

Topic: Natural Gas and Electric Safety

Goal of Lesson:

1. Students will gain an understanding of different energy sources and how to be safe around them.
2. Students will share the safety information with their families.

Materials:

- **For the Lesson:** Lesson Plan, “Electric Safety” and “Natural Gas Safety” sheets, “Electrical and Natural Gas Safety World” Energy Explorer booklet.
- **For the Video:** Laptop (bring your own or ask teacher if they have one on hand). Verify that wi-fi is available and if not, copy appropriate video(s) onto a thumb drive.
- **For the Demo:** PPE (safety glasses, gloves, hard hat, vest, flashlight) and hand tools if possible.
- **For the Student:** Student Giveaway Bag which includes Energy Explorer booklet, bookmark, mercaptan scratch and sniff card, and pencil (please hand out at the end of class).

Procedures:	Suggested time:
<p>Introduce yourself (and each team member) to the class.</p> <ul style="list-style-type: none"> • Include a short description of your position at National Grid. • Give a brief explanation that the purpose of your visit is to raise their awareness about natural gas and electrical safety and to take home what they’ve learned about safety and share it with their families and friends. 	5 minutes
<p>Introduction to Energy, “Electrical and Natural Gas Safety World” booklet.</p> <ul style="list-style-type: none"> • Hand out the booklet and ask students to turn to page 2 • Ask students how they have used energy today, take about 3 responses and then ask students to work in groups of 2 to complete the “Energy Use Chart” on page 2. 	5 minutes
<p>Read page 11 in the “Electrical and Natural Gas Safety World” booklet out loud with the class, answering any questions as they come up. Use “Electric Safety and Natural Gas Safety” sheet as a reference.</p> <ul style="list-style-type: none"> • Remind students of what to do if they see something unusual around a power line. • Have students in the same pairs as earlier complete page 12 • If you have access to the internet, show the “Episode 3: Outdoor Electrical Safety” and “Episode 4: Indoor Electrical Safety” video from our site http://ngridenergyworld.com/teachers/videos/video.html 	10 minutes
<p>Ask students how many of them have stoves at home that use a flame to cook. Read page 15 in the “Electrical and Natural Gas Safety World” booklet out loud with the class, answering any questions as they come up. Use “Natural Gas Safety” sheet as a reference.</p> <ul style="list-style-type: none"> • Talk about how natural gas is used in the home to cook, provide heat and maybe even dry clothes. 	10 minutes <i>continued on back ></i>

Topic: Natural Gas and Electric Safety *continued*

Procedures <i>continued</i>:	Suggested time:
<ul style="list-style-type: none"> If you have access to the internet, show the “Episode 7: Gas Pipeline Safety” video from our site http://ngridenergyworld.com/teachers/videos/video.html Remind students of what to do if you smell gas. <p>Carbon Monoxide:</p> <ul style="list-style-type: none"> Ask students how many of them have a smoke detector at home. (Most hands should go up.) Ask them if they have a carbon monoxide detector at home. (Suspect less hands). Explain carbon monoxide (See Natural Gas Fact Sheet for details.) 	10 minutes
<p>Demonstration (If you brought along any type of demonstration, perform at this time.)</p> <ul style="list-style-type: none"> Example of Electric Demo: Viewing the bucket trucks or circuit demo Example of Gas Demo: Bring in PPE or gas pipes/equipment for the students to look at or pictures of major projects. 	15-20 minutes
<p>Conclusion:</p> <ul style="list-style-type: none"> Ask students if they have any questions about what you spoke about today. Remind students to take home their “Electrical and Natural Gas Safety World” booklet and goodie bag to share with their parents. Remind them how important it is to be safe and to keep the people they love safe too! 	10-15 minutes