

Safety Bingo

Objective

Students will learn safety rules about natural gas for inside and outside a building or home.

Curriculum Focus

Science
Health and Safety
Language Arts
Art

Materials

- Copies of "Safety Bingo Cards"
- Marker pieces, pencil or crayon

Next Generation Science Correlations

4-LS1 - 2
4-LS1.D
MS-LS1 - 8
MS-LS1.D



Introduction

There are many safety considerations when using fuel sources at home, school or outside. Natural gas is used as a fuel for furnaces to heat homes, stoves or ranges to cook food, water heaters to heat water, gas grills for outdoor cooking, fireplaces and many other appliances. It is clean, efficient and reliable. A pipeline delivers this fuel. Pipelines can be various sizes in diameter and made of different materials. A leak in a pipe, connector or fixture can be hazardous.

Review with your students the safety tips about natural gas inside and outside a home, school or business. Discuss with students the importance of knowing and following the safety rules and tips below.

Inside

1. Teach children how to use appliances safely and to recognize the odorant, mercaptan, added to natural gas.
2. Keep flammable materials (paint, solvents, cloth, paper) away from appliances.
3. Provide proper ventilation in areas around furnaces, water heaters, dryers, ranges, etc.
4. Make sure all vents and chimneys are free from blockage.
5. If you smell the natural gas odorant, mercaptan, in the house:
 - a. tell an adult and leave the area at once.
 - b. do not use the phone, light switches or flashlights.
 - c. leave the doors open.
 - d. call the natural gas company from a neighbor's house.
 - e. stay away until the natural gas company says it is safe to return.
6. When lighting a natural gas appliance, always strike the match first, then turn on the natural gas.
7. Keep fire extinguishers in the vicinity of appliances with open flames.
8. Follow manufacturer's instructions for the installation, operation and maintenance of gas equipment and appliances.
9. Have routine maintenance performed on appliances to keep them clean and in proper working order.
10. Clean or change filters on furnaces and dryers regularly.
11. Check the temperature setting on the water heater. It should be set at 120 F (49 C).
12. Install a carbon monoxide (CO) detector in your home.

Outside

1. Play away from any natural gas equipment, including pipes and the meter.
2. Call 811 before doing extensive digging in the yard to locate underground pipelines.
3. Never pull out or move marker flags that mark the location of underground pipelines.
4. Never use natural gas appliances intended for outdoor use indoors or in a garage.



Procedure

1. After discussing the natural gas safety rules and tips, play Safety Bingo by giving each student a Safety Bingo card.
 - a. Using a pencil or crayon have student put a mark like an X over the word that answers the questions or completes the sentence.
 - b. If you want to reuse the cards, use marker pieces to cover the word(s).
2. Read the following phrases and have students find the word or phrase that matches the answer on their card.
 - a. To play with three in a row, read three to four sentences or questions.

Phrases

1. The chemical odorant that is added to natural gas is called _____. (mercaptan)
2. What number should you call before you dig in your yard? _____ (811)
3. Do not pull out _____ because they show the location of underground pipelines. (marker flags)
4. Natural gas is brought to your house or business by an _____. (underground pipeline)
5. If you suspect a natural gas leak, you should leave the area immediately and _____. (tell an adult)
6. Never play near or on any natural gas equipment, including pipes and _____. (meters)
7. Install a _____ detector in your home. (carbon monoxide)
8. Clean or change _____ on furnaces and dryers regularly. (filters)



To Know and Do More

Have students make posters or slogans of a safety tip regarding natural gas. Illustrate it with photos, drawings or diagrams. Have students write a creative story or poem that begins with "I thought there was a natural gas leak because..."

Student Sheet: Safety Bingo

Bingo

carbon monoxide	marker flags	mercaptan	filters	underground pipeline	furnace
filters	tell an adult	underground pipeline	811	meters	equipment
furnace	811	water heater	carbon monoxide	marker flags	tell an adult

Bingo

Bingo

furnace	811	mercaptan	filters	tell an adult	marker flags
filters	underground pipeline	meters	underground pipeline	meters	equipment
tell an adult	water heater	equipment	carbon monoxide	water heater	furnace

Bingo

Bingo

811	water heater	underground pipeline	tell an adult	marker flags	underground pipeline
equipment	filters	marker flags	meters	mercaptan	equipment
mercaptan	furnace	meters	water heater	carbon monoxide	furnace

Bingo

Bingo

811	underground pipeline	tell an adult	marker flags	meters	underground pipeline
meters	mercaptan	marker flags	filters	tell an adult	carbon monoxide
filters	equipment	furnace	811	furnace	equipment

Bingo

Bingo

equipment	underground pipeline	811
meters	mercaptan	tell an adult
furnace	marker flags	water heater

Bingo

equipment	tell an adult	furnace
marker flags	811	mercaptan
meters	carbon monoxide	filters

Bingo

water heater	mercaptan	marker flags
carbon monoxide	tell an adult	filters
underground pipeline	811	furnace

Bingo

filters	water heater	carbon monoxide
marker flags	tell an adult	811
meters	equipment	mercaptan

Bingo

meters	water heater	811
carbon monoxide	tell an adult	marker flags
equipment	furnace	filters

Bingo

filters	mercaptan	811
water heater	furnace	underground pipeline
meters	tell an adult	marker flags

Bingo

meters	filters	tell an adult
furnace	water heater	carbon monoxide
equipment	marker flags	811

Bingo

underground pipeline	equipment	water heater
811	furnace	filters
carbon monoxide	meters	tell an adult

Bingo

marker flags	underground pipeline	811
meters	filters	tell an adult
furnace	carbon monoxide	mercaptan

Bingo

tell an adult	equipment	furnace
meters	811	filters
carbon monoxide	underground pipeline	marker flags

Bingo

filters	furnace	water heater
tell an adult	carbon monoxide	mercaptan
underground pipeline	meters	marker flags

Bingo

equipment	tell an adult	underground pipeline
811	water heater	furnace
carbon monoxide	filters	mercaptan

Bingo

underground pipeline	811	carbon monoxide
filters	marker flags	tell an adult
meters	water heater	equipment

Bingo

filters	underground pipeline	furnace
811	equipment	meters
marker flags	tell an adult	mercaptan

Bingo

marker flags	furnace	underground pipeline
filters	mercaptan	811
meters	equipment	carbon monoxide

Bingo

underground pipeline	furnace	tell an adult
meters	carbon monoxide	equipment
water heater	filters	811

Bingo

Bingo

tell an adult	furnace	underground pipeline	filters	carbon monoxide	meters
carbon monoxide	equipment	water heater	underground pipeline	water heater	furnace
meters	marker flags	811	811	marker flags	equipment