

North Charleston & American LaFrance

Fire Museum and Educational Center

Curriculum Guidelines for School Groups

The following information is consistent with the South Carolina Curriculum Standards for Health & Safety Education, Social Studies and Science. These guidelines are based on the South Carolina Department of Labor, Licensing and Regulation Course 8520 "Spray It Forward" offered through the fire academy.

Each grade level is designed to offer the age appropriate instruction to the student(s). You may use any form of interaction, script, props and participation to impart the information.

Pre-K

1. Smoke Alarms
 - a. What is it
 - b. What it does
 - c. What it sounds like
 - d. What to do when you hear it
2. Don't hide, go outside
 - a. Don't let the noise scare you
 - b. Don't hide
 - c. Go outside as fast as you can
3. Fire tools- matches, lighters
 - a. What are they used for
 - b. They are tools for grown-ups only
 - c. Never touch them
 - d. Tell a grown-up
4. Firefighters are your friends
 - a. Firefighters wear protective clothing
 - b. The gear makes them look different
 - c. They are there to help us
 - d. What firefighters do

Kindergarten – 1st grade

1. Smoke Alarms
 - a. What is it
 - b. What it does
 - c. What it sounds like
 - d. What to do when you hear it
 - e. Testing them
2. Home Escape Plan
 - a. 2 ways out
 - b. Meeting place
 - c. Don't hide
 - d. Don't stop
 - e. Crawl low in smoke
 - f. Never go back in
3. 911
 - a. Why we use 911
 - b. What is an emergency?
 - c. Examples of emergencies
 - d. Information for operator
 - i. Address
 - ii. Telephone number
 - iii. What's happening
4. Fire tools- matches, lighters
 - a. They are tools for grown-ups only
 - b. Never touch them
 - c. Tell a grown-up
5. Firefighters are your friends (Community Helpers)
 - a. How they help the community
 - b. Firefighters wear protective clothing
 - c. Why they wear protective clothing
 - d. What firefighters do

2nd & 3rd Grades

1. Smoke Alarms
 - a. What is it
 - b. What it does
 - c. What it sounds like
 - d. What to do when you hear it
 - e. Testing and care of smoke detectors
2. Home Escape Plan
 - a. 2 ways out
 - b. Meeting place
 - c. Don't hide
 - d. Don't stop
 - e. Crawl low in smoke
 - f. Never go back in
3. 911
 - a. Why we use 911
 - b. What is an emergency?
 - c. Examples of emergencies
 - d. Information for operator
 - i. Address
 - ii. Telephone number
 - iii. What's happening
4. Burn Prevention
 - a. Stop, Drop and Roll
 - i. If your clothes catch on fire
 - ii. STOP immediately where you are
 - iii. DROP to the ground
 - iv. ROLL over and over, back and forth
5. Cool a Burn
 - a. Use cool water ONLY
 - i. Never creams, ointments or butter
 - b. 10 – 15 minutes
 - c. Get medical help if severe

2nd & 3rd Grades (cont)

6. Cooking Safety

a. Kitchen

- i. Never leave a stove unattended
- ii. Keep stove and oven clean
- iii. Do not wear loose fitting clothing
- iv. Turn all pot handles inward

b. Microwave

- i. Know how to operate properly
- ii. Follow package directions carefully
- iii. Carefully remove dishes, lids and tops to prevent scalds and steam burns
- iv. Use only microwave-safe dishes, no metal of any kind

4th & 5th Grades

1. Smoke Alarms
 - a. What is it
 - b. What it does
 - c. What it sounds like
 - d. What to do when you hear it
 - e. Testing and care of smoke detectors
2. Home Escape Plan
 - a. 2 ways out
 - b. Meeting place
 - c. Don't hide
 - d. Don't stop
 - e. Crawl low in smoke
 - f. Never go back in
3. 911
 - a. Why we use 911
 - b. What is an emergency?
 - c. Examples of emergencies
 - d. Information for operator
 - i. Address
 - ii. Telephone number
 - iii. What's happening
4. Cooking and Heating Safety
 - a. Kitchen
 - i. Never leave a stove unattended
 - ii. Keep stove and oven clean
 - iii. Do not wear loose fitting clothing
 - iv. Turn all pot handles inward
 - b. Microwave
 - i. Know how to operate properly
 - ii. Follow package directions carefully
 - iii. Carefully remove dishes, lids and tops to prevent scalds and steam burns
 - iv. Use only microwave-safe dishes, no metal of any kind

