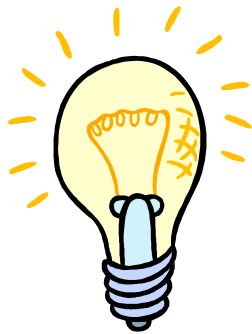
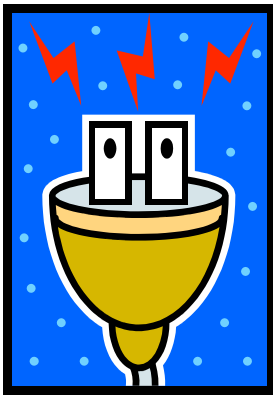


# Shocking the Community

A WebQuest for 5<sup>th</sup> grade Science: Electricity

Designed by

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Based on a template from The WebQuest Page: <http://webquest.sdsu.edu/>

# Introduction

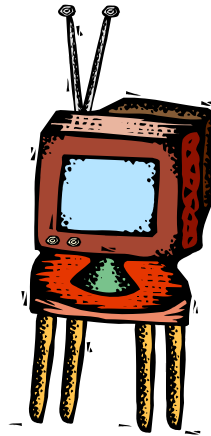
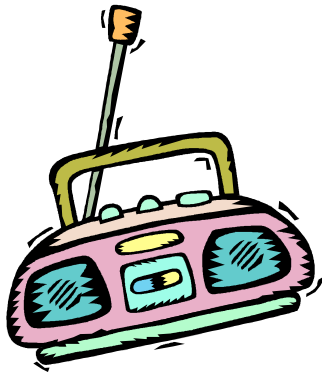


Electricity is everywhere and affects everyone. The accident reports in our community are on the rise. They report that the cause of most of the accidents is the misuse of electricity. Now that you are experts on how electricity works, you need to educate our community on how to use it safely. Many people don't know how electricity can be dangerous, what can happen if we are not careful, what to do when electrical problems occur, and what we can do to prevent accidents. You and your news team are responsible for getting this important information out to our community.

# The Task

As part of your news team, you will come up with a way to educate our community about electrical safety. People need to be informed about the following things:

- How electricity can be dangerous, and what can happen if we are not careful
- What are we to do when a electrical problem occurs
- What we can do to prevent electrical injury







There are several ways that this information can be shared. Your team can choose from the following ideas:

- Create a television commercial
- Write a newspaper add
- Make a poster that can be distributed
- Come up with a radio commercial

## The Process

1. Your team will be made up of four people, and each will have a specific role. Based on the following descriptions, decide which member of your team will take on each role.

<p>How and Why Specialist</p> 	<p>You will answer everyone's questions about how electricity can hurt you and why it can hurt you. Take notes on what characteristics make electricity dangerous and how it can hurt you.</p>
<p>Indoor Specialist</p> 	<p>You will investigate the rules for electrical safety in the indoors. Research at least five specific dangers related to electricity indoors.</p>
<p>Outdoor Specialist</p> 	<p>You will search to find the guidelines for electrical safety in the outdoors. Research at least seven specific dangers related to electricity outdoors.</p>
<p>Emergency Specialist</p> 	<p>You will discover what to do when dangerous electrical situations happen. Find three general rules for emergency situations that apply to many situations and what to do in three specific cases of emergency.</p>

2. After you have decided your individual roles, use the information that you already know from our unit on electricity and review all the websites below to complete your role and complete a report. (Keep in mind that you will turn your notes in to the teacher at the end with your project.)

<http://www.txelectricdelivery.com/community/education/knowledgecollege/safetyworld/hurt/index.html>

<http://www.miamisci.org/af/sln/frankenstein/safety.html>

<http://www.txuelectricdelivery.com/community/education/knowledgecollege/safetyworld/travels/index.html>

<http://cipco.electricuniverse.com/html/eu/education/louie/safety/index.html>

<http://www.txuelectricdelivery.com/community/education/knowledgecollege/safetyworld/emergency/index.html>

<http://www.txuelectricdelivery.com/community/education/knowledgecollege/safetyworld/trees/index.html>

<http://www.dairynet.com/kids/safety.html>

3. After you have completed your report, you will meet with all the specialists in your news team. You will take turns sharing the information you have found.

4. You will then decide how you will share the information with your community in one of the following ways.

- Create a television commercial
- Write a newspaper add
- Make a poster that can be distributed
- Come up with a radio commercial

The project you will create to present to the public must include at least three safety tips for inside and three tips for outside, why they are dangerous, and what to do if a problem happens. Be creative with costumes, graphics, the words you use, the way you present it, etc.

