NOS 7TH Grade study guide

1. Accuracy is a description of how close a measurement is to an accepted or true value.
2. Precision is a description of how similar or close measurements are to each other.
3. Significant digits are the number of digits in a measurement that are known with a certain degree of reliability.
4. The dependent variable is the factor measured or observed during an experiment.
5. The independent variable is changed by the investigator to observe how it affects a dependent variable. It is the factor you want to test.
6. An explanation is an interpretation of observations.
7. After performing an experiment, if the results do not support the prediction, scientist change the prediction.
8. Balances measure the masses of objects.
9. The three branches of science are life science, earth science, and physical science.
10. Life science is the study of living things.
11. Earth science is the study of Earth and space.
12. Physical science is the study of chemistry and physics.
13. The four differences between a scientific theory and scientific law that you should know are as follows:

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| A scientific theory is based on repeated observations and scientific investigations.  | Scientific laws are observations of similar events that have been observed repeatedly.  |
| If new information does not support a scientific theory, it will be changed or rejected.  | If many new observations do not follow the law it is rejected.  |
| A scientific theory attempts to explain why something happened.  | A scientific law states that something will happen.  |
| A scientific theory usually is more complex than a scientific law and contains many well- supported hypotheses. | A scientific law usually contains one well-supported hypothesis that states that something will happen.  |

1. A observation is using one or more of your senses to gather information. An inference is a logical explanation of an observation that is drawn from prior knowledge or experience.
2. The four rules of significant digits are:
3. All nonzero digits are significant
4. Zeroes between nonzero digits are significant
5. Final zeros used after the decimal point are significant.
6. Zeros used only for spacing the decimal point are not significant. The zeros indicate only the position of the decimal point.