4th & 5th Grades (cont)

- c. Heating Source Safety
 - i. Keep space heaters away from walls, combustibles and curtains
 - ii. Maintain a separation of 3 feet between space heaters and combustible objects
 - iii. Adhere to Underwriters Laboratories (UL) warnings and other warnings located on the heating source
 - iv. Kerosene heaters should be used with extreme caution
 - v. Use the proper grade of kerosene, never use gasoline
 - vi. Refuel kerosene heaters outside and only when they have completely cooled
 - vii. Heated areas should be ventilated to prevent the buildup of poisonous carbon monoxide gases

6th – 8th Grades

1. Smoke Alarms
 - a. Job of the smoke alarm
 - b. Where to purchase smoke alarms
 - c. Smoke alarm/carbon monoxide combination
 - d. Maintenance
 - e. What to do if you hear a smoke alarm
2. Home Escape Plans
 - a. Sleep with door shut
 - b. 2 ways out (feeling doors, etc)
 - c. Crawling low under smoke (explain why)
 - d. Get outside as fast as you can
 - e. Go to family meeting place
 - f. Call 911 after you are outside
 - g. NEVER go back inside
3. Chemistry of Fire
 - a. Fire Triangle
 - i. Fuel
 - ii. Heat
 - iii. Oxygen
 - b. Fire Tetrahedron
 - i. Fuel
 - ii. Heat
 - iii. Oxygen
 - iv. Chemical Chain Reaction
 - c. Remove any one element and fire goes out
 - d. The following principals summarize the science of fire
 - i. Fuel, heat and oxygen are essential for combustion (burning)
 - ii. The fuel must be heated to its ignition temperature before it will burn
 - iii. Burning will continue until
 1. The fuel is cooled below its ignition temperature
 2. The fuel is removed or burned up
 3. Oxygen (air) is removed or lowered
 4. The chemical chain reaction is broken

6th – 8th Grades (cont)

4. Safety Tips (cooking, heating, electrical)
 - a. Kitchen
 - i. Never leave a stove unattended
 - ii. Keep stove and oven clean
 - iii. Do not wear loose fitting clothing
 - i. Turn all pot handles inward
 - b. Microwave
 - i. Know how to operate properly
 - ii. Follow package directions carefully
 - iii. Carefully remove dishes, lids and tops to prevent scalds and steam burns
 - iv. Use only microwave-safe dishes, no metal of any kind
 - c. Bedroom Safety
 - i. Do not smoke in bed
 - ii. Sleep with the door closed
 - iii. For maximum protection, smoke alarms should be placed in the bedroom as well as outside the sleeping area
 - d. Family and Living Room Safety
 - i. Place television away from the wall and other furniture
 - ii. Do not run electric cords across doorways or under carpets
 - iii. Wet smoking materials and ashes before disposal
 - e. Fireplace Safety
 - i. Have chimney cleaned and inspected annually
 - ii. Never burn trash or use flammable liquids in fireplace
 - iii. Use a fireplace screen to prevent sparks from coming out
 - iv. Empty and store ashes in metal containers outside
 - v. Keep matches and lighters out of reach of children
 - f. Heating Source Safety
 - i. Keep space heaters away from walls, combustibles and curtains
 - ii. Maintain a separation of 3 feet between space heaters and combustible objects
 - iii. Adhere to Underwriters Laboratories (UL) warnings and other warnings located on the heating source
 - iv. Kerosene heaters should be used with extreme caution
 - v. Use the proper grade of kerosene, never use gasoline
 - vi. Refuel kerosene heaters outside and only when they have completely cooled
 - vii. Heated areas should be ventilated to prevent the buildup of poisonous carbon monoxide gases

