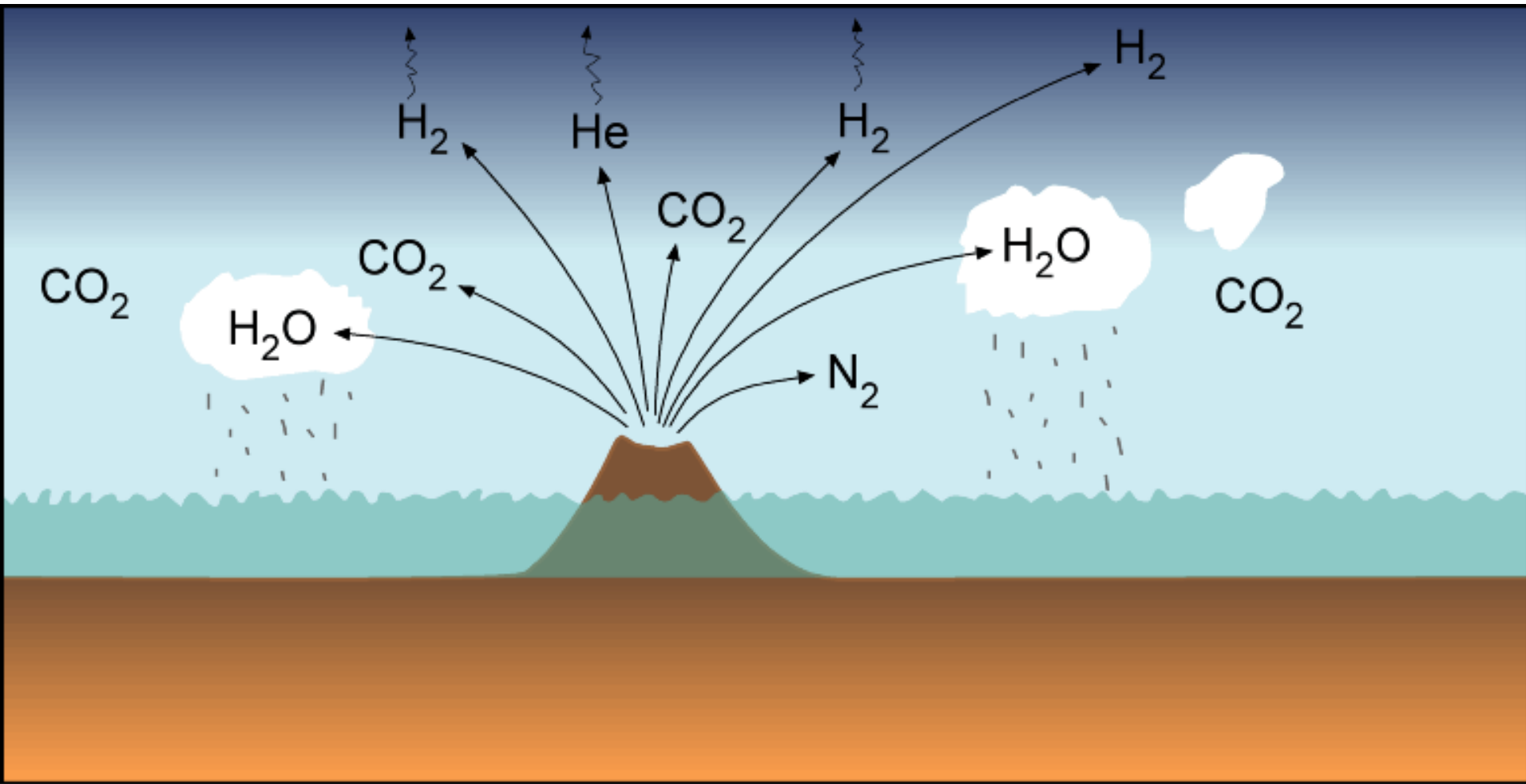


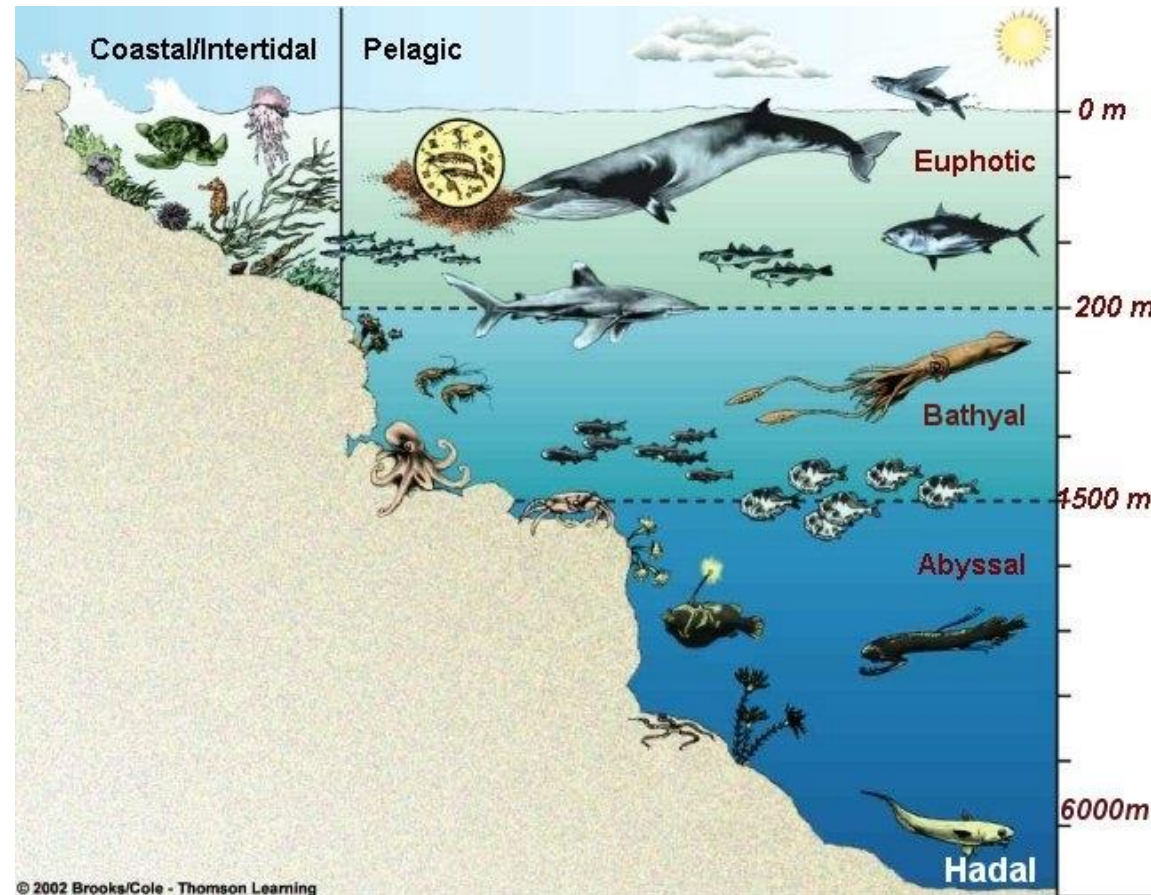
# **Oceanography Study Notes**

Oceans

1. Outgassing by volcanoes and ice from comets were the two sources of water that created Earth's oceans.



