

Drops of Water on a Penny



Pre-Lab Questions:

1. What is surface tension?
2. How many drops of **clean** water do you think will fit on the heads side of a penny?
3. How many drops of **soapy** water do you think will fit on the heads side of a penny?

Procedures I:

1. Using tweezers, dip your penny into the paper cup with clean water.
2. Pat it dry with a paper towel.
3. Place your penny, heads up, on the paper plate.
4. Using your dropper, add drops of **clean** water until the water runs off the penny.
5. Record the number of drops in Table 1.
6. Repeat steps #1-5 two more times.
7. Repeat steps # 1-6, this time using the dropper filled with **soapy** water.
8. Draw two observations into Figure 1: one for clean water and one for soapy water.

Glue this side
down into
your science
notebook

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Data Table 1: Drops of Water on a Penny.

Water	Trial 1	Trial 2	Trial 3	Average
Clean				
Soapy				

Figure 1: Draw your observations of how the water pools on top of the pennies.

Clean

Soapy

Figure 2: Double Sided Stem and Leaf Plot of Average Number of Drops.

Clean Water		Soapy Water
	0	
	*	
	10	
	*	
	20	
	*	
	30	
	*	
	40	
	*	
	50	
	*	
	60	
	*	

Data Table 2: Summary Data Table of Average # of Drops

Water	n	max	min	range	sum	avg	med
Clean							
Soapy							

Analysis/Results:

1. Compare your results with what you thought would happen before you completed the lab.
2. Looking at your data, did soap make a difference? Why or Why not?
3. Are there any variables that may have caused the range of data we had for each?

Conclusion:

In 2-3 sentences, explain what you learned in this lab.