

MARINE SCIENCE SHARE-A-THON ACTIVITIES

COLUMBIA UNIVERSITY'S TEACHERS COLLEGE, March 10, 2012

Sponsored by NYSMEA and NEW YORK SEA GRANT



1. Oil, Oil Everywhere To start, students build a beach in a paint tray. They add sand, rocks and water. When their beach is completed, "oil" is added to mimic an oil spill much like the BP oil spill in the Gulf of Mexico and the Exxon Valdez oil spill in Alaska. Students use a variety of objects to try and clean the oil. Students explore what effect soap, filters, and pipe cleaners have on their mini-oil spill. Students will consider how a successful method in their small scale beach could be translated into a real method during an actual oil spill.

Nichole Becker, Cooke Center SKILLS program

2. Greenhouse Growing Participants will discover how hydroponics gardening can teach students about the essentials of sustainability. Participants will engage in activities that teach the basics of hydroponics and plant growth. Participants will also learn about the chemistry of hydroponic gardening. In addition, Integrated Pest Management will be included to demonstrate the reliance on predators to rid plants of pests. Participants will leave with a brochure describing the systems at the Manhattan School for Children Greenhouse. *Shakira Castronovo, Manhattan Childrens School*

3. Google Earth Ocean: Getting Your Feet Wet with Interactive Mapping Explore the oceans of the world using Google Earth Ocean. New to Google Earth Ocean? With this activity, we will "dip our toes in the water" of digital mapping and you'll be sure to want to "take the plunge." We will demonstrate the basic features of Google Earth computer visualization. We will become familiar with the tools, data and presentation materials available from the web and explore the oceans and coastal areas of the world from a whole new perspective. Step-by-step instructions will be provided so you can bring the ocean to a computer near you. *Susan B. Hoskins, Cornell University and David Stolarz, CUNY Graduate Center*

4. Go Fish! The unique I FISH NY Go Fish! cards are composed of 52 New York State fishes, arranged into 13 families. As students play Go Fish! they learn about NYS's fish diversity and also about fish classification. An extent ion activity has students classify a "mystery fish" and make educated guesses on its lifestyle based on its external anatomy. *Melissa Cohen, I Fish NY, NYSDEC*

5. Test Your Marine Careers Knowledge In this presentation, attendees will test their knowledge about different types of marine careers in the "What Am I?" game. The audience will be given a career description and will have to identify which career is being defined. Additionally, there will be an overview of Beneath the Sea's "Marine Careers and Scholarship" programs available for high school and college students. ***Mike Mashack, Beneath the Sea***

6. Sing Along to the Ocean This activity is intended for elementary grades. It will engage the students by using the song book, "Over in the Ocean." After the students sing along about each animal in the book, they will play a webbing game in which they will try to determine the connection between animals and other factors in the ecosystem.

Nermeen Dashoush, Speyer Legacy School

7. Checking the Hudson's Vital Signs New York's tidal shoreline extends 153 miles up the Hudson River estuary to Troy. This session will review resources for place-based teaching about the Hudson: field-based experiences (Day in the Life of the Hudson River); remotely-sensed, near real-time data available on the web (the Hudson River Environmental Conditions Observing System); and lesson plans using the river as context in teaching skills mandated by state learning standards.

Steve Stanne, NYSDEC Hudson Estuary Program

8. Bringing hot-topic research to your classroom How did Atlantic Sturgeon get listed as an endangered species? How do some heavy metals move up the marine food chain? How vulnerable to flooding is lower Manhattan? What's the best place in the Hudson to look for dredged up PCBs? These are some marine science questions being answered by researchers funded by New York Sea Grant. Using cover stories from NYSG's ACE Gold Award winning newsletter, *New York Coastlines*, learn how you can bring these interesting and sometimes controversial issues to your classroom.

Barbara Branca, NY Sea Grant