Grand River Revitalization & Restoration Project

1.6 GRR Sea Lamprey Activity



Work Associato

Driving Question

Does the evidence support replacing the 6th Street Dam with an Adjustable Hydraulic Structure (AHS)?

In this activity, students will learn about Sea Lamprey and then look at data to determine whether or not they think the 6th street dam should be removed. They will then write a claim/evidence/reasoning argument to support their position.

Engage/Activate

Have student share what they know about how the Grand River has changed over time. If they are not familiar from prior activities, this MLive article has a great image and timeline to use with students to show how the dams were built on the Grand River. Historic Grand River photos show how quickly its rapids disappeared By Amy Biolchini | abiolch1@mlive.com

Show students video of Sea Lamprey on a fish:

https://www.youtube.com/watch?time_continue=20&v=b49TIBDxYGQ

Ask them if they have seen a sea lamprey and what they know about lamprey. Tell students that one of the goals of the Grand River Restoration Project is to remove all or part of the 6th street dam. One challenge with this is that currently the 6th Street dam is barrier to Sea Lamprey swimming upstream. Today we are going to look at what Sea Lamprey are, how they are treated, and then evaluate evidence around the benefits and risks to removing the 6th Street Dam. A the end of the activity they will be asked to write a Claim Evidence and Reasoning argument in support of keeping or removing the 6th street dam.

Explore

Lamprey Reading Jigsaw

Each student will need a copy of **1.6a GRR Sea Lamprey Student Worksheet**. Students will need access to the Great Lakes Fisheries Commission Fact Sheet 4 & 5, which can be found here: http://www.glfc.org/fact-sheets.php

- 1. Break Students into Groups of 4. In each group, assign each student a letter: A,B,C,or D
- 2. Have students read their assigned portion of the Jigsaw
 - A Fact Sheet 4, front page and 2nd page to Where Are Sea Lampreys Found
 - B Fact Sheet 4, Where Are Sea Lampreys Found on the 2nd page till the end
 - C Fact Sheet 5, From front page How are sea lampreys controlled? to Traps
 - D Fact Sheet 5, From 2nd page Traps to end of page.

- 3. Have letter groups meet to compare their answers and make sure they understand the reading
- 4. Have original groups reform and each letter member share answers with each other.

Evaluating the Dam Removal

Students should work in pairs to evaluate the information/data regarding the dam removal. It may be helpful to have the class summarize the findings prior to students writing their argument.

Once students have analyzed and summarized, the data they will write an argument using Claim/Evidence/Reasoning to tell why you do or do not support the removal of the 6th Street Dam and replacing it with an Adjustable Hydraulic Structure.

Extend

- 1. Divide the class into a pro-dam and con-dam removal sides and debate the dam removal.
- 2. Have students share their research with community members to determine what concerns others have with removing the dam.
- 3. Have students research the different ways of treating sea lampreys.