

## Sensory exploration fact sheet and activity ideas

### What are the sensory systems?

All of the sensory systems work together and depend on each other for the interpretation of information and movement. The sensory systems include:

- **Visual:** the sense that helps see and detect information in which the brain then interprets
  - **Location of sensory receptors:** eyes
- **Auditory:** the sense that helps detect and process pitch and volume of sound information
  - **Location of sensory receptors:** ears
- **Tactile:** the sense that helps detect light touch, deep pressure, texture, temperature, vibration, and pain
  - **Location of sensory receptors:** skin
- **Gustatory:** the sense that helps detect and perceive taste
  - **Location of sensory receptors:** tongue
- **Olfactory:** the sense that helps differentiate between dangerous, foul, pleasurable, strong, or faint odors. This sense also helps create flavors we taste in food
  - **Location of sensory receptors:** nose
- **Proprioception:** the sense that helps determine body position in space and regulate the direction and amount of force to use when moving
  - **Location of sensory receptors:** joints and muscles
- **Vestibular:** the sense that helps detect movement, including the direction and speed of that movement, is necessary for balance, posture, and coordination
  - **Location of sensory receptors:** inner ear

## Sensory exploration activity ideas

**Note:** Many students with visual impairments experience difficulty with sensory processing, which can be uncomfortable and dysregulating. **Please do not force a sensory experience.** Doing so can possibly increase sensory aversion or sensitivity. Instead, offering hand-under-hand support and following the student's lead can help them build up to these interactions. Consult with your student's occupational therapist for further guidance.

1. **Sensory Bottles:** Place funnel inside empty water bottles. Add water, clear glue, and desired items into bottles (beads, pompoms, buttons, glitter, etc). For additional auditory effect, add dried rice, beans, or pasta, and do not add water/glue. Super glue caps onto bottle.
2. **Sensory Gel Pads:** Fill plastic sandwich bags with small items (pompoms, buttons, sequins, beads, glitter, etc). Add hair gel until the bag is  $\frac{1}{3}$  full. Seal bag and place duct tape on each of the four edges. Can be used on a table, lap, floor, or wall.
3. **Slime:** Mix  $\frac{1}{2}$  cup washable school glue +  $\frac{1}{2}$  cup water. Add  $\frac{1}{2}$  tsp baking soda + food coloring/glitter. Add 1 Tbsp saline solution. Whip until you can no longer stir. With a few drops of saline solution in your hands, knead until smooth and stickiness has disappeared. Store in plastic or glass containers; lasts for several weeks.
  - o **Taste-safe version:** Put 6 marshmallows + 1 Tbsp oil in a microwave safe bowl. Microwave on high for 30 sec. Add  $\frac{1}{2}$  tbl cornstarch. Knead mixture together as it cools. Add additional cornstarch to thicken, as needed.
4. **Non-toxic Scented Play-Doh:** Mix 2 cups flour, 1 cup salt, 2 cups water (with desired food coloring), 1 Tbsp vegetable oil, + 4 tsp cream of tartar in

pot. Stir continuously on stove on medium heat until it forms a dough. Knead once cooled. Add in essential oil as desired. Store in plastic or glass container at room-temperature.

5. **Oobleck:** Mix 2 cups cornstarch + 1 cup water. It will be liquid at rest but you should be able to pick up a clump into your hand. It will flow like a liquid back into the bowl. Add essential oil for scented oobleck. Discard after 1 use.
6. **Water play:** Fill sink or bucket with water. Add ice cubes, bath toys, soap, cups, or kitchen items as desired.
7. **Touch booklet or board:** Collect textures from household materials (fleece, corduroy, sandpaper, bubble wrap, denim, sponges, etc). Glue a square of each texture to a piece of stiff cardboard to create pages. Punch holes in pages and clip together with key rings. To create noise booklet, fill pages with items that make noise, including bells, sticks, dried beans, etc. Or, use hot glue or hammer to nails to attach items to a board.
8. **Sound Machine:** Create white noise combinations with White Noise Lite (free) for apple and android.
9. **No-Sew Weighted Lap Pad:** Measure out pebbles or rice to match 10% or less of body weight (eg if child is 100lbs, measure no more than 10lbs). Divide materials evenly into 8-10 ziploc bags, remove all air, and cover with duct tape. Tape individual bags together in the shape of a pillowcase. Lay bags on top of towel, fold towel over itself, + tape shut. Add essential oils to the towel if desired. Place lap pad inside pillow case for easy washing.
10. **Describing Flavors:** Offer two different foods. Identify which one is salty vs sweet, crunchy vs chewy, hot vs cold. Turn this into a “food surprise” by offering new foods.

## Functional sensory exploration opportunities in daily routines:

### Bathroom:

- Adding bubbles to a bath
- Scrubbing with a washcloth or loofah
- Using variety of scented soaps and lotions
- Using variety of flavored toothpaste
- Using vibrating toothbrushes when brushing teeth
- Massage lotion onto skin after bathing
- Dry off with a towel

### Kitchen/Mealtime:

- Mixing thick ingredients (with a utensil or with clean hands)
- Rolling or kneading dough
- Carrying kitchen items around while emptying the dishwasher
- Eating chewy, crunchy, sour, or spicy foods
- Eating cold foods (frozen grapes, popsicles, etc)
- Drinking through a rubber straw vs open cup
- Squeeze condiment bottles, a citrus juicer, or garlic press

### Dressing/Clothing Management:

- Matching clothing by texture
- Discuss features of clothing-soft, bumpy, etc.
- Placing clothing in dryer for a few minutes before dressing
- Transferring wet clean clothes to the dryer
- Emptying the lint tray in the dryer
- Listening to white noise from washing machine or dryer

### Other:

- Helping vacuum or move heavy furniture
- Digging in the garden
- Walking barefoot on lawn

- Smelling flowers in the garden
- Using flavored chapstick
- Help take out trash
- Help with yard work-raking, picking up clippings, etc.