

Just For Fun!

Here are some VERY fun lab activities
you can do at home!

States of Matter

Chemistry is “**CHOOOL!**”

Materials

- Ice bath
- safety goggles
- Heat source
- Tongs,
- empty soda pop can
- 10-15 ml of water

FUN Lab 1

Ice Bath



Prepare an ice bath as shown. Heat a small amount of water (10-15 ml) in the can until you see some steam exiting the can.



Ice Bath

Turn can upside down INTO the ice bath & hold it there. (*Inverting the can is equivalent to placing a cover on the can to hold the gases in.*)



KAZAAAM!
The Can
collapses!



That was so much
fun we did it
twice!



Collapsing Can Experiment



Click on the link: (0:49)

www.pottersschool.org/watch?v=vzenRoxrn8

Why did the can collapse?

States of Matter



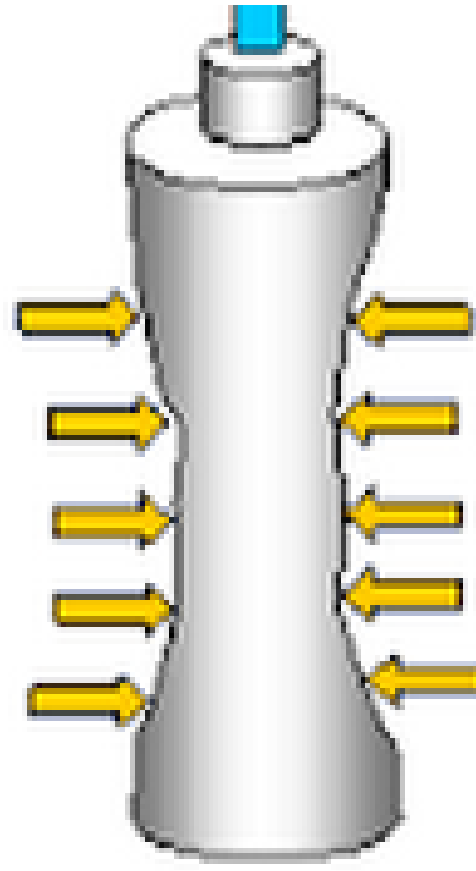
Atmospheric Pressure



The can originally did not collapse.
Why?



before



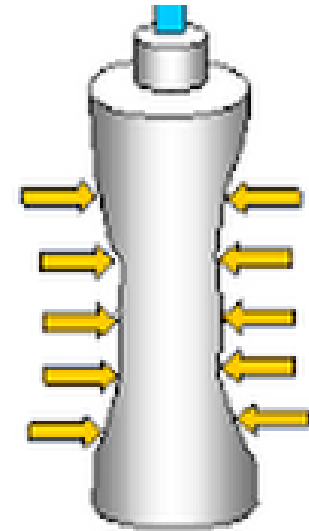
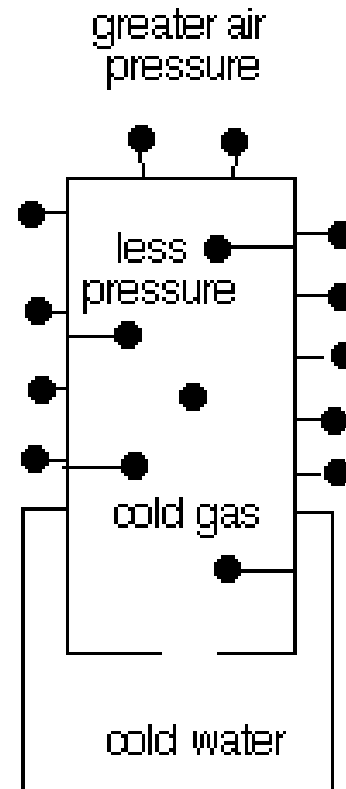
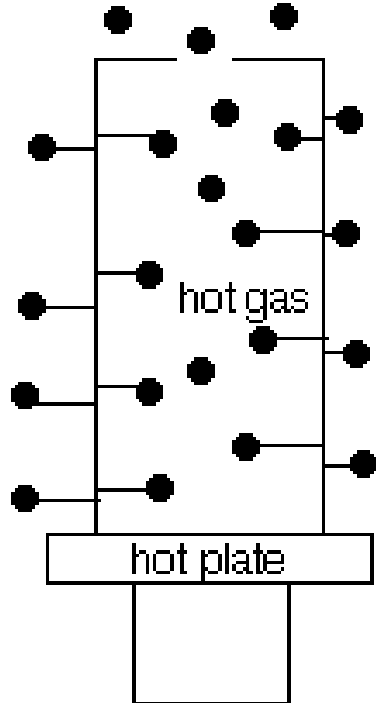
after

Then, after adding boiling water (really it was the steam), the can collapses.
Why?

