Occupational

 Therapy

 Guide to

 Interventions

 

Created by Mandan Public Schools Occupational Therapy Department

May, 2012

**Occupational Therapy - Guide to Interventions**

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**Occupational Therapy – Guide to Interventions**

**Introduction and Sensory Information**

The Occupational Therapy Guide to Interventions provides classroom staff with a list of interventions and techniques that can be used with students when specific classroom concerns are identified in the areas of sensory motor, fine motor and/or visual motor. Occupational Therapy staff is available to assist with implementing these techniques/activities, if needed.

Sensory integration generally develops throughout the course of ordinary childhood development, but in some children sensory integration does not develop as efficiently as it should. The disorder of the nervous system causes a number of problems in learning, development, and/or behavior. The sensory integration theory states a belief that by providing sensory intake (activity) the nervous system will be able to process information and learning can take place. Several techniques may be utilized in the classroom to facilitate increased sensory awareness and improve the student’s overall learning experience.

The information we receive from the environment comes to us through our senses. We are all familiar with the senses involving taste, smell, sight and sound. However, our nervous system also utilizes a sensory system involving touch (tactile), movement (vestibular), and sense of body position (proprioception).

**Definitions:**

* **Tactile sense (touch):** sensory system that receives sensations of pressure, vibration, movement, temperature, and pain, primarily through receptors in the skin and hair.
	+ Tactile defensiveness: a tendency to react negatively and emotionally to unexpected, light-touch sensations.
	+ Tactile discrimination: awareness of touching or of being touched by something; ability to distinguish differences in touch sensations; awareness of physical attributes of an object, such as its size, shape, temperature, density, and texture.
* **Vestibular sense (balance):** sensory system that responds to the pull of gravity, providing information about the head’s position in relation to the surface of the earth, and coordination movements of the eyes, head, and body that affect equilibrium, muscle tone, vision, hearing, and emotional security. Receptors are in the inner ear.
* **Proprioception/Proprioceptive sense (position):** unconscious awareness of sensations coming from one’s muscles and joints that provides information about when and how muscles contract or stretch; when and how joints bend, extend, or are pulled; and where each part of the body is and how it is moving.

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**Occupational Therapy – Guide to Interventions**

**1. Tactile - Touch**

1. **Pushing/Hitting/Touching others**
2. Give child something to hold or fidget with to keep hands busy
3. Create personal visual boundaries, such as carpet squares, taped areas, etc.
4. Give child opportunities for deep input such as chair pushups, hugs, isometrics (pushing hands/palms together, hooking/pulling fingertips), etc.
5. Avoid child getting light touch from others, encourage firm touch/pressure when interacting with the child
6. When approaching child, keep touch predictable

**B. Problem standing in line**

1. Position child last in line or first in line
2. Give child special job to do after everyone leaves room
3. Incorporate postures such as brain gym hookup, pretzels, fingertip pressing, etc.
4. Have child carry something heavy
5. Post/state procedural rules of standing in line

**C. Sensitive to different textures**

1. Grade activity from fingertips only to involving entire hand
2. Start with using a utensil (i.e. spoon, paintbrush) before having child use hands
3. Desensitize hands by rubbing lotion, massage, clapping, hand massagers, etc. before having child put hand in or on textures
4. When approaching child, keep touch predictable (i.e. deep pressure on shoulder)

**D. Seeking tactile input - touching/grabbing items**

1. If possible, let touch and explore but enforce social limits
2. Identify and provide times that tactile experiences are allowed
3. Consider giving them fidget items such as paper clip, masking tape, Velcro, pen cap, sticky tack, bead key chains, etc.
4. Give child opportunities for deep input such as chair pushups, hugs, isometrics (pushing hands/palms together, hooking/pulling fingertips), etc.
5. Place wrist sweat bands, coban (therapy wrap), loose rubber band, etc. around wrists to fidget with (such as pulling, snapping, twisting, etc.)

**2. Oral**

**A. Chewing on things OR Drooling**

1. #1 RECOMMENDATION: Provide child with gum or other chewy food items such as gummy bears, frozen or hard licorice, taffy, beef jerky, OR crunchy items such as pretzels, corn nuts, ice, etc.

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1. Have child drink cold water through a straw
2. Provide opportunities for oral fun activities such as blowing bubbles/whistles, singing, oral exercises (fish lips, blowing kisses, scary/animation faces)
3. Provide alternative chewing opportunities such as chew theratube necklace, tubing on pencils, coil cords, etc.

**B. Messy eating habits**

1. Teach child to use utensils for cutting food into appropriate size portions
2. Section plates with limited number of bite-size pieces in each section
3. Have student participate in oral motor exercises prior to eating
4. Consider allowing student to wear wrist weights during lunch period
5. Bring awareness to student about excess food on face, such as looking in mirror
6. Give student reminders about neat eating behaviors prior to starting lunch
7. Monitor food temperature sensitivities
8. Check seating/positioning for appropriate height and width, such as moving plate in closer to body or providing a booster chair
9. Enhance attention skills, limit distractibility in environment
10. Place student away from entrance doors to decrease distractibility
11. Have calming background music during lunch periods

