Education and Research: Testing Hypotheses

Explore-32 Shades of Water

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You've had the opportunity to think about what the color of the ocean is and you have brainstormed possible biotic- (living) and abiotic- (nonliving) factors that can influence color. You group has created a hypothesis from your brainstorming to predict Ocean Color.

In this activity you will look at ocean color pictures from NASA satellite data and investigate how different variables can influence ocean color. You will have the opportunity to rework your hypothesis based on your exploration of the data.

Our Group:

Hypothesis:

Look at the following pictures of the Ocean at different times of the year, noting what you observe and brainstorm with your group possible reasons for the differences in color.

Location	Season	What do you see?
Hawaii Pacific	A-Summer	
	B-Winter	
North Atlantic	C-Summer	
	D-Winter	

Location	Season	What do you see?
Antarctica	E-Summer	
	F-Winter	

A

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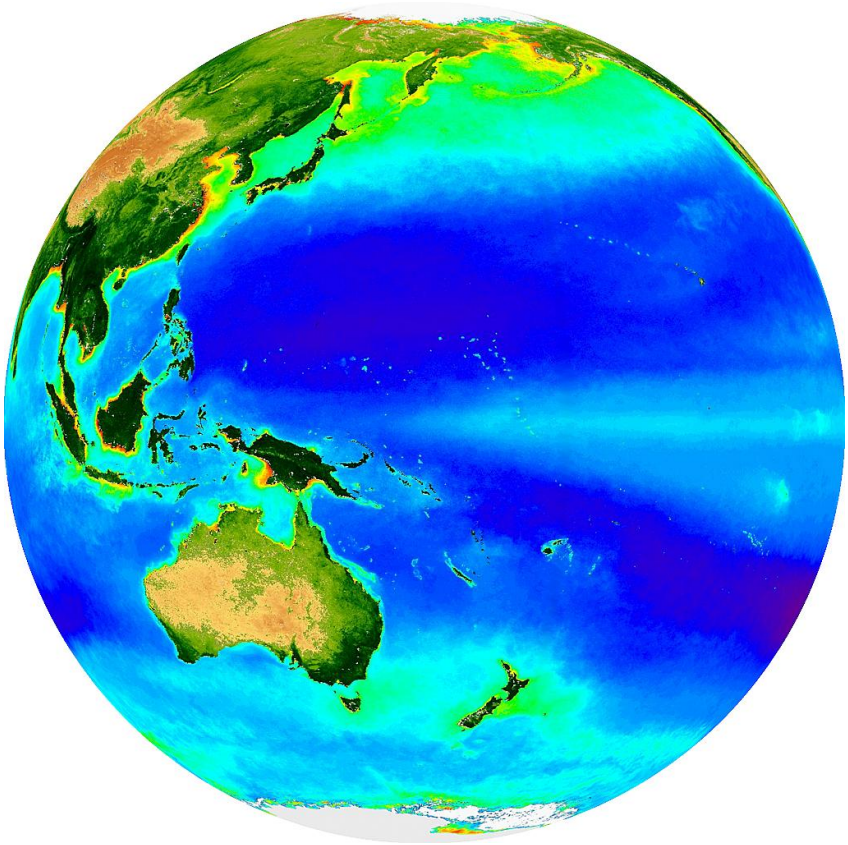

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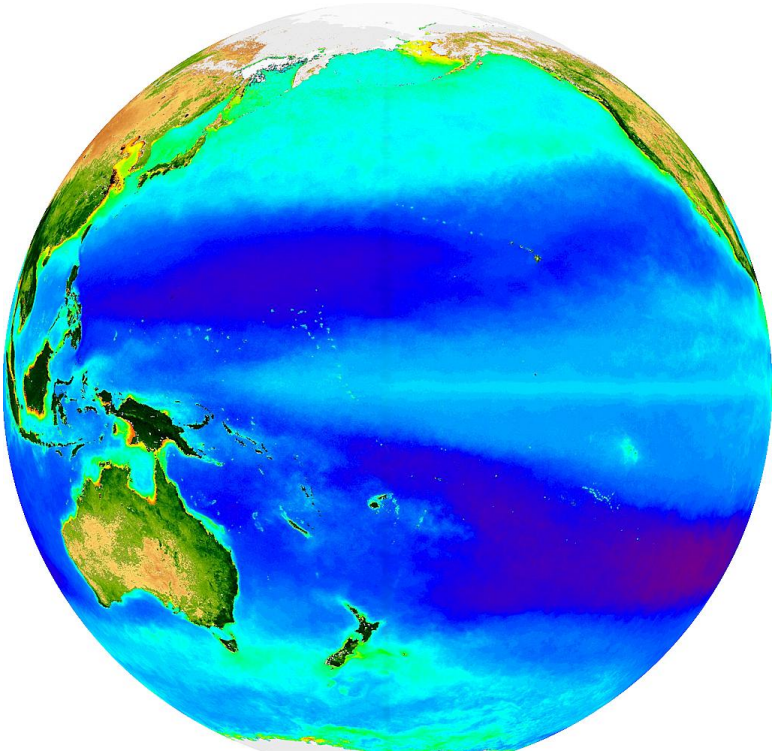