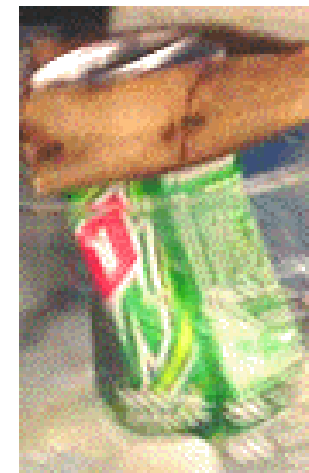
Atmospheric Pressure



before



after




Notice the air molecules
“before” & “after”

Materials

- A 250 – 500 ml flask or glass bottle with a smaller opening.
- Tongs
- **Large Balloon**
- Heat source
- **25-30 ml of water (added to the flask or bottle)**
- **Safety goggles**
- Ice bath (see lab 1)

FUN Lab 2



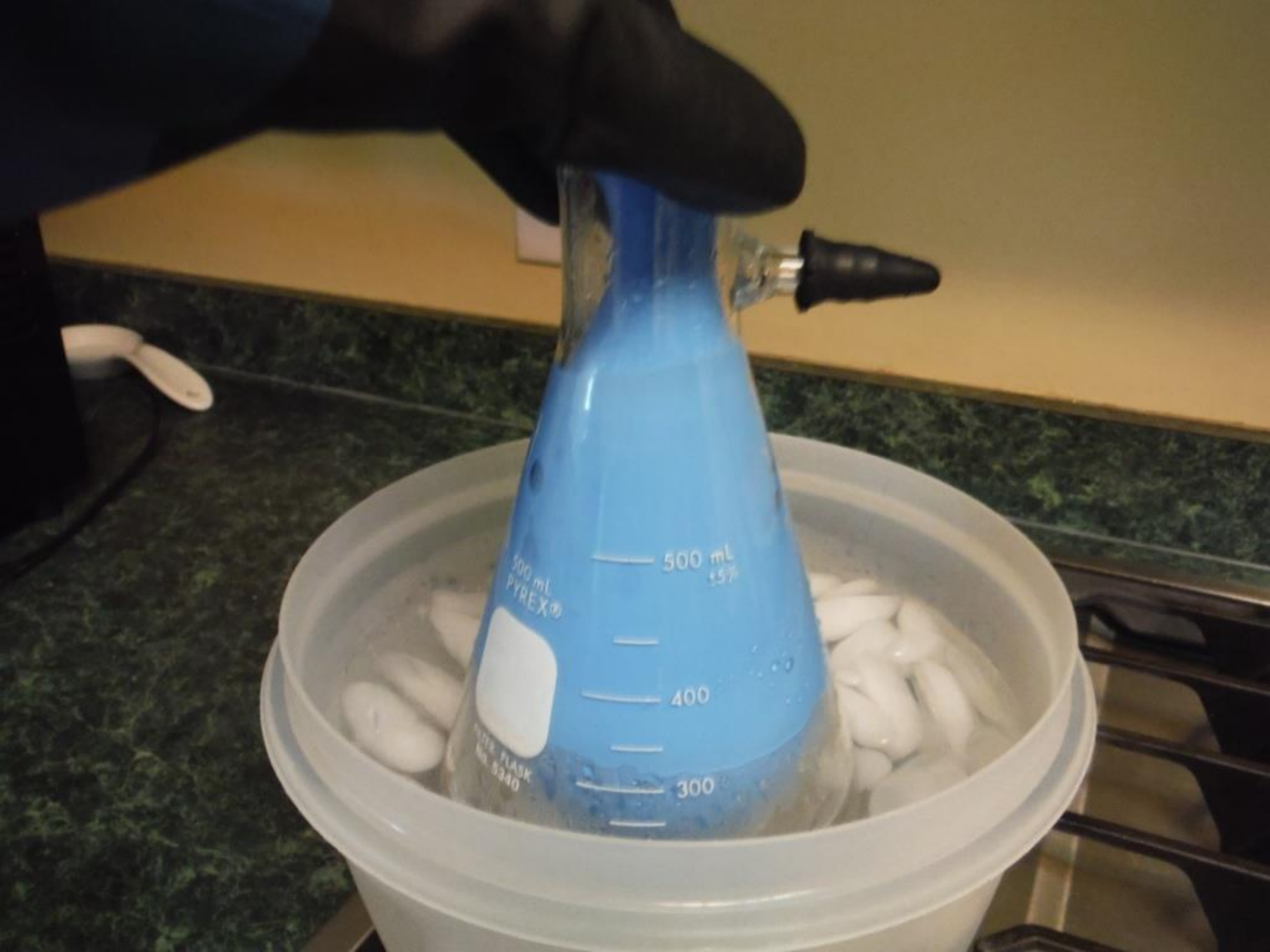


Heat the water in
the flask to boiling
The balloon expands

Submerge the flask (using tongs) into the ice bath.

As the flask cools the balloon gets sucked inside the flask.





