



Florida Fishing Academy

How do Fish Breathe?

Grades: 6-8

How do Fish Breathe?

First let's think about how Humans breathe- When we take a breath air goes into what part of our body?

The Lungs!

Fish do not have lungs they have a special organ called the Gills.



Gills look like tiny toothbrush like hairs.

What do you notice about the gills pictured above?

(Color, Texture, etc.)

Why do you think the gills are red?

Why do you think their stringy?

Do you think this might help them breath?

Can Fish Breath out of Water?

Video: How Do Fish Breathe? <https://youtu.be/zj5v3n6Nlm8>

As fish swim through water they can take in little pieces of oxygen that are in the water.

We can't see the bubbles of oxygen in water.

If we look at a glass of soda water, we can see bubbles, these bubbles are made of CO₂.

Now look at the glass of water, imagining that the water has little bubbles of oxygen in it.

As fish swim through water they can use this oxygen to breathe.



Soda Water



Water

We can measure the amount of oxygen in the water. We call this Dissolved Oxygen (DO) or Oxygen Saturation. This is the measurement of the concentration of oxygen that is dissolved or carried in water. Each body of water has a different concentration of Dissolved Oxygen.

You may have heard that some bodies of water or areas have little DO. We call these areas Hypoxic: the absence of enough oxygen to sustain life. This will often times cause an increase in algal growth.

Research a body of water that has been affected by Hypoxia and share your results with us!

USCG on Dissolve Oxygen: https://www.usgs.gov/special-topic/water-science-school/science/dissolved-oxygen-and-water?qt-science_center_objects=0#qt-science_center_objects

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