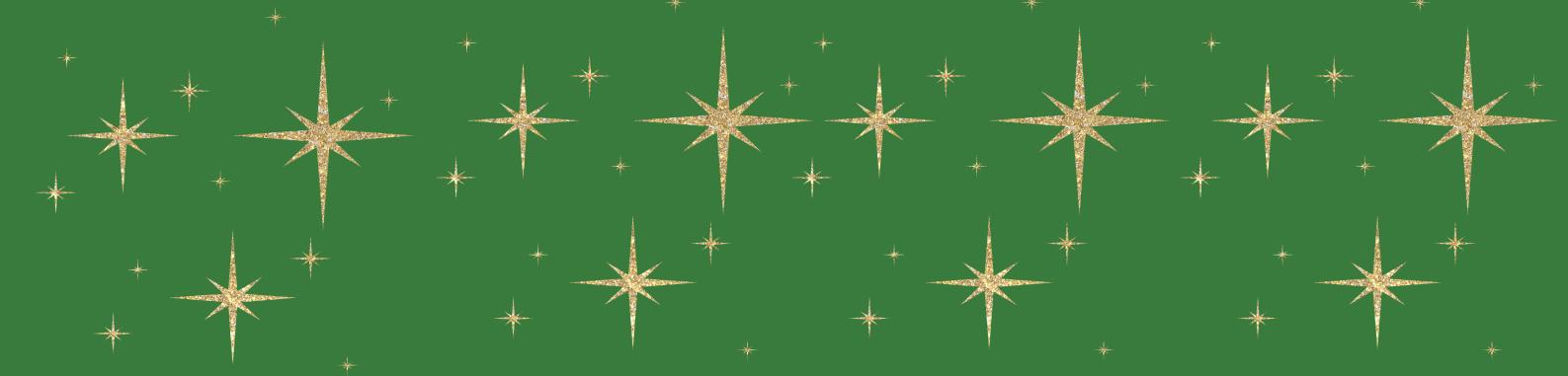




# SPARK JOY NOT FLAMES

### Guard YOUR Holidays from





this fire traingle is made to show what 3 things fuse a fire





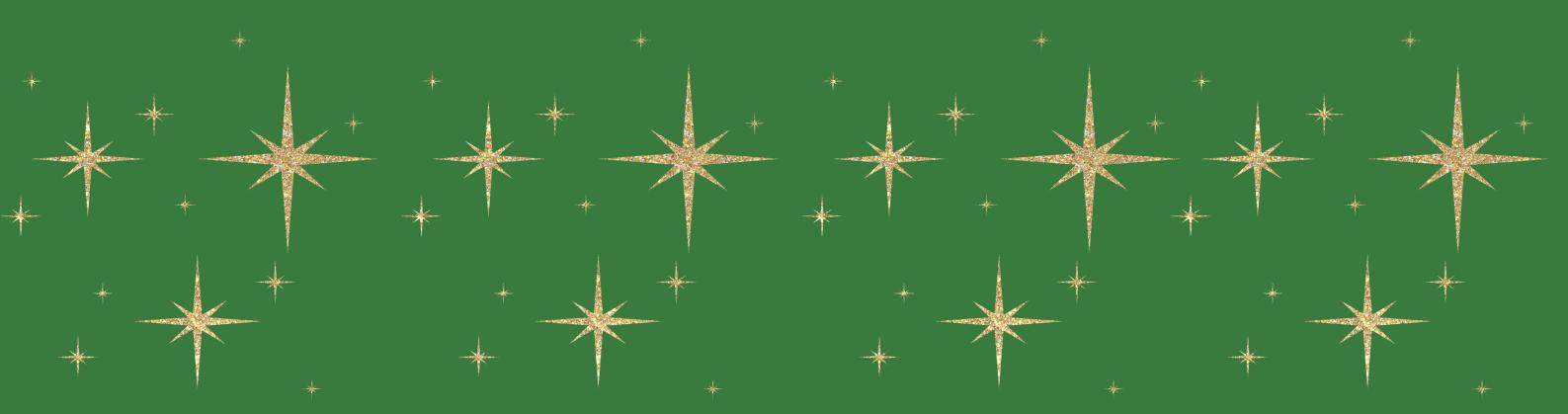
The Big 3 are:

- FUEL
- OXEGYN
- HEAT



Bonus to tell your parents: the equation that makes up a fire is

 $(CH2O(g) + O2(g) \rightarrow H2O(g) + CO2(g))$ [pictuire is from canva)



### DECOR THAT YOU NEED TO BE CAREFUL OF



#### What is Flammable

- The fire place is the most flammable of all combined. If you put too much wood in there or accidently light your shirt on fire. It will begin to spread through the rest of your house.
- 2. The heat from these lights (usually caused from conduction) can cause the plastic materials of an artificial tree to heat up and potentially ignite or melt, releasing toxic fumes.
  - 3. The stockings are highly flammable since they are very close to the fire and should be secured tightly on the mantle to avoid it.
  - 4. presents can be flammable but it all depends whats inside.

