Basic Physical Science Review

Unit 1 – Exploration

1. Three things to be successful in Mrs. Sjuts’ class
   1. Come daily and on time
   2. No phones unless permission is given first
   3. Stay on task – notes, discussion, labs, in class work
2. Fixed vs. Growth Mindset
   1. Fixed Mindset
      1. Intelligence is static
      2. Avoids challenges
      3. Gives up early
      4. Feels threatened by the success of others
      5. See effort as pointless
      6. Ignore useful negative feedback
   2. Growth Mindset
      1. Intelligence can be developed
      2. Embraces challenges
      3. Persists in the face of setbacks
      4. Finds inspiration in the success of others
      5. See effort as the path to mastery
      6. Learn from criticism
3. Study Skills / Goal
   1. Identify Strengths
   2. Identify Weaknesses
4. Physical Science
   1. Physics – Semester 1
   2. Chemistry – Semester 2
5. Observation vs. Inference
6. Science Careers
7. Measurement
   1. Distance/Length – Meters
   2. Volume – cm3 and liters
   3. Mass – grams
8. Prefixes
   1. Kilo – 1000
   2. Hecto – 100
   3. Deka – 10
   4. Base – m, L, g – 1
   5. deci – 0.1
   6. centi – 0.01
   7. milli – 0.001
9. Conversions
   1. Metric to metric
   2. Metric to English
10. Scientific Method
    1. Question
       1. Independent Variable – factor scientist changes on purpose
       2. Dependent Variable – factor that changes based on the IV
       3. Controlled Variables – things we need to keep the same
    2. Hypothesis – educated guess (not always necessary)
    3. Materials – list of what is needed for the lab
    4. Method/Procedure – a step by step list of directions
    5. Analysis – looking at data table and graph and asking: What does this tell us?
    6. Conclusion – wrap up lab, discuss errors, and things to change next time
11. Graphing
    1. Shows relationship between variables
    2. Parts of a graph
       1. Title – DV vs IV
       2. Labels and Units – Time (days)
       3. Appropriate scale – numbers on axes
       4. Data points
       5. Best fit line