



## Whales - How do whales breathe underwater?

### Fact

- Actually, whales don't breathe underwater. They hold their breath underwater instead.
- Whales are mammals, like us. They have lungs like us so they need to breathe air above the water like we do.
- A whale can hold its breath for up to half an hour under water and that's not only because its lungs are huge but when it breathes in fresh air most of its lungs are filled with air. Our lungs only partly fill with air.
- A whale uses its blowhole to breathe in air and when you see water spurting from a whale's blowhole that's just the water vapour from the whale's lungs and any water around the blow hole

### Do you know

- Whales have lungs a bit like us - it's just that their lungs are much, much bigger.
- There are two main types of whales – whales with teeth and whales that don't have teeth.
- Most of the smaller types of whales are toothed whales and they eat things like fish and squid. Killer Whales have lots of teeth and they eat things like seals and seabirds too.
- Whales without teeth are called baleen whales and they have long baleen plates that are like vertical Venetian blinds that hang from their top jaw to their bottom jaw. They use these baleen plates to catch tiny sea creatures like plankton and krill. They swim along with their mouths partly open and they take tons of seawater at a time. Then they close their mouths and push the seawater out and their baleen plates trap all the plankton and krill.
- The Blue Whale is the largest animal on earth. It can be as big as a jet plane, its heart can be as big as a small car and its tongue can be as big as an elephant! That's big!
- Whale poo is called ambergris and is grey and light enough to float on top of the water. Sometimes you find it on the beach. It can be used in the manufacture of perfume!

### Experiments you can do

Make like a whale

Next time you're swimming, or take a bath, float on your back and use your mouth as a blowhole. Take a breath and sink under the water then rise back up and exhale when your face is above the water again. See the water that rises up when you blow out of your mouth? That's the water that was around your mouth and that's just like what happens when a whale exhales.

### **Other Investigations**

Investigate how whales hear under water

Whales use clicks, high-pitched squeaks and low moans to communicate with.

Next time you're in a pool with your friends get them to make clicking sounds under the water while you swim round under the water. They might have to bang two pebbles together to make a sound loud enough for you to hear.

### **Jokes**

Did you hear about the sea creature that enjoyed the party?

He had a whale of a time