

Experiment Plan

Materials	What can the materials do?
<p>Step 1</p> <p>Pennies</p> <p>Eyedroppers</p> <p>Water</p> <p>Salt</p> <p>Paper Towels</p> <p>Plastic Cup</p> <p>*** These materials are given to the students, they then get time to "play" with the materials to see what they will do together. These are the only materials that can be used for the experiment.</p>	<p>Step 2</p> <p>Spin, flip, roll, hold water</p> <p>Pick up water, hold water, drop water in drops</p> <p>Drop in drops, sit on penny</p> <p>Dissolve in water, make salt water</p> <p>Absorb water</p> <p>Hold water</p> <p>*** After Students "play" with materials, we come back together to list all of the things the items could do together. I included the important ones to the experiment.</p>
What can be changed	What can be measured?
<p>Step 3</p> <p>Pennies- The side of a penny from heads to tails The year a penny is made The mint of the penny The way the penny is sitting</p> <p>Eyedropper- The kind of eyedropper The size of the eyedropper The way you squeeze the eyedropper Height of eyedropper above penny</p> <p>Water- water to salt water</p> <p>***we move the items we feel are important to the experiment to this box, and list everything we think we could change about the items. Students have a choice of what they want to pick to change, this becomes the Independent (changed) variable, and is the first part of the experimental question. Every thing that is not chosen has to stay the same for the experiment and are constant variables</p>	<p>Step 4</p> <p>How many drops of water a penny will hold?</p> <p>*** we only came up with one thing to measure with these items, so this becomes the second part of the experimental question, or the measured or dependent variable</p>

Name: _____

****this is the page we fill in using the information from the page before. I have filled in the blanks according to one of the Independent variables we could have picked.

Question: How does changing the side of a penny from heads to tails

affect how many drops of water a penny will hold ?

Variables:

Independent Variable (changed): the side of a penny from heads to tails

Dependent Variable (measured): how many drops of water a penny will hold

Constants (keep the same):

the same penny

the same eyedropper

the same kind of water

the way you squeeze eyedropper

Hypothesis: If I drop water on the tails side of the penny

then the penny will hold more drops of water.

Results: ***THIS IS SIMILAR TO WHAT THE DATA TABLE WILL LOOK LIKE, STUDENTS WILL BE REQUIRED TO MAKE A DATA TABLE, COLLECT DATA, AND FIGURE AVERAGES.

How many drops of water a penny will hold?

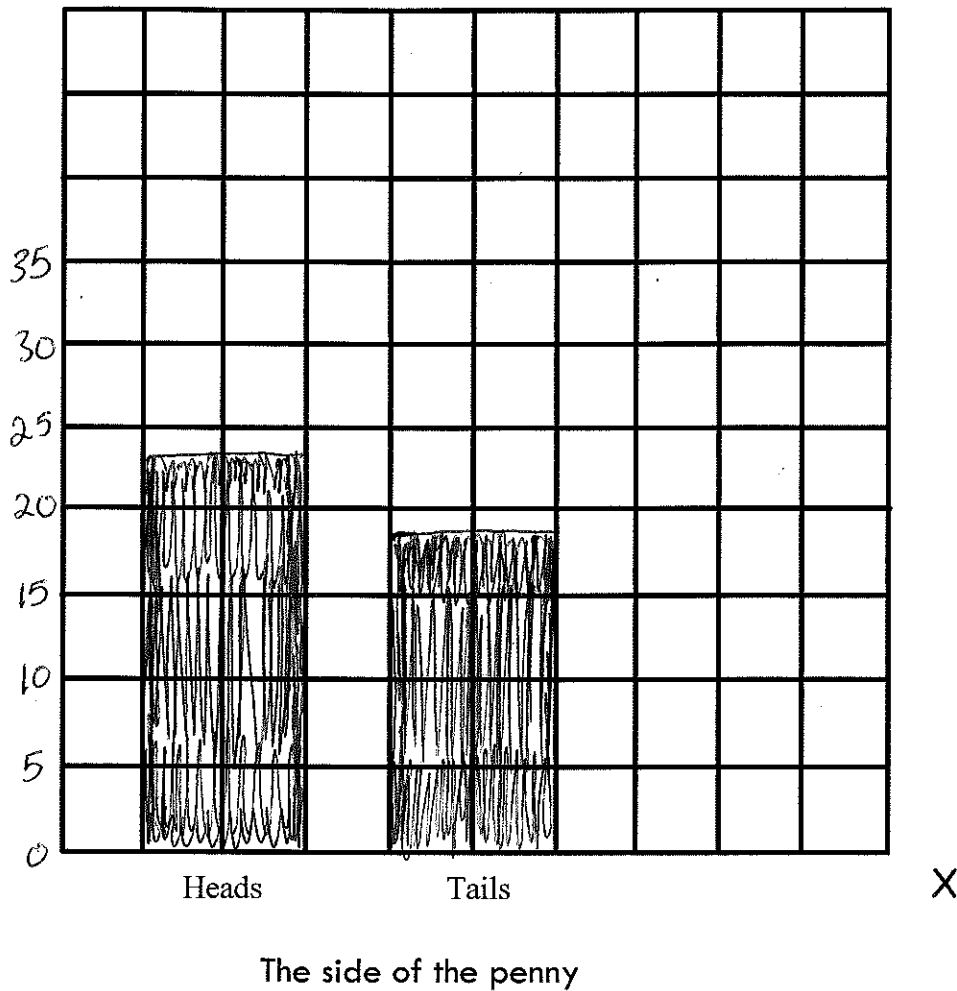
<u>Side of penny</u>	<u>Trial 1</u>	<u>Trial 2</u>	<u>Trial 3</u>	<u>Average</u>
<u>Heads</u>	22	24	23	23
<u>Tails</u>	19	18	17	18

After we collect data we will also graph the data, working on putting the correct titles and labels on the x and y axis and graphing the data correctly.

Construct a bar graph using your data:

Y How the side of the penny affects how many drops of water a penny will hold

How many drops of water a penny will hold.



Conclusion: Use your data to answer your experimental question.

The results indicate that when you drop water on a penny that the heads side of the penny will hold more drops (heads 23 drops, tails 18 drops).
