

Fire & Life Safety Education



Title: Burns

Subject: Lesson Plan for Grade 5

Section: 5-3

Reference: *North Carolina Common Core State Standards for grade 5, Fire Life and Safety Education, 3rd edition; Emergency Care*

Learning Environment: Cognitive & Psychomotor

Time: 45 minutes total

Materials: lesson plan, pictures of hazards in the home, large pieces of drawing paper, markers, coloring books, brochures for parents, smoke alarm, fire triangle, 5 posters of burns

North Carolina Common Core State Standards

NCSS R 5.1: Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.

NCSS R 5.2: Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.

NCSS SL.5.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly.

NCSS SL.5.1.c: Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.

NCSS SL.5.1.d: Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.

NCSS W.5.1: Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

Terminal Objective:

After participating in ten to fifteen minute presentations, each fifth grade student shall identify the three types and burns and their causes and explain ways to avoid harmful effects of burns especially sunburns by oral and or physical response with 100 percent accuracy.

Enabling Objectives:

1. While participating in a 10 to 15 minute presentation, each fifth grade student shall identify the three types of burns, causes of burns, how burns affect health the treatment for those burns and precautions to limit injury by oral response with 100 percent accuracy.

2. While participating in a five to ten minute presentation, each fifth grade student shall identify ways to avoid harmful effects of fire and burn injury by oral and or physical response with 100 percent accuracy.

Presentation:

Prior to beginning lesson, remember to introduce the team members present and tell the purpose of the visit. In the explanation facilitator will explain what the students will learn and do during the presentations. The students will learn about the types of burns, causes of burns, basic treatment for burns and ways to prevent burn injuries.

Facilitator Information

Pre-Adolescents feel invincible and will attempt activities that are very risky, including those involving fire and flammable liquids making these concepts difficult to get across to them.

Because they are beginning to be concerned with appearance, appropriate age to discuss the idea of burn injuries

Since flammable liquids may be involved appropriate time to discuss safety with flammable liquids and the proper use and storage of flammable liquids.

Also an appropriate time to reemphasize don't play with matches, lighters, candles

Enabling Objective 1

While participating in a 10 to 15 minute presentation, each fifth grade student shall identify the three types of burns, causes of burns, how burns affect health the treatment for those burns and precautions to limit injury by oral response with 100 percent accuracy.

Content

Give some statistics on burns and fires.

Talk about the types of burns. Show the poster.

Talk about how to identify the types of burns

Talk about sun burns and sun exposure

Facilitator information (source is the American Burn Institute)

A) 2.4 million burn injuries are reported each year in the US. 500,000 of those injuries are treated by medical professionals and 40,000 are hospitalized.

B) Burns are the most expensive and catastrophic injuries to treat. Example a burn of 30% of the body area can cost as much as \$200,000 in hospitalization costs and physicians fees. That does not count the cost for any physical therapy and or grafting.

C) Burns occur when the skin is exposed to excessive heat, electricity or corrosive chemicals resulting in tissue damage.

D) Burns are categorized by the agent that caused the burn.

1. Thermal burns are caused by radiation, flame contact, excessive heat from fire steam, hot liquids or hot objects, and sun or hot lights
2. Chemical burns are caused by various acids, bases and chemicals—bleach such as Clorox, drain cleaner
3. Electrical burns are caused by contact with alternating current, direct current or lightning—examples—being shocked by touching 2 wires together, placing something in an electrical outlet, or being struck by lightning

E) The very young under age 5 and the elderly over 65 are the groups most at risk for burn injuries and for burn related deaths

F) The number 1 cause of young children is hot liquid scalds from bathwater or hot liquids in the kitchen.

G) The sources of injury of older adults include hot liquid scalds, ignition of clothing, heaters, and trips and falls against hot objects. Other sources include auto accidents, playing with matches and lighters, playing with firecrackers, kitchen accidents, faulty space heater, BBQ grill accidents.

H) Burns are categorized by the severity of tissue damage

1. Superficial burns or 1st degree burns involve the outer layer of skin or the epidermis. It may be red and hurt when touched. It is a mild burn

2. Partial-thickness burns or 2nd degree burns are deeper and more severe. These burns extend to the layer of skin below the epidermis or the dermis. The skin is red, swollen, and blistered. There is much pain
3. Full-thickness burns or 3rd degree burns damage all layers of skin and may also damage muscles, bones, and tendons. The skin is tough or leathery and may appear white, brown, black or red. There may be no sensation or pain in the area because the nerves endings are destroyed. These will require medical care and will require skin grafting.

I) Burn location can be just as important as depth and extent of the burn. Some burns because of their location, size or effect on the victim, are considered critical and require immediate medical attention. Burns of any kind on the head, neck, hands, feet

J) Symptoms of burn injuries can also happen in airways when super-heated air is inhaled include burns on face, head, neck, lips and mouth, coughing difficulty breathing, wheezing.

K) Basic treatment for burns

1. Wet down or smother the burning areas if clothing is involved with fire
2. Cool burns with running water for about five minutes
3. Cover the area with a dry dressing and seek medical attention if necessary
4. Do not use cold water or ice
5. With chemical burns
 - a) brush off chemical if it is a dry chemical
 - b) remove contaminated clothing and jewelry
 - c) use running water to wash away the chemical and irrigate the effected region (be careful with this. Make sure the chemical will not do further damage when water comes in contact with the chemical
 - d) obtain medical help

L) It will take time before you see signs of healing.

M) Sunburns

1. Can cause 1st and 2nd degree burns
2. No such thing as a “healthy tan”
3. Symptoms
 1. redness
 - b. Pain
 - c. blisters
 - d. severe—fever, chills, nausea, rash—This is sun poisoning
3. continues to burn even out of the sun after initial burn
4. Prevention is the best
 - Limit exposure to the sun
 - Wear sun glasses
 - Cover up skin
 - Use sunscreen often while out in the sun

5. Treatment

- a. cool bath
- b. drink fluids
- c. if minor sunburn creams and gels
- d. if severe medical treatment may be necessary

N) Use of tanning beds—burns can be very similar,

O) Health effects—wrinkles, freckling, change in skin texture, skin cancers

Finish the lesson with reviewing STOP DROP and ROLL

Enabling Objective #2

While participating in five to ten minute presentation, each fifth grade student shall identify ways to avoid the harmful effects of fire and burn injury by oral and or physical response with 100 percent accuracy.

Content

Ask—How can we prevent fires and burn injuries?

Show pictures of different fires. Review what is fire? What is burn?

Review the fire triangle

Divide the class into small groups of 2 or 3 students; give each a large piece of drawing paper and a picture of some hazard around the home (stove, fire place, hot steaming pot, etc.). Also give them a marker. Have the FP team members pick a group and work with them on the assignment. Use lighter/matches/candle pictures as an example.

Have the students to look at the hazard picture and

1. Write down the hazards associated with the object
2. Write down safety rules/precautions for each hazard

As the students are working, the team should circulate through the room, observing, answering questions, guiding groups. Have a couple to share the finished product. If there is time all groups should share.

When the activity is completed the students will review the following terms covered in the other lessons from Kindergarten through 4th grade:

fire escape plans, importance for practicing the plan in the home, meeting place, calling 9-1-1, cool food, check bath water, 3 feet kid free zones, smoke alarms, home fire escape drills

Summary:

Answer any questions the students have about the lesson

Closure:

Leave the coloring books, the brochures with the teacher