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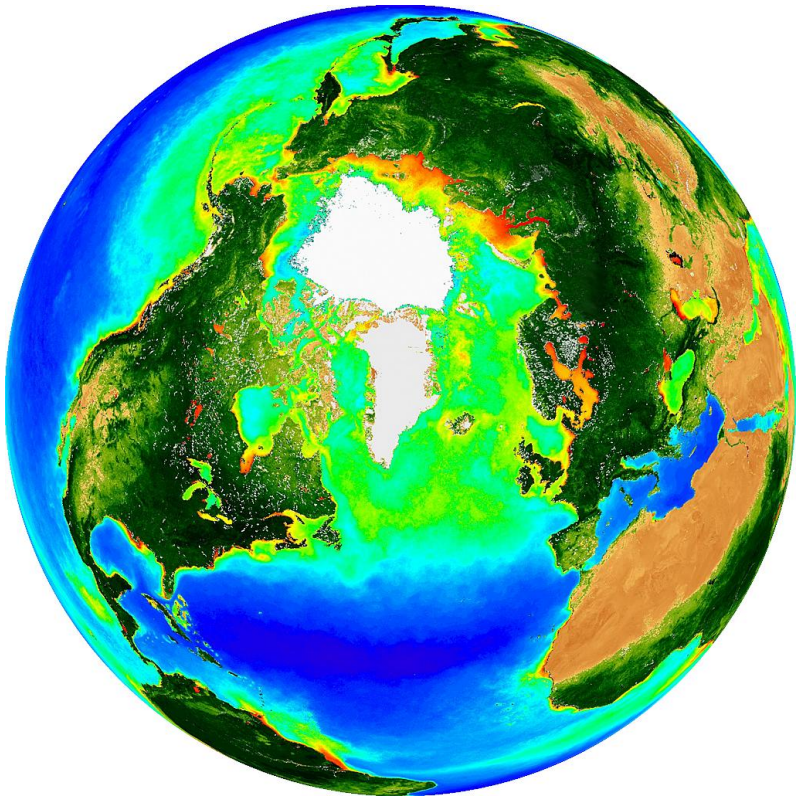

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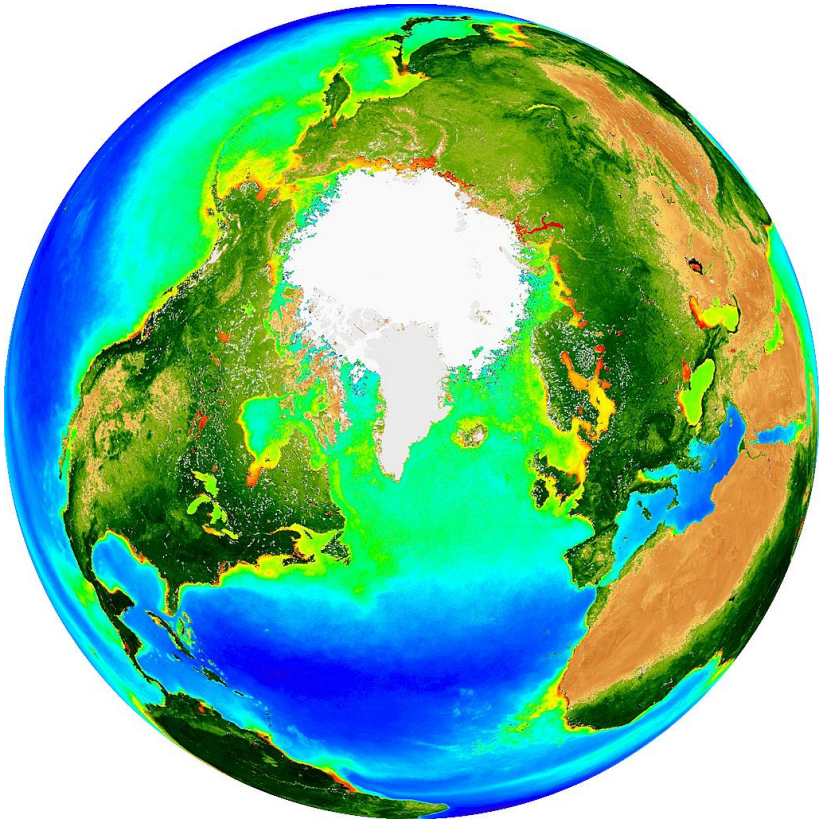

