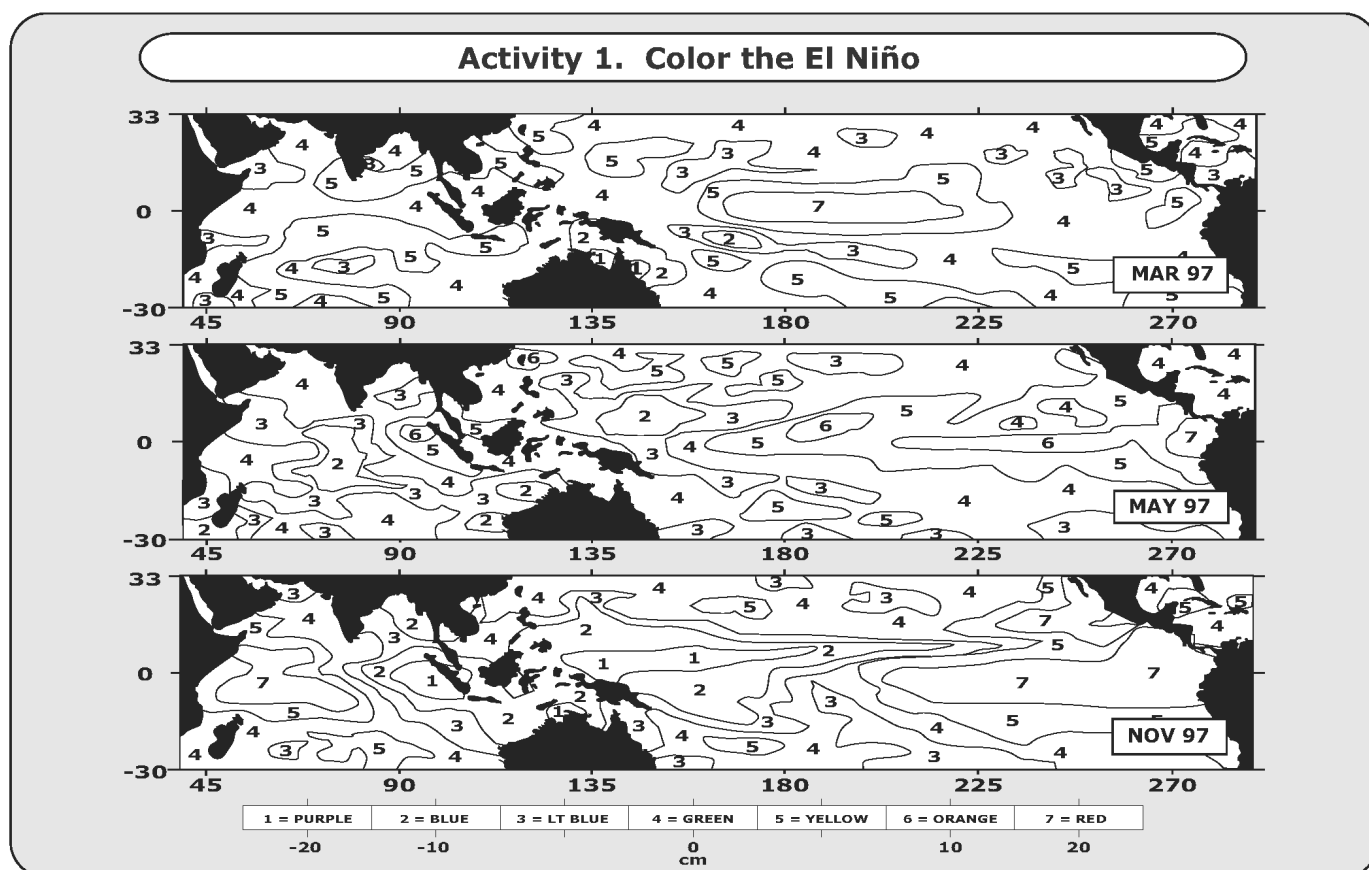


My NASA Data - Mini Lesson/Activity

Creating an El Niño Poster Model



Student Directions

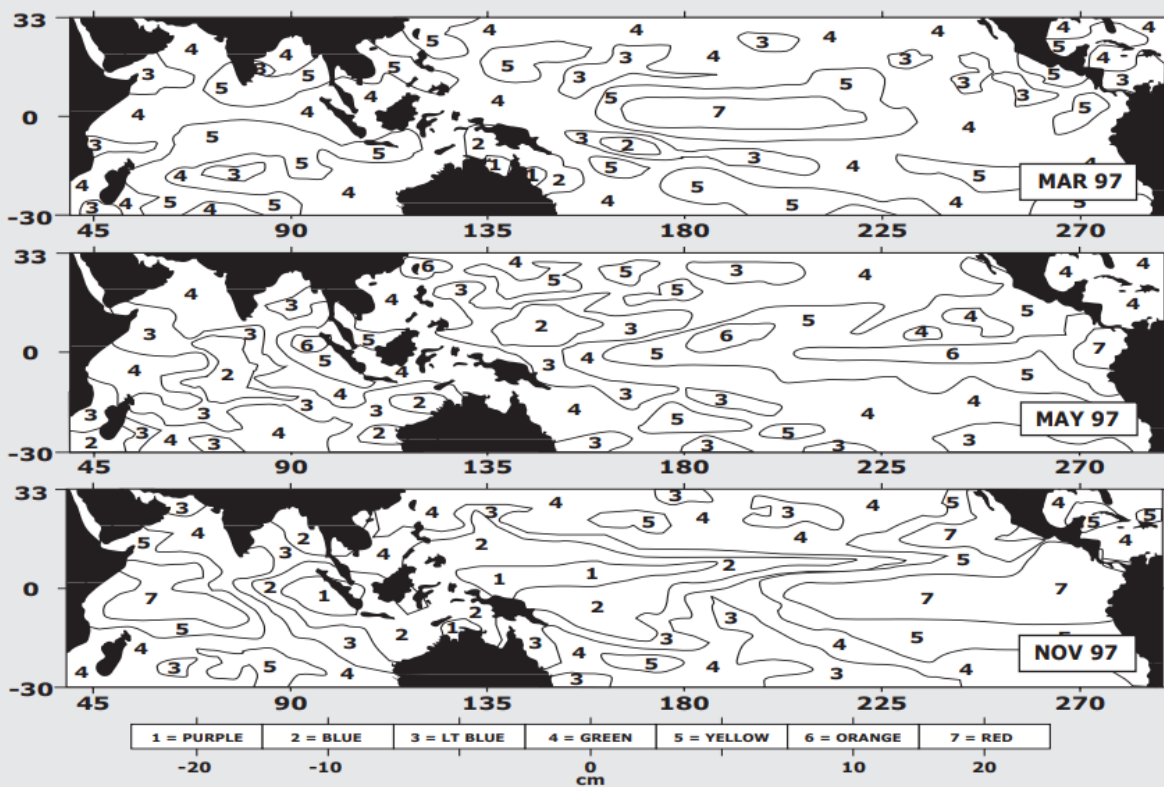
El Niño is a condition that sometimes occurs in the Pacific Ocean, but it is so big that it affects weather all over the world. Weather depends a lot on ocean temperatures. Where the ocean is warm, more clouds form, and more rain falls in that part of the world. In the Pacific Ocean, near the equator, the Sun makes the water especially warm on the surface. Normally, strong winds along the equator push the warm surface water near South America westward toward Indonesia. When this happens, the cooler water underneath rises up toward the surface of the ocean near South America.

