The Senses

FRAMEWORK

| I. Scientific and Engineering Practices |
| II. Cross-Cutting Concepts |
| III. Physical Sciences |

SKILLS/OBJECTIVES

- Get to know the 5 senses
- Understand how different stimuli can affect an individual sense

MATERIALS

- 2 sheets: optical illusions and worksheet
- TOUCH: Tempera paint in different colors
- Sand, Flour, Ground pepper, (other ground items)
- Plain white paper
- TASTE: lemon wedges, potato chips, unsweetened cocoa, apple juice, lemonade
- Plates, cups
- SMELL: Onions, Vanilla extract, Cinnamon, vinegar, rubbing alcohol, peanut butter, peppermint extract
- SIGHT: metal spoon, metal fork, plastic spoon, little mirror
- SOUND: an “eardrum” (plastic wrap stretched tightly over a container with a pretty large opening, with some dried rice on top
- A few ways to make noises (tin cookie sheet, tuner, silverware to bang together, an instrument, a drum)
### Activity #1  Touch

<table>
<thead>
<tr>
<th>Materials</th>
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<tbody>
<tr>
<td>o Sand, Flour, Ground Pepper</td>
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<td>o White Paper</td>
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- Have the kids paint with paint that has been mixed with one of the above substances
- Have them guess which substance is in which paint and discuss how the paints feel different

### Activity #2  Taste

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- Try the foods (only a little bit per child, remind them that it’s tasting, not eating). Which one is bitter, sweet, sour, salty?
- Now, try the lemonade. Which food does it taste like the most? Why is it sweeter?
- Which taste is your favorite? Least favorite?
- Look at the taste bud diagram.

### Activity #3  Smell

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- Put the smells in separate containers that the kids cannot see into and poke holes in the tops (put the liquid smells on cottonballs)
- Which one smells the best? Worst? Strongest? Weakest?
Activity #4  
**Sight**

| Materials | metal spoon, metal fork, plastic spoon, little mirror |

- Find your reflection! Circle words on the sheet that do show your reflection.
- Why does the metal spoon show your reflection better than the metal fork?
- What kind of materials show your reflection better?
- Look at the optical illusions! What’s going on? (You are getting conflicting sensory input)
- EXTRA: Draw what you see in the mirror!

Activity #5  
**Sound**

| Materials | lemon wedges, potato chips, unsweetened cocoa, apple juice, lemonade, Plates, cups |

- Explain sound waves and the eardrum – sound waves vibrate the eardrum in much the same way that the sounds vibrate this fake eardrum.
- Hold the cup, let kids take turns making different sounds near the cup and observe how different ones make the rice jump.
THE SENSES!

*The five senses are TOUCH, TASTE, SMELL, SIGHT, and SOUND*

1. TOUCH

Paint! Cross out the word if you have paint mixed with:

Salt       Flour       Water
Sand       Ground Pepper

2. TASTE

Eat! Cross out the word when you taste something:

Bitter     Sweet     Salty     Sour

3. SMELL

Sniff! Cross out the word when you smell:

Onions     Peppermint extract     Vinegar
Vanilla extract     Peanut butter
Cinnamon     Rubbing alcohol
4. SIGHT

Look! Cross out objects that DO reflect:

Plastic spoon     Window     Table
              Metal spoon     Wooden block     Aluminum foil

What are optical illusions?

5. SOUND

Listen! Find objects to use as noisemakers!