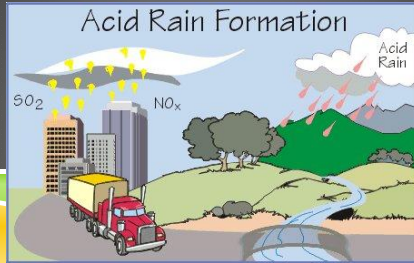


# ACID DEPOSITION

CH 21.4



# ACID RAIN

❖ *Higher* than normal *acidity (low pH)*



# CAUSES OF ACID RAIN

❖ **Burning Coal:**

❖ Produces energy and gives off **sulfur dioxide ( $SO_2$ )** gas



# CAUSES OF ACID RAIN

▶ **Burning Oil & Natural Gas:**

- ▶ Car engines produce **nitric oxide (NO)** gas
- ▶ Mixed with air **water vapor** produces **sulfuric** and **nitric acid** solutions



# ENVIRONMENTAL EFFECTS



# EFFECTS: TREES

❖ **Stunted** growth & **damaged** bark & leaves



## EFFECTS: SOIL



- ❖ Trees & plants poisoned with **toxins** that rain has **deposited** into it

## EFFECTS: LAKES

- ❖ Kills fish eggs **before** ever being born
- ❖ **Birds** die from eating "toxic" fish



## EFFECTS: BUILDINGS

- ❖ **Dissolves** stonework (**sandstone** or **limestone**)

Acid Rain Effects on Sculptures



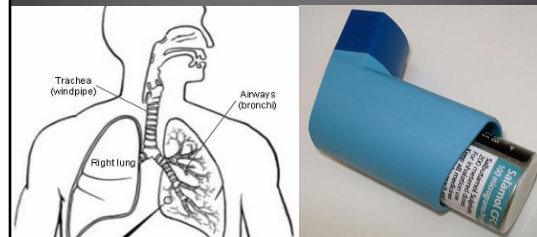
## EFFECTS: TRANSPORTATION

- ❖ **Railway** and **airplane** parts **corroded**
- ❖ **Collapsed** bridges due to corrosion



## EFFECTS: HUMANS

- ❖ Major **respiratory** problems
- ❖ Asthma, dry coughs, headaches, etc



## POSSIBLE SOLUTIONS

- ❖ **Reduce** energy use
- ❖ Use **renewable** energy (**wind**, **solar**, **tides**)
- ❖ Increase **public transportation**