2. The ocean zone that receives the most solar energy and is home to the most diverse ocean life forms is the pelagic zone.



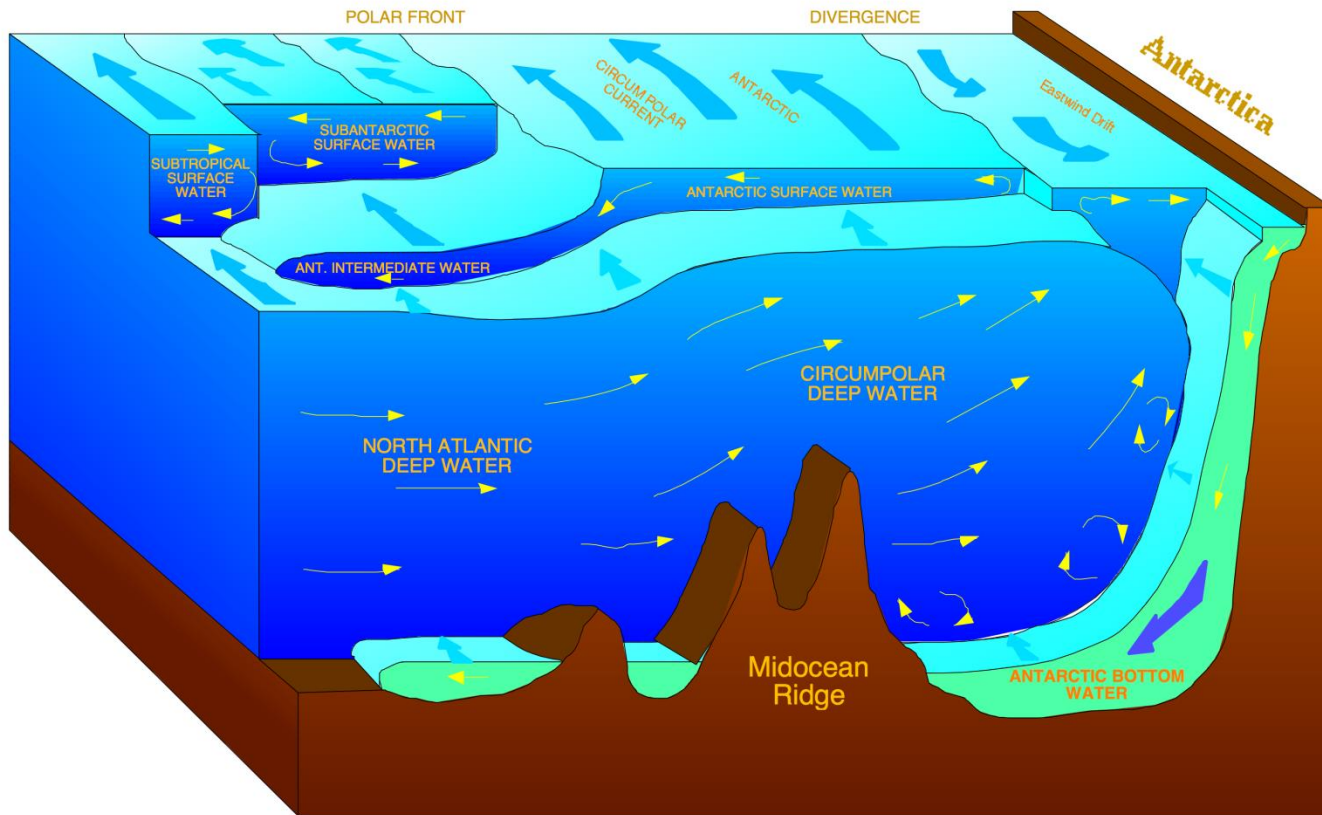
3. Gases dissolve most easily in cold ocean water.



