Supplementary File 1

Virtual Summer Camp Session for 15-18 year olds- "Currents and Critters in Cold Places"

- After introductions and setting virtual camp expectations, campers start out by brainstorming how currents might affect critters and what causes or effects currents as a group.

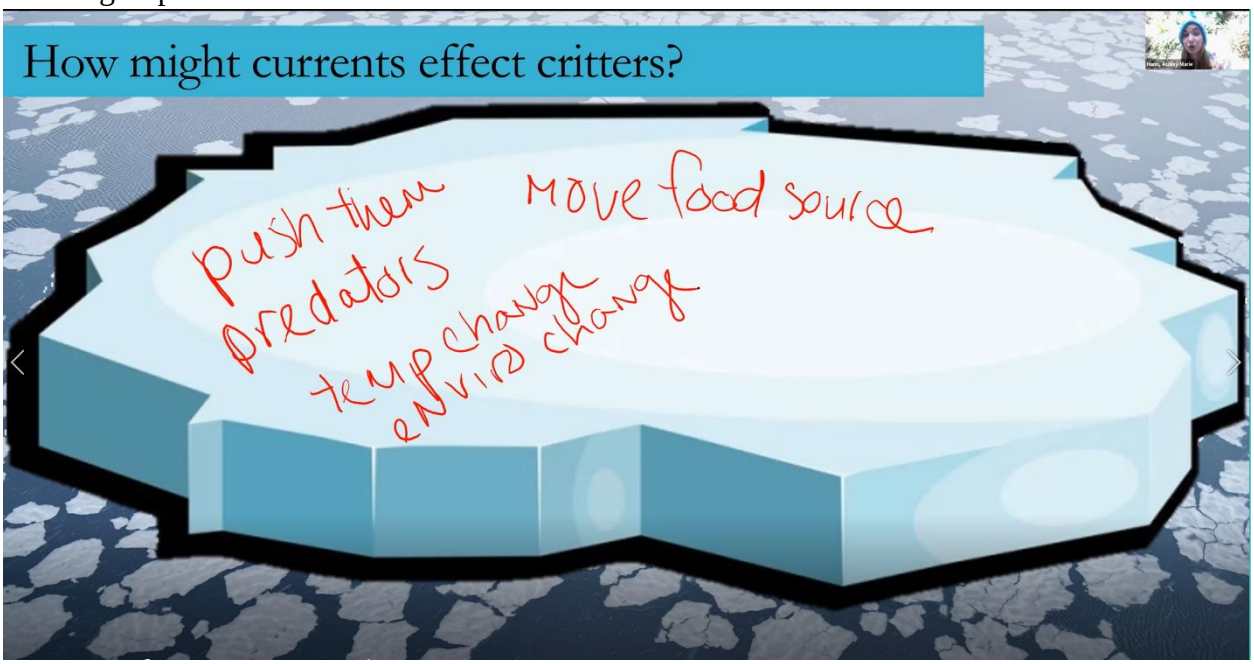

Image 1: Screenshot of virtual classroom as campers brainstorm how currents effect animals. Red notations depicts ideas presented by campers, captured via a Microsoft surface in real-time.

