Deep Sea Debris Post: Plastic Solutions
Teacher Guide

During the Deep Sea Debris program, your students discovered how plastic pollution is impacting organisms in the deep sea. The following post activity will allow your students to explore in-depth sources of plastic pollution, how plastic pollution travels to the ocean, and impacts of plastic pollution.

Goal: Design, evaluate, and refine a solution for reducing the impacts of plastic pollution on the deep sea environment and organisms.

1. Introduce the [Plastics in the Ocean graphic](#) from the National Oceanic and Atmospheric Administration. After reviewing the graphic, students should choose a source (yellow), travel path (orange), or impact (red) that interests them the most.

2. In small groups or individually, students can research their desired topic. There are suggested resources listed below to help get students started.
   a. Sources
      i. [Ocean-based Marine Debris](#)
      ii. [Land-based Marine Debris](#) (section 1)
      iii. [Microplastics](#)
   b. Travel Path
      i. [Land-based Marine Debris](#) (section 2)
      ii. [FLOW: The Trash Journey from Land to Sea Video](#)
      iii. [Transport of Plastic in the Ocean Figure](#)
   c. Impact
      i. [Why is Marine Debris a Problem?](#)
      ii. [Ingestion](#)
      iii. [Entanglement](#)
   d. Additional Resources
      i. [What is Marine Debris?](#)
      ii. [Graphs](#) from Deep Sea Debris lab
      iii. [Choy Lab](#) at Scripps Institution of Oceanography
      iv. [Importance of Lancetfish in Research](#)
         1. Plastic ingestion in "Uncovering the Mysteries" section

3. After completing research, students can brainstorm a solution to their marine debris topic. Using the teacher's method of choice, they can present their proposed solution to their peers to receive feedback. Students can then refine their solution based on the feedback of their peers.

4. Finally, students should create a public service announcement that describes the problem and their proposed solution in any creative way (ideas include, but are not limited to: "social media" post, poster/flier, podcast, etc.).