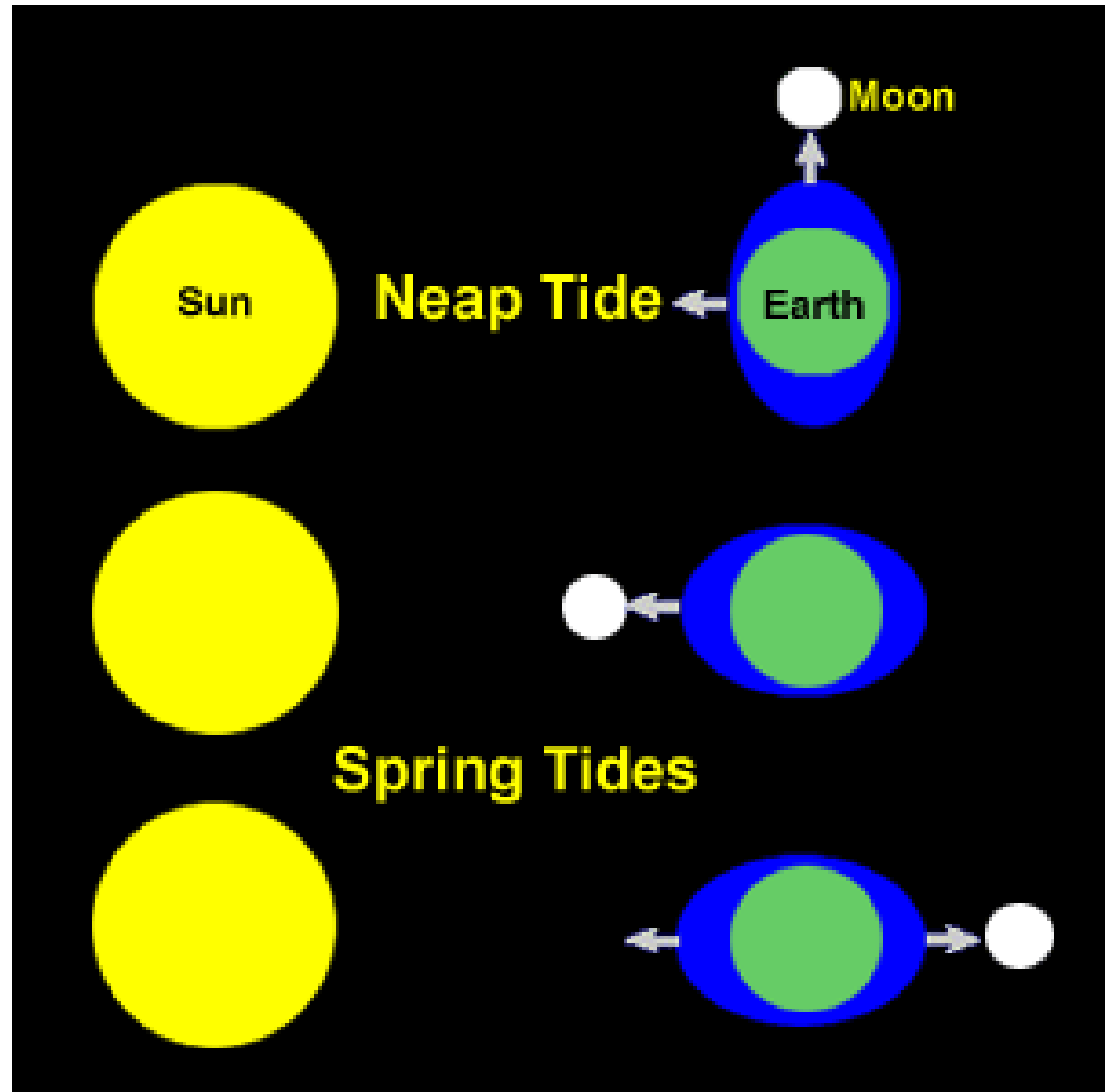
4. Raising aquatic plants and animals for human consumption is aquaculture .



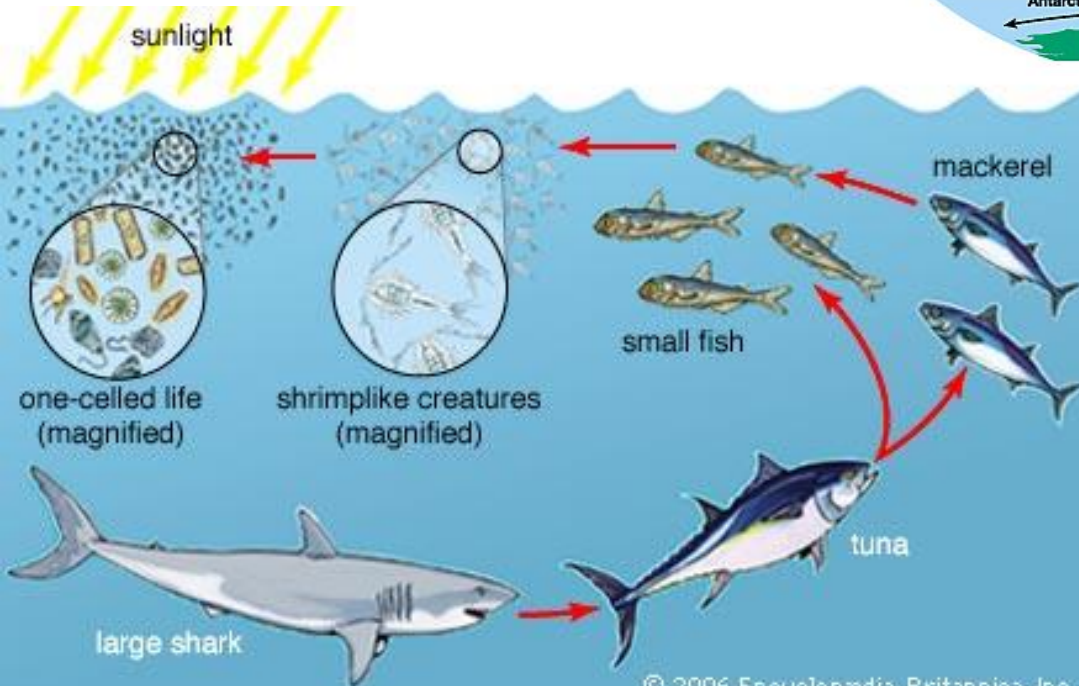
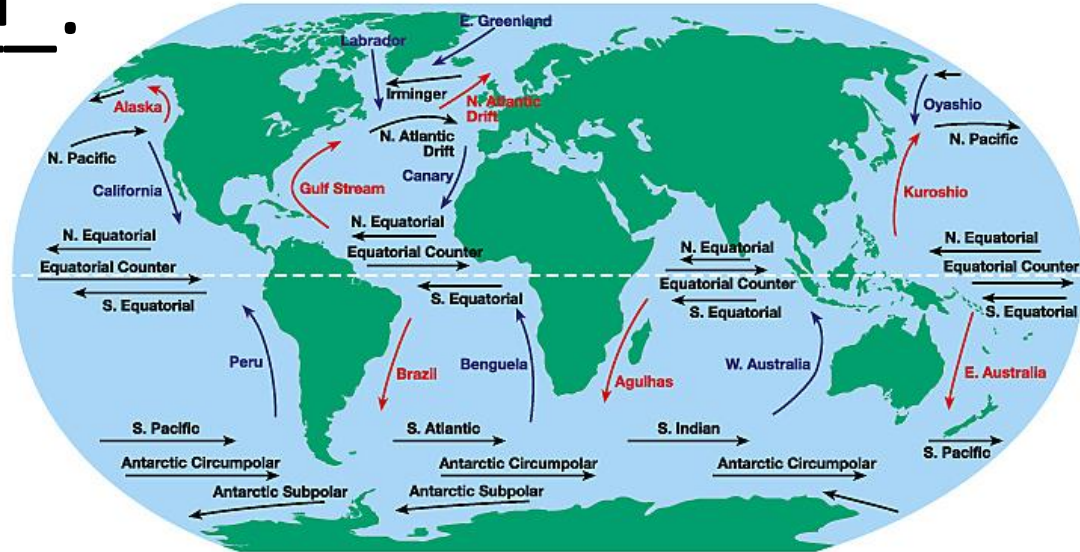
6. Cold ocean water sinks and moves through the ocean basins.



