hitting electricity poles and storms blowing the wires together. Discuss that it is important to call 000 or the local electricity company's emergency number so that professional people can remove the hazard and stop people getting electrocuted. If your vehicle touches a fallen power line, stay in the vehicle (even if it is scary to do so – the tyres may burn and there may be sparks). If you get out and touch the ground before the electricity is turned off, you will form a part of a circuit to earth and you will be electrocuted.
2. Ask students – Have you ever been involved in an unsafe electrical situation?
3. Read and discuss the following scenario:
“Your sister is in the pool. She has a radio near the pool, plugged into a power point. A ball hits the radio and it falls into the pool. What do you do?”

Answer:

The person in the pool should call out for help, remain in the pool, stay in the same place and not touch the side of the pool. The person assisting should follow the Safety Steps:

- 1) Ensure your own safety.
- 2) Turn the power off at the power point and remove the plug (if you are able to do so).
- 3) Call an adult.
- 4) Call 000.

It is important that they turn the radio off at the power point. Death in this scenario is usually by drowning because your muscles seize and you can't swim. Turning the power point off fast is the best chance of rescue and it isolates the danger.

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- Put the overhead up or write the safety procedures on the board.
- Hand out worksheet – Lesson 6 Electrical Safety Situations. Split the class into pairs and allow them time to work through the worksheet.

Answers to worksheet:

Situation 1 In addition to the four steps. – Make sure you are not in the water and call the vet.

Situation 2 In addition to the four steps. – Call the fire department, get everyone out of the house.

Situation 3 In addition to the four steps. – Yell Stop Don't Move.

Situation 4 In addition to the four steps. – Stay calm.

Situation 5 Follow the four steps.

Situation 6 Follow the four steps.

- Students then link up with another group. Ask each group to select a scenario to act out appropriate safety steps to be taken. Allow class time to prepare. Bring the students together and share role-plays and answers to worksheets. Ensure all students are aware of the correct procedures for each situation.
- Students write down four main safety points that are written on the board. Ensure that all students are aware of the correct steps that need to be taken to ensure their own safety and that of a potential victim.
- Discuss the safety message at the bottom of the worksheet "Remember what to do in an electrical emergency."



Do

1. Ensure your own safety.
2. Turn the power off at the power point and remove the plug.
(If you are able to do so.)
3. Get an adult.
4. Ring 000.

Do Not

1. Do not panic.
2. Do not touch the person.
3. Do not go near them.
4. Do not touch them or anything electrical near them until it is switched off.



Lesson 6 – Electrical Safety Situations

Name : _____ Class : _____ Date : _____

In pairs read the following situations and decide what to do. Once you have answers to every situation share your answers with another group. See if you all agree on what is the right and wrong thing to do in each situation. List each answer in order of importance.

1. Your pet dog is lying in a pool of water near a frayed power tool.

Do _____

Do Not _____

2. Your family is watching TV and sparks start to come out of the heater.

Do _____

Do Not _____

3. Your younger sister has just knocked over the bed light and is about to pick it up by the wire inside the broken bulb.

Do _____

Do Not _____

4. Your dad is mowing the lawn and has just run over an extension cord.

Do _____

Do Not _____

5. There has been a storm and you look out the window and see a fallen power line.

Do _____

Do Not _____

6. The power is still on when the man tries to fix your computer and he is electrocuted.

Do _____

Do Not _____

remember



...what to do in an electrical emergency!

Students will gain knowledge on how to respond to emergency situations in a safe and appropriate manner.