



OIL SPILL KIT

Grades: 2-5

Objective: One reason the staff at the Mote Aquarium are breeding sea babies is that human pollution threatens their habitats and populations. This experiment will help students understand how oil spills impact the animals like the ones that live at the Mote.

Source: The Ocean and You



Self-Contained Gulf Oil Spill Kit

Cynthia Cudaback, Ocean and You, <http://OceanAndYou.com>

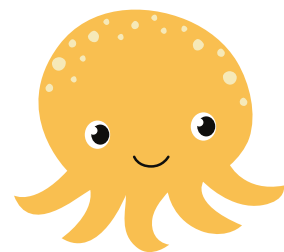
NOTE: Cleaning up after the oil spill cleanup is a task that requires some planning. The kit described below creates four oil spills, enough for 20 students.

Work from the outside in:

- Large sealable plastic container
- Four disposable aluminum trays that stack neatly inside your box.
- Measure the bottom of your tray carefully and subtract $\frac{3}{4}$ " from each dimension. Now print four maps of the Gulf of Mexico to fit the new size. Get them laminated, and they should lie flat on the bottom of your tray (including $\frac{1}{4}$ " of lamination around all the edges).

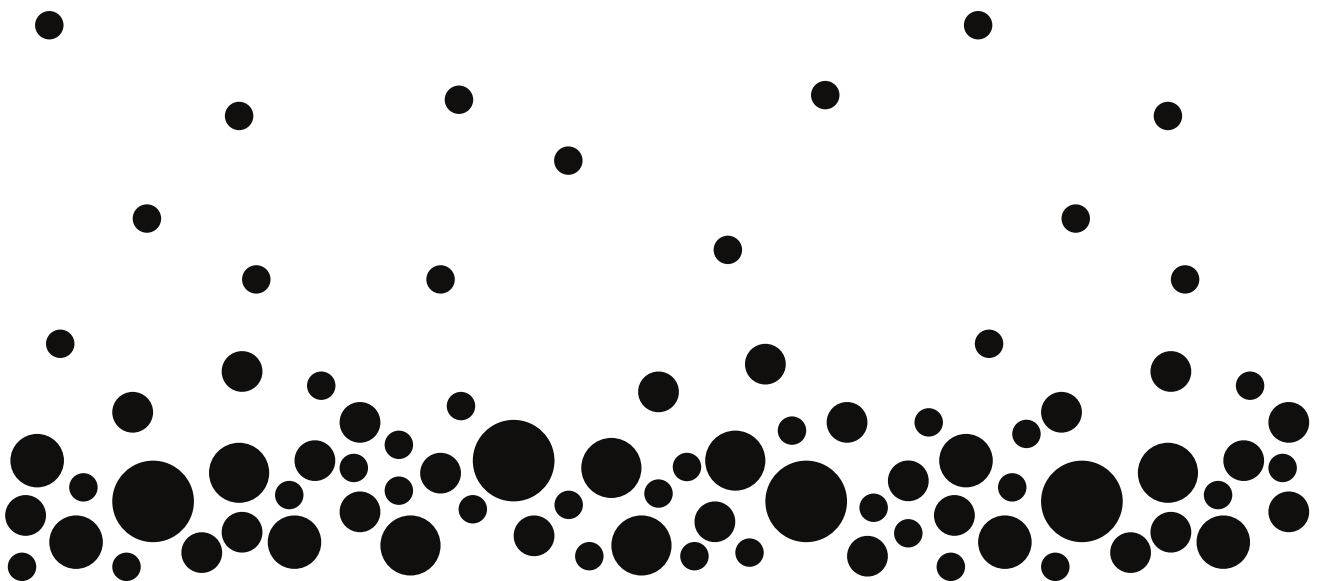
Assemble the rest of the kit. Each box contains four sets of:

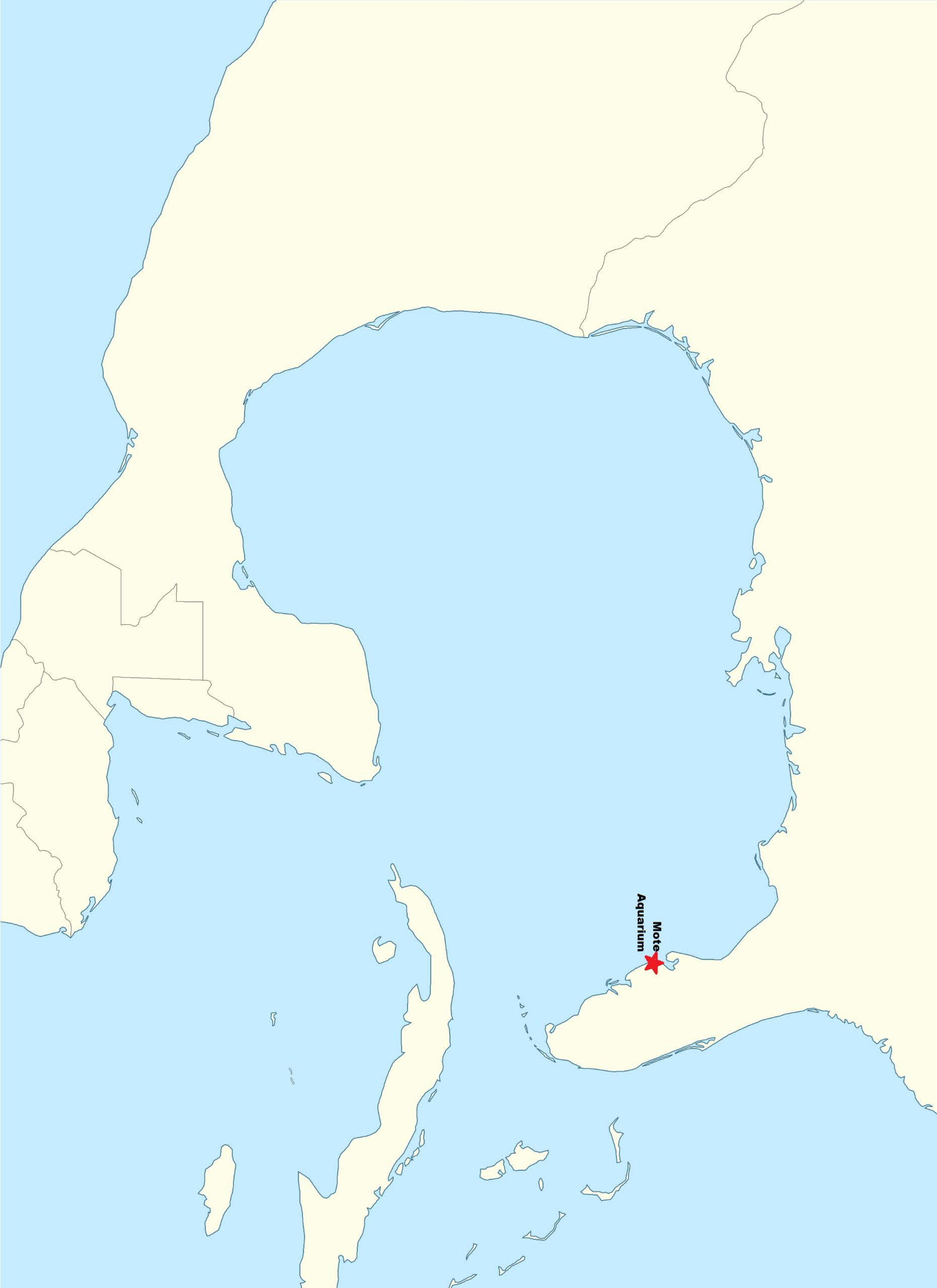
- Oil: a mixture of vegetable oil and cocoa powder, about 2 oz per spill.
- Plastic bottles: soda bottles can leak, so look for sturdier bottles, especially if you plan to repeat the activity.
- Animals: plastic fish, feathers, pompoms to represent mammals.
- Materials that *trap* oil
 - String for oil booms
 - Cellophane or aluminum foil
 - Nylon from stockings
- Materials that soak up oil
 - Cotton balls and just a few paper towels
 - Hay straw if you can get it – motor oil sticks to the straw
 - Human hair (available at salons)
- Tools that move oil around
 - Pipettes, straws
 - Spoons, popsicle sticks
- Containers for used materials
- Dish detergent



In Class Procedure

- Don't hand out the oil until the students are ready to clean. Depending on the age group, you may want to hand out the items for each stage sequentially.
- Build your environment. Lay your map flat in the bottom of your tray. Pour a shallow layer of water in the tray.
- Put out your animals. Fish in the water, mammals and birds on land. Will the animals stay put? Do you want to have an animal cleanup station ready before the spill?
- Examine the different items in your cleanup kit – some are good for trapping oil, some for soaking it up, and some for moving around. How would you put these things to best use?
- Develop your oil spill response plan. You will need to separate the oil from the water --draining the gulf won't help. Your job is to contain the oil and remove it, before it hits the beach. You should also try to protect your animals. While you are trying to clean up, the wind may be blowing the oil onshore. One of your team can simulate the wind by blowing through a straw.
- Spill your oil and start the cleanup. Teachers, you may wish to wander around and observe or comment. Drop a feather into each oil spill, saying "birds don't stay where you put them"
- Follow up discussions – what worked, what didn't? Relate this exercise to the stories featured in these videos:
 - <https://www.youtube.com/watch?v=SakDOUIDWDs>
 - <https://tpt.pbslearningmedia.org/resource/envh10.health.oilspills/size/how-big-is-the-oil-spill/>





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