

# The Scientific Method

## 1. OBSERVE

- \* SEEING SOMETHING YOU CANNOT EXPLAIN.
- \* YOU WANT TO \_\_\_\_\_ - SOMETHING

## 2. STATE THE PROBLEM

- \* \_\_\_\_\_ WHAT THE PROBLEM IS
- \* THEN YOU CAN GET EXPERIMENT \_\_\_\_\_

## 3. FORM A HYPOTHESIS

- \* YOU NEED TO MAKE A \_\_\_\_\_ AS TO WHAT YOU THINK THE RESULT WILL BE...
- \* MUST BE ABLE TO \_\_\_\_\_ IT!!!

## 4. PERFORM THE EXPERIMENT

- \* UNDER \_\_\_\_\_ CONDITIONS
- \* FOLLOW INSTRUCTIONS
- \* YOU ARE TRYING TO \_\_\_\_\_ YOUR HYPOTHESIS

## VARIABLE

- \* THINGS YOU \_\_\_\_\_!
- \* A FACTOR \_\_\_\_\_ IN AN EXPERIMENT  
— WHEN TRYING TO PROVE OR DISPROVE A HYPOTHESIS

## DEPENDANT VARIABLE

- \* YOU WILL ALWAYS HAVE AT LEAST ONE VARIABLE
- \* Responding variable (\_\_\_\_\_)
- \* What you \_\_\_\_\_
- \* What you record \_\_\_\_\_ - about

## CONTROL

- \* THE STANDARD USED TO COMPARE WITH THE OUTCOME OF A TEST

## 5. COLLECT DATA

- \* \_\_\_\_\_ FROM EXP. ON A DATA TABLE THAT YOU CREATE YOURSELF  
— UNLESS TEACHER TELLS YOU OTHERWISE

LEVEL 2 QUESTIONS:  
3-4 PER PAGE

— USUALLY ON 1<sup>ST</sup> LEFT PAGE OF LAB REPORT  
GRAPHING

ALWAYS PUT GRAPH ON LEFT PAGE OF LAB REPORT MUST HAVE FOR FULL CREDIT:

1. \_\_\_\_\_

— Should reflect what the graph is showing (distance vs. time)

2. \_\_\_\_\_

— Always go at least 10 numbers higher than your largest number

3. LABEL AXIS "X" & "Y" W/:

— WHAT IS BEING \_\_\_\_\_ (time) & UNITS  
(seconds)

4. \_\_\_\_\_

--SHOULD TAKE UP \_\_\_\_\_ OF PAPER

--(no small graphs)

\* \_\_\_\_\_ (no computer)

\* MUST BE IN \_\_\_\_\_!!!

— REMEMBER IT GOES ON THE LEFT PAGE!!!

\* EACH NUMBER ON AXIS MUST HAVE SAME # VALUE

— (i.e. 5, 10, 15 not 5, 7, 8, 20, 25)

\* MUST BE STRAIGHT, NEAT,  
LEGIBLE

\* DATA TABLE MUST BE  
ATTACHED IF TURNED IN

**6 A. CONCLUSION**

\* WRAP UP YOUR EXPERIMENT

\* BASE IT ON YOUR FINDINGS (DATA)

\* MUST BE

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**6B. ACCEPT OR REJECT ORIGINAL HYPOTHESIS**

\* USING DATA & OBSERVATIONS MADE

\* DECIDE IF YOUR ORIGINAL HYP. WAS RIGHT or WRONG

\* EXPLAIN WHY IN A \_\_\_\_\_

\* EX:

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SUMMARY: 3-4  
SENTENCES