



3° ESO

CHEMISTRY AND PHYSICS

Chemical Reactions and Society



Photochemical Smog, Acid Rain, and Plastic Build-Up
in the Ocean





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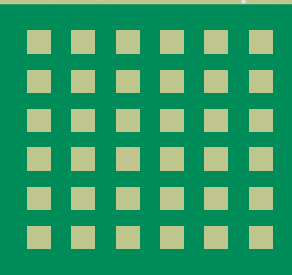
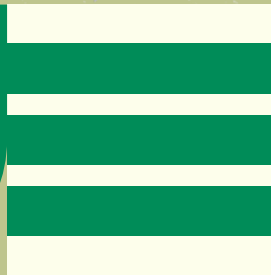
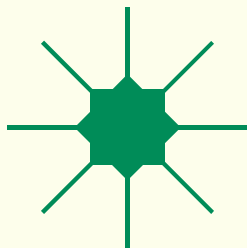
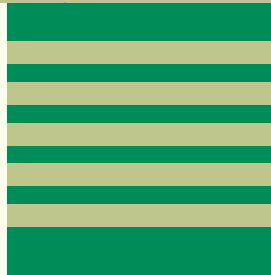
04. Plastic Build-Up in the Ocean





Introduction

Some chemical reactions affect the society and results to environmental problems that affect the air, land, and water.

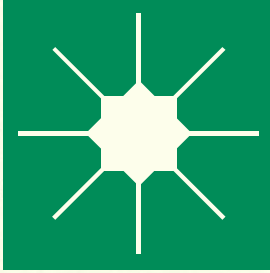


The logo for TEDEd, consisting of the letters 'TEDEd' in white on a red circular background.

THE SCIENCE OF SMOG



<https://www.youtube.com/watch?v=CdbBwlgq4rs&t=40s>

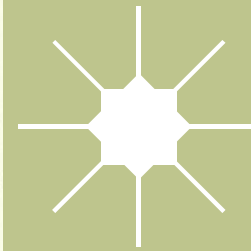


Photochemical Smog

- ▶ The reaction of Nitrogen Oxide with VOCs or other gases and components.

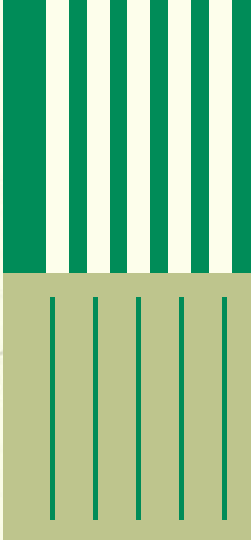
Nitrogen Oxide are usually from burning fuel in motors and boilers.





What are the effects of smog to people? (2:58)

Why does smog affect other cities but not others? (2:03)



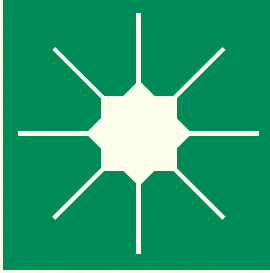
What is the Great Smog of London? What happened during this time? (3:42)



WHAT IS ACID RAIN?



<https://www.youtube.com/watch?v=cRKQT7DeN-E&t=184s>



Acid Rain

-created when gases from sulfur dioxide and nitrogen oxide react with atmospheric water vapour forming destructive acids.





How does acid rain form? (0:09)

What are the two forms of acid rain? Explain each. (0:33)

Where does acid rain come from? (1:18)

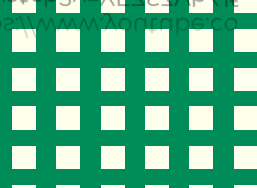
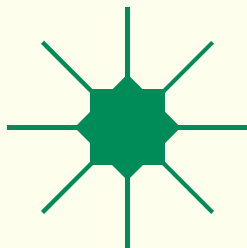
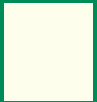


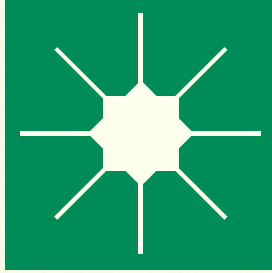


HOW MUCH OCEAN PLASTIC?

<https://www.youtube.com/watch?v=YFZS3Vh4IfI&t=1s>

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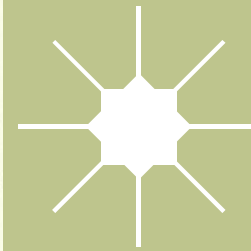





Plastics

-synthetic polymers that are difficult to biodegrade and create environmental issues.





How many tons of plastic waste are leaked in the ocean? (2:00)

TRUE OR FALSE: Plastics can go deeper in the oceans.. (2:28)



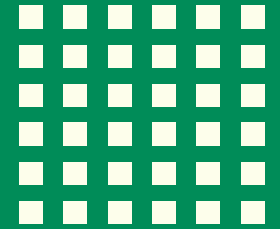
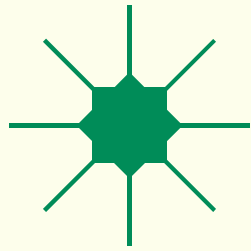
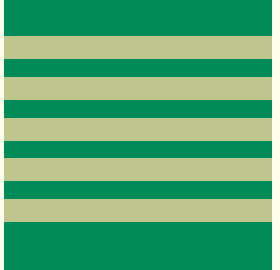
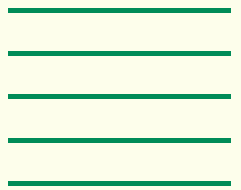
Based on the video, how do plastics affect sea life?



How to Take Care of the Environment

https://www.youtube.com/watch?v=bEiXC_loW4o

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What can you do to stop these environmental problems?

Group yourselves into 5 and make a poster about your solution/s to one (or or few) environmental issue/s we discussed. Present your poster in class.

