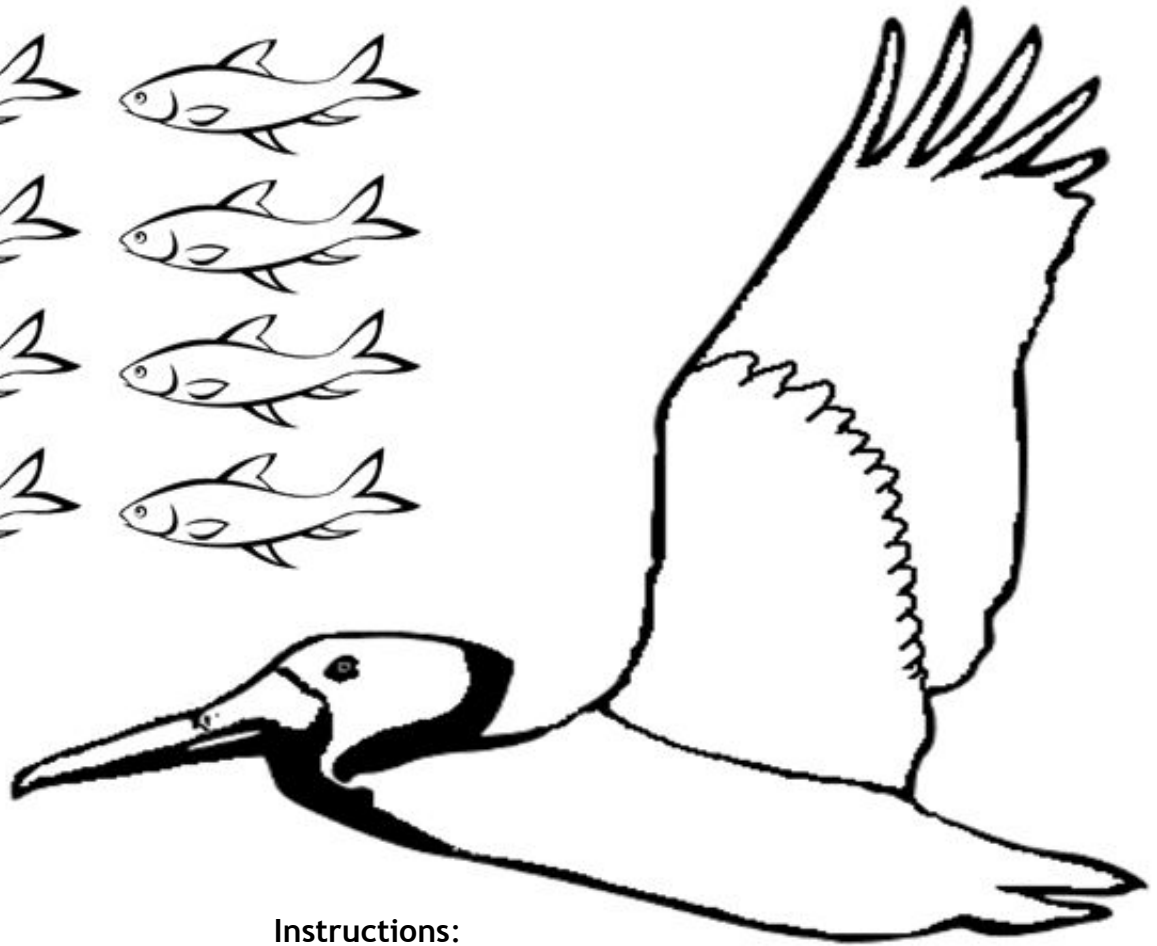
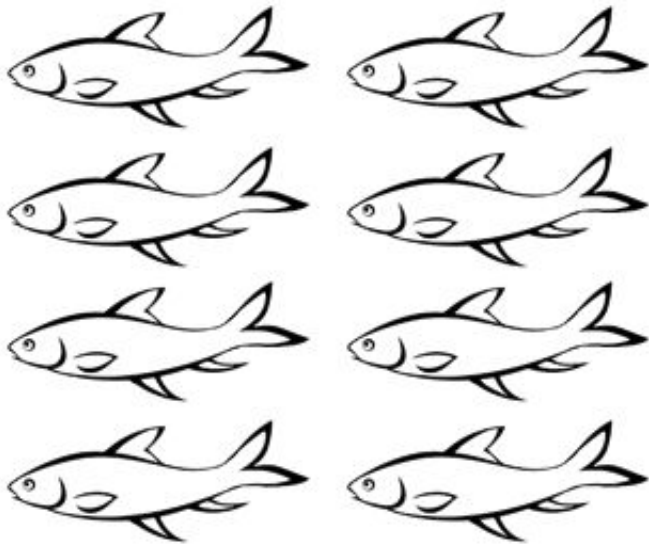


