

# Just For Fun!

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

The Gas Laws

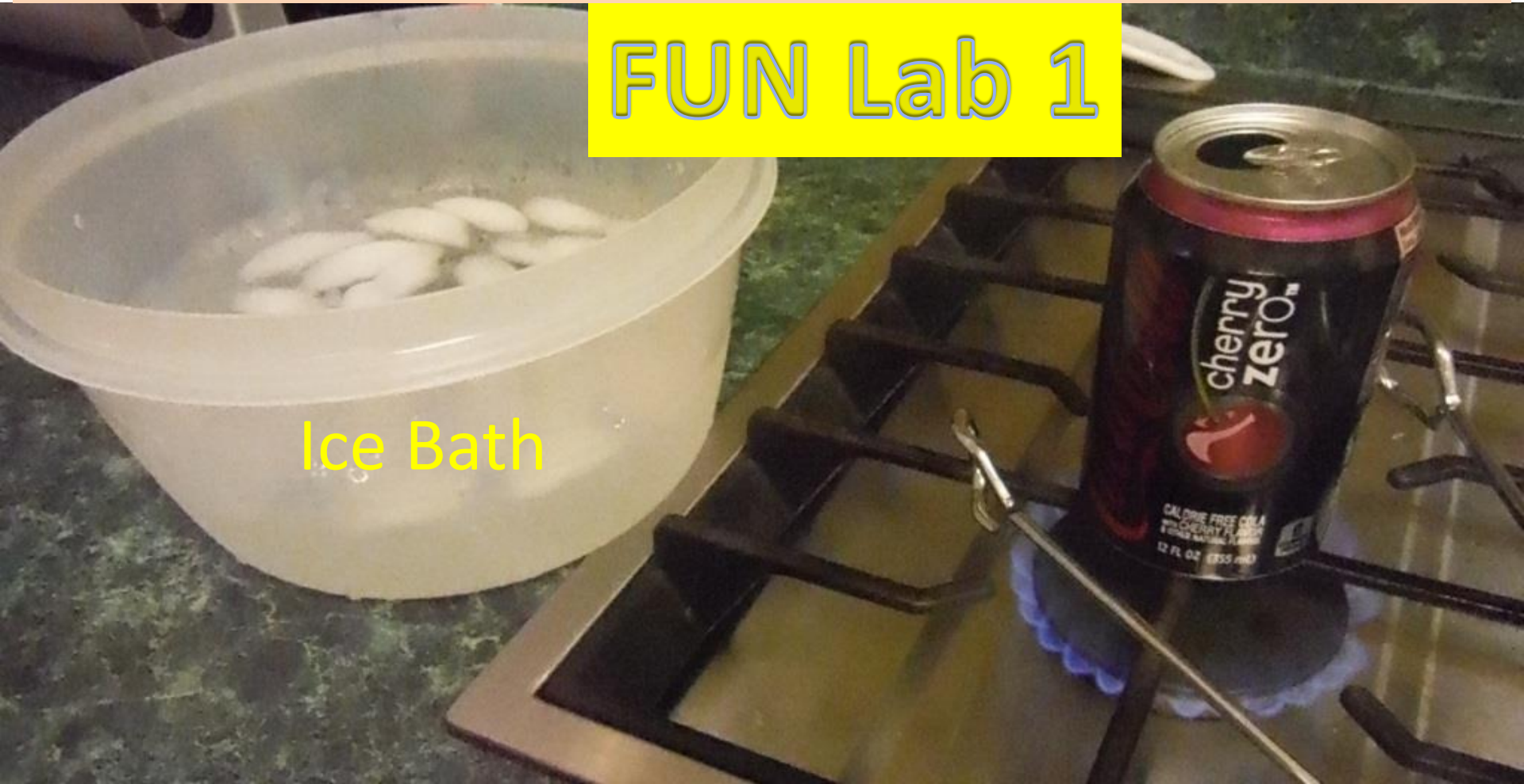
Chemistry is “**CHOOOL!**”

# 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.



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: (0:47)

<https://screencast-o-matic.com/watch/cFQ6XyqEwm>

Why did the can collapse?



