

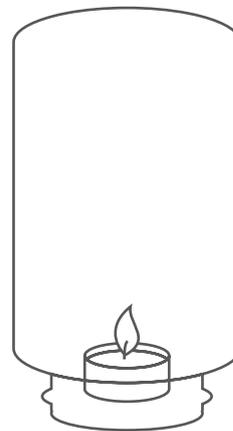
Carbon dioxide in action

You can see solids all around you, and liquids such as water are also visible. There is another type of matter that we can't see. What is it? Did you think of gas? Just because a gas is invisible doesn't mean it's not all around us! We are surrounded by air. Oxygen is one of the gases in air that is very important to us. We need to breathe in oxygen to help us get energy from our food.

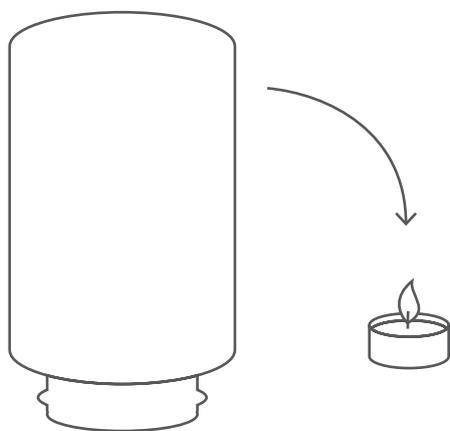
You have probably heard about carbon dioxide, another type of gas in the air. We breathe it out and plants take it in. It is also produced by burning fossil fuels. Did you know it adds to the greenhouse effect that is warming the Earth? Too much carbon dioxide and the climate may change. It might not be so comfortable.

How do you know carbon dioxide is really there, if you can't see it? Let's investigate! Your teacher will show you carbon dioxide in action.

First let's see what happens when we put a jar over a candle flame. What do you think will happen?



What I think will happen (my prediction):



Were you right? The flame went out! That's because the flame needs oxygen to keep burning.

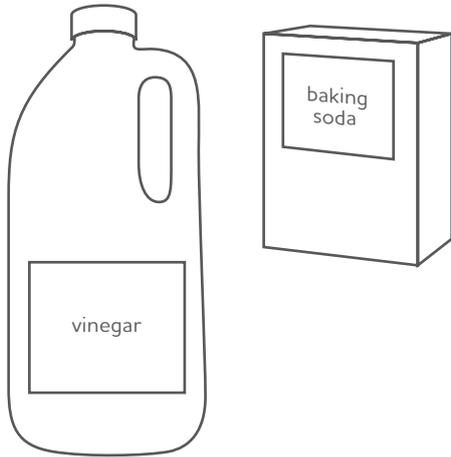
Now, let's see if we can put the candle out without blowing it out, without putting a jar over it, without putting water on it or touching it? What do you think?

I think it **will / will not** be possible.

(Circle one)

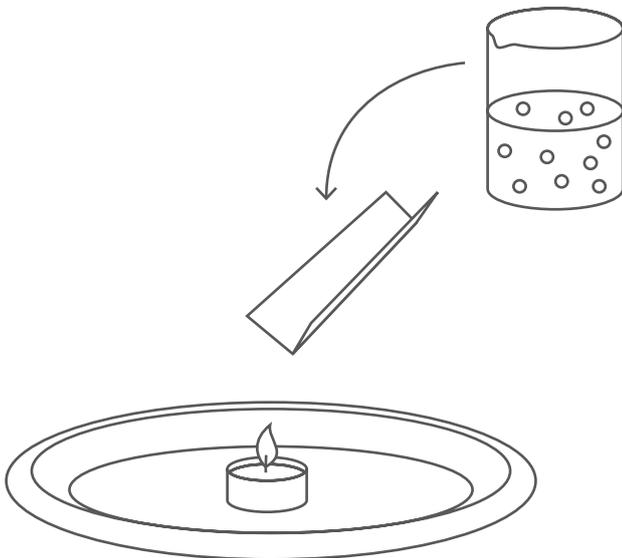
Carbon dioxide in action

First I'm going to mix some vinegar and baking soda together.



What a reaction! Bubbles of carbon dioxide are produced when vinegar and baking soda react.

Now I'm going to pour the carbon dioxide onto the candle, being very careful that no liquid runs down the tube.



Did you see what happened? Write what you observed (saw) here:

Why do you think the candle went out?

How can carbon dioxide be poured down a tube?

My conclusion is that it must be **heavier / lighter** than air.

(Circle one)