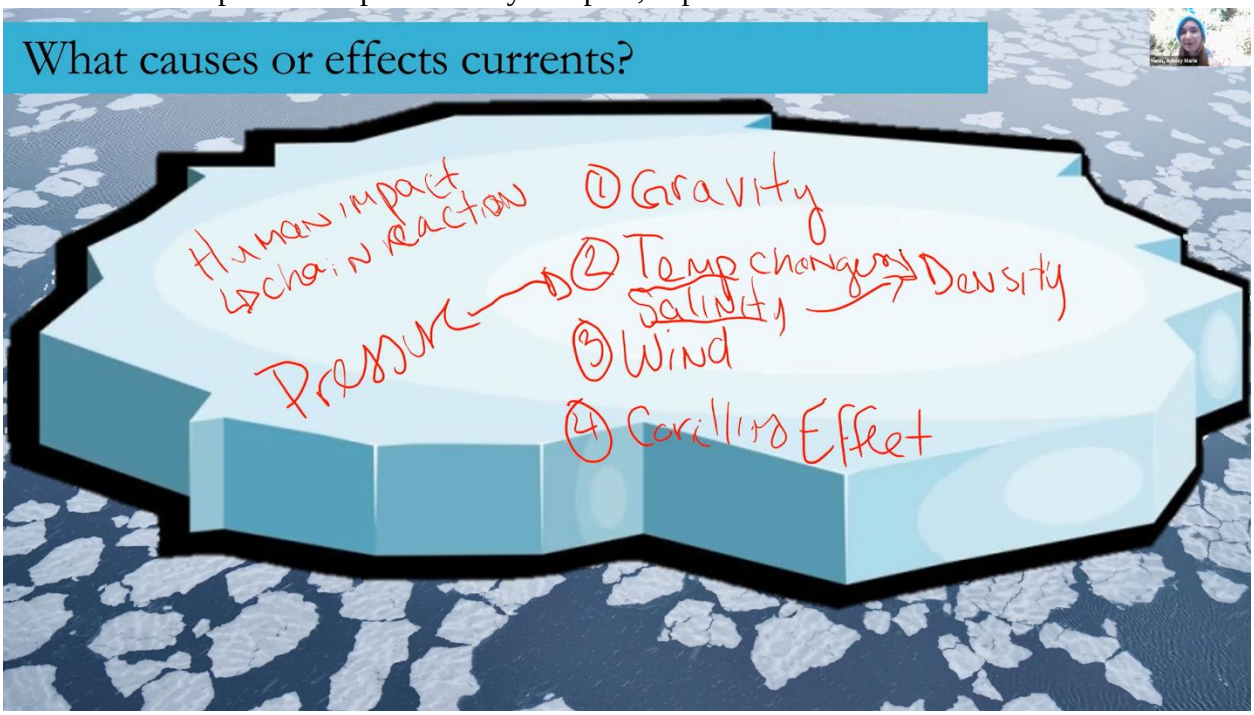

Image 2: Screenshot of virtual classroom as campers brainstorm what causes or effects currents. Red notations depicts ideas presented by campers, captured via a Microsoft surface in real-time.

- Campers were virtually transported to Antarctica and introduced to the Project SWARM research team, before learning about how the Project SWARM scientists measure currents and other elements of the Antarctic environment.

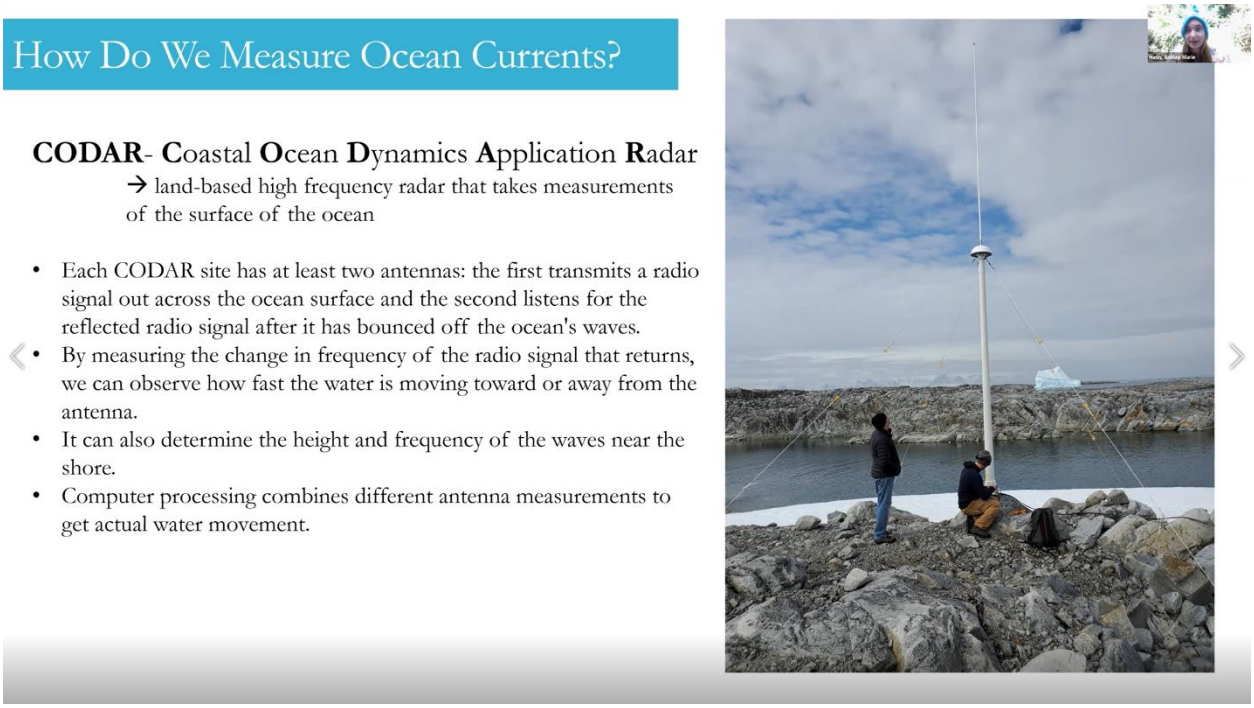

Image 3: Screenshot of one of multiple slides used to explain the technology used by Project SWARM scientists to measure currents in Antarctica.

- Campers participate in a virtual activity in which they generate their own currents and test what effects them using household objects.

Image 4: Screenshot of open question time during camp before campers explored generating their own currents in an experiment using household objects. A list of necessary items is included on the screen.

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Image 5: Screenshot of the group experiment conducted virtually. Campers discussed how the variables they hypothesized would effect ocean currents were simulated in the experiment materials before testing them. In this example, blue water represents cold water, red water represents warm water, and objects of varying densities are in the tank to test where the "currents" push them.

- Campers were provided two take home activities.
    1. Experiment with the generation of their own currents using household objects.
    2. Explore how Project SWARM scientists measure currents more and practice reading the real data received from their research via online materials found at: https://polar-ice.org/2020/02/swarm-data-activity-2/. This data activity was predesigned through a collaboration between Project SWARM scientists and the Polar Literacy Project.