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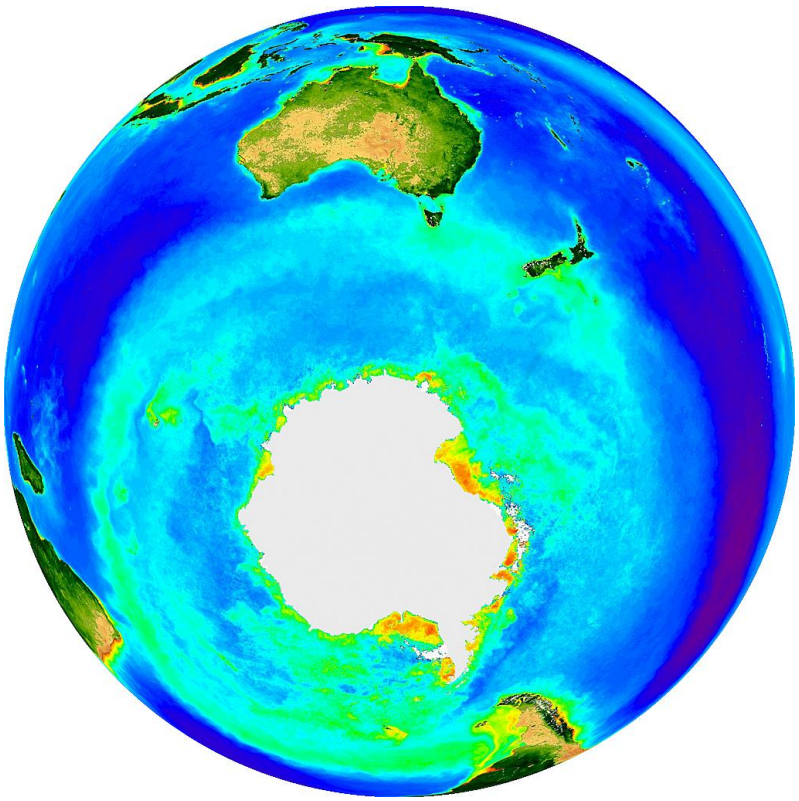

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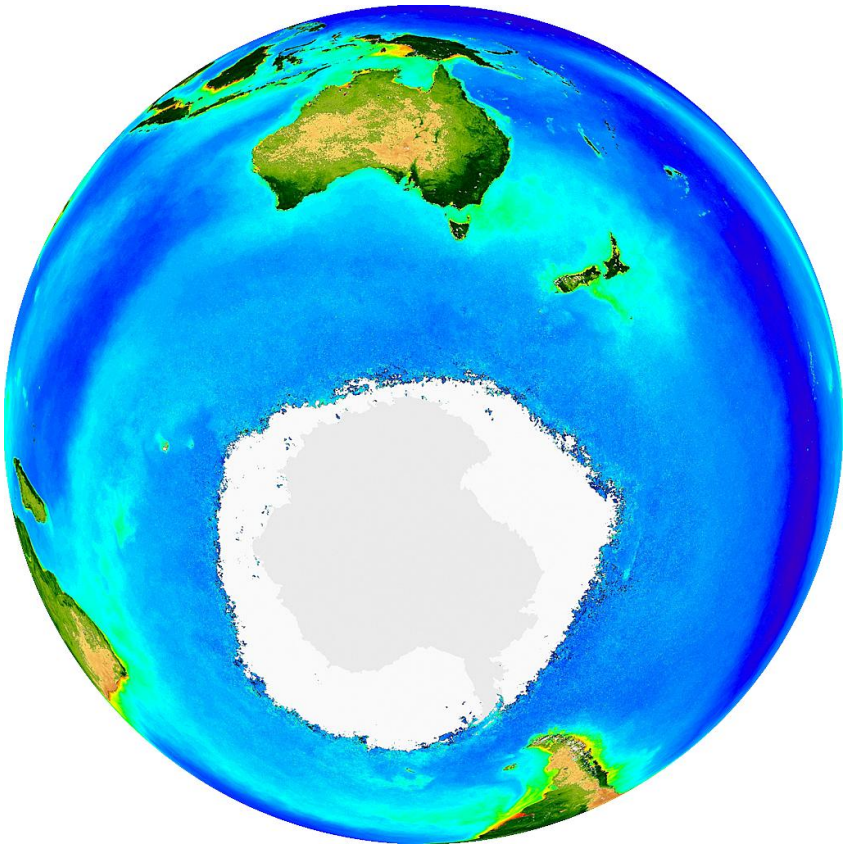

Research Section:
Each team member will take a different parameter to research. Research the following questions at home or individually for 30 minutes, making sure to cite all your sources.

Variable Person assigned _____
Nitrate

Temperature

Chlorophyll

Questions to research

1. What is the definition of your variable?
2. How does the change in your variable impact living organisms?
3. How does the concentration/level impact color?

After you have completed the research individually, come back together as a group and share your information with the group. Review your hypothesis from the beginning of this activity; do you want to change your hypothesis? If yes, rewrite your hypothesis below.

Revised Hypothesis: