



Lesson 2



Madison Fire & Rescue



FIRE FACTS

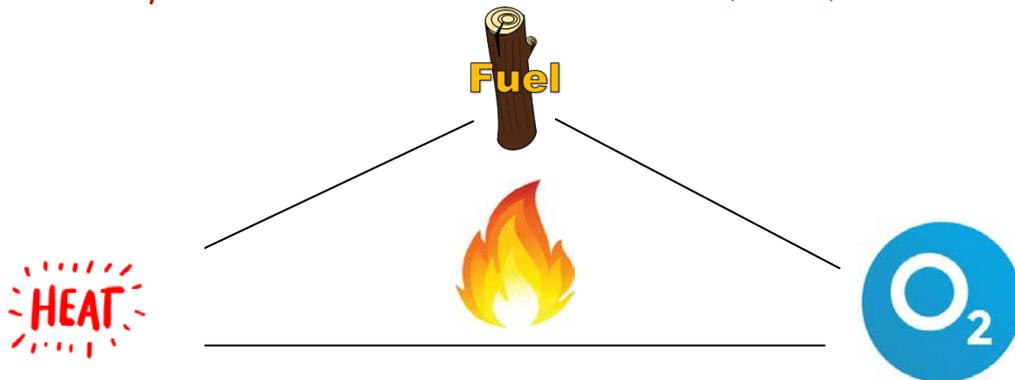
LESSON OBJECTIVES:

- Discuss elements of the fire triangle
- Discuss characteristics of fire
- Discuss the basic concept of fire prevention

Fire is one of our earliest tools. Fire is useful, but if used improperly it can destroy everything in its path.

Elements of the Fire Triangle

Every fire must have three elements: HEAT, FUEL, and OXYGEN



HEAT

Some sources are matches, lighters, stoves, heaters, electrical wires, and lightning.

FUEL

Examples are paper, furniture, gasoline, grease, clothing, and wood.

OXYGEN

Oxygen is a colorless and odorless gas that is in the air we breathe.



FIRE FACTS

FIRE PREVENTION

Since we are surrounded by oxygen in the air, we can't control it. So the two elements of the fire triangle we need to control to prevent fires are heat and fuel.

Characteristics of Fire

Fires produce HEAT, SMOKE, and POISONOUS GASES.

HEAT

Fire can create temperatures of 1,300 degrees at the ceiling with the floor temperatures just over 100 degrees.

SMOKE

Fire produces a thick black smoke that can confuse you and make it difficult for you to find your way out.

POISONOUS GASES

Fire produces poisonous gases. Breathing even small amounts can be harmful or kill you.



CAUSES OF FIRE INJURIES

LESSON OBJECTIVES

- Discuss proper methods to extinguish a grease fire
- Discuss ways to prevent accidental burns in the kitchen
- Identify proper storage and use of flammable liquids
- Describe safe usage of candles
- Discuss fireworks safety

GREASE FIRES

Many fires and burn accidents happen in the kitchen. Grease fires are among the most common fires that occur while people are cooking. It is very easy for fires to start when someone becomes distracted when cooking. Do not use water on grease fires because it splatters the grease and can spread the fire. The best way to extinguish a grease fire is to use an ABC portable fire extinguisher or cover the fire with a lid or a larger pan. This removes the oxygen and smothers the fire.



REMEMBER Oxygen is one of the three elements needed to have a fire

Anytime a fire takes place in the home, call the fire department to make sure the fire is out.

One other way to prevent accidents in the kitchen is to make sure that all pot and pan handles are turned toward the back of the stove. Use the back burners of the stove whenever possible. This will prevent many scalds and burns caused by accidentally knocking or pulling pots and pans from the stove.



