

# In the magic lab...

**Class 1 G - I.T.T. Marconi - School Year 2023-24**



An illustration of a man and a woman standing on a wide, stone staircase in front of a grand, classical building with columns and arched windows. The man is on the left, wearing a blue shirt and pink pants, with his hands on his hips. The woman is on the right, wearing a yellow cardigan and brown pants, holding a book. The scene is surrounded by lush green trees and a clear blue sky with a few clouds.

Hi Vanessa,  
how are you?

I'm fine,  
thanks. What  
about you?

An illustration of a grand, classical building with a wide, stone staircase leading up to it. Two people are standing on the stairs. On the left, a man in a blue shirt and pink pants is gesturing with his hands. On the right, a woman in a yellow cardigan and brown pants is holding a book and pointing towards the man. The scene is surrounded by lush green trees and a clear blue sky with a few clouds.

I'm fine too! I  
can't wait to go  
to the lab!

I can't wait to get  
there, too!

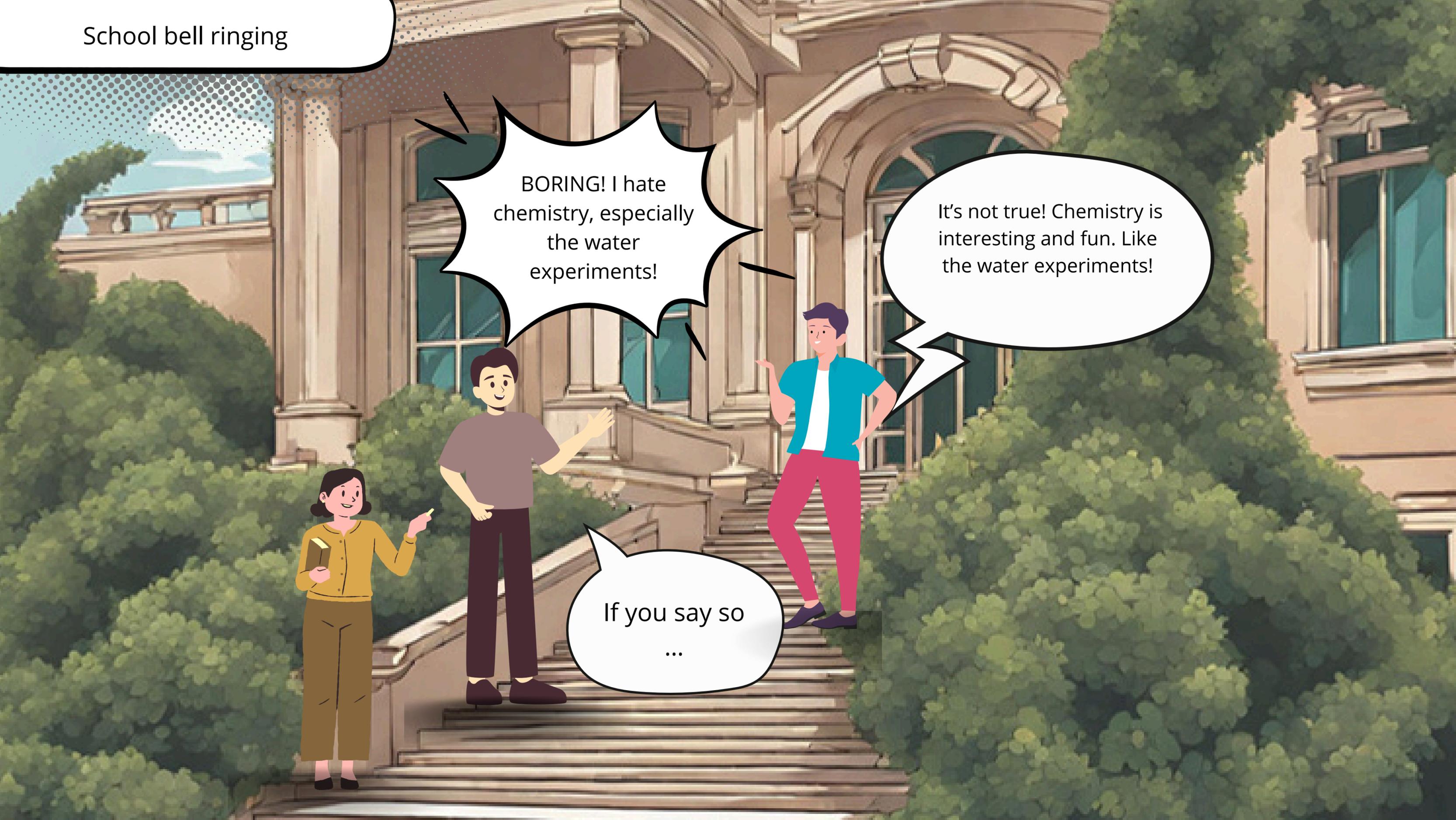
School bell ringing

BORING! I hate chemistry, especially the water experiments!

It's not true! Chemistry is interesting and fun. Like the water experiments!

If you say so

...





Well, let's see  
what we'll do  
with Mr Bertolo.

Whatever we do, I  
bet it will be really  
boring!



What are you saying!  
What's the betting that  
after this day you'll like  
going to the laboratory?

Well, I know that  
I will never like  
physics and  
chemistry.



Good morning guys, today in the laboratory we are going to talk about the physical and chemical characteristics of water.

Everyone!  
Go into the lab!

Yeeah!

How boring!



Today we are going to do something that I bet you'll like!

What will we do?

What does this boring water experiment consist of?



Instant ice  
pack!

WOW!

Method:

