ACTIVITY 2: READ ABOUT THE BENEFITS OF BATHYMETRY

The methods of mapping the floor of the Great Lakes have advanced by leaps and bounds over time. From lead sinker plumb line measurements to SONAR, the modern technology shaping Great Lakes bathymetry is nothing short of incredible.

In this activity, students will use a **Think Pair Square Protocol** for discussing what they will read about this very topic.

First, have students partner up and distribute the article **Researchers Race to Understand What Lies Beneath the Great Lakes** by Kelly House from *Bridge Michigan.* Allow time for students to individually read the article, and have them jot down three things they took away from the article using the **Rose Thorn Bud Protocol**—in their notebook or using the handout.

Then, give students time after reading to discuss the article that they read with their partner. Have students share their rose, thorn, and bud with each other, including how those points connect to each other. The pair should come up with a statement to summarize all of their article takeaways.

Next, have two student pairs join up, standing near each other to form the four corners of a square, to discuss the article and what they talked about in their pairs. Encourage them to come to a consensus about which point they found most important or interesting in the article.

Image Credit: Great Lakes Now

Last, have each group craft a summary statement of the most important point from their discussion and ask for a volunteer in each group to share that key point with the whole group.

As student groups share their most important point, record their ideas on the board and have students copy the list of student ideas down into their notebooks.

Once the shareout is complete, ask students to return to their groups and discuss one last question based on the article:

Based on the article, how might SONAR help the efforts to create updated maps of the Great Lakes lakebeds?

After giving the groups some time to discuss this question, invite conversation from the whole group to see what consensus can be reached.

Be sure to encourage students to support their claims with evidence and reasoning as they discuss in the whole group.

> ### *Teaching Tip:*
> *If the reading level of the article is going to be tough for some students to read individually, have partners or small groups read the article together aloud while each follows along.*