

## More carbon

The reasons you can read this sentence are that, 1) you can read, and 2) we can see through air. So, what is air made of?

Well, we know it has a bit of hydrogen, and a bit of carbon dioxide [CO<sub>2</sub>], and a lot of oxygen. So, because you can see that 'so', all that stuff must be colourless.

We breathe in so we get oxygen in [which we need]. We breathe out so we can get CO<sub>2</sub> out [too much of it can kill us].

Where does most of this carbon dioxide in your body [that you have to get rid of] come from?

Well, when we are cold we want to burn some wood in the fire – we want to get energy [heat] out of the wood, to warm us up.

Yes, but, that is not where the carbon dioxide comes from that we have to get rid of.

What happens is – we eat food and we use it up. We get energy out of our food for running around and dancing. But, in the same way that we burn wood for heat, when we use up food for energy, to do things, we make carbon dioxide. And, we have to get rid of it!

So – we breathe it out. Problem solved.

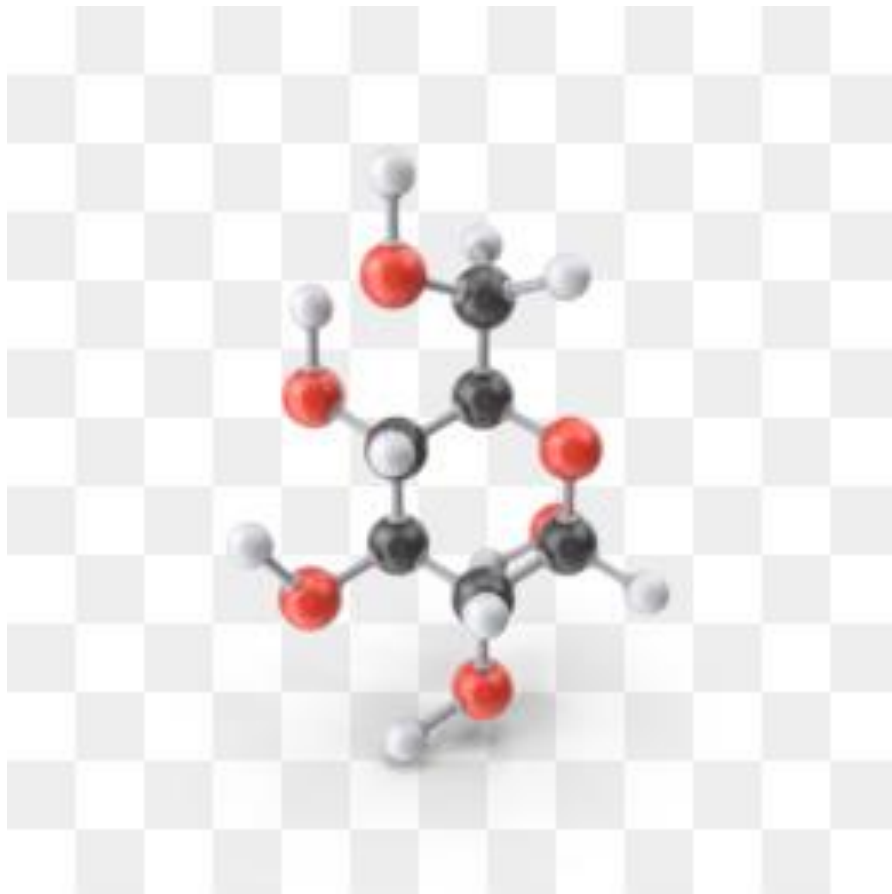
Soon, we will have a talk about how trees and plants help us get rid of carbon dioxide from the air.

Coal – pure carbon – is the remains of forests which covered the land millions of years ago. These were buried, and heat and pressure slowly changed these forests into coal.

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Carbon atoms can make 4 links with other atoms. They often make rings of 6 carbon atoms – and that leaves other links they can use.

