



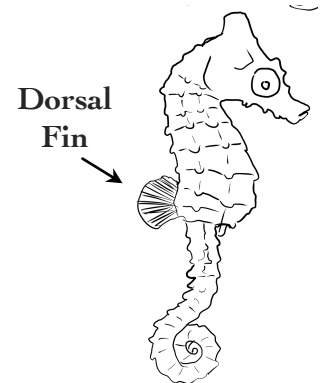
Seahorse - Sink or Swim!

by Mary Jane Brown and Tom McConnell

www.conservationtales.com/seahorses

Seahorses are beautiful fish but have some unusual characteristics! They have a shape unlike most other fish. On the diagram at the right, fin that seahorses use to push themselves through the water. They do not have a tail fin. This makes seahorses slow swimmers.

If you watch a seahorse, you might see the dorsal fin moving. But you may also see them float up or sink down – or even hover in one spot! They look like they do not have to work to float or sink.



Link – You can watch a [video of a seahorse swimming](#) at this link!

Driving Question: *Just how does a seahorse control whether it sinks, floats or hovers?*

Objectives:

- I can explain how seahorses control their ability to float or sink.
- I can build a model of a seahorse to demonstrate buoyancy.
- I can observe changes in my buoyancy model when I change the pressure.

Prediction: In this box, write your Prediction:

How do you think seahorses control whether they float, sink or hover?

Hypothesis: In this box, write a Hypothesis:

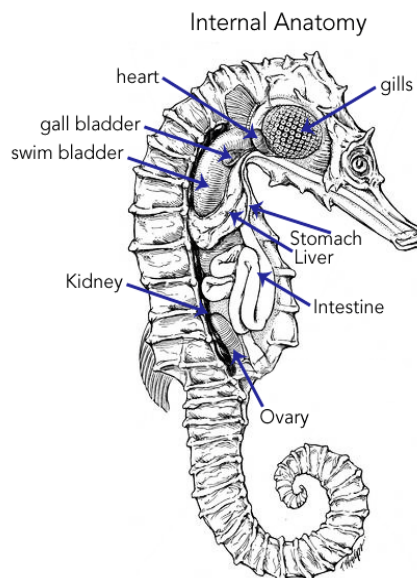
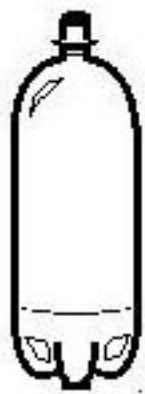
Why do you think your prediction above is true?

Building a Seahorse Model

In this activity, you will build a model of one of the internal organs of a seahorse – the swim bladder. Most bony fish have this organ, and it is a simple sac that holds air. The diagram at the right shows the internal organs of a seahorse. Find the swim bladder.

Materials: For this model, you will need...

- 2-liter plastic soda bottle with a lid (clear)
- Eyedropper
- Marker or wax pencil



Build a Model

1. Remove the label from the 2-liter bottle. Make sure you keep the lid with the bottle.
2. Fill the bottle with water all the way to the top.
3. Put the tip of the eyedropper into the water in the bottle. Squeeze the bulb and release it to partially fill it with water. There should be an air bubble visible below the bottom of the bulb.
4. Put the dropper into the jar. It should float with the bulb at or just below the surface of the water.
5. Put the lid on the bottle and tighten it.
6. To test the model, squeeze the bottle with both hands. When you squeeze the bottle, the dropper should sink! If it does not, remove the dropper, and refill it with more water than the first attempt. Repeat steps 4-6 until you can make the dropper sink by squeezing the bottle.