Using the 2 sheets provided, fill in the colors depicting the El Niño models from 1997 to 1998 and answer the following questions.

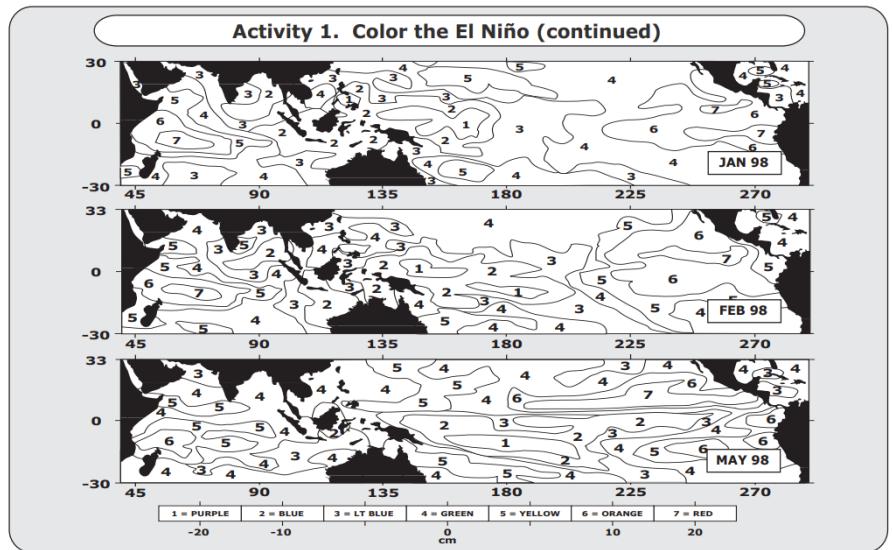
Use crayons in the following colors:

- Purple
- Blue
- Light Blue
- Green
- Yellow
- Orange
- Red

Activity 1. Color the El Niño



El Niño Color Sheet 1 (1997) | <https://myasadata.larc.nasa.gov/sites/default/files/inline->



[El Niño Color Sheet 2 \(1998\) | https://myasadata.larc.nasa.gov/sites/default/files/inline-images/Activity_El%20Nino_2_0.png](https://myasadata.larc.nasa.gov/sites/default/files/inline-images/Activity_El%20Nino_2_0.png)

