Name: _____ Date: _____

Student Handout:

Observing Chlorophyll Densities In The Ocean Before and After A Hurricane

Part I: Watch this video to get a better understanding of how phytoplankton is essential to life.

1. Explain what chlorophyll-a is and why it's important for understanding ocean health.

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2. How would a decrease in the chlorophyll levels impact marine ecosystems and global processes? Discuss the potential effect on the marine food web, carbon cycle, and climate regulation.

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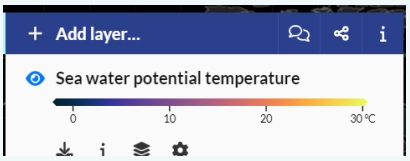
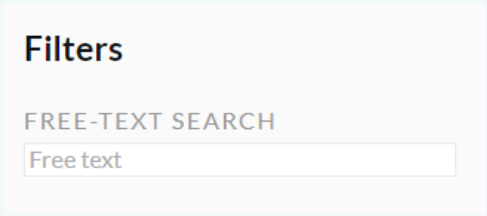
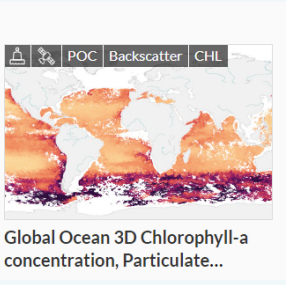
Part II.

- Go to this site to observe the chlorophyll-a concentrations during various climatic changes. CMEMS Data Explorer
- Click on +add layer.



- Type in Global Ocean 3D.





- Click on the image to take you to the interactive map.
- At the bottom of the screen, find the slide bar. Hover over the slide bar to see the date. 

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1. Slide the bar over to July 11. Observe the graph and identify the different densities of chlorophyll throughout the pacific ocean . What do you notice?

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2. Next, slide the bar over to July 19. Observe the graph and identify the different densities of chlorophyll throughout the pacific ocean . What do you notice?_____

   _____

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3. Do you see any changes in density of chlorophyll in any areas?

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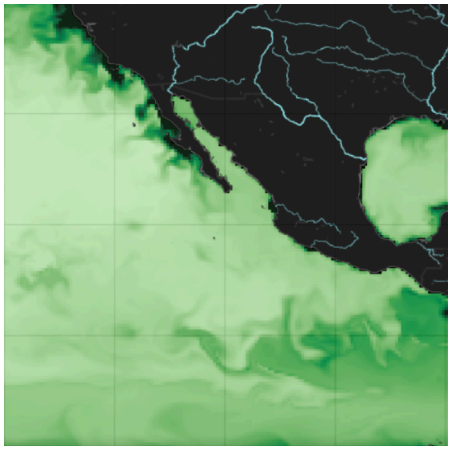
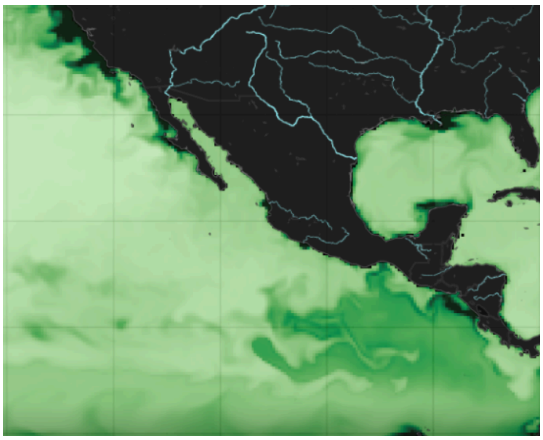


July 11, 2023



July 19, 2023

4. After comparing the two images of the chlorophyll patterns above, discuss how hurricanes impact chlorophyll-a concentrations.

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