Table sugar, which you eat every day, is a combination of two very simple sugars – **glucose** and fructose. Here we have a look at glucose.



[CLEANPNG. Free Download. Many thanks.  
<https://www.cleanpng.com/png-molecule-molecular-model-molecule-3046167/>]

In this a model of a glucose molecule – carbon atoms are shown as black balls. You can see there are 5 carbon atoms in a ring. There is also a red ball in the ring – the red balls in this model represent oxygen atoms.

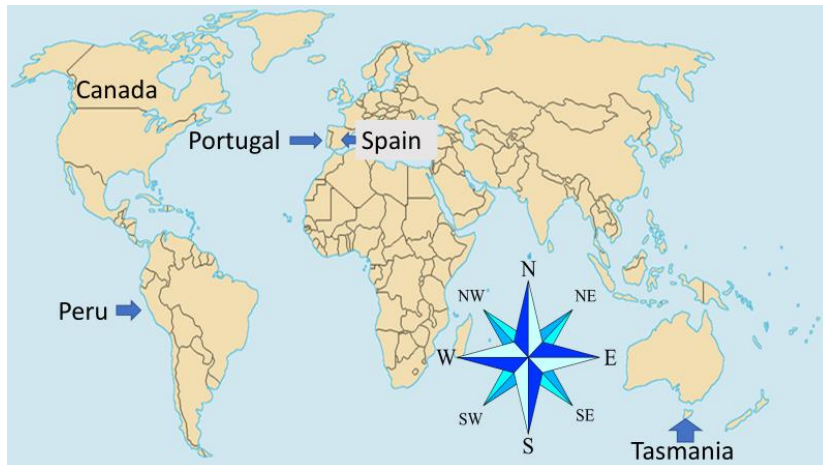
There is also one black ball [carbon atom] sitting away from the ring.

The white balls represent hydrogen atoms.

So, glucose [sugar] is made up of carbon, oxygen and hydrogen – you know all those atoms quite well. Good job!

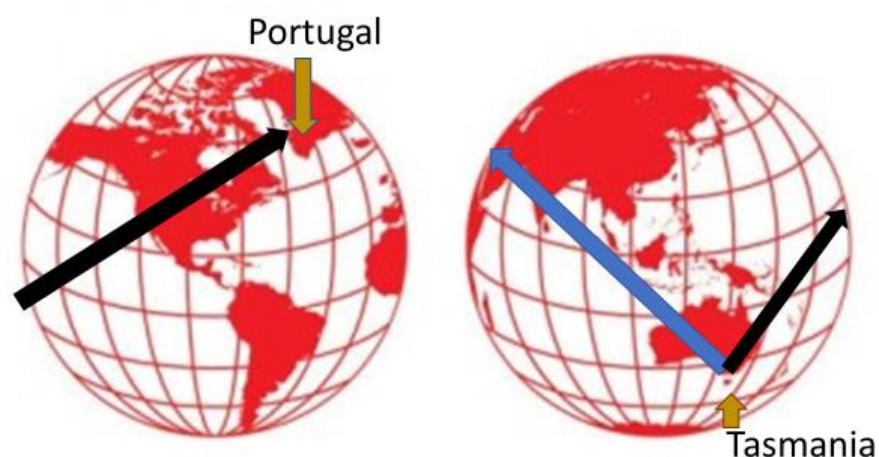
## A question

We were in Tasmania and we had to go to a conference in Portugal [a tiny country next to Spain]. To get to Portugal from Tasmania you have to go north west [that's much the same direction as if you wanted to go to Nepal or England].



If you were tired of going north west – is there another direction you could take and still get there?

Well, another direction might be possible – but, it wouldn't be very easy.



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Remember, the world is like a ball – with countries all around. So, if you were in Tasmania and you wanted to go to Portugal, but you didn't want to go north west – you could head off in the north east direction – that would take you across the Pacific Ocean, North America and then the Atlantic Ocean. So, it is possible.

