



Predictions & Hypotheses

INTRODUCTION

This activity focuses on sensory exploration and individual student experience. Using their eyes and ears, students will practice making predictions about the texture and taste of a vegetable from the school garden. Students will guess whether they will like or dislike a vegetable based on their predictions and then use their hands and tongues to test whether the predictions are correct.

This activity is designed to combine the Descriptions & Observations with the Vegetable Tasting lesson guide. It is strongly recommended that students have practiced describing and making observations prior to this activity, but they do not need to have participated in a vegetable tasting.

KEY CONCEPTS

- Exploring the world through one's senses
- Introduction to making predictions
- Introduction to making hypothesis statements

— PRACTICE "DESCRIPTIONS & OBSERVATIONS" PRIOR TO THIS ACTIVITY —

PREDICTIONS VS. HYPOTHESES

Predictions are when we use information that we have observed or been told to make guesses about what will happen or will be experienced in the future. The emphasis is on what the students think and why. For example:



I think that the peach will taste sweet because the peaches that I have eaten before are sweet.

Hypotheses, on the other hand, involve an experiment or test to see whether the prediction was correct and what the result will be. Hypotheses contain two parts: "If... then..." For example:

If the peach is sweet, then I will like it.

MATERIALS

- Select 1 type of vegetables from the school garden, preferably that is unfamiliar to most of the students.
 - 1 whole vegetable for demonstration
 - 3-5 vegetables, cut into bite-sized pieces for sampling. Quantity will depend on class size and selected vegetable.
- Whiteboard or large pad of paper
- Marker to write down predictions and hypotheses

ACTIVITY

Preparation

Cut up the vegetables for sampling prior to the lesson. Store these safely until the Hypothesis section.

In Class

Show the students one of the vegetables from the school garden, sharing the name and how it grew (on a vine, under the ground, etc.).



Predictions about Touch

Using what they heard and what they can observe with their eyes, ask students to think about what it might feel like to touch the vegetable. Do they think it will be smooth, bumpy or fuzzy? Will it be soft or hard when they squeeze it? Turn this into a prediction in a statement starting, "I think it will be ____." Invite children to explain why they made that prediction. For example, did they think it would feel bumpy because they can see bumps? Or because it looks like another vegetable that they know is bumpy. Take notes on what the students predict and why on the whiteboard or large piece of paper.

Encourage imagination for the next part. Do they think it will feel like something else? For example, a pancake, their dog, a balloon? Why do they think that? Maybe the vegetable has the same shape as a pancake. Take notes on what the students predict and why on the whiteboard or large piece of paper.

Now, pass the whole vegetable around for students to touch. Ask them if their predictions were correct - Is it soft when they squeeze it? Does it feel like their dog or a pancake? Take notes about what was a correct or incorrect prediction.

Hypotheses about Taste

When the vegetable has been passed around, bring it back and ask students to make predictions about what it will taste like? Why do we think it will taste like that? Encourage comparisons to what is already familiar. For example, if the vegetable is somewhat shaped like a cucumber and is orange (a carrot), we think it will be somewhat sweet and slightly bumpy. Take notes on their taste predictions next to their touch predictions and observations.

If their predictions about taste are correct, will they like or dislike the vegetable? Continuing the example, if the vegetable tastes sweet and is bumpy, then they will most likely like it. Encourage students to make their own hypotheses about liking or disliking the vegetable.



Use “If... then...” prompts to help guide the hypothesizing. “If it looks like _____, then do you think you will like it?” It does not matter if students hypothesize that they will like or dislike the vegetable, all hypotheses are based on their own experience. Encourage and support that the students are thinking about and (hopefully) trying new foods.

At the end, pass out the prepared vegetables for sampling. Discuss whether the taste predictions about the vegetable were correct or incorrect. Finally, ask students to share whether they liked or disliked the vegetable. By a show of hands, they can also share whether their hypothesis was correct or incorrect.

VARIATIONS

- Repeat with different vegetables, including familiar fruits and vegetables. Familiar fruits and vegetables will draw on their memory and can be used to connect this lesson to the Colors & Vegetable Harvesting lesson guide. For example, what does a peach feel like? Do they think that the peach is ripe? If it isn't ripe, will they like it?
- With the Colors & Vegetable Harvesting lesson guide, encourage students to make predictions about what will be ripe in the garden and then visit the garden to determine if that prediction is true.
- With the Vegetable Tasting lesson guide as an introduction, ask students to make predictions about the taste. Will it taste sweet, sour, salty, bitter or umami? Then encourage students to make a hypothesis about liking or disliking the vegetable. If it tastes sweet, for example, will they like it?