500 mL
±5%

400

300

500 mL
PYREX®

STER. FLASK
No. 5340

Reheat the flask –
the balloon refills

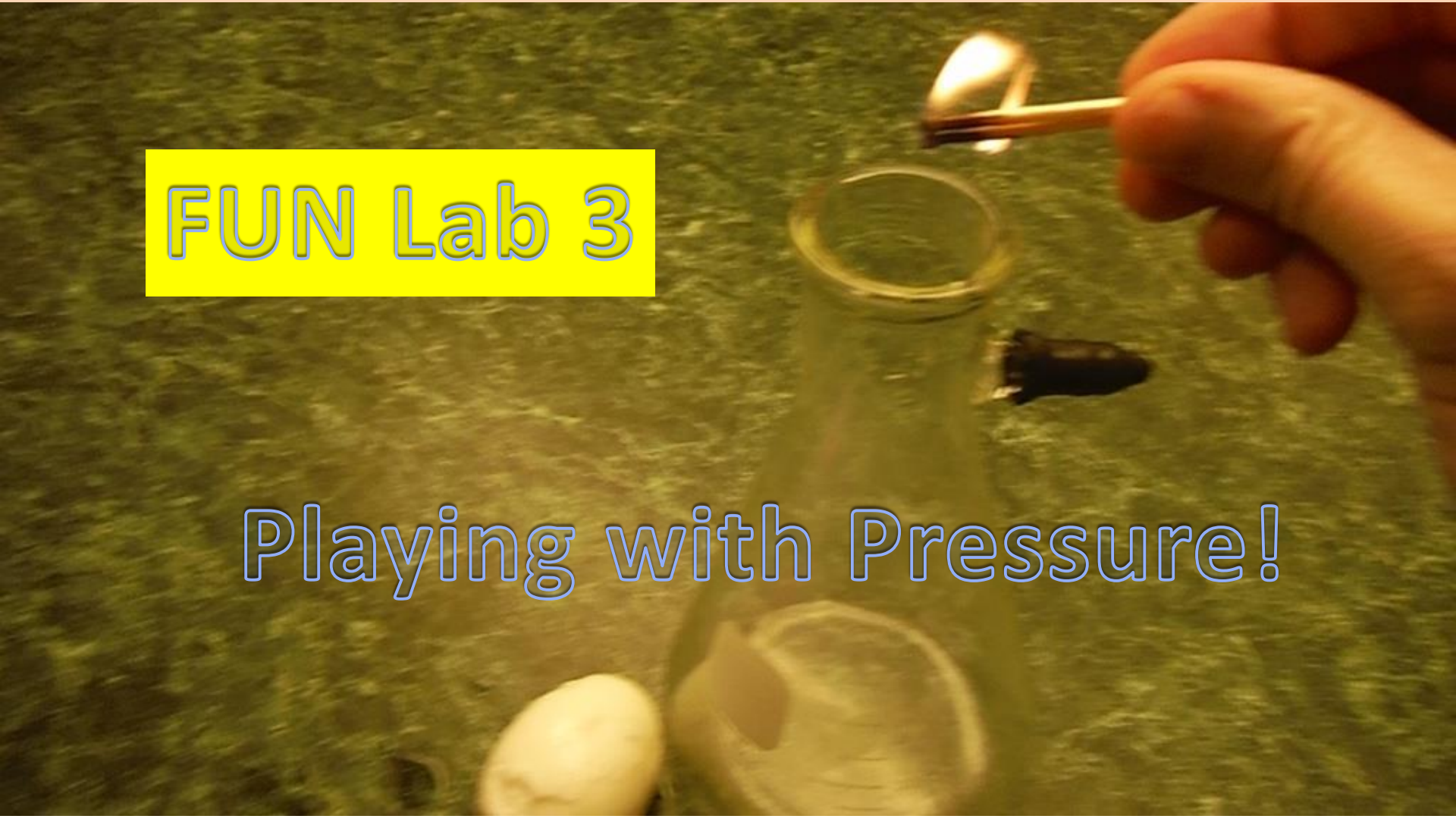


Materials

