Oxidation Experiment:

Oxidation or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the process where fruit turns brown when exposed to air (some vitamins are destroyed).

Directions: In this experiment, you will test the effectiveness of 4 different types of ascorbic acid (aka, vitamin \_\_\_\_\_\_). First, rank the four acids according to what you think will do the best job preventing oxidation (1 being the best, 4 being the worst). Briefly describe in column 2 why you ranked the acids this way.

1. Slice up one apple and 1 banana per group. Divide up the fruit slices on to five plates.
2. On plate #1, label it with a sticky note as “Control.” You will not do anything to the fruit on this plate.
3. On plate #2, label it as “lemon juice.” Use 1 T. of lemon juice to brush on to the fruit.
4. On plate #3, label it as “pineapple juice.” Brush on 1 T. of pineapple juice.
5. On plate #4, label it as “lime juice.” Brush 1 T. of lime juice on the fruit.
6. On plate #5, label it as “fruit fresh.” Use 1 tsp. of fruit fresh to sprinkle/coat the fruit.

Near the end of class, we will observe and record the results of our experiment. Describe the changes in each of the plates of fruit. Once again, rank the acids in order of effectiveness (1 being most effective, 4 being least effective).

Feel free to eat the fruit at the end (peanut butter will be up front!)

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|  | RANK Hypothesis (1-4) | Justification for rank | Results | Final rank |
| CONTROL |  |  |  |  |
| 1: Lemon juice |  |  |  |  |
| 2: Pineapple juice |  |  |  |  |
| 3. Lime juice |  |  |  |  |
| 4. Fruit fresh |  |  |  |  |