

Teacher Guide

Grades 3-4

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Can you imagine life without electricity? Without electricity, most of the things that power our lives at home and school would not exist. The way we communicate and connect with people would look and sound very different. Now, more than ever, it is easy to see how dependent we are on electricity for our way of life. Electricity is everywhere!

The Safety Sleuth Program will help your students learn about electricity and how to be safe around it. It is very important that they will also learn and practice a strategy that will help them to be safe in many situations.

PSEG Long Island is very committed to electrical safety and supporting the education of our students. We suggest that you begin this program by showing this excellent video that introduces two young people who investigate and learn about safety and electricity:

https://www.youtube.com/watch?v=cl61Dcx8gd0

Please preview this video. In the lessons you will find several opportunities to engage the students with this video. There is also an activity where students are asked to review and share what they have learned while watching this video.

Join Safety Sleuth as we look at our surroundings, think about what is safe or unsafe, make safe choices and share with others how to do the same. Just like any smart sleuth, you will want to bring your curiosity and pay attention to detail. You can make a difference in your home and school as you follow the clues to learn about electrical safety.





They will:

LOOK... Discover many ways they can "see the situation" and determine what is safe and unsafe

THINK... Learn to use and assess situations and act responsibly and safely in their homes and community.

Learn to communicate clearly and in detail about situations that may feel unsafe.

Take responsibility by making informed choices about electrical safety and other areas where they may be unsafe. Take positive actions to be careful.

SHARE... Learn how to explain to others what happened, where it happened or inform and inspire others to be careful and why.

The lessons are aligned to both the Science and Engineering Practices from the Next Generation Science Standards (NGSS), the Ten Themes of Social Studies from the National Council for Social Studies (NCSS), the New York State English and Language Arts (ELA) standards and the Core SEL Competencies from the Collaborative for Social, Academic and Social Learning (CASEL).





Begin this lesson by showing the students the PSEG Long Island Safety Sleuth video.

https://www.youtube.com/watch?v=cl61Dcx8gd0

Lead a general discussion about electrical safety in order to understand how much students are aware of what electricity is and how it can be so beneficial to our lives but that it may also prove to be a safety concern.

Remember to have students complete the Vocabulary Time exercise in order to ensure that students understand the vocabulary in Activity 1.

LOOK... Students will discover the many ways that they can improve their situational awareness and be safe in various situations.

THINK... Students will learn to use and assess situations and act responsibly and safely in their homes, communities and beyond. Students will learn to communicate clearly and in detail about situations that may feel unsafe.

Overview: 90-120 minutes

Alignment to National Standards:

NGSS Practice 1: Asking questions and defining problems

NGSS Practice 8: Obtaining, evaluating and communicating information

NGSS MS-ESS3: Earth and human activity

NCSS Theme 3: People, places and environments
NCSS Theme 5: Individuals, groups and institutions
NCSS Theme 8: Science, technology and society





CASEL Core Competencies: Social Awareness and Responsible Decision-Making

3W1a: Introduce a claim, supported by details, and organize the reasons and evidence logically.

3SL1: Participate and engage effectively in a range of collaborative discussions with diverse peers and adults, expressing ideas clearly, and building on those of others.

4R1: Locate and refer to relevant details and evidence when explaining what a text says explicitly/implicitly and make logical inferences. (RI&RL)

4W3: Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.





Facilitation Tips

Pre-Activity: Vocabulary Time

- Give students time to look up important definitions that will be referenced in upcoming lessons.
- Direct students to use this list as a reference and to add other vocabulary words if needed.



How do SAFE and UNSAFE feel to me?

In the Student Guide, there is an important paragraph about Situational Awareness and Safety. Invite students to read and complete this activity. This activity will set the stage for students to learn the Safety Sleuth Process. Make sure to review and discuss the Word Box on page 5 in the Student Guide.

- Ask students what "safety" means and invite several students to share their responses.
- Invite students to think of a time when they felt safe. As students visualize a specific time when they felt safe, ask prompting questions (i.e. Where were you? Who was with you? What were you doing? What was the weather/temperature? What sounds did you hear? What were you thinking? How did you feel?)
- Invite a student to read aloud the paragraph on the top of Activity 1 and the directions.
- As students write about a time when they felt safe and a time when they felt unsafe, use guiding questions to encourage details in their writing.
- Once students complete their writing, invite them to share their journal entries with a partner. Then, invite some students to share with the class.







