

THINK BLUE TO GO GREEN

Newspapers for this educational program provided by:

OKLAHOMA
AQUARIUM

Oil & Water Don't Mix

We know oil and water don't mix, but we rely heavily on oil and petroleum products every day. We're all accustomed to hopping in the car or on a plane to get wherever we need to go. But petroleum products go way beyond transportation. For example, petroleum is a component of plastic. So if you Think Blue To Go Green by recycling plastics, you are doing your part to lessen the impact of oil spills, which can devastate wildlife and habitats. Organisms living in the water are not the only animals affected by an oil spill. Sea birds are greatly affected by oil floating on the surface. When birds get covered with oil they ingest the toxin when they preen their feathers and are no longer insulated from the cold weather. Sea birds can be so weighed down by water that they can no longer take flight. Environmental engineers remove oil from our oceans using several methods, however some of these can create other types of pollution. In some instances, slicks are set on fire to reduce their size, but the fumes from the fire can cause air pollution. In the early stages of a spill, dispersants can be used to break down the oil into smaller patches making it easier to remove. Dispersants are detergents like soap. There is a downside to dispersants as well, they are heavier and sink deeper than oil, and it may cause harm deeper in the water while improving the environment on the surface. While scientists work on finding better solutions, what else can you do to Think Blue To Go Green when oil and water don't mix?

Activities

- What is a tar ball?
- What sorbents (absorbent materials) were used to soak up the oil in the recent oil spill in the Gulf?
- What kinds of actions do water birds perform that can cover them in oil?
- Can you name some sea birds that dive into the ocean to catch fish?

See How Dispersants Work:

Pour water into a clear glass bowl about $\frac{3}{4}$ full. Pour a small amount of vegetable oil in the bowl, just enough to just cover the surface. Place either a bar of soap in the middle of the slick you have created or let a couple of drops of dish soap fall in the center. Describe what happens to the oil on top of the water.

"Oil & Water Don't Mix" is just one of the programs presented by the Oklahoma Aquarium Education Department. Log onto www.okaquarium.org to learn more about scheduling a field trip for your class to Oklahoma's only ocean!



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