6th – 8th Grades (cont)

- g. Basement/Attic Safety
 - i. Do not place flammable materials near any heat source
 - ii. Flammable materials should be properly discarded or stored in metal containers outside (trash, oily rags, papers, etc)
- h. Garage Safety
 - i. Refuel garden equipment when engines are cool
 - ii. Refuel equipment outside
 - iii. Do not store gasoline in garage, basement or attic
- i. Campfire Safety
 - i. Do not use gasoline to start campfires
 - ii. Keep campfires small
 - iii. Clear area 6-10 feet around fire
 - iv. All campfires should be completely extinguished before leaving
 - v. Drown the fire with water, then smother with dirt or sand and stir the ashes before leaving
 - vi. Never play near an open flame or fire
 - vii. Do not build a fire without adult supervision
- j. Barbecue Safety
 - i. This is an outdoor activity only
 - ii. Use proper charcoal products to start the grill
 - iii. Never use gasoline to start the grill
 - iv. Keep grill away from buildings, shrubs, leaves, etc.
 - v. Do not pour or squirt flammable liquids onto hot coals
 - vi. Never leave the grill unattended
 - vii. Douse coals and ashes with water when finished

9th – 12th Grades

1. Smoke Alarms
 - a. Job of the smoke alarm
 - b. Where to purchase smoke alarms
 - c. Smoke alarm/carbon monoxide combination
 - d. Maintenance
 - e. What to do if you hear a smoke alarm
2. Home Escape Plans
 - a. Sleep with door shut
 - b. 2 ways out (feeling doors, etc)
 - c. Crawling low under smoke (explain why)
 - d. Get outside as fast as you can
 - e. Go to family meeting place
 - f. Call 911 after you are outside
 - g. NEVER go back inside
3. Smoking and Open Flames
 - a. Serious health risk, increased health costs
 - b. Leading cause of life and property loss
 - c. Use deep dish ashtrays
 - d. Wet and discard ashes before retiring to bed
 - e. Do not smoke in bed
 - f. Check furniture for dropped ashes
 - g. Candles and other open flame products should be in deep dish containers
 - h. Matches should be stored away from areas where a child may be able to reach them.
 - i. Prevent embers from spreading to combustible areas; use a flame snuffer instead of blowing out the candle.
4. Cooking
 - a. A leading cause of property loss
 - b. Contributes as a leading cause of injury
 - c. Burns occur when people do not know how to extinguish a cooking (grease) fire or are unsuccessful at putting it out.
 - d. Children should not be allowed to cook or be unsupervised in the kitchen
5. Heating
 - a. The leading cause of fires and fire deaths
 - b. Portable heating devices are often the cause of fires due to
 - i. Misuse
 - ii. Lack of maintenance
 - iii. Too close to combustible objects
 - iv. Children should be closely supervised

9th – 12th Grades (cont)

6. Electrical

- a. Old or frayed wiring is a leading cause of fire
- b. Electrical wiring under carpets, along high traffic areas, improper wiring or installation and overloaded circuits can cause fires
- c. High amp appliances should be on dedicated circuit
- d. Surge protectors should be used for multiple connections

7. Drugs & Alcohol

- a. Impaired judgment while under the influence of drugs or/and alcohol has often been associated with fire deaths
- b. Impairment affects one's ability to escape from a burning structure
- c. Unconsciousness or lack of coordination often contribute to the starting of a fire or enabling escape

All-Injury Prevention Messages

Scald Injury Prevention

In the Kitchen

1. Use oven mitts or pads when cooking
2. Turn pot handles inward
3. Never heat baby bottle in the microwave
4. Thoroughly stir all microwave foods and liquids
5. Avoid having area rugs in the kitchen
6. Establish and enforce a “no kids” zone in the kitchen
 - a. Include the stove and sink areas
7. Do not use deep fryers around children
8. Do not handle, eat or drink hot items while holding children
9. Test hot foods and liquids before serving to children
10. Keep hot foods and liquids away from the edges of tables and counters