SAFE vs UNSAFE

- Invite a student to read aloud the directions for Activity 2.
- Invite a student to explain the directions "using his/her own words." Check for understanding.
- Decide if you prefer students to work independently or in pairs/trios for this activity.
 Direct them to do so.
- Once students have completed the activity, review each picture and ask students
 to give a "thumbs up" if they colored the picture because it feels SAFE or a
 "thumbs down" if they did not color the picture because it feels UNSAFE. Invite
 different students to share WHY they chose SAFE or UNSAFE. If students
 disagree, invite them to explain their positions.
- **SPECIAL NOTE FOR DISCUSSION:** Be sure to discuss phone chargers. There are a number of safety incidents that involve cell phone or other device chargers and kids (specifically children and teens). Charging cell phones or other devices on a bed can pose a major fire hazard.
- Now, direct students to write and/or draw two examples of SAFE situations and two examples of UNSAFE situations.
- Give students an opportunity to share their examples in small groups (3-4 students per group). Then, invite some students to share one of their examples with the class.







Ways to Be Safe with Electricity

Now that you have completed a number of activities and we know that your students are beginning to understand more about the Safety Sleuth process, as well as why electrical safety is important, please show your students the PSEG Long Island Safety Sleuth video again.

https://www.youtube.com/watch?v=cl61Dcx8gd0

Divide your class into groups and ask each group to choose one of the tips illustrated in the video. The group should then think about and practice how they will use the Safety Process to share their ideas about that safety tip. What did they see happening when they **LOOK**ed at the situation? What did they **THINK** about the tip? What would they **DO** to be safe if they were in that situation? How will they **SHARE** what they have learned with their classmates?

Conclude the lesson by having a student read the helpful safety tips aloud from their Student Guide book Activity 3.

- Invite a student to read the directions.
- Direct students to complete Activity 3 independently OR project the pages on a Smart Board and invite students to circle the correct answers on the board and discuss as a class.
- Go through each location (kitchen, park, school) and ask students to explain WHY
 the behaviors they circled are unsafe. Students should record their responses on
 the chart.
- This activity may be used as a formative assessment or can be completed with the class to check for understanding.





DO... Students will take responsibility by making informed choices concerning electrical safety and other areas where they may be unsafe. Students will take positive actions to be careful.

Overview: 60-90 minutes (with individual student work outside of class)

Alignment to National Standards:

NGSS Practice 1: Asking questions and defining problems

NGSS Practice 6: Constructing explanations and designing solutions

NGSS Practice 8: Obtaining, evaluating and communicating information

NCSS Theme 3: People, places and environments

NCSS Theme 5: Individuals, groups and institutions

NCSS Theme 8: Science, technology and society

CASEL Core Competencies: Social Awareness and Responsible Decision-Making





Facilitation Tips

Pre-Activity: Vocabulary Time

- Give students time to look up important definitions that will be referenced in upcoming activities.
- Direct students to use this list as a reference and to add other vocabulary words if needed.



Understanding Electric and Nonelectric Items

- Before beginning Activity 1, review the vocabulary words and ask students to write a definition of "electricity" in their own words.
- Invite several students to share their definitions.
- Discuss the importance of electricity in everyday life!
- Use the turbine picture to explain how we get electricity. Explain that turbines are
 used to create energy. That energy is transferred to our homes, schools and other
 recreational areas. Electricity then is passed through outlets which you can find in
 your home and the classroom. Point to an outlet in the classroom.
- Demonstrate how something is powered when plugged into an outlet. Plug something into the outlet.
- Invite a student to read the directions for Activity 1.
- Direct students to sort the items and write them under the correct heading: electric or nonelectric.
- Once students complete sorting the items, read each item aloud. Direct students
 to hold up an open hand if they placed it under "electric" and a closed fist if they
 placed it under "nonelectric."
- If there is not a consensus, facilitate a brief conversation about why it is electric or nonelectric.
- Give students time to correct their answers as needed.







Electric-Nonelectric Scavenger Hunt!

- This activity may be used as a classwork or homework activity.
- Explain that a scavenger hunt is a game that people play when they need to find certain items in an environment. These items may be hard to find, but in order to complete this task they need to find the items.
- Determine how much time you will give the students to complete the scavenger hunt.
- VARIATION 1: Invite each student to share the electric and nonelectric items they
 found. Tell students to cross out items on their list that are the same. Continue
 to go around the room and have students share only items that have not been
 previously shared. Once all students have shared, have them count the number
 of electric and nonelectric items they have on their list that are unique. (In other
 words, no one else found that item on the scavenger hunt.)
- VARIATION 2: Give students a red and green card (or have index cards and draw a red circle on one and a green circle on the other). Invite students to share their lists. Direct class to hold up the GREEN card if they agree that it is correct OR hold up the RED card if they disagree. (For example, if a student says a cup of water is electric, the class should hold up the red card.)
- VARIATION 3: Direct students to write their 10 electric items and 10 nonelectric items on individual sticky notes. Have students place the sticky notes with electric items in one location in the room and the sticky notes with nonelectric items in another location in the room. Invite students to look at both locations and move any sticky notes that are in the wrong location.
- Invite a student to read aloud the directions under "Write About It."
- Direct students to look at all of the electric items that were recorded at the front of the class and pick the ONE that they think is the most important to them in their everyday life.
- Students will complete a journal entry and draw a picture of the item.



