# Surface Tension

Mid-Michigan AIChE Section

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Write down the definition of **surface tension** and give an example of something that has surface tension.

**Problem 1:** How many drops of water will fit on the surface of a typical penny?

**Your Hypothesis:** At most \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ drops of water can fit on a penny

**Record your hypothesis on the proper color sticky note and place it on the bar graph as directed.**

Tips and Tricks:

1. Make sure you don’t touch the water on the penny with the eye dropper.
2. Stop after every 5 drops and observe your penny.
3. Look at the penny from the side and at eye level

Record your observations in the space below. You may use words and pictures!

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |

**Your Number of Drops:** I was able to put \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ drops of water on a penny.

**Record your answer on the proper color sticky note and place it on the graph as directed.**

How close was your hypothesis to the number of drops you measured? How close was the whole class to the actual number of drops?

**Milk and Food Coloring Demonstration:**

Record your observations in the space below. You may use words and pictures!

|  |  |
| --- | --- |
| Position of food color drops before dipping in the cotton swab with soap | Pattern of food coloring after dipping in the cotton swab with soap |
|  |  |

**Problem 2:** How many drops of soapy water will fit on the surface of a typical penny?

**Your Hypothesis:** At most \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ drops of soapy water can fit on a penny.

**Record your hypothesis on the proper color sticky note and place it on the bar graph as directed.**

Tips and Tricks:

1. Make sure you don’t touch the water on the penny with the eye dropper.
2. Stop after every 5 drops and observe your penny.
3. Look at the penny from the side and at eye level

Record your observations in the space below. You may use words and pictures!

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |

**Your Number of Drops:** I was able to put \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ drops of soapy water on a penny.

**Record your answer on the proper color sticky note and place it on the graph as directed.**

How close was your hypothesis to the number of drops you measured? How close was the whole class to the actual number of drops?

How did make your hypothesis for the second experiment? Was it different from your first hypothesis?

Explain how the surface tension of the water changed with the addition of soap.