A Year in the Life of the Earth System

PART A: The Earth System in 2017

1: What changes do you see through the year? What explanations can you suggest for these patterns?

2: Choose a location or region. During which months do the extreme highs and lows occur? What explanations can you suggest for the timing of those extremes?

3: Which regions experience both the extreme highs and lows? Which regions don't experience the extremes? Why do you think this happens?

4: What differences, if any, do you find between the year's variations over the oceans versus the year's variations over the continents?

5: Are there regions that remain relatively unchanged over the year? Why do you think this happens?

PART B: Identify Relationships Between Components of the Earth System

1: What relationships do you see between solar insolation and land surface temperature? Sea surface temperature and solar insolation? Vegetation index and water vapor?

2: Do the relationships appear to be directly or inversely proportional? Explain.

3. Think back on what you've learned during this unit. Describe Earth as a complete system. What parts make up the Earth system? How are they connected at the local, regional, and global scales? Give specific examples of ways that each component of the Earth system impacts another component.