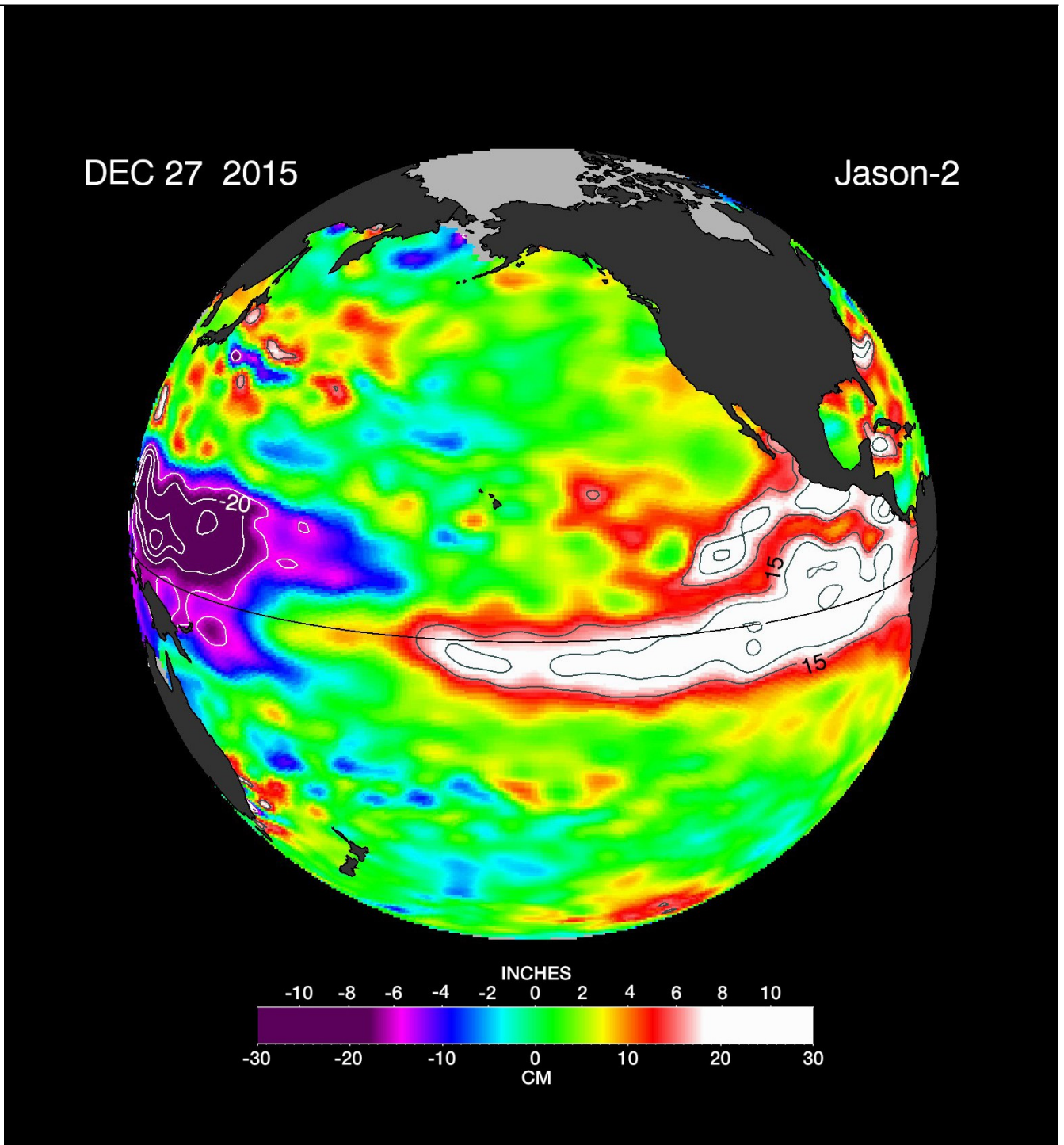
Steps:

1. Check with your instructor on how to submit your answers.
2. Each color represents the difference between the normal sea level in centimeters. What is the approximate range of the difference between normal sea level for each color?
3. What do negative numbers represent?
4. What does zero represent?
5. Compare the images from the different months.
6. What differences do you see between March 1997 and May 1997?
7. What differences do you see between May 1997 and November 1997?
8. What differences do you see between November 1997 and January 1998?
9. What differences do you see between January 1998 and February 1998?
10. What differences do you see between February 1998 and May 1998?

11. Explain what happened over the year.

Now examine the image from 2015 and answer the following questions.

[images/Activity_El%20Nino_1_0.png](#)



[El Niño Model \(December 27, 2015\). Source:](#)

[Jason-2 | https://myasadata.larc.nasa.gov/sites/default/files/inline-images/El%20Nino_1.jpg](https://myasadata.larc.nasa.gov/sites/default/files/inline-images/El%20Nino_1.jpg)

12. Compare the scales for the model pages you colored and the image.

1. What additional color is there in the scale for the image?
2. What height does the additional color represent?
3. Are the ranges for the colors any different? Explain.

13. Compare the model you made to the image provided.

1. What are the similarities between these two El Niño events?
2. What are the differences between these two El Niño events?

Students will use coloring sheets to create a color coded model of El Niño. If the Data Literacy Map

Cube is used with this, students should color their models first.

My NASA Data Visualization Tool

- [Earth System Data Explorer](#)