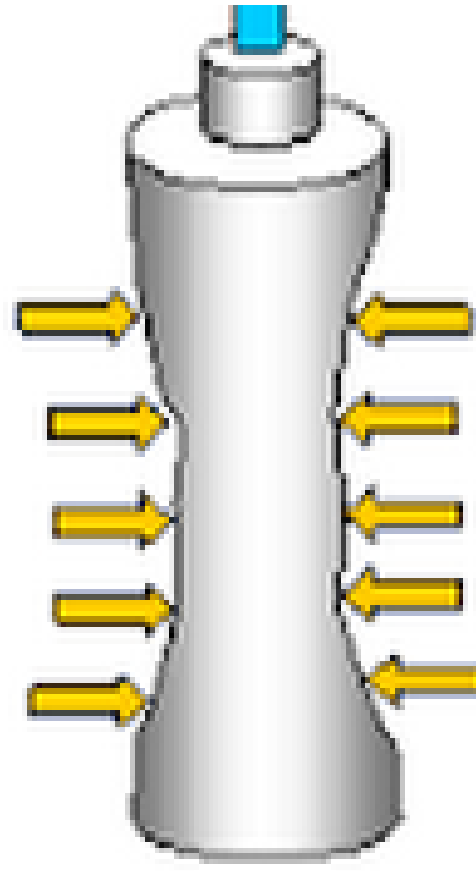
# Atmospheric Pressure



The can originally did not collapse.  
**Why?**



before



after

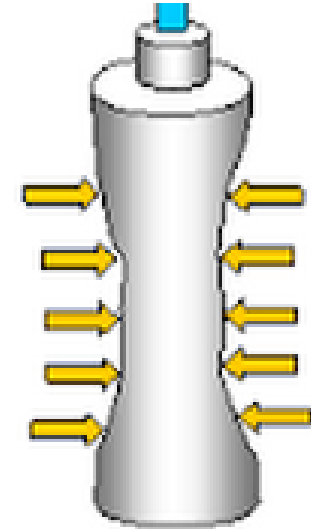
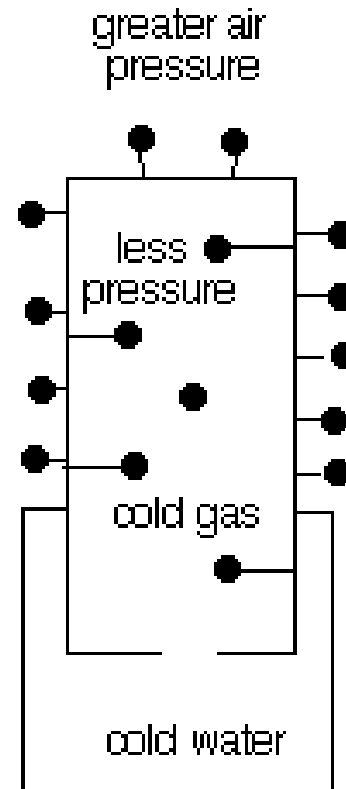
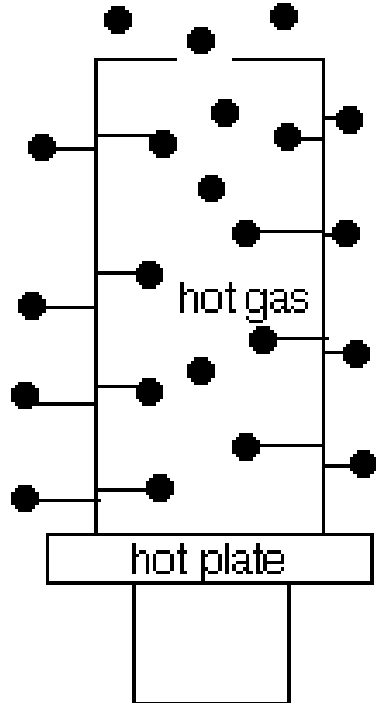
Then, after adding boiling water (really it was the steam), the can collapses.  
**Why?**



