



ELECTRICAL SAFETY FROM A TO ZAP

ActivityBook

Culver Company Booklet #35100

Discussion Guide for Teachers

For Grades K-6

NOTE TO TEACHER

This discussion guide contains questions for the entire booklet. You can do as much as you wish in one lesson and then continue the rest in other lessons.

VOCABULARY

•See Glossary Page 4.

AIM

•How can you be safe around electricity?

MOTIVATION

How many of you have ever received an electric shock when:

- a) you touched someone?
- b) you pulled out a plug?
- c) you walked across a rug or carpet and touched a metal object?

LESSON DEVELOPMENT:

COVER PAGE

1. Who is saying “Be very careful around electricity?”
2. What is the cat saying?
3. What does “zap” mean?
4. What do you think you will learn from this book?

PAGE TWO

5. Which things in this picture work on electricity?
6. What would your life be like without electricity?

TEACHER NOTES

Have students make lists of things in their homes that need electricity for them to work.

PAGE THREE

7. Find the mouse’s message to the cat.
8. What is the cat holding in his hand?

TEACHER NOTES

Show students different types of plugs (2-prong, 3-prong) and adaptors. Show students that prongs may differ in size. Have students draw pictures of different types of plugs.

PAGEFOUR

9. Who is at the switch in the home?
10. What travels through wires?
11. Where does electrical energy come from?
12. When do you use a switch in your home?
13. Why do we need electric energy in our homes?
14. How does electric energy travel to electric outlets in your home?

PAGEFIVE

15. What does the sign on the substation fence say?
16. Why should you stay away from substations and utility towers?

TEACHERNOTES

Have students name other ways they could warn people to stay away from substations and utility towers.

PAGESIX

17. Who do you think the cat is calling on the telephone?
18. Who should you call if you see a fallen power line? (Stress: electric utility company and/or police.)
19. Why should you stay away from fallen power lines?

TEACHERNOTES

Have students prepare lists of emergency telephone numbers of local electric company, police, fire and ambulance.

PAGESEVEN

20. Explain why it is dangerous to do each of the things mentioned on this page.

TEACHERNOTES

Have students draw their own pictures to go along with each described situation.

PAGEEIGHT**& NINE**

21. Have students get the cat safely through the maze without getting zapped.
22. Have students describe what they see in each of the four “zap” pictures. Ask students what other “zap” pictures they could add.

PAGETEN

23. What is caught in the tree?
24. Why is the mouse trying to stop the cat from climbing the tree?
25. What are the dangers of climbing the tree? (i.e., electrocution, or shock causing you to fall and get hurt)
26. What would you do about the kite? (Stress the need to call the electric utility - instruct them not to try to get the kite down themselves.)

PAGEELEVEN

27. Have the students find the word that completes the sentence. (Answer: “zapped”)
28. What is wrong with the wire?
29. Why is a frayed wire dangerous?
30. What is the best thing to do in this situation? (Stress the need to unplug the wire and have the cord repaired.)

TEACHERNOTES

Have students check the wires on their lamps, appliances, televisions, etc. in their homes. If they find any wires that are frayed, cracked or broken they should report them to their parents to have them fixed.

PAGETWELVE

31. What does the picture in the circle show?
32. Why is this a dangerous situation?

33. Find the secret message.
34. What does “Water and electricity don’t mix” mean?

TEACHER NOTES

Have the students create some posters showing the ways water and electricity don’t mix.

PAGETHIRTEEN

35. What is an electrical fire?
36. Why don’t you pour water on an electrical fire?
37. What should you use to put out an electrical fire?
38. What does “don’t overload electrical outlets” mean?
39. What can happen if an outlet is overloaded?

TEACHER

DEMONSTRATION

Show the class a fire extinguisher and when, how and who should use one. Ask the students where they could put fire extinguishers in their homes.

PAGEFOURTEEN

40. Explain the reason why they did or did not write “zap” in each of the pictures.

TEACHER NOTES

Have students draw their own pictures and leave a balloon in each one. Exchange their papers and have students write “zap” in each picture where someone could get zapped.

PAGEFIFTEEN

41. What does the picture at the top of the page show?
42. Find the first word in the message on this page. (Answer: “unplug”.)
43. Why is it a good reason to unplug appliances before you work on them? (Only qualified people should fix appliances.)

PAGESIXTEEN

Read the certificate and have students write their names on the line.

TEACHER NOTES

Have students tell at least five ways to be safe with electricity.

Glossary

APPLIANCE-	Household machines powered by electrical current (toasters, washing machines, etc.). A refrigerator is a household <i>appliance</i> .
DANGER-	Something that might hurt you. Stay away from signs that say <i>danger</i> .
ELECTRICITY-	One of the basic forms of energy. It can also give light and heat. <i>Electricity</i> makes television sets and toasters work.
ENERGY-	The ability to do work. <i>Energy</i> makes machines run.
FIRE EXTINGUISHER-	Container filled with chemicals which, when sprayed upon fire, put it out. Your school has a <i>fire extinguisher</i> in the hall.
FRAYED WIRES-	When the insulation on a wire is worn off or broken. <i>Frayed wires</i> can cause fires.
OUTLET-	A place to plug in appliances. Never put anything but a plug into an <i>outlet</i> .

OVERLOAD-	Too great a load. It is dangerous to <i>overload</i> an outlet.
POWERLINES-	Wires used to send out power (or electric energy) for public use. Never fly a kite near <i>power lines</i> .
POWER PLANT-	A place where electricity is produced. The <i>power plant</i> sends power to the substations.
SUBSTATION-	A smaller plant that receives energy from the power plant and then sends it to our homes. We were told not to play near the <i>substations</i> because it could be dangerous.
SWITCH-	Device for making or breaking an electric circuit. When you are not using a light in a room turn the <i>switch</i> off.
UTILITY POLES-	Poles used to hold up wires. Don't ever climb a <i>utility pole</i> .