

Can You TASTE the Difference?

A TASTE PROFILE ANALYSIS OF CONVENTIONAL VERSUS LOCAL FOODS

PURPOSE: Work with your teacher to develop a “Taste Testing Lab” that will determine if there is a difference in taste between conventional produce purchased from a supermarket and produce purchased from a local source, such as a farmer’s market or CSA program. You will work with a partner to complete your procedures and collect data. Then, as a class we will compile our data and compare the results. Finally, we will determine if another quality, other than taste, should be tested between conventional and local foods.

Question: What do we want to find out?	Does produce purchased from local sources taste better than conventional, supermarket brands?
Variables: How I will make sure it is a fair and valid test?	Independent variable (one I will change) -Random, blind taste tests with samples of conventional and local foods. Dependent variable (how I will measure the results) -Two to three rounds of samples per food. One round, only known by the teacher, will only have conventional items.
Hypothesis: (Test) What is being changed? (Prediction) What we think will happen - what will be the result?	If. . . Students are presented with local and conventional produce items of the same kind Then. . . they will find the local foods of better taste.
Control Group: What will we compare our results to?	Each type of produce will be sampled in two sets of three samples. One set of the samples will only be conventional items. One set of samples will have one to two local food samples. Students will not know which set is the control group.
Constants: Variables to keep the same	Serving utensils, serving plates, and serving size of the produce will remain the same for all sets of produce.
Procedure: What we will do (number each step) - should account for independent variable, dependent variable, control group and constant	<p>*(Students do not have to record this section in italics) The teacher will prepare bite size portions of three different types of fruit or vegetable produce. The teacher will store this produce in marked bins until it is time for the lab to begin. The teacher will also preselect which round of produce will be the “control round.”</p> <ol style="list-style-type: none"> 1. With your partner, obtain three paper plates, four napkins, two toothpicks, two cups, two sensory ballots, and a marker from your teacher. 2. With your marker, label each of your plates along the outside edge with one of the following titles: Food #1, Food #2, or Food #3. Then, write your name and your partner’s name along the outside edge of each plate.

	<p>3. With your marker, divide each of your paper plates into six equal sections. Label the sections as follows: R1-A, R1-B, R1-C, R2-A, R2-B, R2-C.</p> <p>3. When complete, take your plates to your teacher for your taste test samples. Your teacher will place two samples into each category on each plate.</p> <p>4. While your teacher prepares your samples, wash and dry your hands thoroughly. Each partner should then fill one cup with water from the pitcher in the classroom.</p> <p>5. Return to your seat with your partner and samples.</p> <p>6. Using your toothpicks, select one sample from each category. Start with Round 1 (R1) Sample A and continue in chronological order. Eat the sample and record your observations on the sensory ballot provided by the teacher. (You may want to only eat half of a sample in order to compare it to other samples within that round.) Take a sip of water between each sample. Make sure to rank each sample.</p> <p>7. When complete, return your marker to the teacher. Recycle your napkins, cups, toothpicks, and plates.</p> <p>8. Wash and dry your hands thoroughly.</p> <p>9. Write the data from you sensory ballot in teacher's charting system.</p> <p>10. Work with your class to analyze your results and complete your lab report.</p>
<p>Materials:</p> <p>List of what we will need</p>	<ul style="list-style-type: none"> - 3 Paper Plates - 2 Toothpicks - 2 cups - Produce from the teacher - 1 Dark Ink Marker - 4 napkins - Water - 2 Sensory Ballots, one for each partner
<p>Results:</p> <p>Data and Graphs from the Lab</p>	<p>(To be completed after lab results have been taken and compiled. Students do not copy this section. You lead them in these directions.)</p> <p>-View that results with the teacher displayed on the charting system.</p> <p>-Pay attention as your teacher displays which rounds were the "control rounds."</p> <p>-Generate average scores for both the control and local foods sample for each type of food.</p> <p>-Create a bar graph displaying the average scores of each type of sample.</p>

Observations: -Use words to describe what happened during the experiment- details! -What is not included in the data table?	Hold a discussion with the students. They record their answers here.
Claims and Conclusion: -Make a claim about what you have learned and then back it up with evidence -Refer to both your claims and evidence AND your hypothesis	What does the data prove? Hold a discussion with the students. They record their answers here.
Reflection: -Explain anything that happened you did not expect -discuss sources of error	Hold a discussion with the students. They record their answers here.
Next Testable Question: What experiment would you do next?	Hold a discussion with the students. They record their answers here.

Suggested Teacher Charting System for Sensory Ballot Reports:

Student Scores Reported Along Top Column

[illegible]