

Topic Area Questions for Final Project

1. **Topic Area: Photosynthesis, Respiration and Oxygen**
 - a. *Topic Area Question:* What is the relationship between day/night and oxygen?
 - b. *Topic Area Question:* How does the relationship between day/night and oxygen differ seasonally?
2. **Topic Area: Daily Rains**
 - a. *Topic Area Question:* What other variables are correlated with “daily rains” in the southeast during summer months?
 - b. *Topic Area Question:* How do changes in barometric pressure, wind direction, and PAR at over time relate to “daily rains”?
 - c. *Topic Area Question:* What is the relationship between “daily rains” and salinity?
3. **Topic Area: Land vs Sea Breezes**
 - a. *Topic Area Question:* What is the relationship between wind speed and direction during different times of the day?
 - b. *Topic Area Question:* How does the relationship between wind speed and direction differ seasonally?
 - c. *Topic Area Question:* Where and when can you observe land and sea breezes?
4. **Topic Area: Upwelling/Density**
 - a. *Topic Area Question:* What changes in the ocean occur when upwelling is present?
 - b. *Topic Area Question:* What changes in the ocean occur when density driven currents are present?
 - c. *Topic Area Question:* What is the relationship between water temperature, salinity, and primary productivity in areas of upwelling or density driven currents?
5. **Topic Area: Temperatures around the Planet**
 - a. *Topic Area Question:* What is the relationship between ocean water temperature and space?
 - b. *Topic Area Question:* What is the relationship between ocean currents and ocean water temperature?
 - c. *Topic Area Question:* How does ocean water temperature vary geographically (aka different ocean currents)?
6. **Topic Area: El Nino, Rainfall and Temperature**
 - a. *Topic Area Question:* What is the relationship between El Nino and land rainfall?
 - b. *Topic Area Question:* What is the relationship between La Nina and land rainfall?
 - c. *Topic Area Question:* How does the relationship between El Nino/La Nina and land rainfall vary geographically?
7. **Topic Area: Heat, Air, Currents**
 - a. *Topic Area Question:* What is the relationship between/among wind direction, barometric pressure, precipitation, wind speed, and/or temperature?
 - b. *Topic Area Question:* How does the relationship between/among wind direction, barometric pressure, precipitation, wind speed, and/or temperature relate to changes in air currents?
8. **Topic Area: Variability in Chlorophyll Concentrations**
 - a. *Topic Area Question:* How do chlorophyll concentrations vary over time?
 - b. *Topic Area Question:* How do chlorophyll concentrations vary geographically?