

# Essential Question

- How do you extinguish fires correctly?
- How would your family respond to a fire in your home?

What does fire safety mean?

# Essential Standard

7.PCH.4 Analyze necessary steps to prevent and respond to unintentional injury.

# Clarifying Standard

7.PCH.4.3 Design plans that reduce the risk of fire-related injuries at home, in school, and in the community at large.

# Statement of Objectives:

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*Fire related emergencies and especially those with possible injuries can be devastating. The best fire safety practice is to make sure a fire doesn't break out in the first place. By the end of today's lesson, you will be able to identify measures to reduce the risk of fire related injuries.*

# REVIEW

1. *In a fire, smoke will:*

A. *settle near the floor*

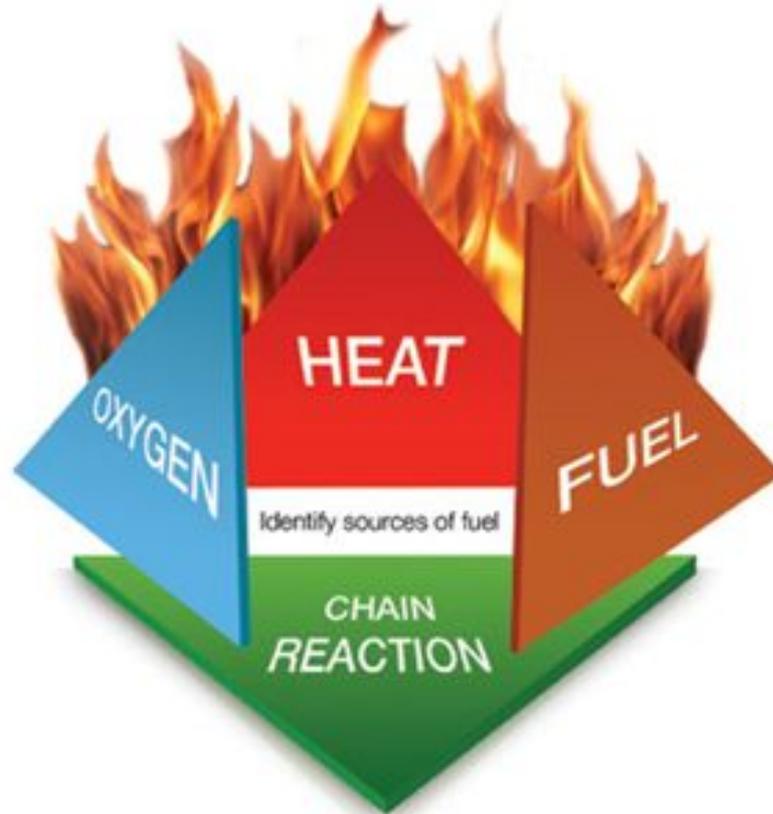
B. *rise to the ceiling*

C. *stay near the fire*



# What are the four components of fire?

- *Fuel, oxygen (air), heat, and chemical chain reaction*



# *Name four fire and burn hazards found in the home*

1. *No smoke detector*
2. *blocked exits*
3. *overloaded electrical uses*
4. *frayed electrical cords*
5. *trash stored near heating unit*
6. *heating appliances too close to things that can burn*
7. *fireplace without a screen*



*If your first and second exits are blocked and you must escape through a smoky area, you should:*

- A. cover your nose and run quickly to your exit*
- B. roll quickly to your exit*
- C. crawl low under the smoke to your exit*



*When entering a building other than your home, you should:*

- A. locate exits and stairways to use in case of fire*
- B. locate the elevators to use in case of fire*
- C. go directly to the top floor*



# *If you cannot escape from a burning building, you should:*

- A. open doors to let the smoke spread evenly throughout the area, then call the Fire Department to let them know where you are*
- B. close doors between you and the smoke, seal cracks with duct tape or towels, and call the fire department to let them know where you are*
- C. hold your breath and run quickly through the smoke to the stairwell*



## Focus:

- Ask students to share details of a fire emergency they may have witnessed or experienced, possibly with fire related injuries.
  - *Where did the fire occur?*
  - *What were the consequences?*
  - *Was anyone hurt? How did you feel?*
  - *How could the fire have been prevented?*

## Two siblings die in Henderson house fire

Posted: Nov. 10, 2009 Fire investigators believe a space heater might have started a fire that killed a 12-year-old girl and her 1-year-old brother Monday night at their Henderson home.

The official cause, however, has not been determined, Henderson Fire Chief Danny Wilkerson said Tuesday.

### WATCH VIDEO

#### Family, friends mourn siblings killed in blaze

The blaze began around 9:40 p.m. in a back bedroom at 132 S. Elizabeth St. The two children were trapped in the room, and firefighters were unable to reach them, authorities said.

Their grandmother, Fannie Lewis, identified the girl as Abria Lewis and the boy as Joshua Chase Lewis.

