

# How Many Drops of Water Will Fit on a Penny?

(Experiment using the Scientific Method)

1. State the Problem.
  - in the form of a question
  - What are you trying to find out while doing the experiment?
  - Students write question - How many drops of water will fit on a penny? as #1 on their lab form.
2. Do Your Research.
  - Read about it, Talk to experts, Observe in the real world.
  - You become the expert - discuss properties of water and a penny.
  - Students write pertinent information as you talk in #2 on their lab form.
3. State Your Hypothesis.
  - An educated guess to answer the question in #1 about what will happen when you do the experiment based on what was learned during research.
  - Students write their hypothesis as #3 on their lab form.
4. List Your Materials.
  - For each 2 or 3 students,
    - One eye dropper
    - One small cup of water
    - One penny
    - Paper towels to blot up the water
5. Test Your Hypothesis.
  - Do the experiment
  - A student drops water, one drop at a time on a penny. The partner counts the drops. Continue until water flows off the side of the penny. Results are written on a T chart on #5 on the lab form. Students take turns dropping and counting (replication).
6. Analysis of Results.
  - Students look at data and write several sentences about what happened and why they learned from the results. (#6 on Lab form)
  - Data can be combined from all groups on the board to compare.

-A discussion of why results are different (multiple variables) can occur here. Caution to the students about only having one variable in their experiment is valid.

7. Draw Conclusions

-Look back at the hypothesis and determine if correct or incorrect. Write what was learned. (# 7 on Lab form.)