6. Tides are caused by the pull of gravity from the moon and sun.

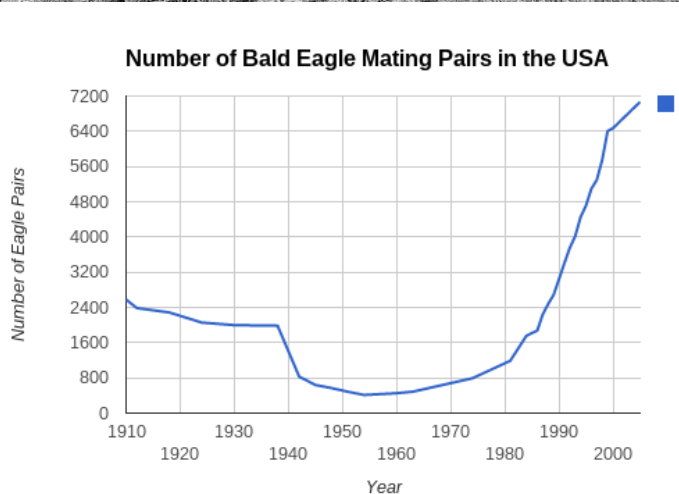


# 7. The main source of energy for the ocean is the sun.





8. Scientists and governments have worked to reduce pollution by banning DDT and reducing leaded gasoline use in the United States.



## Lead poisoning

*Lead buildup in the body causes serious health problems*

### Symptoms

- Headaches
- Irritability
- Reduced sensations
- Aggressive behavior
- Difficulty sleeping

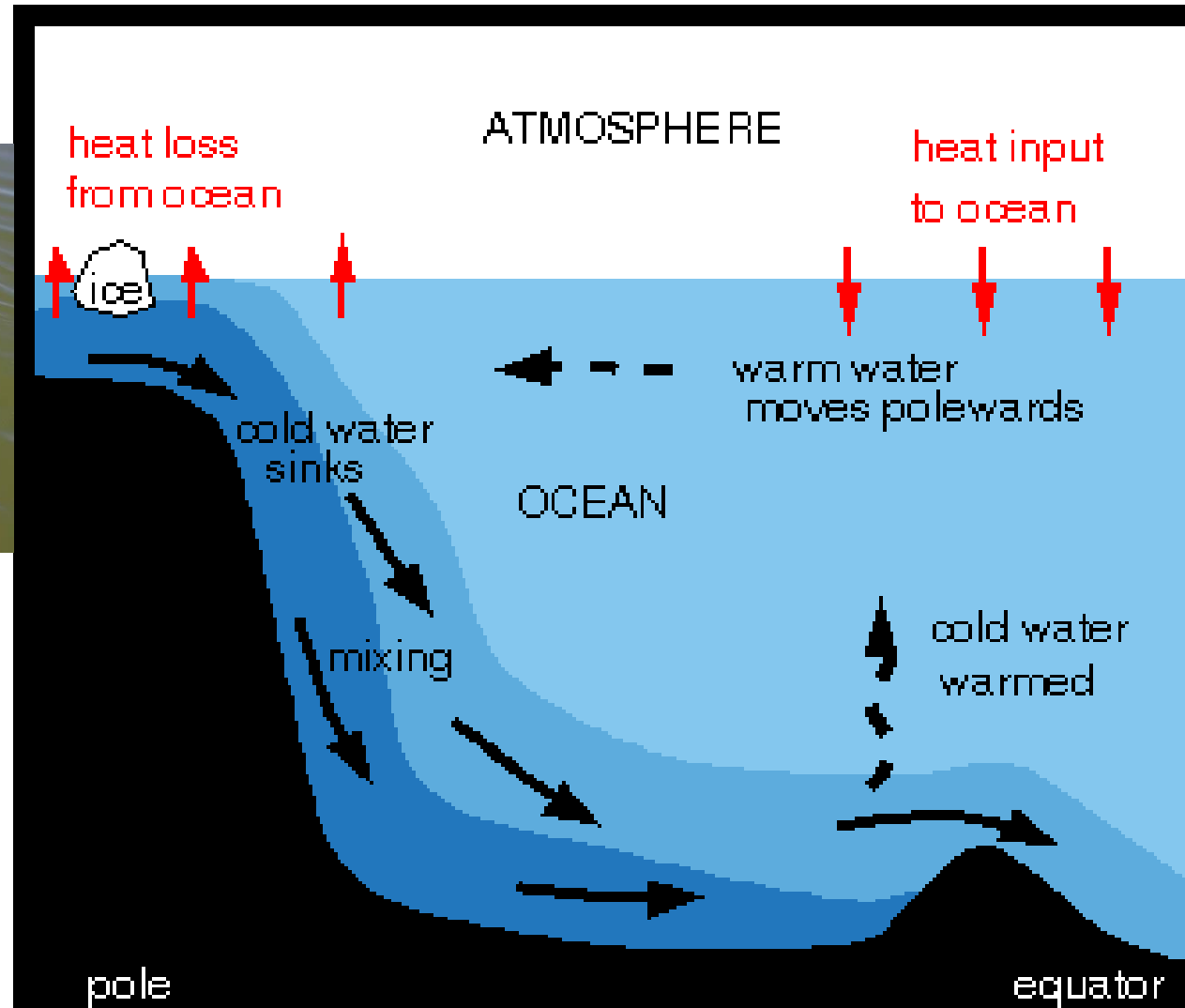
- Abdominal pain
- Poor appetite
- Constipation
- Anemia

