## CBNERR Resource Boxes Available for Checkout

You are eligible to access CBNERR resource boxes for use in supplementing classroom activities and lessons. These boxes include materials necessary to complete the six lessons below. To check out a box contact Sarah Nuss, Education Coordinator at CBNERR, via email at mcguire@vims.edu or phone at (804) 684-7878.

<u>Watershed Lesson:</u> Students map the Chesapeake Bay watershed, identify key features of the watershed, and identify their location within the watershed. This lesson helps students understand the concept of a watershed. Resource box includes laminated, blank maps of the Chesapeake Bay watershed for students to mark on and reference maps of the Bay watershed and other Virginia watersheds.

<u>Water Quality Lesson:</u> Students test water samples collected from the Chesapeake Bay for a variety of factors. They record their data and use it to figure out where each sample was taken from along the estuarine salinity gradient. Resource box includes all materials and equipment necessary to conduct this lesson except for water samples. The lesson guide describes how to collect or make water samples for use in this lesson.

<u>Biodiversity Lesson:</u> This lesson addresses the importance of species and habitat diversity in the Chesapeake Bay and its watershed. It includes three smaller lessons that can be combined into one lesson or given individually. The lessons include: 1) investigating freshwater habitats by identifying macroinvertebrates and using them to answer questions about water quality; 2) investigating the functions of wetlands by performing several experiments; and 3) investigating the food chain in open water habitats of the Bay by examining species that live in open water habitats. These lessons can be checked out individually or collectively. The boxes include everything you need to conduct the lessons except for the macroinvertebrates. There is information provided with your handbook on how, when, and where to collect these organisms.

Adaptations of Fishes Lesson: Students will examine different species of fish found in the Chesapeake Bay and determine the specific adaptations the fishes have. Students will relate the adaptations to the fishes' life histories, habitats, and niches. This resource box includes everything you need to conduct this lesson – including fish specimens. All you need is a place to keep the fishes frozen when not in use.

<u>Human Impacts on the Chesapeake Bay:</u> This box includes materials necessary for several lessons: Effect of Climate Change on Fishes, It's in your hands, Paper Watershed, and Effects of Ocean Acidification. Each lesson addresses a different impact that humans have on the Chesapeake Bay and its watershed. These lessons can be checked out individually or collectively.

**Build-a-Buoy:** Students will test water samples collected from the Chesapeake Bay for a variety of factors. They will record their data and use it to figure out where each sample was taken from along the estuarine salinity gradient. Students will then learn about the use of buoys and then design test their own. This resource box includes everything you need to complete the lesson, including pvc pieces and a kiddie pool for testing the buoys.