



Safe Charging Is a **SUPERPOWER**

Charge into Fire Safety™

TOPIC: Safe charging for devices with lithium-ion batteries

AUDIENCE: Adults and high school students

LESSON OBJECTIVE: By the end of the lesson, participants will describe at least three safe charging practices and will commit to implementing at least one.

Materials:

- Fire Prevention Week 2026 video playlist and online resources available at [fpw.org](https://www.fpw.org)
- Computer, laptop, tablet, or smartphone
- Projector and screen or monitor
- “Safe Charging Is a Superpower” bingo cards and markers (candy, coins, bingo markers, Sparky® markers)



Step 1: Introduction (5 minutes)

- Welcome attendees and thank them for their time.
- Introduce yourself and your connection to the community.
- **Share:** “Lithium-ion battery fires are on the rise because there are so many devices with these batteries in use.” Share a brief story about a fire or injury involving a device from your community or a recent news report. Local battery fire incident data can help reinforce the message, especially when paired with a real-world example.
- How many lithium-ion batteries or rechargeable items do you have with you? How many are in your bag, purse, mobility device, or vehicle?
- **Ask:** “What are some of the rechargeable items you have in your home?” Examples can include smartphones, wireless headphones, smartwatches, electric toothbrushes, laptop computers, tablets, gaming controllers, e-cigarettes, vapes, toys, e-scooters, and e-bikes.

Hook — Alternate Extension Activity: Bring a few lithium-ion battery devices to class. As the class begins their discussion, start using the various devices in a fun conversational way that draws attention to how many rechargeable lithium-ion battery devices we use every day. For example:

- Wireless earbuds: Remove them and say, “It always inspires me to listen to relaxing music right before a class!”
- Smartwatch: Tap it and say, “I’m glad I remembered to charge my watch; I want to make sure the steps that I’m getting in today are counted!”
- Portable power bank and the appropriate charging cord: Hold them up and say, “I don’t see many outlets in this room. Good thing I brought my portable charging bank that is listed by a nationally recognized testing laboratory. I also brought the charging cord that came with my phone.”
- Electric toothbrush: “Coffee breath! I hope you don’t mind if I do a quick refresh.”

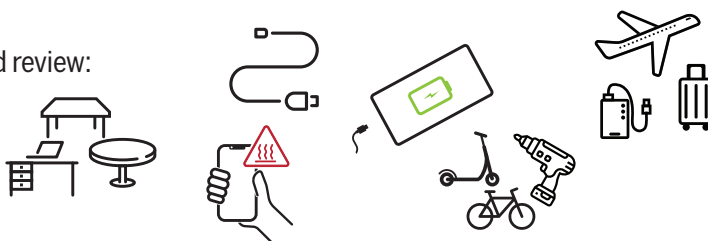
Step 2: Body of the Presentation (15–20 minutes)

- **Understanding Lithium-Ion Batteries:** Show the “The Power and Danger of Lithium-Ion Batteries” video (2:32)
- If unable to show the video explain:
 - Many devices used in our daily lives (e.g., the examples listed above) run on rechargeable lithium-ion batteries.
 - Smaller and more powerful batteries have replaced older versions of batteries, and they store a lot of energy in a small space.
 - If batteries are damaged or charged the wrong way, they can overheat, start a fire, or even explode.
 - The way you charge your rechargeable devices can make a difference in helping prevent home fires and injuries.

- **Ask:**
 - “Think about the rechargeable devices in your home. How many of the devices do you charge with the original cord that they came with?”
 - “Do you charge on a hard surface, like a table or countertop?”
 - “Do you unplug when the items are fully charged?”
 - “Have you ever dropped your phone or tablet or left a rechargeable device in a hot or freezing vehicle? Did you know this could damage your battery?”
- **Activity — Speed Bingo:** Say, “Let’s play a game to learn some charging safety tips.” Pass out bingo cards and chips. Tell participants that you will ask trivia questions on safe charging. If they have the correct answer on their card, cover it with a bingo marker. The middle space is a free space. If they get 3 in a row (across, down, or diagonal), they shout “Charge into Fire Safety!” Bingo trivia questions can be found at the end of this lesson.

Step 3: Conclusion (5 minutes)

- Watch “Safe Charging Superpowers” video and review:
 - Charge on hard surfaces.
 - Watch for warning signs.
 - Unplug when fully charged.
 - Charge large devices outside.
 - Keep it in sight on a flight.
- Hand out the “Safe Charging Is a Superpower” and “Lithium-Ion Batteries in Your Home” tip sheets. Consider showing the “Boost Your Battery IQ” video.
- Encourage the audience to complete the “Family Power Check” activity to see how strong their family’s charging habits are and identify areas where they can improve.
- Thank participants for their time. Encourage them to share what they have learned with others.



Trivia Questions:

- Which charger and cord should you use for your phone or other rechargeable devices?
A: The **original** cord and charger that came with the device (or one approved by the manufacturer).
 Why: Off-brand chargers can damage your devices because they are specific to the product you are charging.
- Where is a safe place to put your device while it is charging?
A: On a **hard surface** (like a table or countertop). Why: This allows it to “breathe” when charging and not overheat.
- True or False: You should unplug your device when it is fully charged.
A: True. Why: Leaving a device plugged in longer than needed can increase heat and stress on the battery.
- True or False: It is safe to charge your phone under your pillow while you sleep.
A: False. Why: Batteries generate heat during charging. Soft surfaces like pillows trap this heat, causing devices to overheat and potentially start a fire. Always charge on a hard, flat surface.
- What is one warning sign of a battery problem or damage?
A: Gets very hot. All of these are warning signs of a battery problem: gets very hot, has a crack, starts to swell, makes a hissing or popping sound, smells strange, or starts to smoke.
- Where should large devices like e-bikes and scooters be charged?
A: Outside, whenever possible and not blocking any exits. Why: These items have large batteries that store a lot of energy. If they fail and enter thermal runaway, they cause fast-moving, highly toxic fires. Charging outside ensures if a fire occurs, it does not trap people inside the building or block escape routes.
- Only buy lithium-ion battery products that are ____ by a nationally recognized testing laboratory.
A: Listed. If a product has been listed, it means it has been tested for safety and meets important safety standards.
- What temperatures can damage a battery?
A: Extreme temperatures (very hot or very cold)



Safe Charging Is a
SUPERPOWER

Hard surface	Gets very hot	False
Listed		Original
Outside	True	Extreme



Safe Charging Is a
SUPERPOWER

Extreme	Outside	Listed
False		True
Hard surface	Gets very hot	Original



Safe Charging Is a
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False	Hard surface	Outside
Gets very hot		True
Extreme	Listed	Original



Safe Charging Is a
SUPERPOWER

True	Outside	Original
Extreme		Gets very hot
Listed	Hard surface	False



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Cut out each chip to use as bingo markers.