### Additional complications for children:

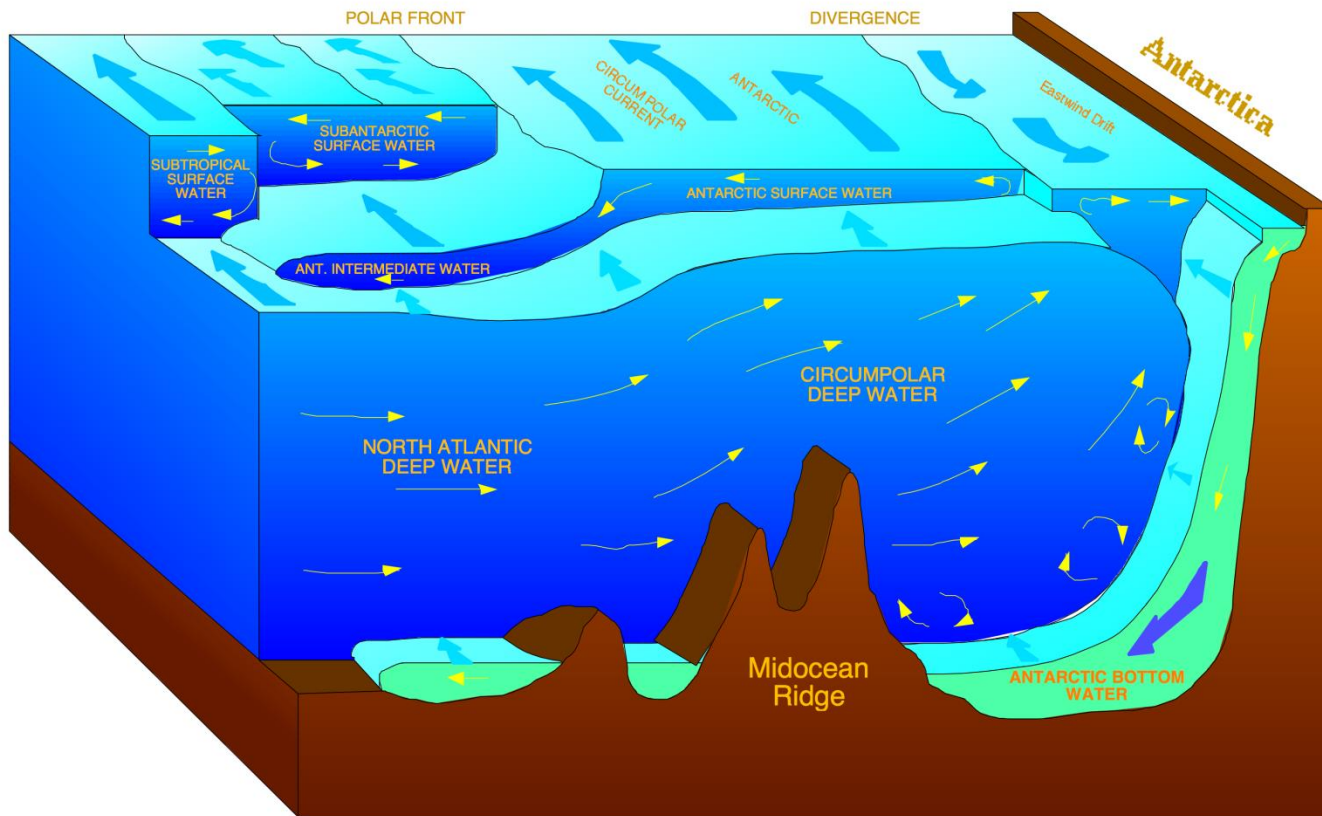
*Lead is more harmful to children as it can affect developing nerves and brains*

- ▶ Loss of developmental skills
- ▶ Behavior, attention problems
- ▶ Hearing loss
- ▶ Kidney damage
- ▶ Reduced IQ
- ▶ Slowed body growth

