## Monday, March 11, 2019

- Your Learning Goal: Students will be able to define the force of tension through their experience of liquid surface tension on a penny.
- Table of Contents:
- You look Tense 39L + R
- <u>Catalyst (39L)</u>: What do you observe when looking at these 4 photos?



	Table of Contents	
Date	Assignment	Pg #
2/19/19	Runner's Speed	34L + R
2/22/19	Velocity & Vectors	35 L + F
3/1/19	Forces Everywhere!	36 L +R
3/5/19	How high can I jump?	37 L + F
3/7/19	Rules of (Gravitational) Attraction	38 L + F
3/11/19	You Look Tense	39 L + F



<u>Catalyst:</u> Make qualitative observations after observing the following images. One Observation per image minimum.





### Catalyst

Make qualitative observations after observing the following images.

**39L** 









## Lab Procedure

- Fill a dropper with water, soapy water OR rubbing alcohol.
- Place the penny, heads up, on top of a paper plate.
- Hold your dropper about 1-inch above the penny and add drops of your liquid to the surface of the penny until it overflows.
- Record the number of drops of liquid the surface of the penny can hold in the table labeled "Trial 1".
- Repeat procedure 1 more time, "Trial 2"



# Title: Number of drops of different fluids able to fit on the top of a penny



### Cohesion

Water molecules are attracted to other water molecules.
The oxygen end of water has a negative charge and the hydrogen end has a positive charge.
The hydrogen of one water molecule are attracted to the oxygen from other water molecules.
This attractive force is what gives water its cohesive properties.



## **Surface Tension**

Surface tension is the name we give to the cohesion of water molecules

At the surface of a body of water. the cohesion of water molecules forms.

A surface "film" or "skin."

Some substances may reduce the cohesive force of water, which will reduce the strength of the surface "skin" of the water.



https://www.youtube.com/watch?v=wJ\_\_rbsytjl&frags=pl%2Cwn

<u>Catalyst:</u> Make qualitative observations after observing the following images. One Observation per image minimum.

<u>LEAF:</u> Describe the outcome of our 'penny lab'. Use our new vocabulary of cohesion and surface tension in your response.

**39L** 

