Scientific Method
If you need a little extra practice…

1. Observations and Research
- Look for facts! What do I notice about my world? What questions do I have?

2. Problem Statement (Ask a question!!!!): A question to be solved or answered.
Ex:
- Do wounds heal faster when they are covered up with Band-Aids?

3. Hypothesis: An educated guess about the solution to a problem.
Ex:
*- **If** a wound is covered with a band-aid **then** it will heal faster than a wound than is not covered with a band-aid **because** the band-aid has healing ointment that helps kill bacteria.*

4. Experiment: Process to test hypothesis.
- What steps can we take to test our hypothesis?
Ex:
Set up your experiment: REMEMBER, you need a TREATED and CONTROL group.
Step 1: Gather 200 people, each who have similar wounds.
Step 2: Half of the people in our study will have band-aids covering their wounds and the other half will not (CONTROL). They are instructed to NOT do anything extra to take care of their wound (ONLY CHANGE 1 VARIABLE-band-aid).

- **VARIABLE**: Any factor that changes in an experiment.
- **CONTROL:** No special treatment. Used to compare other treated groups.
- **INDEPENDENT VARIABLE** (what we know, what we are deliberately changing!): Band-Aid vs. No Band-Aid
- **DEPENDENT VARIABLE** (what we are measuring!): Wound healed vs. Wound not healed

Step 3: We check the wounds daily to determine the amount it has healed (measure wound? Color? Is it scaring over?).

5. Data: Observations and measurements recorded during experiment.
Ex:
Step 3: We check the wounds daily to determine the amount it has healed (measure wound? Color? Is it scaring over?).
We graph our results and compare the 2 groups.

6. Conclusion: Judgment based on results of an experiment.
- Does our data reject or support our hypothesis?????
- A conclusion tested and supported many times, by many scientists, can become a scientific…. **Theory**: A logical explanation for events that occur in nature.

******Scientific Method: Method of problem solving involving experiments to test a hypothesis.******

CONGRADULATIONS ON BEING PROACTIVE IN YOUR STUDYING HABITS!!
I AM PROUD OF YOU!