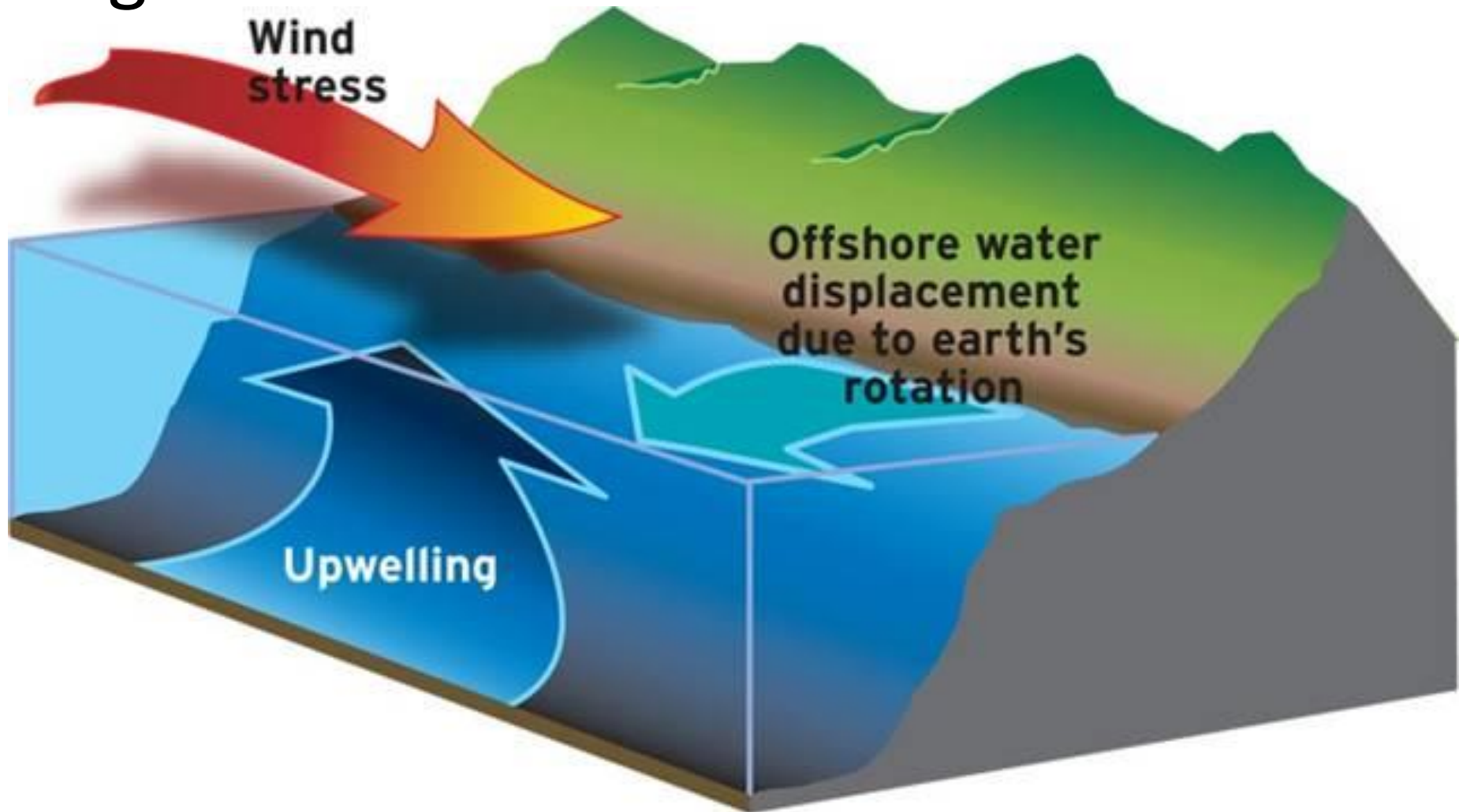
9. The ocean water mixture that has the greatest density is cold with high salinity.