Their 16-year-old brother escaped the fire, and Bernice Davis, who lives next door, said her son rescued a fourth sibling, a 9-year-old boy.

The parents, identified as Ayana and June Lewis III, had left the home briefly to go to the store, family members said. Investigators said it is unlikely any charges will be filed.

Davis said the 16-year-old told her he that was getting out of the shower when he saw smoke filling the house. He ran barefoot and screaming for help, she said.

His parents arrived shortly after, and firefighters had to restrain the father from going into the house to try to save his children, neighbors said.

The State Bureau of Investigation and the Henderson Arson Task Force are looking into the fire.

Meanwhile Tuesday, family members and friends said they are trying to cope with their loss.

"I wish it had been me instead of them," Fannie Lewis said. "I just can't believe it happened."

At Henderson Middle School, where Abria was a seventh-grade honor-roll student, classmates wrote messages to try to help comfort the family. Students also plan to wear Abria's favorite colors, purple and green, to school Thursday.

Eight-year-old Dominique Lewis said Abria, her cousin, was her best friend.

"It hurt real bad," she said. "When I first found out, I didn't know what in the world to do."

Adults said it wasn't any easier for them.

"When you lose a child, you don't ever get over it," said Queen Hawkins, a great aunt of the victims. "The only thing you can do is just pray that the Lord will strengthen you in your weakness."

Reporters: [Stacy Davis](#), [Erin Hartness](#)

Photographers: [Jamie Munden](#), [Pete James](#)

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## Teacher Input:

- Fire safety codes exist to ensure that the buildings you live, work and play in are designed to allow you to get out safely if there is a fire.
- How safe are the buildings in which you spend your time?
- Find out by analyzing the fire safety features of public and private buildings in your community.

- Organize students into groups and distribute Appendix 1, Up to Code?
- Each group will collect information on how a building is designed to address three facets of fire safety:
  - preventing a fire from occurring and/or spreading,
  - extinguishing a fire and evacuating people.

- Assign groups a type of building:
  - Public Building
    - (such as a school, mall, bowling alley, movie theater or library)
    - Housing Structure (house, apartment building, or mobile home)
- Brainstorm a list of building design and construction features that address fire safety issues.
- Compile a "master" checklist of fire safety features.
  - This list should include the 10 to 15 most important safety features used to evaluate the building.

- Safety Feature Examples for Public Buildings:
  - smoke and fire alarm system
  - automatic sprinkler system
  - emergency lighting
  - emergency exits
  - fire lanes around perimeter of building
- Safety Feature Examples for Homes:
  - smoke detectors—on every level, outside all sleeping areas, tested regularly
  - planned escape routes
  - fire screens around working fireplaces
  - electricity—frayed wires discarded, one electrical item per outlet, appliances in good condition
  - combustibles (such as trash, rags, paper) stored away from heat-producing equipment
  - matches and lighters stored out of children's reach
  - flammable liquids (such as turpentine, barbecue lighter fluid) stored in tightly closed and labeled containers
  - portable heating equipment properly maintained and located at least three feet from walls, furniture and other combustibles
  - automatic sprinkler system

# Discovery Education - How Firefighters control the Heat of Fires

- Take out a sheet of paper, watch for the main takeaways.
- After viewing the video segment, write down four to five words that are crucial to understanding the segment.
  - discuss their words with a partner or in a small group.
    - explain the meaning of their words and provide evidence to support why they consider them essential.
    - combine their lists into six or seven words to share with the class.
    - Record students' words on the board, and work as a class to write main-idea sentences.
  - Replay the video and record any additional notes to support their ideas.
  - What are some common fire hazards in the home
    - (e.g., stove tops, ovens, electrical outlets and devices, candles, matches, lighters, power strips)
  - Identify ways to prevent accidental fires
    - (e.g., not overloading power strips, keeping flammable and combustible items away from appliances, never leaving an open flame unattended, checking fire alarms monthly).

## Discovery Education - The Weather Channel: Weather Wizard Hands-On: Fighting the Flames

- What ways to respond to small household fires
  - (e.g., smothering fires with water, sand, etc.)
- When would you not use water on a fire?
  - You will be watching the video segment “Oil Fires and Kitchen Safety” from Head Rush: Disappearing Glass on Discovery Education Streaming.
- Record key ideas from the idea segments as they watch and listen.
- Explain that they will be using information from the video to make a concrete, or shape, poem.
- After watching segment, draw the outline of one image (or several images) central to the main concept of the segment.
  - fill in the shape with facts and ideas that support the main concept.
  - share and revise their concrete poems in groups
- ways to respond to household fires
  - (e.g., how to call 911, how to use a fire extinguisher, how to check doorknobs, when to escape and find a safe place).