1. Put a bottle of water in the freezer.  
(for 3 hours, it needs to be close to ice)



2. Prepare a glass with ice and salt.  
Come here guys!



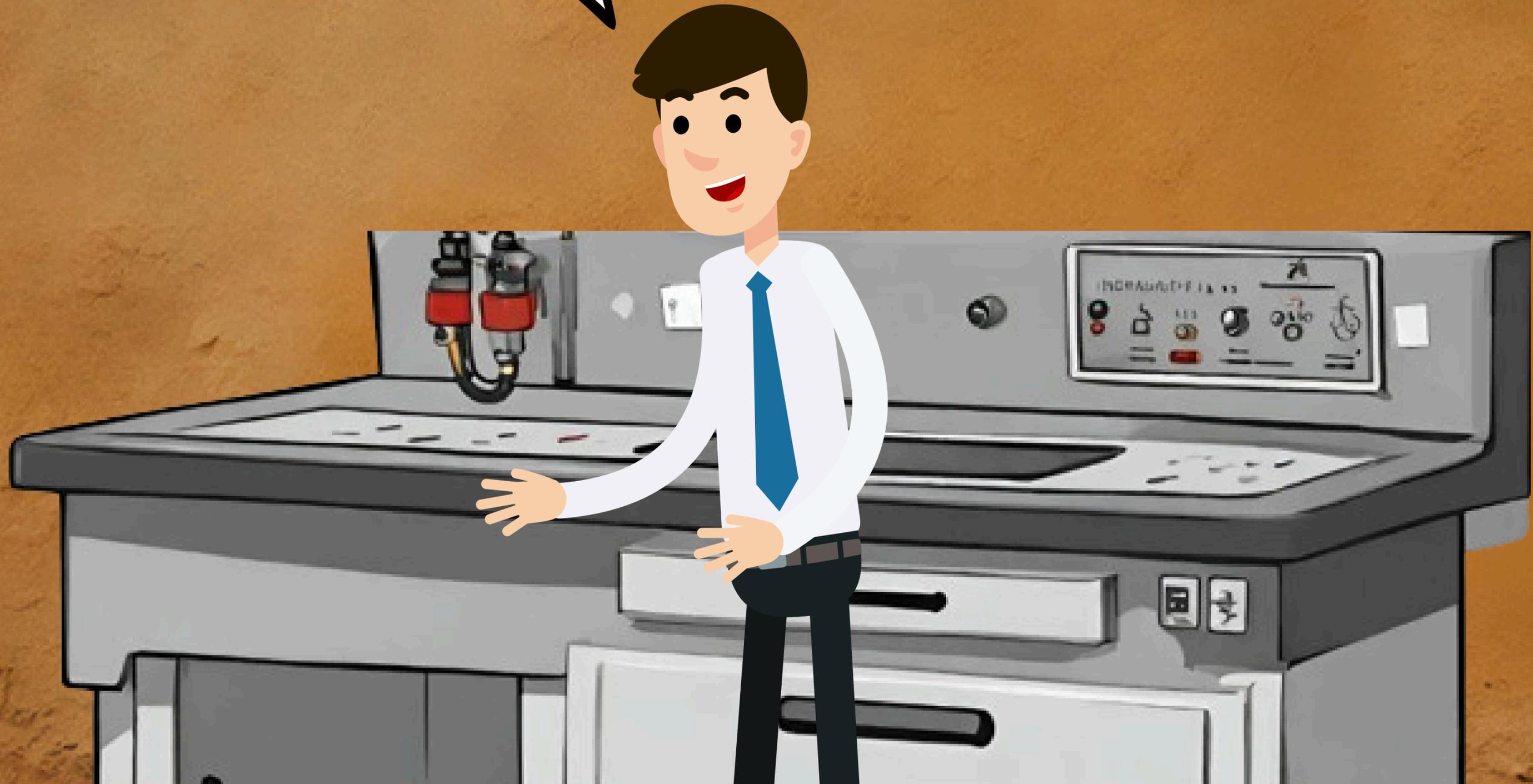


You can see that water freezes instantly in contact with the ice. This is caused by the water in the bottle being at the freezing point.

Wow! So beautiful!