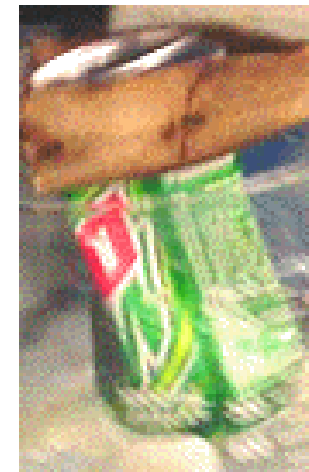
# Atmospheric Pressure



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



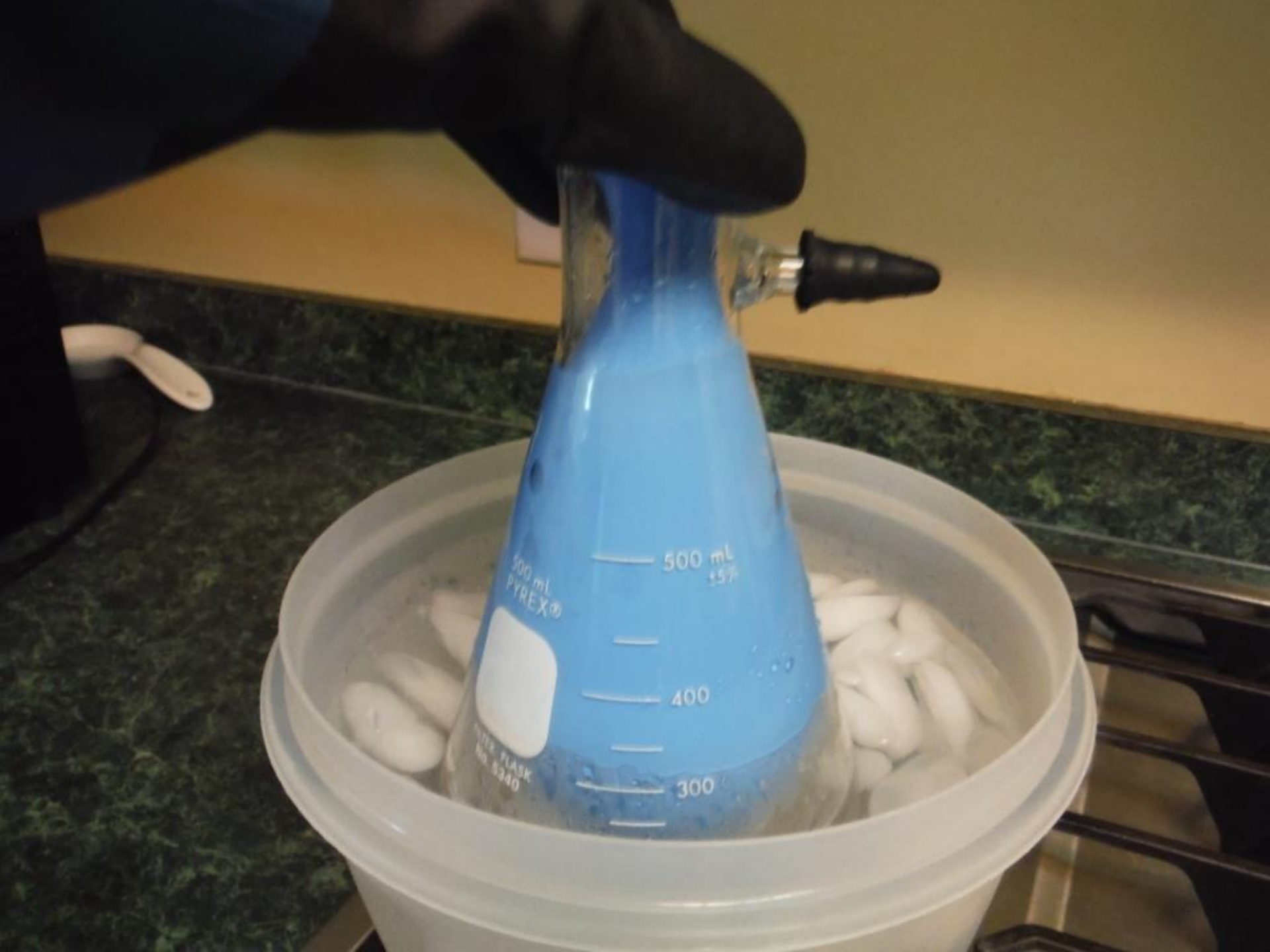


Heat the water in  
the flask to boiling  
