

## Tactile skills fact sheet and activity ideas

### What is the tactile system?

The tactile system refers to our sense of touch, which includes light touch, deep pressure, texture, temperature, vibration, and pain. It has two main functions: protection and discrimination. The *protective function* lets the body know whether tactile input is safe, or whether a “fight, fright, or flight” response should be initiated (e.g. pulling your hand back from a thorny bush). The *discriminative function* provides us a means to learn about size, shape, and texture through touch.

### Why is the development of tactile skills important for students who are blind/visually impaired?

Tactually exploring objects can provide important information that sighted peers gain visually. This information includes characteristics of objects, such as weight, temperature, composition, shape, size, and texture, as well as the function of items. Students who have difficulty tactually discriminating objects in addition to their visual impairment may find it more difficult to learn skills such as organizing and locating materials, as well as skills such as identifying braille characters. The protective function is important because without visual information that could imply danger (e.g. steam, smoke, pointed edges), students must rely on their protective discrimination to determine if an item is sharp, too hot, etc. in order to initiate that “fight, fright, or flight” response. Without this, students are at risk for burns, cuts, or other related injuries. Overall, the tactile sense is **essential** for students with visual impairments to gain information about their surroundings and perform everyday tasks.

## What are the components of tactile learning?

- **Motor skills:** Mechanical skills & hand development
- **Cognitive skills:** An understanding of the hierarchy of tactile skills
- **Sensory skills:** Physiological tactual development (levels of tactual learning)

**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 built up to these interactions. Consult with your student's occupational therapist for further guidance.

## Tactile skills activity ideas

1. **Sensory Bin Treasure Hunts:** Hide objects in various sensory bins filled with rice, beans, dry pasta, sand, or water and have students find the hidden objects. If students have sight, encourage them to close their eyes so they must only use their sense of touch.
2. **Theraputty/Play-doh Treasure Hunts:** Hide small objects (beads, coins, etc.) in theraputty/play-doh and have students find hidden objects. If students have sight, encourage them to close their eyes so they must only use their sense of touch.
3. **Tactile Puzzles/Matching Games:** Complete tactile puzzles that involve matching textures, patterns, and shapes. Alternatively, create your own matching game by using popsicle sticks with a variety of textures glued on- the student must match the popsicle sticks with the same textures.
4. **Scanning Surfaces:** Encourage the use of patterns to locate materials. For example, starting in the top left-hand corner and working in a zig-zag pattern, moving to the right and left and up and down, until the object is located.
5. **Organizing/Sorting Tasks:** Find objects in their usual place and return them to their usual place. Sort or categorize objects by placement, function, attribute, or materials for a specific task. For example: sort forks versus spoons, bumpy versus smooth fidgets, bathroom versus kitchen items.
6. **Texture Board/Booklet:** Collect textures from household materials (fleece, corduroy, sandpaper, bubble wrap, denim, sponge/loofah, etc.). Glue a

square of each texture to smaller pieces of stiff cardboard to create pages or to a larger board (shoebox lid, cardboard box, wood if accessible). For the booklet, punch holes in the pages and clip together with key rings.

7. **Art Activities:** Complete art projects that involve materials of various textures. Use materials such as finger paint, puff paint, feathers, pom-poms, beads, buttons, dry pasta, and modeling clay.
8. **Active Learning:** Hang items from PVC pipe/frame that students can actively explore. Categorize materials. For example, hang kitchen materials such as a rubber spatula, whisk, and wooden spoon, or hang items with similar features such as different kinds of brushes: hairbrush, toothbrush, and scrub brush.
9. **Braille Worksheets:** For students who are learning to read braille, complete braille worksheet where the student must scan and find a specific character in each line or point out which line is different from the rest.
10. **Cooking Activities:** Complete cooking activities such as kneading dough, creating cookie dough balls or meatballs within your hands, sifting flour, ripping lettuce. Talk about if the ingredients feel hard, soft, squishy, sharp, sticky, smooth, etc. Compare shapes and textures of different fruits, veggies, pastas.
11. **Brown Bag Guessing Game:** Place an object in a brown lunch bag (or whatever you have at home) and have the student use their sense of touch to feel and guess what the object is.

## Tactile opportunities in daily routines

*Tactile skills are such a significant part of daily life for individuals who are blind/visually impaired. The following are just a few examples of how tactile skills are integrated into various daily routines:*

### **Dressing/Clothing Care:**

- Locating tags
- Locating clothing landmarks for folding clothes
- Sorting laundry
- Orienting clothes for dressing
- Hanging clothes on hangers
- Identifying tactile markers/braille labels on laundry, drawers, etc.
- Ensuring clothes are fully dry after being removed from the dryer

### **Hygiene/Personal Care:**

- Putting on body wash/shampoo/conditioner
- Washing hands
- Putting toothpaste on a toothbrush
- Putting on lotion
- Cutting/filing nails
- Shaving
- Brushing/combing hair

### **Kitchen/Mealtime Tasks:**

- Identifying tactile markers on appliances
- Sorting utensils in drawer
- Cooking tasks with hands on opportunities: rolling cookies or meatballs within hands, kneading dough

- Using an index finger inside cup to evaluate when liquid is poured to adequate level
- Determining if an item is too hot/cold after taking out of microwave
- Assessing temperature of food before eating it
- Ensuring the sharp side of a knife is facing down towards food
- Placing items in a dishwasher & checking they are clean when unloading
- Checking for crumbs on the table

**Other:**

- Cleaning surfaces
- Making a bed: for example, feeling for corners versus long/short side of sheet/blanket
- Reading braille
- Leisure activities such as gardening, swimming, vibrating massage chairs/hand-held massagers