5. You will be given five minutes maximum to present your final product to the class. Turn in your notes at this time.

6. You will fill out a “student self-assessment rubric” to grade yourself on your participation in the project.

[Title Page](#) | [Introduction](#) | [The Task](#) | [Process](#) | [Evaluation](#) | [Conclusion](#) | [Credits](#)

# Evaluation

## Teacher Rubric

	<b>Beginning 1</b>	<b>Developing 2</b>	<b>Accomplished 3</b>	<b>Exemplary 4</b>	<b>Score</b>
Research	The student is able to extract information from Web sources yet does not apply information to role-related questions or demonstrates incomplete work.	The student is able to extract relevant information from Web sources yet does not appropriately apply it to answering role-related questions.	The student is able to pull important pieces of information from a variety of Web sources to answer role-related questions.	The student is able to effectively pull important pieces of information from a variety of Web sources to answer role-related questions.	
Understanding	The student does not display understanding of relationship between specific role and electricity.	The student shows limited understanding of the relationship between specific role and electricity.	The student shows partial integration of various pieces of information needed to understand their specific role and electricity.	The student is able to completely integrate findings into a meaningful whole between their specific role and electricity.	
Quality of Product Content	The group news report contains minimal amounts of role relevant information and is presented in a disjointed manner.	The group news report contains role relevant information that suggests thorough research, yet is not presented creatively or in a logical sequence.	The group news report is well planned and logically formatted and each role has been thoroughly researched.	The group news report is well planned and logically formatted and each role has been thoroughly researched and creatively presented.	
Quality of Product Format	Graphics and/or costumes are used minimally, if at all, and often times colors, print types, and backgrounds are inappropriate.	There is minimal use of graphics and/or costumes and colors, print type, and backgrounds are inappropriate in cases.	Students make good use of graphics and/or costumes and colors, print type, and backgrounds are appropriate. Students meet requirements yet demonstrate less creativity.	Graphics and/or costumes support each role and colors, print type, and backgrounds are appropriate. Requirements are not only met, but also exceeded.	

Presentation	Speaking time is not divided equally among the group members. Students are not adequately prepared to present information relevant to their specific role.	All group members contribute to the presentation, but speaking time is not equal. Students speak clearly about their roles yet there is a lack of continuity in the presentation.	All members contribute equally and the presentation Students speak clearly. Students speak confidently about their role and provide adequate amounts of important information.	All members have equal oral contributions, and they speak clearly and confidently. Speaking roles relate to one another and flow into one another. Students go above and beyond presentation requirements in terms of role relevant information.	
Presentation Conduct	Students are unable to conduct themselves in a mature and professional manner.	Presentation is conducted in a mature manner.	Students conduct their presentation in a mature and professional manner.	The presentation is given in a mature and professional manner..	

Adapted from (Beilin, 2002, rubric)

## Student Self-Assessment Rubric

	Beginning 1	Developing 2	Accomplished 3	Exemplary 4	Score
Researches and gathers information	Does not collect any information relating to the topic	Collects very little information - some relates to the topic	Collects some basic information - most relates to the topic	Collects a great deal of information - all relates to the topic	
Shares information	Does not share any information with teammates	Shares very little information - some relates to the topic	Relays some basic information - most relates to the topic	Relays a great deal of information - all relates to the topic	
Completes duties	Does not perform any duties	Performs very few duties	Performs nearly all duties.	Performs all assigned duties	
Participates	Does not share ideas during group work	Either gives too little information or information which isn't important or is off-topic	Offers some information - most is on-topic	Offers a great deal of important information - all is on-topic	
Shares equally	Relies on others to do the work	Sometimes does the assigned work - often needs reminding	Usually does the assigned work - rarely needs reminding	Always does the assigned work without having to be reminded	
Listens to teammates	Is always talking - never allows anyone else to speak	Usually does most of the talking - rarely allows other to speak	Listens but sometimes talks too much	Listens and speaks a fair amount	
Cooperates with teammates	Usually argues with teammates	Sometimes argues	Rarely argues	Never argues with teammates	
Makes fair decisions	Usually wants to have things their way	Often sides with friends instead of considering all views	Usually considers all views	Always helps team to reach a fair decision	

Adapted from (Turville, 2000, student rubric)

## Conclusion

Great job, reporters! Our community is grateful for all the work that you have done to warn them of the dangers of electricity, to teach them what to do when there are problems, and what to do to prevent electrical injury. Your commercials on TV, radio, the posters, or in the newspaper were a success. We can now ALL be electrically safe. The number of accident reports are already falling. This is wonderful news! Way to go!



### **Extend your learning**

Brainstorm together how you could really communicate to your community about electrical safety. Talk to local newspapers, television stations, or radio stations about getting your final projects printed or put on television or radio.

Review the checklist in the website below and find out if your home is safe.

[http://www.txuelectricdelivery.com/community/education/knowledgecollege/safetyworld/home\\_safe/index.html](http://www.txuelectricdelivery.com/community/education/knowledgecollege/safetyworld/home_safe/index.html)

Research how you can be safe during a lightning storm by clicking the link below.

<http://www.azstarnet.com/~anubis/zaphome.htm>

## **Credits and References**

Beilin, S., Brundage, A., O'Neill K. (2002). The heat is on: a global warming webquest for fourth grade. October 11, 2004, from <http://oncampus.richmond.edu/academics/education/projects/webquests/global/t-index.htm>

The latest version of this template and training materials can be found at <http://webquest.sdsu.edu/>

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