

Topic/Objective CHAPTER: 11

NAME:

Ozone

Pd: 1 2 4 5 other

DATE

Essential Question

What is Ozone & CFC's pt 1

Cue: Review:

Thoughts: Main Idea

Video

Video: <sup>only</sup> 50-1:30

NOTE Taking AREA:

what is ozone by Mocomi kids.

EARTH'S Atmosphere by Veronica Kimes  
only watch from 0:50 sec to 1:30 sec

U.V. rays

- Ultraviolet Radiation
- energy from the Sun that is harmful in large amounts.

What the harmful rays do to us?

- Harmful rays from the Sun can cause:
  - 1) Skin Cancer
  - 2) Single cell organisms and Plants to dry up and die
  - 3) Environment ecosystems

Ozone Layer

- ⊕ is protected by a layer in the stratosphere called: the Ozone layer

What is the Ozone Layer?

- is about 3-5 mm thick and is high concentration of Oxygen molecules



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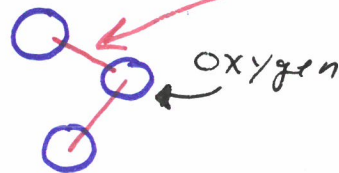
DATE

Cue: Review:  
Thoughts: Main Idea

NOTE Taking AREA:

What is  
Ozone?

- Ozone is a molecule of 3 oxygen atoms that have been bonded together.



What's  
Oxygen

SEE Chemistry NOTES for this Section

How does  
Ozone form?

- Ozone forms when U.V. rays from the Sun split molecule of oxygen in half.

- now the single oxygen atom ( $O_1$ ) attach themselves to an unharmed  $O_2$  molecule ... forming  $O_3$  or Ozone!

What  
does Ozone  
do for us?

- Ozone absorbs harmful ultraviolet rays and converts it into heat which warms up the layer of  $\oplus$  atmosphere from  $-50^\circ C$  to  $-3^\circ C$   
 $-62^\circ F$  to  $27^\circ F$

SUMMARY:

what is  
happening  
to Ozone?

→ Ozone layer is getting thinner as if there are "holes" in it



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NOTE Taking AREA:

How does  
ozone form?

↳ when **U.V. rays** from the Sun  
split the  $O_2$  molecule in  $\frac{1}{2}$

↳ Now the single oxygen atom ( $O$ )  
attach itself to an **unharmful**  
 $O_2$  molecule... to form  $O_3$  (ozone)

What does  
 $O_3$  do for us

↳  $O_3$  absorbs the harmful U.V. rays  
and converts it into HEAT

↳ this heat warms up the  
Layer of  $\oplus$ 's atmosphere from  
 $-62^\circ F$  to  $27^\circ F$  ( $-52^\circ C$  to  $-3^\circ C$ )

Ozone  
holes.

↳  $O_3$  layer is getting thinner as if  
there are "holes" in it

SUMMARY:

Solve the  
Problem

↳ We tried to "make" Ozone @ sea level  
but when its released, the  $O_3$  manmade  
molecule breaks apart.

↳  $O_3$  we make is called **Freon**



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Atmosphere

Essential Question

What is Ozone?

Cue: Review:  
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NOTE Taking AREA:

Ozone

↳ 3 Oxygen Atoms **bonded** to form an oxygen molecule  $\Rightarrow$   $O_3$



chem symbol

drawing

Ozone Layer

↳ is about 3-5 mm thick

↳ High concentration of Oxygen Molecules

↳ it protects  $\oplus$  from **harmful U.V. rays**.

earth

U.V. RAYS

↳ **Ultra violet radiation**

Harmful Ray

↳ These harmful ray from the  $\odot$  can cause:

sun

1.) Skin Cancer (form of sun burn)

2.) Single cell organisms and **plants** will dry up and **DIE!**



3.) damage to environmental ecosystems.

NOTES CONTINUE ON OTHER SIDE