The balloon expands

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

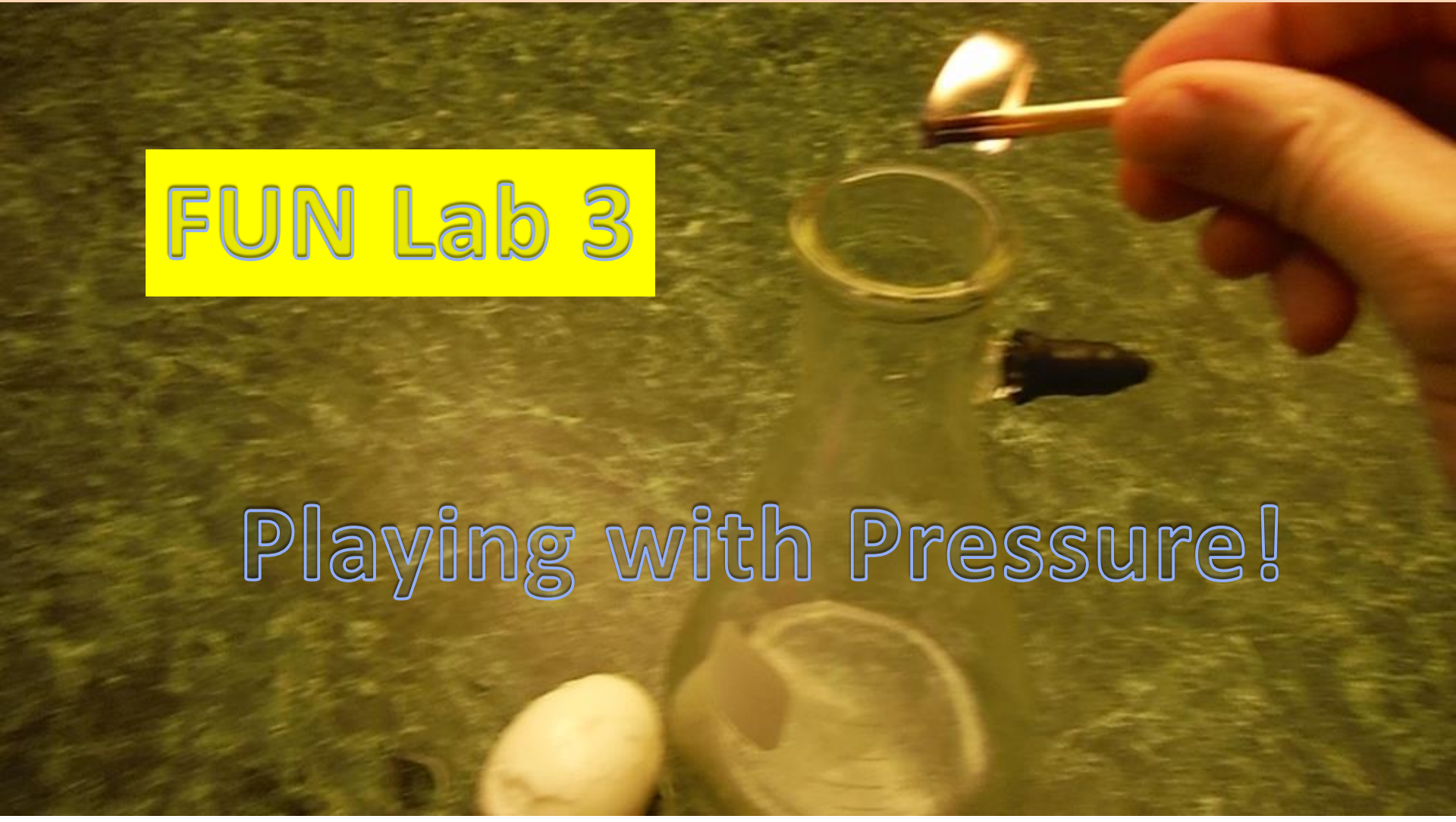


# Materials

- 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!

