**Teacher**: **Grade Level:** 3rd-6th

**Time:** 1 hour **Author:** Michelle Coe

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| **Next Generation Science Standards:** | **3-5-ETS1-1**. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.  **MS-ETS1-3**. Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success. |
| **Enduring Understandings:** | We are all scientists. Asking questions and making observations are things we do each day. Scientists are people just like us. In fact, they *are* us! Scientists study a variety of subjects using many different tools including their senses. |
| **Content Objective:** | Students will define their five senses. Students will collect Nature’s Notebook data for their plant and will record at least three sensory observations about their plant that *are not* listed on the data sheet. Students will collect one sensory detail example from the garden. |

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| **Vocabulary** | **Materials** |
| Senses  Touch  Taste  Smell  Sight  Hearing | Scientific Journals  Containers to hold garden examples  Sensory Cards Citizen Scientists by Loree Griffin Burns  Nature’s Notebook data sheets |

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| **Seasonality**: This lesson works well throughout the year to improve students’ garden observations and increase sensory awareness while collecting data. | | | | |
| Monsoon  July-Sept. | Autumn  Oct.-Nov. | Winter  Dec.-Feb. | Spring  Mar.-Apr. | Dry Summer  May-June |

**Engage:** Guiding Questions: What is the purpose of a plant’s leaves? Flower buds? Flowers? And fruits? Discuss with your table groups and prepare to share with the class.

**Explore**: Each part of a plant provides a function for the plant and serves a purpose. And just like a plant, we have different body parts that serve a purpose as well. What does our nose do for us? Our ears? Hands? Mouth? And Eyes?

**Explain**: As scientists, what are some of our goals with Nature’s Notebook? What types of tools can we use to gather the data on our NN sheets? We can use our senses. (Write them on the board with the class).

Have students discuss how they might use their five senses while collecting data about their Nature’s Notebook plant.

Review the introduction and a few pages into Chapter 1 of Citizen Scientists. Have students think about the authors description of a monarch butterfly. What are some of the descriptive words that she uses? What senses did she use to observe these features?

Brainstorm descriptive/sensory words that we might use to describe our plants in the garden. Write these examples on the board.

**Elaborate:** Give each student their own Nature’s Notebook data sheet for the day. Tell students that they will be observing and recording data for their specific Nature’s Notebook plant as usual.

However, today, challenge students to take additional time to write or draw and label three things they observed about their plant *using their senses*. Students should record these examples using descriptive words, and can detail what they saw, smelled, tasted, touched, or heard in the garden.

**Evaluate:** Take students back inside to share their data sheets with their science teams and share-out what was discovered for each plant species.

**Additional Evaluation Activity**: Place students in pairs and give them a sensory card and a container (egg carton, small jar, cup, etc.). Students sensory card may read “Find something that is\_\_\_\_\_.” Examples will be related to a color, texture, taste, sound, or smell.

Each partner team will head outside to collect a small garden sample that they feel can be described by their card. For example, if their card reads “Find something that is spicy” they may collect a chiltepin.

Once this activity is completed, students will head back inside to share their example (but not their card!) with another pair of students. Each pair of students will try to guess what the other’s card read.

SENSORY CARD EXAMPLES

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| FIND SOMETHING THAT  **SMELLS SWEET** | FIND SOMETHING THAT  **TASTES SPICY** | FIND SOMETHING THAT  **FEELS WET** |
| FIND SOMETHING THAT  **LOOKS DRY** | FIND SOMETHING THAT  **MAKES A RATTLE NOISE** | FIND SOMETHING THAT  **FEELS FUZZY** |
| FIND SOMETHING THAT  **LOOKS RED** | FIND SOMETHING THAT  **TASTES SWEET** | FIND SOMETHING THAT  **FEELS ROUGH** |