Student Directions

Analyze a time-series graph to explore the salinity values of our ocean changes over time and depth.

1. The following data visualizations were pulled from NASA's Aquarius Mission's Historical Changes in Monthly Mean Data tool to show salinity time series for the two pre-selected profiles in the polar regions. Blue for the Arctic, Red for the Antarctic.
2. Observe the salinity values for the polar regions and answer the following questions.
   1. What changes do you observe and when do these changes occur?
   2. Analyze to see if a relationship exists between these variables and explain your findings.
   3. What may explain this pattern?
Salinity Changes in the polar regions. Credit: NASA Aquarius

Teachers, these mini lessons/student activities are perfect "warm up" tasks that can be used as a hook, bellringer, exit slip, etc.

Teachers who are interested in receiving the answer key, please contact MND from your school email address at larc-mynasadata@mail.nasa.gov. We verify that requestors are teachers prior to sending access to the answer keys as we've had many students try to pass as teachers to gain access. To receive the keys please provide the following:

1. The link to the school/institution's teacher directory where you are employed so we can verify that you are a teacher
2. Ensure that the school email address is provided in your response as we are unable to send to personal email accounts