## Not a water strider



[<https://www.abc.net.au/news/2016-08-31/anopheles-stephensi/7799798>]

This looks a bit like a water strider [Chapter 30] – but it is not. It is a mosquito – a special type, which can carry a bad germ [tiny living organism] which can kill people.

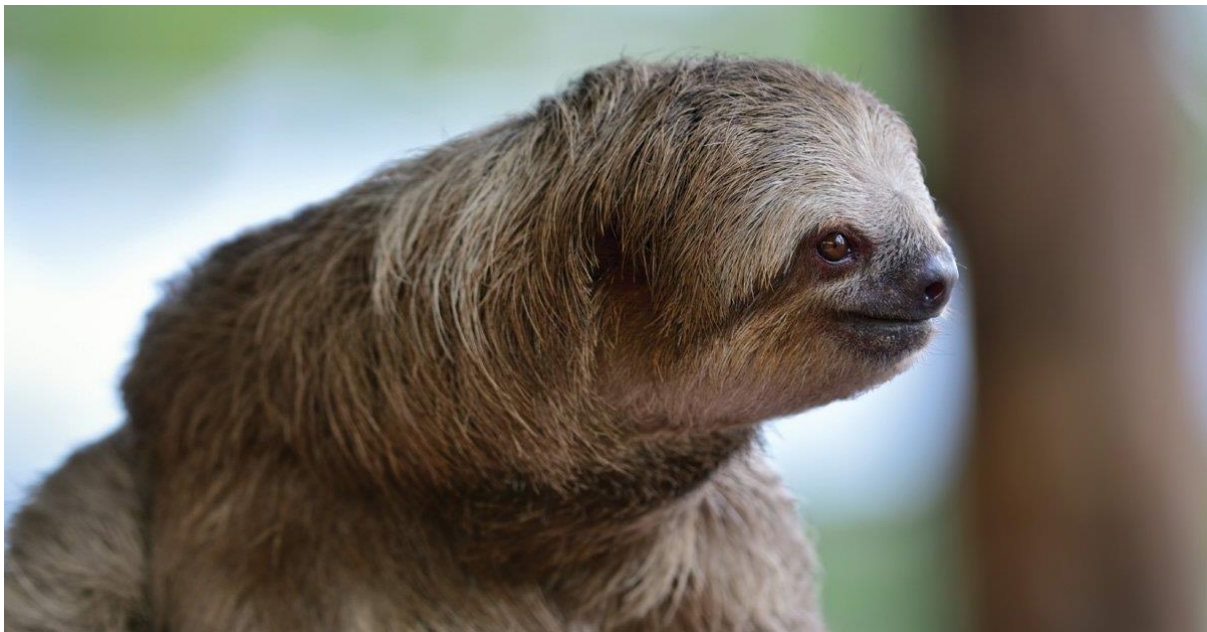
The mosquito lives on the blood of people or animals. Part of its mouth is a thin tube – it puts this through the skin and sucks a little bit of blood out. We call this a ‘bite’ – it's not really a bite.

The problem is that a special type of mosquito might pass a nasty disease from one person to another.

**Malaria** is the disease mosquitos can spread. If a mosquito ‘bites’ [takes some blood from] a person who has malaria, and then ‘bites’ another person, some of the bad germs from the sick person may be passed on to the second person – who then becomes sick.

Malaria is found in hot [tropical] areas. There are ways to treat and prevent the disease.

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We've met this guy before, somewhere!!

**Knock, knock.**

**Who's there?**

**Says.**

**Says who?**

**Says me, that's who!**

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**Q: What happened when the frog's car broke down on the side of the road?**

A: It got toad away.

**Q. What do you get when you cross a centipede with a parrot?**

A. A walkie-talkie!

**Q: Why did the baby elephant need a new suitcase for her vacation?**

A: She only had a little trunk.

**Knock, knock.**

**Who's there?**

**Dishes!**

**Dishes who?**

**Dishes the police, come out with your hands up.**