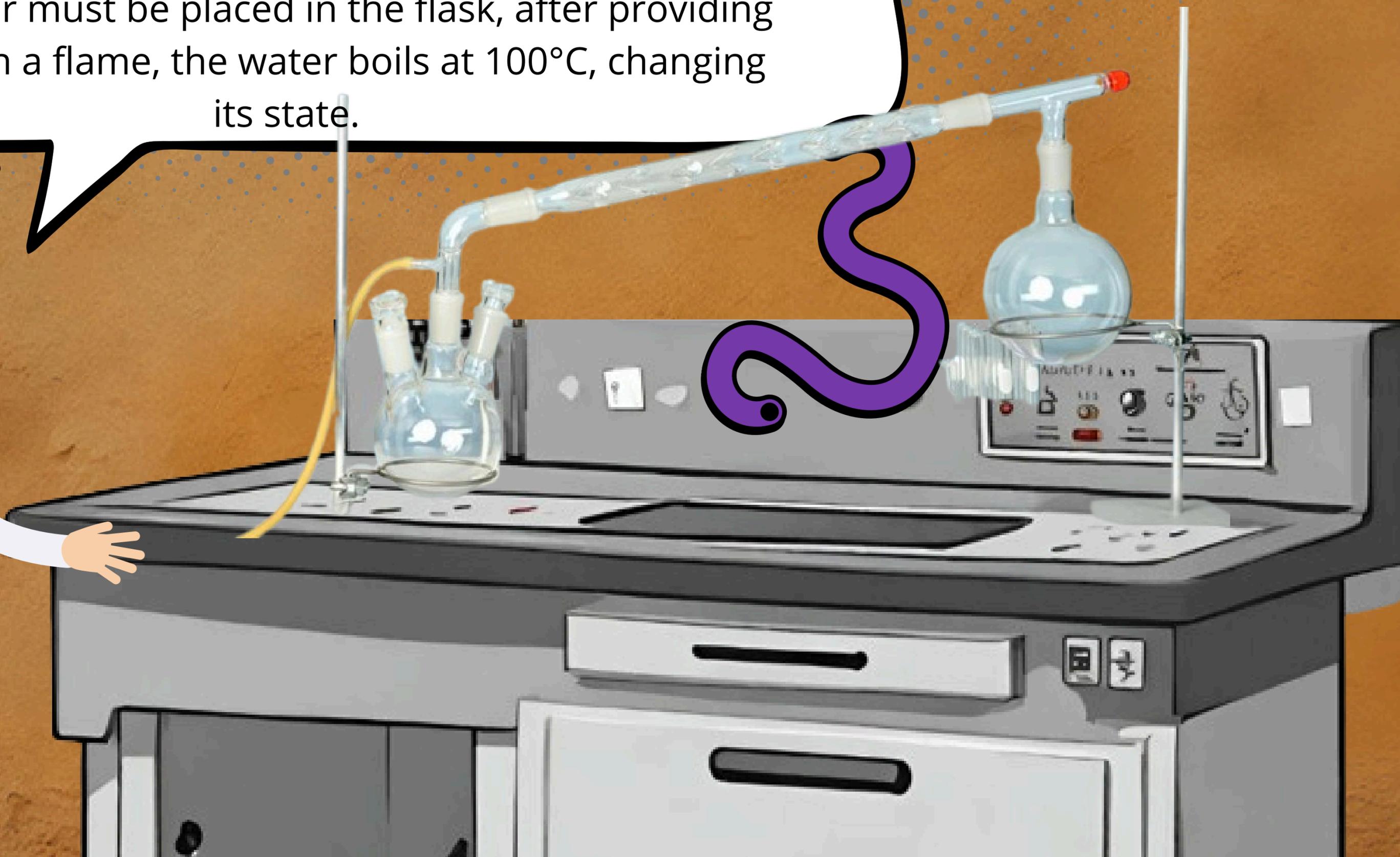


Second experiment guys!  
Now I'm going to tell you about condensation.