10. Deep currents are caused by differences in density of ocean water.



11. Upwelling's bring nutrients up from deeper water for use by organisms.

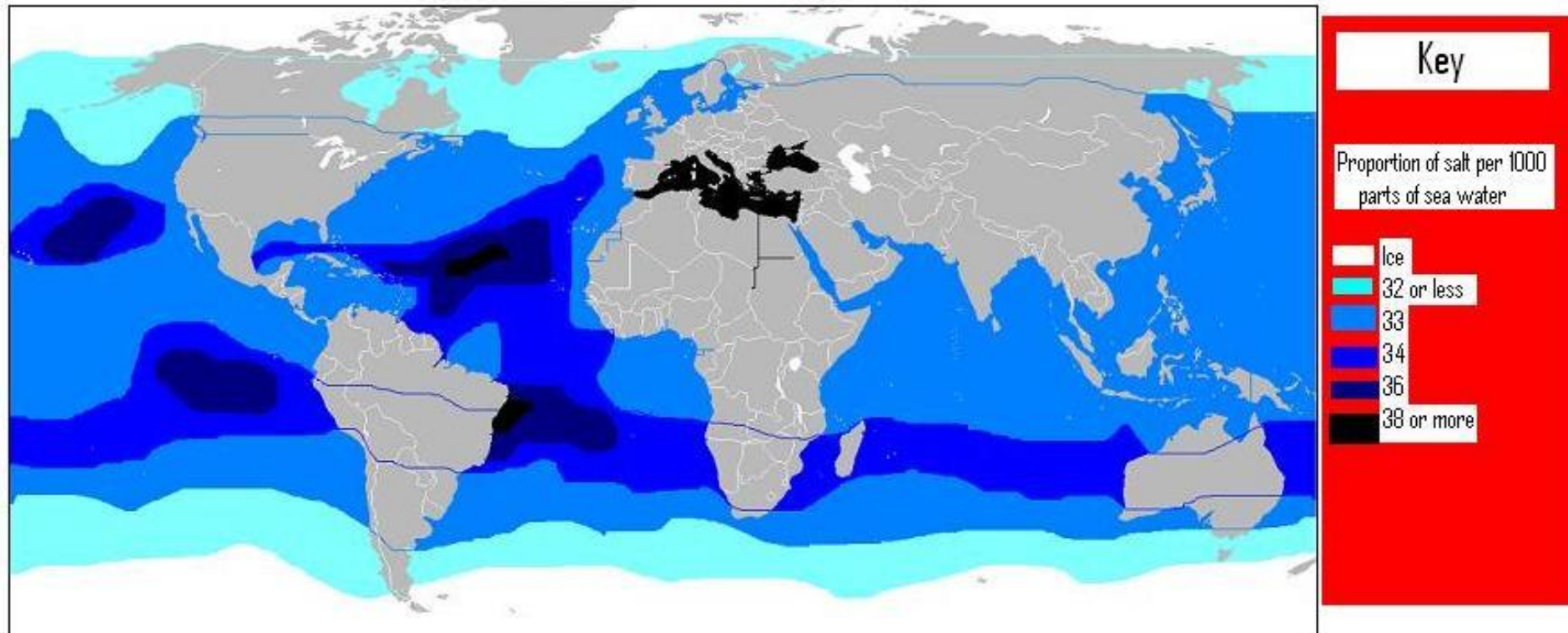


12. Organisms living in the inter-tidal zone (area between low and high tides) must be able to survive out of water.

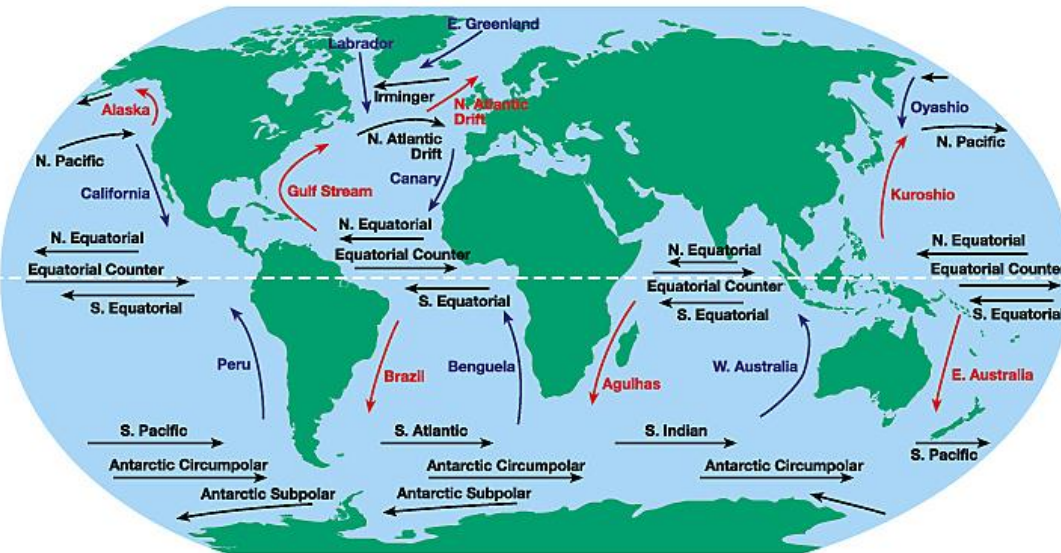


13. Salinity is the amount of dissolved salts and other solids in a given amount of liquid.

## Salinity of the Oceans



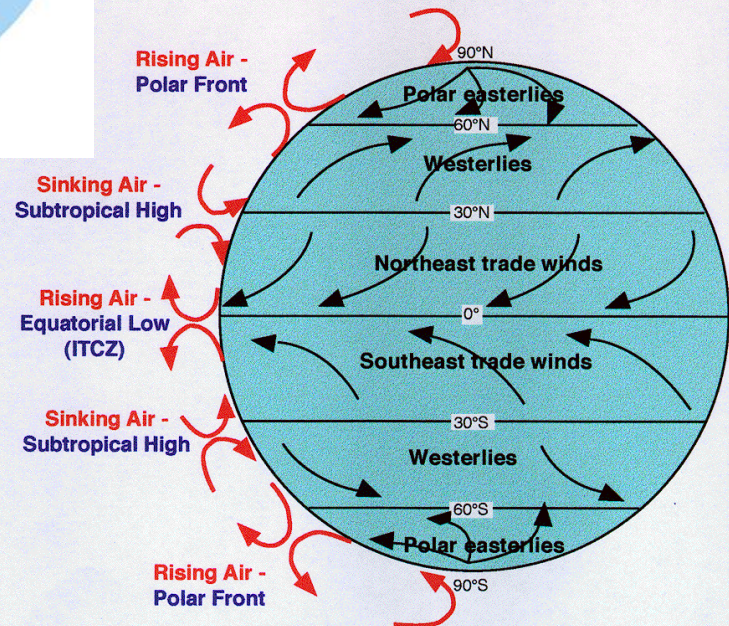
# 14. The main cause of Earth's surface currents is the prevailing winds .