CAUSES OF FIRE INJURIES

GASOLINE FIRES

We use flammable liquids every day without realizing how dangerous they can be. Gasoline vapors will form any time gasoline is exposed to air and the temperature is above forty-five degrees below zero. Gasoline vapors settle to the lowest area and spread out when they leak from a container because its vapors are 2.5 times heavier than air. When these vapors reach any kind of heat source, such as an electrical spark, pilot light on a gas stove, or a carelessly disposed match, an explosion and/or fire will result. It is estimated that if you turn one gallon of gasoline into vapor, the explosive power would be equal to 13 sticks of dynamite. Gasoline should be stored in an Underwriters Laboratory (UL) approved container made from metal or heavy plastic. **All flammable liquids should be stored out of the reach of small children.**

CANDLE FIRES

Candles are a source of light and delight when used properly. However, if certain precautions are not taken, candles can become a factor in a chain of events that can cause unnecessary injury and even death. Always keep a burning candle within sight. Extinguish all candles when leaving a room or before going to sleep. Never burn a candle on or near anything that can catch fire.

FIREWORKS

Fireworks are best left to the professionals. Many people are injured every year by fireworks. Unfortunately, children suffer most of the injuries. The most common injuries are to the head, eyes and hands.



QUIZ

1. The three elements of the fire triangle are _____,
_____, and _____.
2. The three characteristics of fire are _____,
_____, and _____.
3. Three examples of fuel are _____,
and _____.
4. Since _____ is difficult to control, to prevent a fire you must keep _____
away from _____.
5. Don't use water on a grease fire because it can _____
the grease and _____ the fire.
6. Extinguish all candles when leaving a room or going to _____.
7. Gasoline vapors are _____ times heavier than air.

8. A gasoline container should be approved by _____

and made from metal or _____ plastic.

9. All flammable liquids must be stored out of the reach of _____.

10. Keep burning candles out of the reach of _____

and _____.

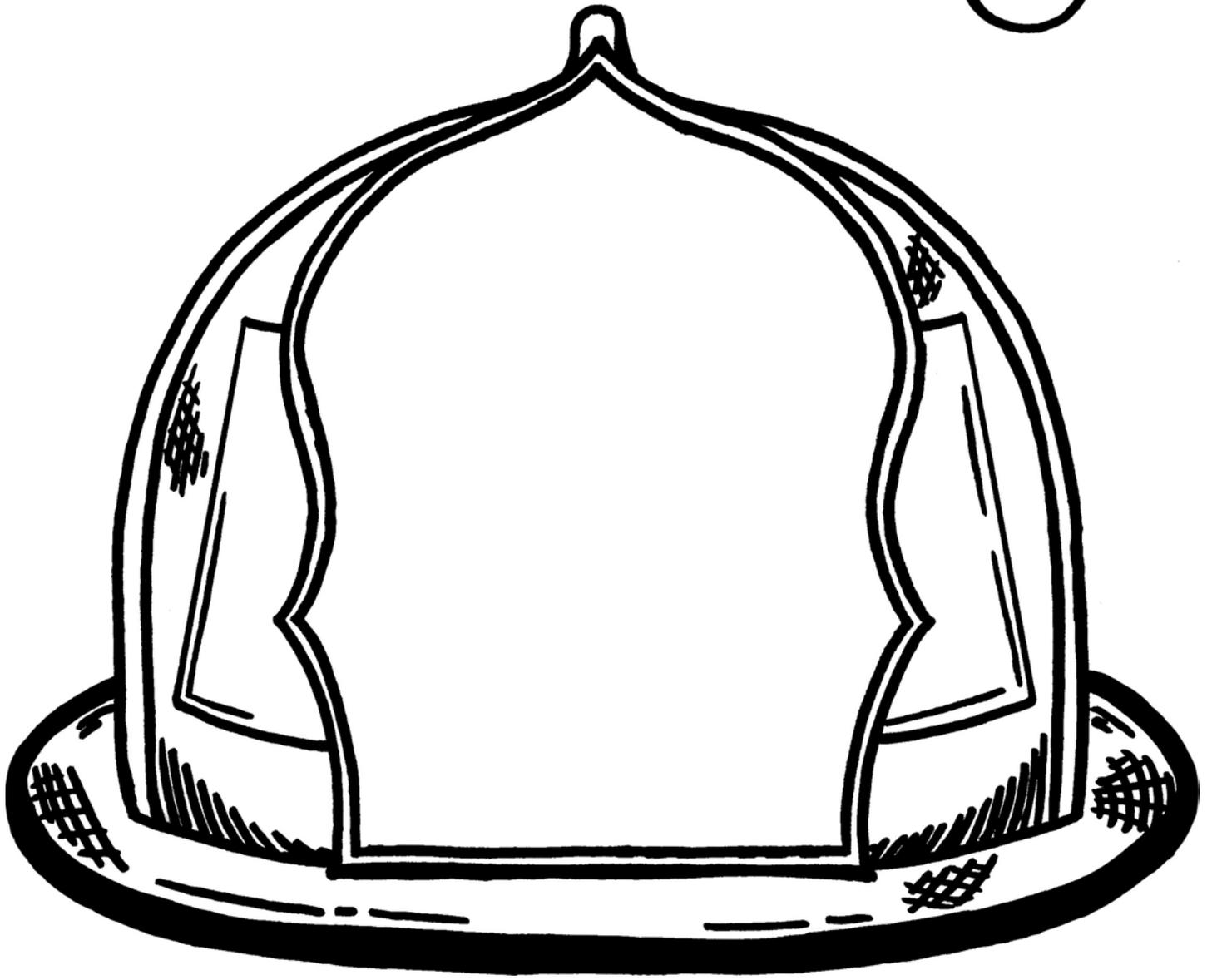
11. Most fireworks injuries are to the _____, and _____.