In the Bathroom

1. Set water temperature to 120°F (49°C)
2. Fill bathtub with cold water then mix with hot
3. Check water temperature before placing child in water. If it's too hot for an adult, it is too hot for a child
4. Face child away from faucets while in the tub
5. Always supervise children in the tub
6. Do not leave children alone in the tub

If a scald occurs

1. Remove clothing to stop on-going heat injury
2. Slowly cool the injury with tap water for 30 minutes
 - a. Cooling decreases the depth of the burn
 - b. Appropriate for all thermal (burn) injuries
3. Ice should NOT be used due to the risk of hypothermia
 - a. Ice may also shut down circulation to the damaged area and increase the death of the tissue
4. Butter, creams, ointments and salves should NOT be used on scald or burn injuries

Motor Vehicle Safety

1. Children should always ride in the back seat in a child safety/restraint seat or booster seat (4'9" or less)
2. Learn and practice school bus safety rules
 - a. While waiting for the bus, stand back 10', or 5 giant steps, from the curb until the bus has completely stopped
 - b. When the door opens line up single file, do not shove or push
 - c. Keep the aisle clear of feet, book bags, lunch boxes, so that other children do not trip and fall
 - d. Stay in your seat at all times
 - e. Keep your head, arms and hands inside the bus at all times
 - f. Never throw anything from the bus
 - g. Do not throw anything inside the bus
 - h. Use the handrails
 - i. When getting off the bus, walk 5 giants steps away so the driver can see you and stay on the sidewalk or shoulder of the roadway
 - j. Never walk behind or next to the bus
 - k. If you drop something around the bus, tell the driver before picking it up or they may not see you next to the bus
 - l. Hold hands with a grown-up when crossing in front of the bus
 - m. Always listen to the driver, they have rules to keep you safe

Bike and Pedestrian Safety

1. Cross the street with a grown-up
 - a. Children should be supervised at all times
 - b. Listen and look for traffic
 - c. Wait until the street is clear
2. Learn and practice bike safety rules
 - a. Always wear an approved bike helmet
 - b. Ride on sidewalks or paths
 - c. When crossing streets, walk your bike
 - d. Children should not ride at night
3. Wear a helmet every time you ride
 - a. Worn correctly
 - b. Proper fit
 - c. Straps buckled
4. See and be seen
 - a. Be safe
 - b. Wear bright colored clothing
 - c. Use retro-reflective clothing or items

Water Safety

1. Always swim with a grown-up
2. Wear a personal flotation device (PFD) when around or in the water
3. Learn and practice water safety rules
 - a. Take lessons
 - b. Check for lifeguard and follow their directions and rules
 - c. Follow the posted rules
 - d. Swim only when rested
 - e. Never jump or dive into water unless you know the depth
 - f. Never eat candy or gum while swimming
 - g. No running, pushing or shoving of people
 - h. Don't swim at night unless the area is properly lit
 - i. Get out of the water immediately if you hear thunder or see lightning
 - i. Seek shelter
 - j. Don't mess around in a boat, it can tip over
4. Stop, look and test before entering lakes and ponds
5. Be safe on ice
 - a. When is ice safe? There is no sure answer
 - b. Children should be supervised

Poisoning Prevention

1. Take medication only from a grown-up you trust
2. Post the poison control number near all phones
3. Hunt for poison hazards in your home with an grown-up
 - a. Keep all medicines out of reach
 - b. Check plants and remove those that are dangerous
 - c. Test for lead based paints
 - d. Install carbon monoxide (CO) detectors
 - e. Open fireplace flues for adequate ventilation
 - f. Never use a BBQ grill inside
 - g. Gasoline, kerosene and other flammable should stored outside the home in small quantities and in approved containers
4. Tell a grown-up if someone finds poison
 - a. Don't let another child eat or drink anything that has not been approved by a grown-up