Gas,

let's put some pressure on it!

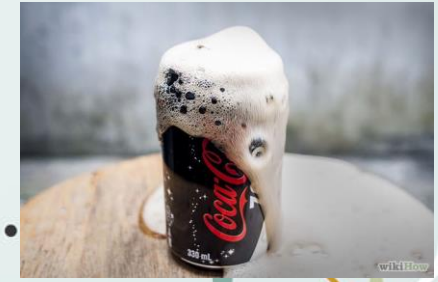
Keep the pressure down

When we put liquids in containers like cans and spray bottle we use gas to make it come back out again.

Although you can't see it, the gas is squeezed in the container really tightly with the liquid. It's squeezed so tight that the gas and liquid *almost* mix together.

This is called pressurised gas. You've seen pressurised gas in action before - think of a can of soft drink, fly spray, hair mousse. When you use it the gas comes out with the liquid.

What other liquids might you have in your house with compressed gas?



Can I pressurise water or air?

Sure can and I bet you've probably done this at home lots of times. Let's try it.

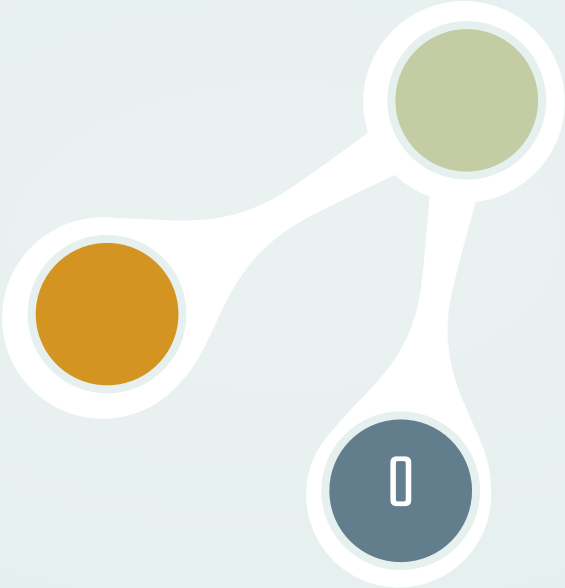
If you've got a empty shampoo bottle try these 2 tricks. Put you water into the bottle (about half way) and place a finger over the end then trying to squeeze (compress) the bottle.

How far did the bottle compress? Do it again but have the bottle nearly full this time. Did it compress further?

So why is it different with more water?

If you fill a bottle with air and place a finger over the end, you will be able to easily squeeze the bottle because the air inside the bottle is easily compressed.

If you fill the bottle with lots of water, put your finger over the end and then try squeeze, you will notice it is much harder to squeeze the bottle. This is because water is much harder to compress than air but it does still compress.



Try doing it again but this time have no water in the bottle. The bottle should be able to be squeezed really easily which makes the bottle compress a lot more.

Let's do it slightly differently?

Lets try something different and you may need a big person this time. You'll need a big bucket filled with water this time - big enough to fit both hands in.

We're going to trying to clap our hands under water and then compare it to clapping their hands in the air - go on, clap your hands in the water and then in the air like normal. Is one harder than the other?

You can do it under water but it's harder because the water doesn't want to be compress.

Did you notice that sometimes there were bubbles when you clapped underwater? Hmm, wonder why?

We're going on a gas hunt!

01

Go and see what compressed gases are in your house, take pictures.

02

Look in the latest Woolworths/Coles/Aldi catalogue and see what's there, copy pictures

03

Write in a ***Google doc*** what things you find with compressed gases and include a picture of them and share to this lesson

Big Question Time!!!!

Why do we keep somethings with compressed gas and not others?

Are there somethings that don’t work as well as when they are out of gas?

In the Google Doc you created for the last slide try to answer these questions. It may be useful to use the compressed liquids (with a big person) to see what the liquids look like after they exit their container.