SAV LESSON PLAN: Possible format for the application of the 5E model to this CD

ENGAGE:
- Have students read the cited article and answer related questions. Use individual student answers to generate a teacher lead discussion on the decline of SAV in Chesapeake Bay. Orth, R.J. and K.A. Moore. 1983. Chesapeake Bay: An Unprecedented Decline in Submerged Aquatic Vegetation. Science Vol. 222: 51-53. (1.7.1, 1.5.6, 3.5.3)
- Power Point Presentation: “What is SAV and Why Should I Care?”. Bold terms should be recorded by student and defined in their own words (in groups or individually) after the presentation. Refer to the notes section within the presentation for potential class discussion questions. (3.2.2, 3.5.1, 3.5.3)

EXPLORE:
- Begin Eutrophication lab. (see lab activity)
- Power Point Presentation: “What is the Problem?”. Bold terms should be recorded by student and defined in their own words (in groups or individually) after the presentation. Refer to the notes section within the presentation for potential class discussion questions. (3.5.2, 3.5.3)
- Have students read the cited article and answer related questions. Use individual student answers to generate a teacher lead discussion on the decline of SAV in Chesapeake Bay. Dennison, W.C., R.J. Orth, K.A. Moore, J.C. Stevenson, V. Carter, S.K. Kollar, P.W. Bergstrom, and R.A. Batiuk. 1993. Assessing Water Quality with Submersed Aquatic Vegetation. BioScience Vol. 43:86-94. (1.1.1, 1.4.6, 1.5.2, 1.5.5, 1.5.6, 3.2.2, 3.5.2, 3.5.3)
- Complete Eutrophication lab.
- If you are limited by time you may choose to substitute the length-weight regression lab for the Eutrophication Lab. (1.2.2, 1.2.3, 1.2.4, 1.4.1, 1.4.2, 1.4.4, 1.4.6, 1.4.9, 1.5.1, 1.5.2, 1.5.3, 1.5.4, 1.6.2, 1.6.4)
EXPLAIN:
- Power Point Presentation: “What Can I Do?”. Bold terms should be recorded by student and defined in their own words (in groups or individually) after the presentation. Refer to the notes section within the presentation for potential class discussion questions. (3.5.3, 3.6.1)

EXTEND:
- Power Point restoration site selection activity: “Where Can We Plant?”. This activity should be completed in groups. To complete the activity students will need access to the internet and to a nautical chart of the Chesapeake Bay. The presentation is self-directed, but students may periodically need assistance from the teacher.

EVALUATE:
- “Where Can We Plant?” final report. This report may be submitted in writing, delivered orally, or both. (1.1.2, 1.4.1, 1.4.2, 1.4.3, 1.4.6, 1.4.8, 1.5.1, 1.5.3, 1.5.4, 1.5.5, 1.5.9, 1.6.2)

Notes
- All bolded items in this 5E model are included as computer files on the CD.
- This 5E model is designed to target high school biology and environmental science classes. Please modify the model and any of the files on the CD for your classroom needs.
- The items in parenthesis at the end of each selection are references to Maryland high school core learning goals-expectations-indicators for science addressed in the activity.
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