

Deep Sea Learning with Georgia Aquarium



African Penguins and Oil Spills Fact Sheet

As seen on Deep Sea Learning with Georgia Aquarium:

<https://www.youtube.com/user/>

Key Terms:

- **Oil Spill:** when liquid petroleum is released into the environment .
- **Endangered Species:** a species of animal or plant that is seriously at risk of extinction.
- **Temperate Climate:** a moderate climate which especially lacks extremes in temperature. *African Penguins live in an area with a temperature range of about 40 to 70 degrees Fahrenheit.*
- **SANCCOB:** The Southern African Foundation for the Conservation of Coastal Birds.
 - Provide 24/7 rescue for sick, orphaned and injured seabirds.
 - Respond to oil spills and help treat animals that are affected by them.



Why is an oil spill bad for the ecosystem?

- Can devastate entire ecosystems, as oil spills spread quickly through the water.
- The main source of damage is the oil itself because oil it will coat everything including birds' feathers, grains of sand, tree roots and more.
- Eventually the oil will sink into the deeper water and contaminates the fish and smaller organisms that are essential links in the global food chain.



African Penguin Facts:

- African Penguins live on the coast of southern Africa in a temperate climate.
- Hunt for fish in the ocean and build nests on the coastline.
- African penguins are endangered due to the loss of habitat, oil spills, and overfishing by humans.
- African penguins co-parent their young and take turns going out to sea to find food for the chicks.
- Penguins have natural oils in their feathers that allow them to trap heat and keep warm air close to their body when they are foraging for food in the ocean.
- When penguin feathers are covered in oil from an oil spill, they are unable to swim or move due to the weight of the oil.

Visit <https://www.georgiaaquarium.org/at-home-learning-with-georgia-aquarium/> for more online resources to use at home!

Deep Sea Learning with Georgia Aquarium



Oil Spill Cleanup

Gen. Materials:

- Large Plastic Tub
- Water
- Vegetable/Canola Oil
- 2-3 Hot Chocolate Packets

For the Habitat:

- Large Rock
 - Sticks
 - Leaves
 - Feather(s)
 - Pieces of Fur or faux fur
 - Sand
 - Flowers
- ### Cleaning Supplies:
- Plastic Gloves
 - Sponge
 - Cotton Balls
 - Dish Detergent
 - Dawn Dish Soap
 - Shampoo

Instructions:

1. Pour a light layer of sand around the bottom of your plastic tub and place the large rock inside the tub off to one side.
2. Add your "habitat" materials around the container. Plants are represented by leaves, sticks, and flowers, while animals are the feathers and fur. Ensure that some are on the rock island, but most are in the sandy area.
3. Add water to the plastic tub, filling up to where the water reaches about halfway up the height of your rock, forming a "coastline."
4. Add in 1-2 cups of your oil. *Mixing hot chocolate with your oil beforehand will help it appear darker in color, similar to an ocean petroleum oil spill.*
5. Pause to **observe and discuss** how the different materials react to the oil.
6. Select your first choice of cleaning materials to attempt to **clean up the oil spill in your habitat** (beginning with gloves to prevent your hands from getting messy).
7. After you attempt using one set of materials to try cleaning, **switch it up** and see if certain cleaning supplies work better than others. *Why do you think that is?*
8. Once you think you've cleaned up the oil as best as you can, **were there any materials that were impossible to clean or remove?** *Why do you think that is?*

Important Clean Up Note:

Please take extra care when disposing of the materials used for this activity—**do not rinse** the oil/water/sand mixture down your sink drain! This is bad for the pipes and can be harmful to the environment. Please throw away or wash to reuse



Visit <https://www.georgiaaquarium.org/at-home-learning-with-georgia-aquarium/> for more online resources to use at home!