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Title: Oyster Larvae Catastrophe: What caused the oyster larvae die off, and what can we do?

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Abstract: Ocean acidification is negatively affecting marine organisms that make their shells of calcium carbonate, such as oysters, clams, and pteropods. To investigate the phenomenon of an observed oyster larvae die off, students explore the cause, impacts, and potential solutions for ocean acidification. Learning Goals: Students in grade levels 6-8 will learn the following: • Ocean acidification is the decrease in ocean pH that results from human activities that release excess CO₂ into the atmosphere. The CO₂ in the atmosphere is absorbed by the ocean and changes ocean chemistry. • The change in ocean pH makes it difficult for marine organisms like oysters to build their shells. • Humans can address the problem of ocean acidification by reducing the amount of CO₂ released into the atmosphere. Learning Objectives: Students will be able to: 1. Construct an argument supported by empirical evidence that increased atmospheric carbon dioxide, due to increased fossil fuel emissions, leads to ocean acidification. 2. Recognize and graph changes in ocean pH over time. 3. Describe how oysters are affected by ocean acidification. 4. Identify potential solutions for the problem of ocean acidification.