

ACTIVITY 2: READ ABOUT BLACK TERNS

Birds serve as indicators of ecosystem health. If the region is strong enough to support a bird population and sustain it long term, that area is generally considered healthy; however, if the carrying capacity of a region decreases naturally, the declining bird population can serve as an indicator that something is wrong with the ecosystem. Black terns are one such bird that serves as an indicator of ecosystem health in the Great Lakes. And in particular, its migration patterns can give a picture of the Great Lakes region's climate over time.

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 [Decline of Bird Species Should Serve as a Warning](#) by John Hartig from *Great Lakes Now*. 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.



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:

What actions can individuals and communities take to restore the health of ecosystems that support populations like black terns?

You can keep this as a class discussion based on the article itself or, after giving the groups some time to discuss this question, invite them to research and share their findings from some of the ways listed at the end of the article to affect positive change with regard to light pollution.

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.