- Match
- 250-500 ml flask
- PEALLED hard boiled egg
- empty soda pop can

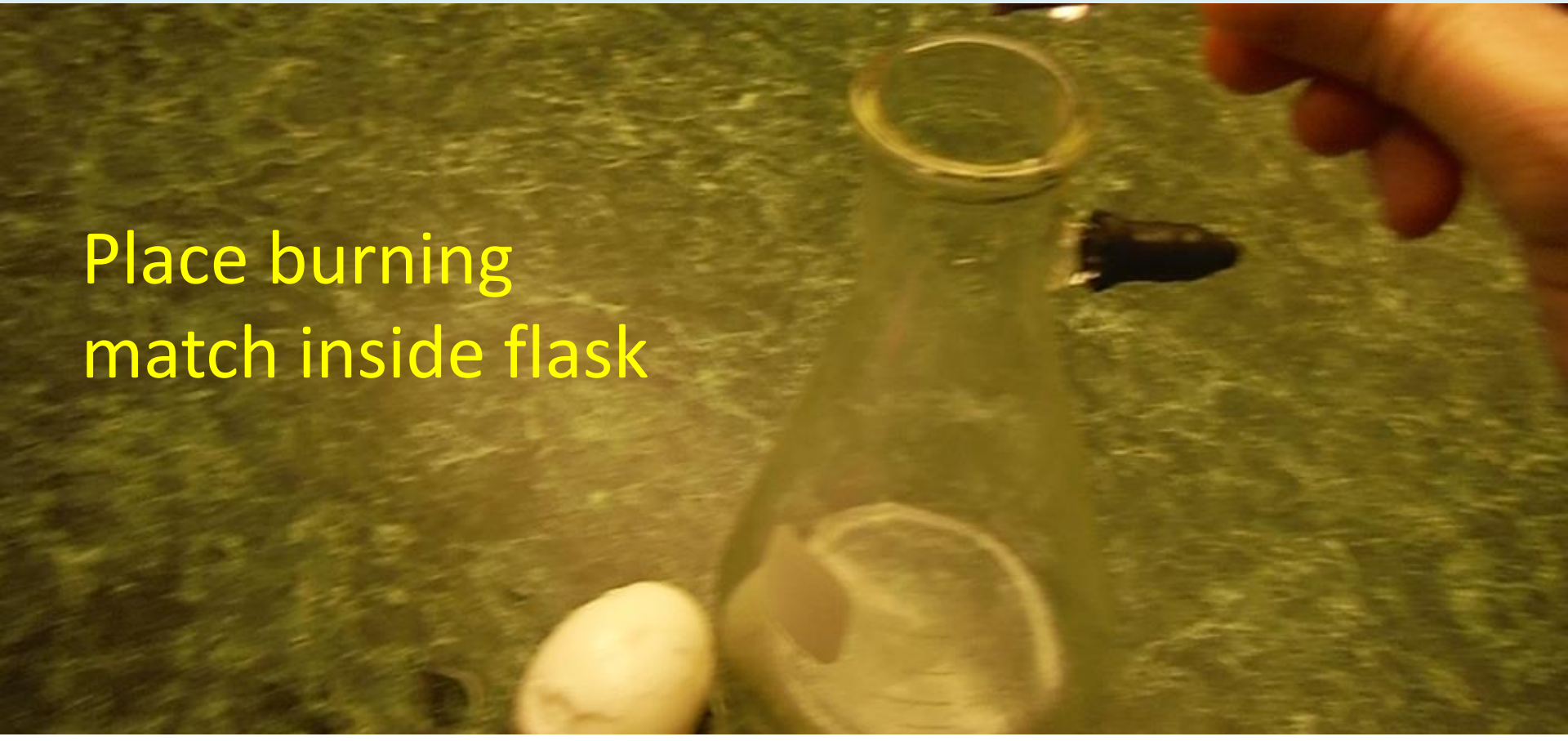
FUN Lab 3

Playing with Pressure!