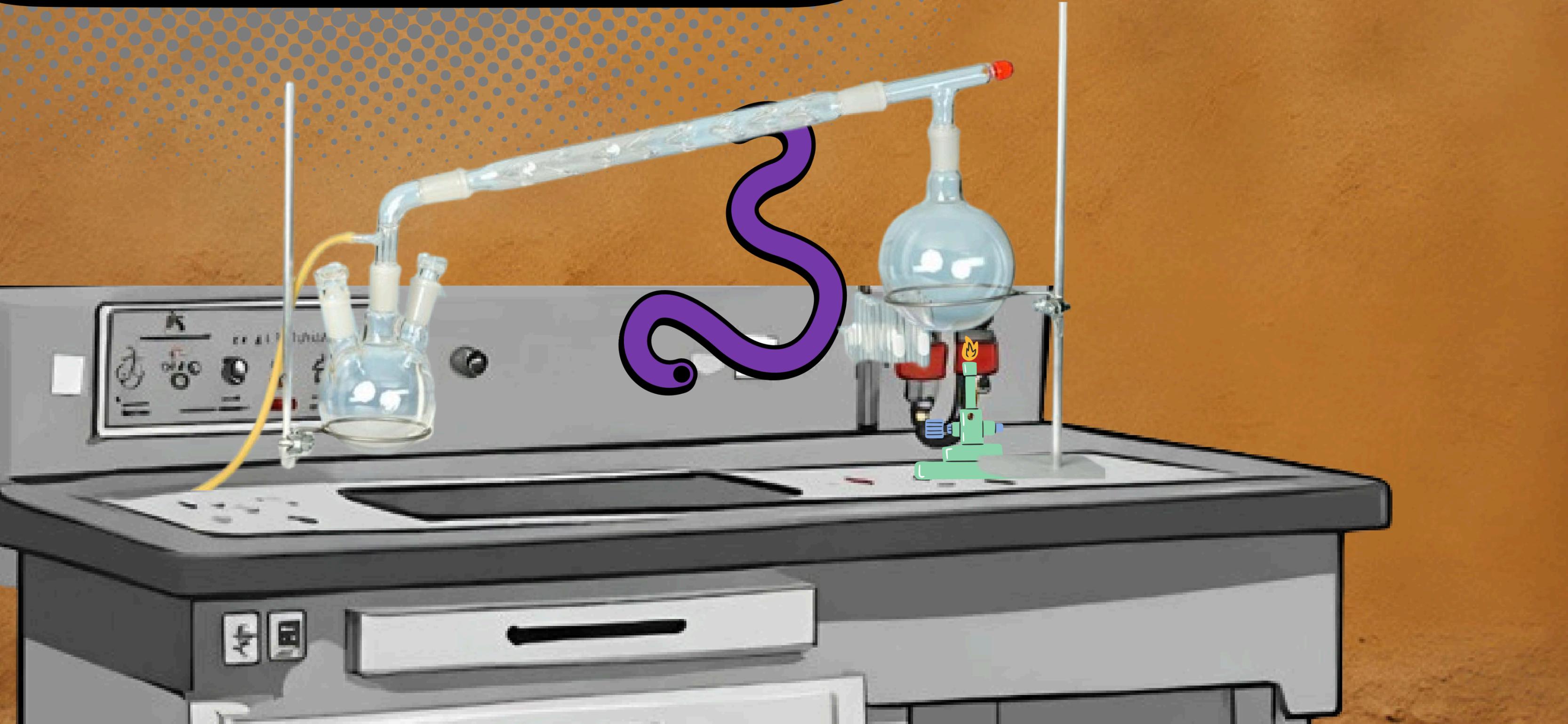


Here is the material for the experiment!

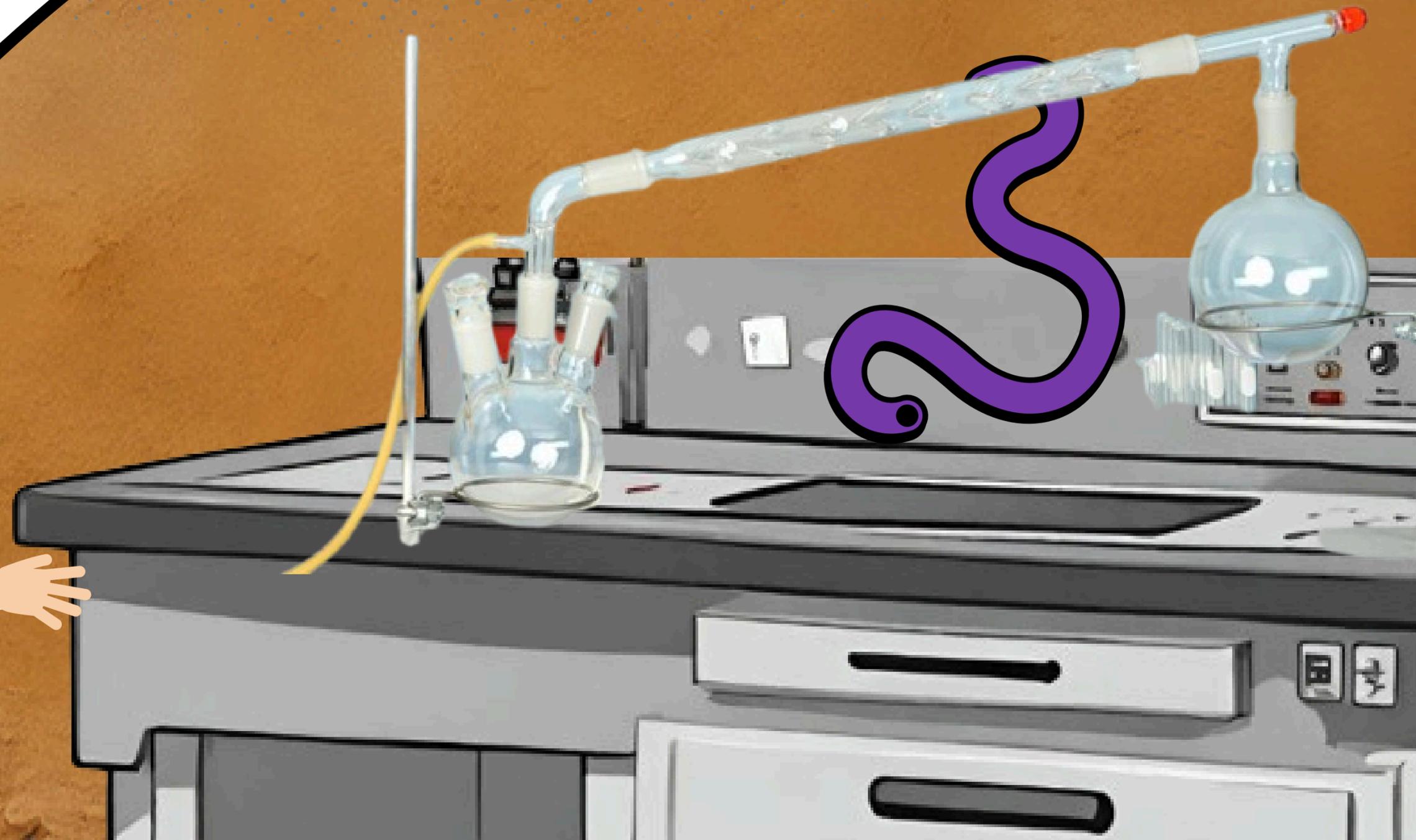
Liquid water must be placed in the flask, after providing energy with a flame, the water boils at  $100^{\circ}\text{C}$ , changing its state.