Generalized Sketch of Global Atmospheric Circulation

VERTICAL MOTION

SURFACE WINDS

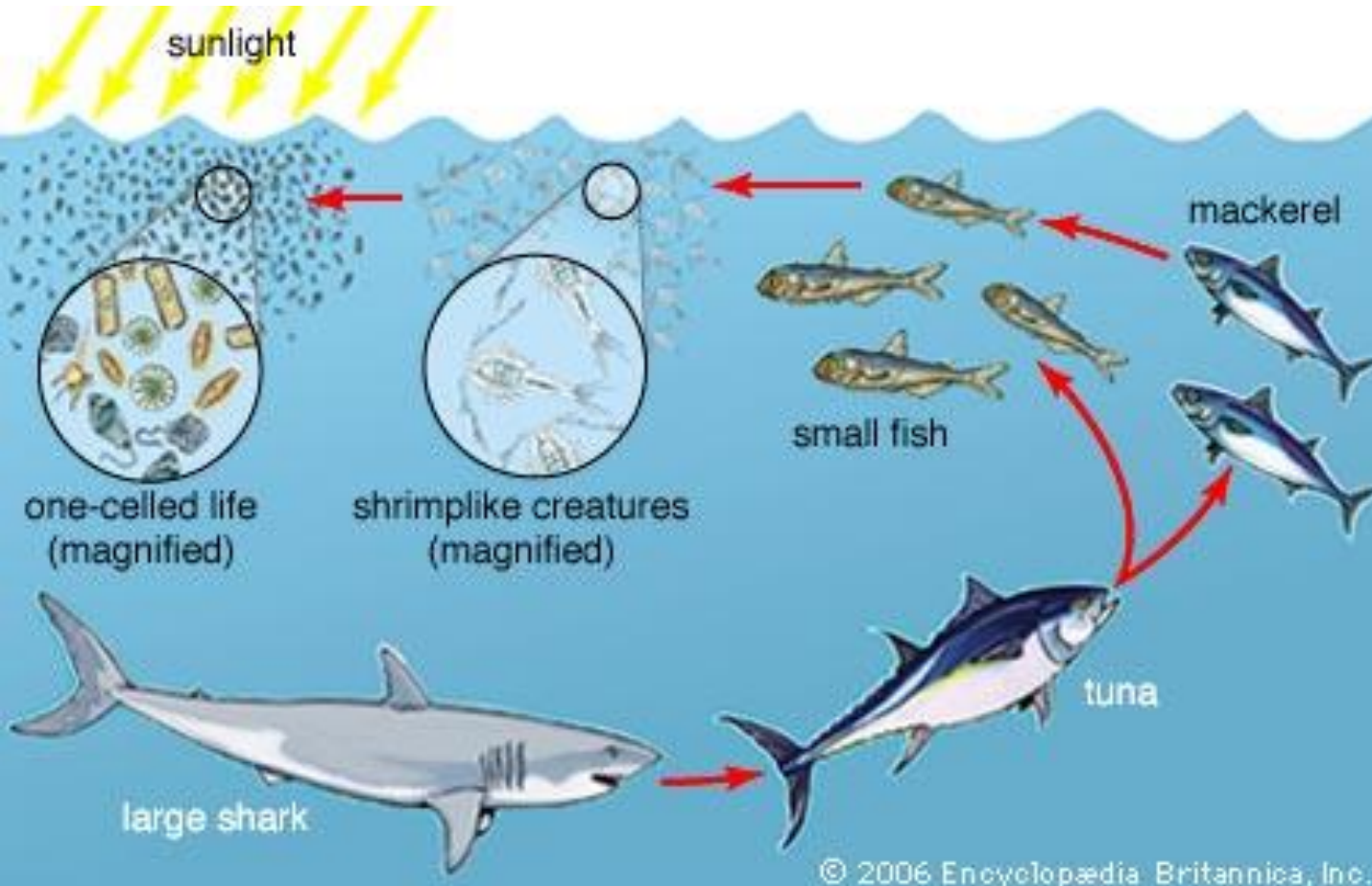


15. Organisms living on the deep  
seafloor must survive with no light  
and very high pressure.





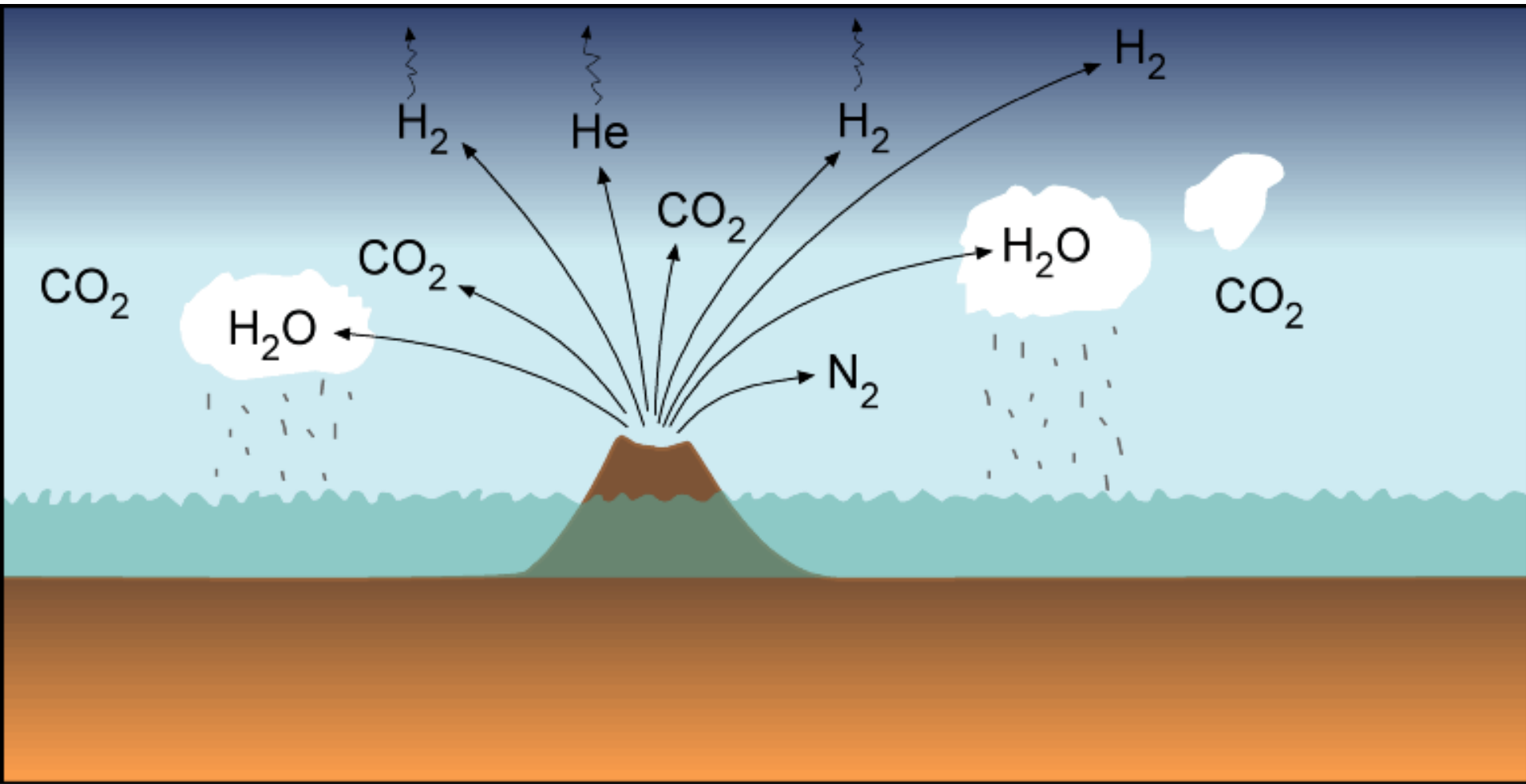
16. Plankton is the foundation of life in the ocean because they form the base of the ocean food chain.



17. Fish populations can collapse if the oceans are overfished.



18. Early volcanoes added gasses to create Earth's first atmosphere.



19. Wind energy makes waves larger.



The image features a classic hypnotic spiral background, consisting of concentric circles in shades of red and black that create a strong sense of depth and motion. In the center of the spiral, the phrase "That's all Folks!" is written in a white, elegant cursive script. The text is positioned diagonally across the frame, starting from the lower left and ending at the upper right. The background is a vibrant red, with the spiral lines creating a tunnel-like effect that draws the eye towards the center where the text is located. The overall aesthetic is reminiscent of the iconic ending of the Looney Tunes cartoon "The Road to Nowhere".

*That's all Folks!*