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Ways to Be Safe with Electricity

- Invite a student to read the first paragraph.
- Explain to the class that being safe with electricity is very important! The human body is not made to come in contact with electricity.
- Invite different students to read each of the helpful safety tips.
- Remind the students that whenever they are in an unsafe situation they should locate a trusted adult.
- Post the six safety tips in the room for all students to view.







Using the PSEG Long Island Website!

- Explain to the students that PSEG Long Island is a company that helps the Long Island community get electricity into homes, schools and other important places!
- Direct students to view the Indoor Electric Safety video on the PSEG Long Island website. This video shares important indoor electricity safety tips! psegliny.com/safetyandreliability/safetytips/personalandhomesafety
- Tell students they will view this video at least two times. As they view the video, tell students to choose one electric safety tip that they think is most important. (They will use this in Activity 5.)
- Have students watch the video independently. After each student has watched the video twice, ask students to share one2 fact that they learned with the class. After students share, direct students to the Activity 4 worksheet.
- Invite a student to read the directions.
- Decide if you would like students to work independently or with a partner to complete the answers. Allow students to go back to the video to identify the correct answer, if needed.
- EXTENSION ACTIVITY: Students will add two additional tips from the video that are not listed on the worksheet. Invite students to share their responses with the class.

Answer Key for Activity 4 fill-in-the-blank sentences:

- 1. Unplug small appliances (hair dryers, mixers, toasters, etc.) when **not in use**.
- 2. If you have small children or pets, make sure unused wall outlets have **safety coverings**.
- 3. Make sure extension and lamp cords are not strung through areas where people will be **walking**.
- 4. Never insert any **metal objects**, such as a knife or fork, into an appliance.
- 5. Teach all family members to avoid touching electrical devices when they are **wet**, in water, or standing on a wet surface.
- 6. Keep all cords away from **hot** surfaces such as a stove.
- 7. All outlets and switches should have **faceplates**.



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Reflect and Share

- This activity will prompt brainstorming for the project.
 See teacher resources on website for project details.
- Invite a student to read the directions.
- Direct students to write their responses in the space provided.
- Once students have completed their reflective brainstorming, invite students to share their ideas.
- As students share their ideas, record the ideas on an anchor chart or white board that shows the lists of ideas that the class generated! (Students may need to refer to this list for the project.)

Finishing Activity: My Safety Pledge

- Display a copy of the Safety Pledge on an anchor chart.
- Invite the class to read the safety pledge aloud and in unison.
- Invite each child to sign the anchor chart agreeing to what was just read by the whole group.
- Once all students sign the anchor chart hang it up for all students to see!
- Direct students to go to page 17 and write their names on the Super Sleuth Certificate of Completion. (If you do not have the student workbook, you may find a printable pdf of the Certificate of Completion under "Teacher Resources" on the website.)





MY SAFETY PLEDGE

I am now a certified Safety Sleuth and I understand how to be safe not only in my home and surrounding environment but also around electricity. I know that there are trusted adults in my life who are always there to be my "safe people." I will not hesitate to ask for help or for guidance when I feel unsafe. I will use and share the knowledge I gained from the Safety Sleuth program with my friends and family so we can be safe every day.



This award is presented to

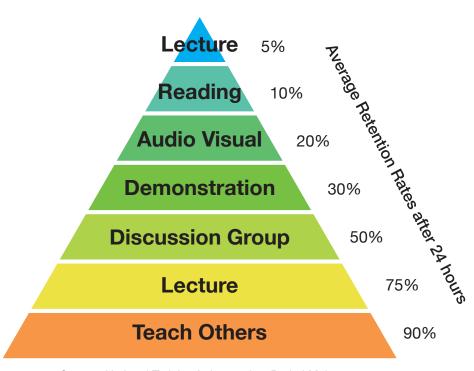
for the completion of the Safety Sleuth Program 2022-2023 School Year

Awarded By Your Friends at PSEG Long Island





The Learning Pyramid



Source: National Training Laboratories, Bethel Maine





Notes			







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