STEM

Pelican

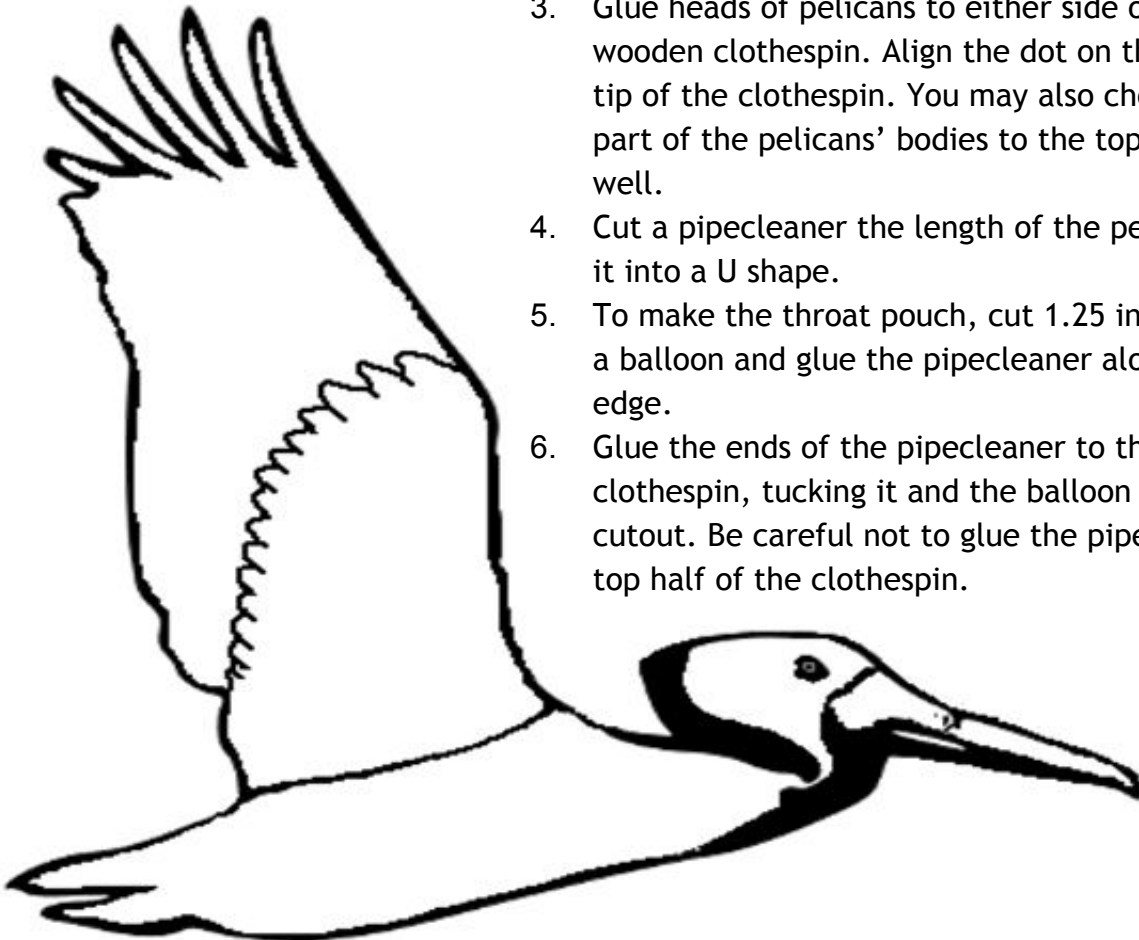
Activity





Instructions:

1. Print the page on white cardstock.
2. Color and cut out pelicans and fish.
3. Glue heads of pelicans to either side of the top half of a wooden clothespin. Align the dot on the pelican beaks with the tip of the clothespin. You may also choose to glue the back part of the pelicans' bodies to the top half of the clothespin as well.
4. Cut a pipecleaner the length of the pelican beak x 2 and bend it into a U shape.
5. To make the throat pouch, cut 1.25 inches off the round end of a balloon and glue the pipecleaner along the inside of the cut edge.
6. Glue the ends of the pipecleaner to the bottom half of the clothespin, tucking it and the balloon beneath the pelican cutout. Be careful not to glue the pipecleaner to the pelican or top half of the clothespin.



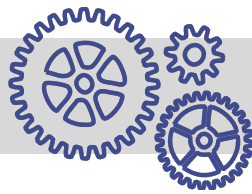
The Facts



- The elastic throat pouch is used by pelicans to catch fish and feed their young, but not all pelicans use it in the same way.
- Many pelicans will work together to form a line and drive fish towards shallow water by thrashing the surface of the water with their wings. They then scoop up the fish in their pouches.
- The brown pelican dives into the water and ensnares its prey in its throat pouch.

- Pelicans tip their pouch and beak forward to drain out water before swallowing the fish whole.
- The American White Pelican can hold up to 3 gallons of water in its bill.
- The throat pouch is typically folded up when a pelican is not fishing.
- Pelican beaks are the longest of any living bird.

Test Your Pelican



1. Using fish snacks or paper fish, estimate how many you can fit in your pelican's throat pouch.
2. How many can actually fit?

3. Try to scoop up the fish with your pelican. How many can you scoop?

How could you improve the design of the bird's pouch or bill to make it easier to scoop up fish?

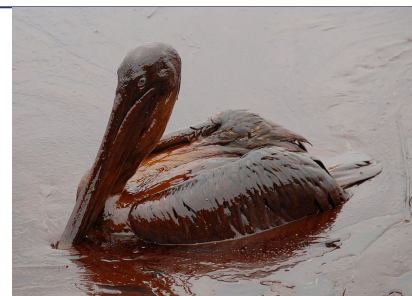


The Threat of Pollution



A pelican's feathers are waterproof which allows them to be able to swim on the water's surface or dive to catch fish. Oil from oil spills in offshore drilling operations and pipelines can cause the pelicans' feathers to absorb water. This can cause the pelicans to drown or get hypothermia. An estimation of the damage from the 2010 Deepwater Horizon oil spill says that 82,000 birds were killed from this disaster. This includes one out of every 10 brown pelicans in the Gulf of Mexico.

1. Brainstorm ways you can help prevent harm to the pelicans from an oil spill.
2. Can you design a device to help clean up oil? Is there a way to prevent oil from sticking to the feathers of pelicans? How else could you help?



Check out the Oil Spill Challenge at bit.ly/vivifyoilspill