12. Pot and pan handles should always be turned toward the _____

of the _____ to prevent scalds and burns.

13. Use the _____ of the stove when possible.

DRAW YOUR OWN FIRE
HELMET SHIELD! 





WORD SCRAMBLER

EVERYONE SHOULD HAVE A HOME FIRE ESCAPE PLAN

Unscramble these letters to form words found in your Home Fire Escape Plan.

1. EMOH _____
2. DDERLAS _____
3. ROODEBM _____
4. STET _____
5. RIFE _____
6. IXTE _____
7. KMESO _____
8. EETM _____
9. PSEACE _____
10. LHAL _____
11. 191 _____
12. TFEASY _____
13. ANLP _____
14. IASRTS _____
15. LWRAC _____
16. DWNIWO _____
17. DLLIR _____
18. SGA _____
19. RMLAA _____
20. WOL _____
21. TIDEH _____

1. HOME
2. LADDERS
3. BEDROOM
4. TEST
5. FIRE
6. EXIT
7. SMOKE
8. MEET
9. ESCAPE
10. HALL
11. 911
12. SAFETY
13. PLAN
14. STAIRS
15. CRAWL
16. WINDOW
17. DRILL
18. GAS
19. ALARM
20. LOW
21. EDITH

KEY:

Find the Safety Words and Phrases

C	E	N	T	R	E	X	I	T	L	I	X	E
A	J	R	J	P	C	E	E	S	E	E	G	E
L	I	S	T	E	N	L	X	P	S	A	E	C
L	C	B	T	S	P	E	L	A	K	W	T	A
9	O	A	I	M	S	C	N	R	A	E	L	P
1	O	L	X	R	D	T	M	K	L	R	O	S
1	K	O	E	A	E	R	S	Y	L	E	W	D
C	S	O	N	L	R	I	M	T	I	T	A	E
O	A	C	O	A	A	C	R	H	R	W	N	E
O	F	G	Z	O	W	A	A	E	D	O	D	N
L	E	P	E	C	A	L	L	F	E	W	G	S
A	L	M	E	C	E	S	A	I	P	A	O	R
B	Y	Z	R	L	B	A	E	R	A	Y	F	E
U	J	U	F	E	A	F	K	E	C	S	T	T
R	R	G	D	T	E	E	O	D	S	O	O	A
N	X	K	I	R	H	T	M	O	E	U	E	E
L	O	O	K	N	F	Y	S	G	K	T	E	H

BE AWARE
CALL 911
CO ALARMS
COOK SAFELY
COOL A BURN
ELECTRICAL SAFETY
ESCAPE DRILL
EXIT

GET LOW AND GO
HEATERS NEED SPACE
KID FREE ZONE
LEARN
LISTEN
LOOK
SMOKE ALARMS
SPARKY THE FIRE DOG
TWO WAYS OUT



FIRE
PREVENTION
WEEK

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