# Discovery Education -Fire Escape for Children

1. Work in pairs to identify the problem in the video and to propose one way to prevent the problem.
2. why is it important to have a fire escape route for the home.
3. Draw a floor plan with two fire escape routes from their bedroom at home.
  - a. List or show resources that they would need, such as a ladder to escape from a window

- Discovery Education - Fire Extinguisher Safety - Fire Extinguisher Training: Using The P.A.S.S. Technique

## Up to Code?

Fire safety codes exist to ensure that the buildings you live, work and play in are designed to allow you to get out safely if there is a fire. How safe are the buildings in which you spend your time? Find out by analyzing the fire safety features of public and private buildings in your community.



A. Our group's assigned building to evaluate is \_\_\_\_\_.

B. In your group, brainstorm **features of building design and construction considered important for fire safety:**

C. As a class, compile a "master checklist" of fire safety features. **This is the class's list of the 10 to 15 most important safety features you will use to evaluate the building.**

D. Collect information for the building you have chosen to inspect through internet contact, visit or telephone call using your safety features checklist as a guide.

- What fire safety features are evident in the building?  
\_\_\_\_\_
- How many smoke detectors \_\_\_\_\_, fire alarms \_\_\_\_\_, fire extinguishers \_\_\_\_\_ and fire sprinklers \_\_\_\_\_ are there?
- Where are they located?  
smoke detectors \_\_\_\_\_  
fire alarms \_\_\_\_\_  
fire extinguishers \_\_\_\_\_  
fire sprinklers \_\_\_\_\_
- How many escape routes are there and are they free of any obstructions? Are the escape routes clearly marked?  
\_\_\_\_\_
- Does the building contain any flammable debris? \_\_\_\_\_

E. After you have collected the information, organize it into the "How Safe is Your Building?" chart.



# HOW SAFE IS YOUR BUILDING?

Building: \_\_\_\_\_

Age of Building: \_\_\_\_\_ Use of Building: \_\_\_\_\_

| Fire Prevention Features: | Fire Extinguisher Features: | Evacuation Features: | Other: |
|---------------------------|-----------------------------|----------------------|--------|
|                           |                             |                      |        |

1. How safe do you think the building is in terms of:
- Preventing the occurrence or spread of a fire? \_\_\_\_\_
  - Extinguishing a fire? \_\_\_\_\_
  - Evacuating people in the event of a fire? \_\_\_\_\_

2. How would you improve the building? Make a list of your recommendations.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

# Groups will answer the following about their assigned building:

- 1. *How safe do you think the building is in terms of:*
  - preventing the occurrence or spread of a fire?
  - extinguishing a fire?
  - evacuating people in the event of a fire?
- 2. *How would you improve the building?* Additionally, groups' buildings can be compared. When comparing buildings, encourage students to consider the following:
  - Do safety features differ between the two buildings? If so, why might that be?
  - How old are the buildings?
  - Is one building made of more flammable material than the other?
  - What are some factors to consider in evaluating risks of a building?
  - Can a building be made 100 percent fireproof?

# Guided Practice:

- Using graph paper, students will design a home fire escape plan. The following are observable requirements on their drawings:
  1. A detailed floor plan of the home (apartment, mobile home, or house).
  2. Two ways out of every room. One way out would be the door, and the second way out may be a window.
  3. An outside meeting place for the family. Make sure it's a safe distance from the home and mark it on the escape plan.
  4. Local fire department's emergency phone number on escape plan. Memorize the local fire department's emergency phone number, which should be contacted from a neighbor's phone, or by using a cell phone.

- *Fire escape plans should be practiced at least twice a year. Pick a date with your family to practice and make sure that everyone is involved from kids to grandparents. If there are infants or family members with mobility limitations, make sure that someone is assigned to assist them. Be fully prepared for a real fire: when a smoke alarm sounds, get out immediately. And once you're out, stay out!*

# Independent Practice:

- Students will take their escape plans home to share and practice plan with their families. Use your finger to set off the smoke detector and let everyone know it's time for a fire drill. All members of your household are to report immediately to the outside meeting place during fire drills. See if everyone can evacuate your home and gather outside within three minutes (the time it can take for an entire house to go up in flames).
- As evaluation, students will document:
  - Date and time fire drill occurred
  - Names of family members who participated
  - Length of time it took for all family members to reach meeting place
  - Improvements, if any, for the next family fire drill

## Class discussion questions:

- *How many of you had ever conducted a home escape plan before this assignment?*
- *How did your families react to the fire drill assignment?*
- *Were there any challenging situations that occurred during the fire drill? (sister forgot favorite doll inside house, no one knew who was responsible for Brownie, the family dog)*
- *What are some class suggestions for preventing problems next time?*

## Closure:

- *By becoming aware of fire prevention strategies in buildings where much of our time is spent, this enables us to be prepared in protecting yourself from a fire. Planning now may save lives later on. Recalling the information we have gathered today about fire safety will hopefully reduce your risk of fire related injuries.*