#### How to avoid

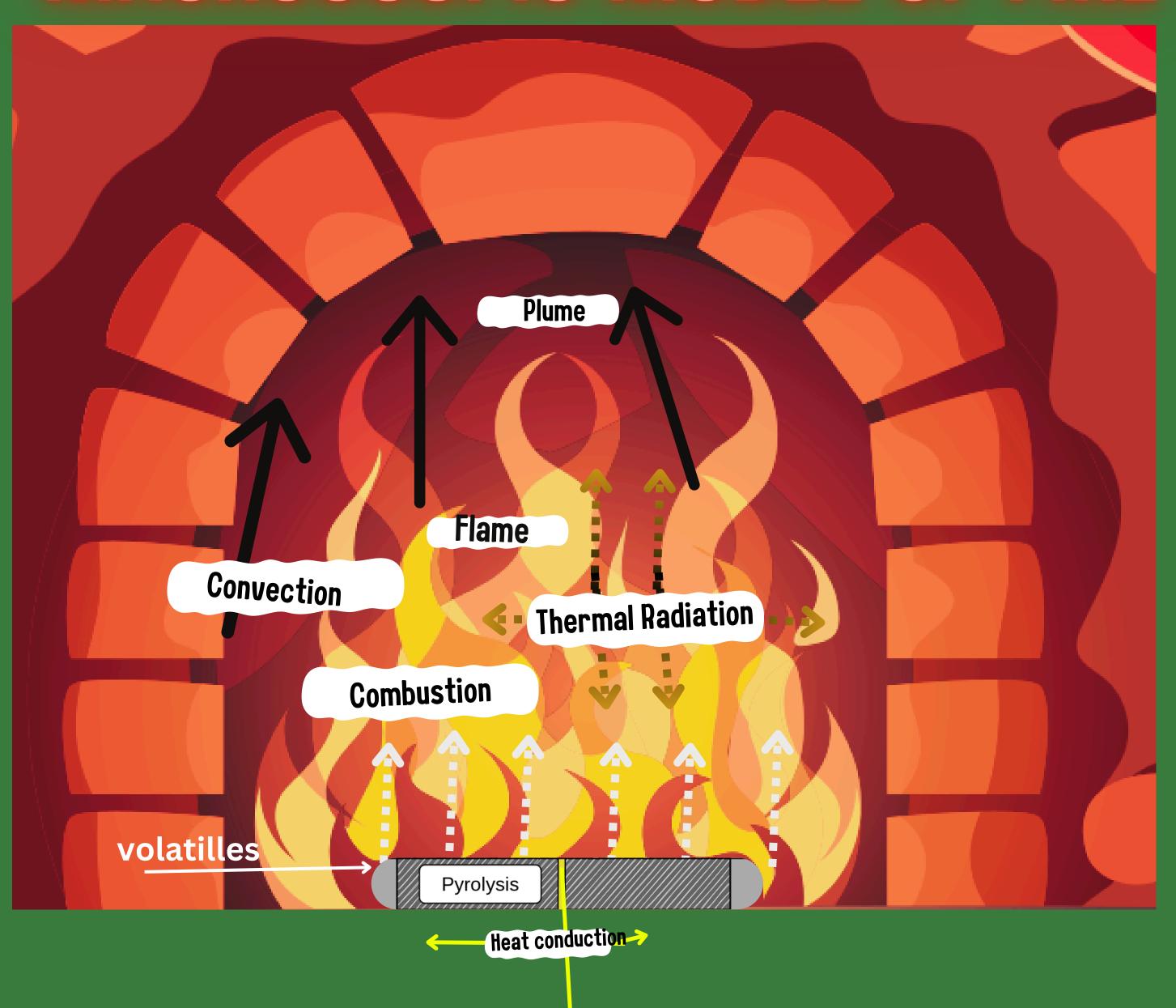
Inspect extension cords for broken or exposed wires or loose plugs

Do not use multiple extension cords or outlets

Make sure wiring does not run under rugs, over nails
Keep open flames away from walls, furniture, drapery and flammable items.

Keep a screen in front of the fireplace.

### MACROSCOPIC MODEL OF FIRE



## PARTICULATE MODEL OF FIRE

Before

During

After



girl accidently lighting the tree on fire

- when the lights have caught on fire or you lit a candle and it fell on the tree the fire will grow bigger and surrond the whole tree.
- The tree is flammable because of the wood on it an energy released by the chemical reaction (water vapor and CO2) excites the electrons in the atoms of gas, which in turn emit visible light.
- eventually it will spread to other areas in your house an might burn down

- The tree will look like this after it burns.
- When wood is burned, oxygen and other elements in the air (mainly carbon, hydrogen and oxygen) react to form carbon dioxide that is released into the atmosphere, while the minerals turn into ashes.
- If your careful this will not happen
- and if it does happen make sure you have a fire extingusher in your house to avoid the situation

https://deldarlegal.com/uncategorized/canchristmas-lights-cause-afire/#:~:text=But%20certain%20types%20of%20light s,or%20melt%2C%20releasing%20toxic%20fumes.

https://gema.georgia.gov/preventing-fires

https://firedynamics.github.io/LectureFireSimulation/content/modelling/01\_general/01\_processes.html

https://www.customs.go.jp/ccl/e\_kids/3.htm#:~:text=Wood% 20is%20made%20of%20fiber,the%20minerals%20turn%20into%20ashes.

The other photos I found were from canva