

Exploring the Five Senses: A Hands-On STEM Approach for Early Learners

Engaging young learners in STEM (Science, Technology, Engineering, and Mathematics) education is essential for building a solid foundation in problem-solving and critical thinking. For early learners in kindergarten through 2nd grade, these foundational concepts need to be taught through hands-on, inquiry-based activities that connect to their real-world experiences. This paper outlines a series of lessons for exploring the five senses.

Lesson Focus and Key Concepts

The central focus of this series is to introduce the five senses—**sight, hearing, touch, taste, and smell**—to young students. These lessons will provide a sensory-rich environment where students engage with the material through direct experience, making learning both fun and memorable. The key concepts explored are:

- **The Five Senses:** Students will learn about sight, hearing, touch, taste, and smell through activities related to space exploration.

Lesson Structure and Activities

Lesson 1: Introduction to the Five Senses

In the first lesson, students will learn about the five senses and how they are used in everyday life. The lesson will be enhanced with NASA resources, including a short video of astronauts explaining how they use their senses in space. Activities will include:

- **Touch:** Students will explore different textures (e.g., smooth, rough) like soft fabric or smooth plastic.
- **Taste:** Food will be used to help students explore the sense of taste.
- **Sight:** Students will look about the classroom and discuss what we see.
- **Sound:** Students will hear different music and sounds.
- **Smell:** Scented materials (e.g., herbs or fruit) will be provided, and students will discuss their smell.

I can also connect this with NASA resources by including weather. After they have a good understanding of the 5 senses we will then go outside and discuss how we are experiencing our senses outside. After this we will look at NASA's world view map and look at other places' weather and talk about what senses they might be feeling. [NASA worldview map](#)

This lesson is important for students because our senses are how we perceive life and live on the day to day. This article I found discusses how stimulating the five senses—taste, hearing, smell, sight, and touch—during study sessions can enhance memory and retention. By engaging multiple sensory channels, learners can strengthen their ability to recall information. This is also something to think about as their teacher. We

don't want to give our students too much stimulation, but some stimulation is good for memory.

STEM content areas

Life Science: Understanding how humans use their five senses to gather information about their environment.

Physical Science: Investigating the properties of materials (e.g., textures, sounds, smells) and how the senses are used to detect and describe these properties.

Missouri Learning standards

Science

K.PS1.A.1

Make qualitative observations of the physical properties of objects

English

K.SL4.A.1

Speak clearly and audibly, using conventions of language when presenting individually or with a group by:

- a. describing personal experiences using a prop, picture, or other visual aid
- b. speaking in complete sentences

Before this lesson I would talk to the kids and ask whole group questions about how we gather information from our surroundings. During I would continue these questions but using the terms "touch, taste, smell, sound, and sight". At the end of my lesson I would call them over one at a time and ask them questions like, "What sense would I be using when I pucker from a sour candy?"