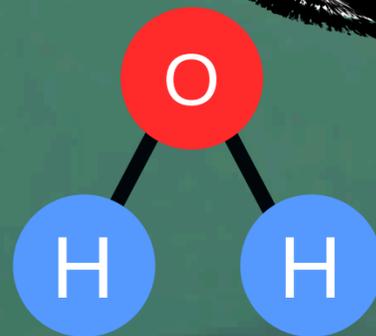
Water vapor goes upwards because it is hotter and lighter. Thanks to the refrigerant, the vapor lowers in temperature, and then condenses and returns to liquid.

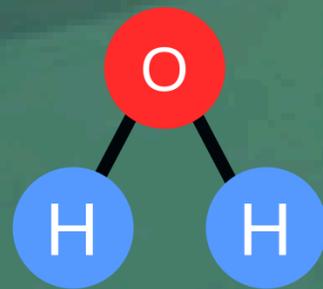


And thanks to distillation it is possible to obtain a liquid due to the condensation of its vapor.



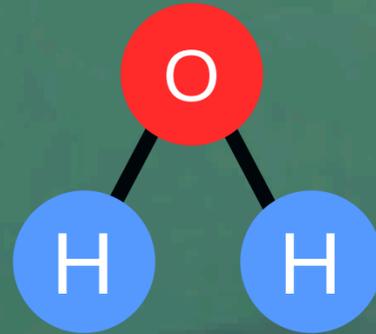
And this is today's experiment guys.  
Water is very important in the world,  
that's why you shouldn't waste it.

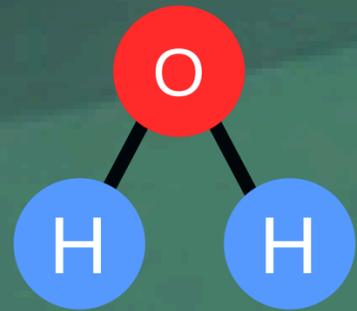




Water has 3 different states (solid, liquid and gaseous).  
It manages to reach them thanks to changes in temperature.

Only about 3% of world's water is considered drinkable and people around the world are continuing to suffer from poor access to safe water. Do your best to take care of the world!



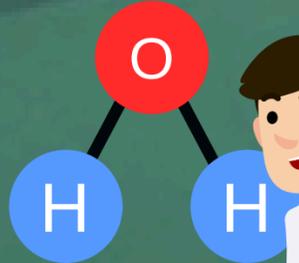


Water is our life,  
water melts between your fingers,  
very good water to drink,  
fun water to play.  
Don't waste BLUE GOLD  
or you'll end up badly too!



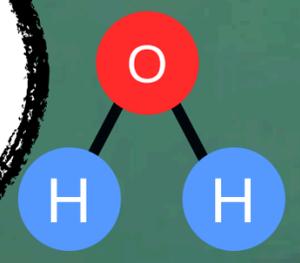
Driiing!  
Driiing!

See you next lesson, goodbye.



Wow!  
This class was  
amazing!

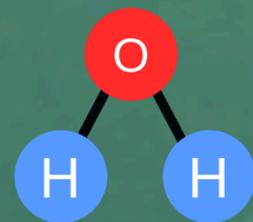
Oh yes, we knew you'd like it



I didn't think water could be so interesting.

I'm sorry for what I've said before about this really important substance.





Chill, it often happens that people underestimate water.



Bye guys, and I still hope to do interesting experiments like this!



Goodbye!

# The End...