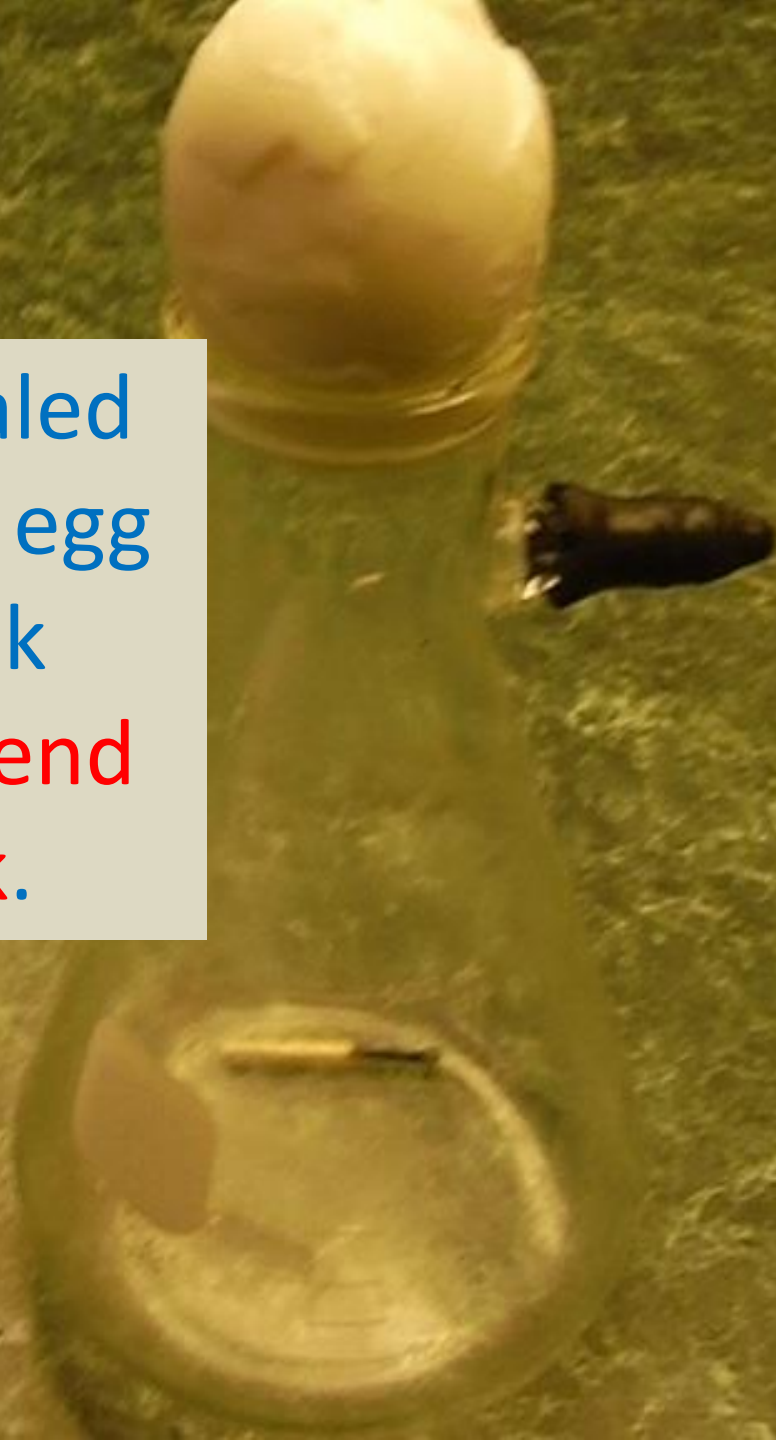


- Make a hard boiled egg (small pan, boiling water that covers the egg, egg in shell for 10 minutes)
- Peel the hard boiled egg.
- Light a match, let it burn 2-3 seconds directly above the flask and then drop it into the flask.

Place burning
match inside flask



Place the peeled
(hard boiled) egg
on top of flask
with narrow end
“IN” the flask.



The egg
gets sucked
inside flask







It's no YOKE
folks!

It came out
EGGxactly as it
should have!