**3. Vestibular - Balance**

**A. Sitting in chair – fidgeting, rocking, falling or excessive movement**

1. #1 RECOMMENDATION: Adjust chair and table to a height suitable to the student to best perform table top work – feet touching floor, table height just below child’s elbows - **(see Appendix A)**
2. Give frequent breaks from table top activities, providing movement activities such as jumping jacks, brain gym activities, etc.
3. Change positions such as working on their stomachs, working on vertical surfaces (taping paper to wall, etc.)
4. When appropriate, let student stand at desk to complete table top work
5. Provide child with an air filled move-n-sit cushion or other items that allow more movement (such as bean bag cushion, etc.)
6. Place binder under one chair leg for movement from the chair
7. Place band between chair legs for child to use to kick, move with feet
8. Place masking tape X on seat for position and non-slip surface
9. Turn chair backwards to lean body onto back of chair, facing forward
10. Place sweat shirt or jacket over back of chair and slip arms into sleeves to provide body awareness and deep pressure
11. Wrap sweat shirt or jacket around back of chair and student to provide body awareness

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1. Consider providing student with a ball chair or therapy ball for seating
2. Have child do chair push-ups to decrease movement

**4. Proprioceptive – Body Awareness**

**A. Poor posture, slouching, laying head on desk, appears fatigued, etc.**

1. #1 RECOMMENDATION: Change positions such as working on their stomachs, working on vertical surfaces (taping paper to wall, etc.) OR reposition student’s chair for different activities, such as sideways for listening, front or back facing for table top activities, etc.
2. Encourage the child to position writing paper at an angle of approximately 45 degrees, facing the opposite direction of their dominant hand – **(see Appendix B)** – use masking on the desk top for a visual guide.
3. When completing floor activities, have child sit in the “criss-cross applesauce” sitting, side-sitting, long sitting, or feet tucked under body positions
4. Place a wedge on seat, such as binder
5. Turn chair backwards to lean body onto back of chair, facing forward
6. Place band between chair legs for child to use to kick, move with feet to alert body
7. Tie coban around back of chair, have student do isometric arm exercise to alert body
8. Give frequent breaks from table top activities, providing movement activities such as jumping jacks, brain gym activities, etc.
9. Provide alerting food items such as sour, crunchy, or chewy
10. Place student near natural light, window areas
11. Seat student so instruction is coming from their dominant side – especially for left handed students
12. Allow child to rest forearms on the desk during cutting, writing, drawing, coloring and other fine motor tasks

**5. Auditory**

**A. Sensitivity to sounds – covers ears, easily distracted by noise, etc.**

1. Place child where there is a minimum of noise/distraction, away from doors and windows
2. Explain or notify child when there will be predictable excessive noise, such as fire drills, recess bells, etc.
3. Have white noise or background music within the classroom environment
4. Allow student to wear noise reduction devices such as foam ear plugs, ear buds, ear phones, etc.
5. Regulate voice during instruction, keeping instruction concrete/simple
6. Combine visual presentation with auditory instruction

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1. Allow student opportunities to “regroup” themselves to recover from reactions to noises, such as a quiet room or safe/comfortable area
2. Allow students to use quiet space or comfortable area during activities that will cause child to react or have negative behaviors

 **B. Making noises, humming, talking excessively, etc.**

1. Try a movement based activity with child to replace behavior
2. Bring awareness to child about their noises
3. Provide child with alternative activity such as chewing or sucking on foods

**6. Visual**

**A. Visual sensitivity and difficulty copying information to paper**

1. Use natural lighting verses fluorescent lighting
2. Try using colored overlays on top of books/text
3. Provide student with colored paper to copy information on to
4. Use a variety of marker colors on white board to separate information
5. Provide student with desk copy of information being presented on board
6. Seat student so instruction is coming from their dominant side – especially for left handed students
7. Reduce glare by allowing students to wear items that shield their eyes, such as baseball hat, visor, etc.
8. Cover fluorescent lighting with various filters such as material covers, panels, paper, etc.
9. Use eye tracking type exercises such as brain gym movements, dot-to-dot activities, etc.
10. Use graph paper or turn paper sideways for math activities
11. Use colored window reading strips or block out a portion of the text with window guides
12. Use a ruler or straight edge for tracking

**7. Handwriting and Cutting**

1. **Grasps – Delayed, Immature or Inefficient Grasp Patterns**
	1. **Writing Tools:**
2. #1 RECOMMENDATION: Adjust chair and table to a height suitable to the student to best perform table top work – feet touching floor, table height just below child’s elbows – **(see Appendix A)**
3. Encourage the child to use a proper (tripod) grasp – **(see Appendix C)**
4. Provide tape guide for proper paper placement
5. Have child use a rubber band to pull pencil into web space (space between index finger and thumb), placing around their wrist and the eraser end of pencil

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1. Teach the child to change their immature or ineffective grasp by introducing an alternative grasp - **(see Appendix D)**
2. Access the school’s Assistive Technology kit to try a variety of pencil grips
3. Provide student with a slanted work surface such as a 2 to 3 inch 3-ring binder turned sideways
4. Have child complete activities on a vertical surface when possible such as taping paper on wall, easel, etc.
5. Use a short pencil/crayon/chalk to encourage a tripod grasp
6. Have child hold a small object with their pinky and ring fingers while holding the pencil, such as balled up Kleenex, beads, marker covers, etc.
7. Wrap a rubber band around the lead end of pencil near tip for proper finger placement
8. Teach student an alternative grasp such as holding the pencil between the index and middle finger and thumb verses only index finger and thumb - \*see appendix
9. Decrease the amount of writing to prevent hand fatigue

|  |
| --- |
| **Before engaging in writing tasks, take a few minutes to “warm up” the children’s hands:*** Make large circles with arms in a forward then backward motion.
* Extend arms forward with backs of hands together, and make slow circular motions.
* Make a fist with both hands, tensing muscles of the whole arms and hands as hard as possible. Hold for 3 seconds and release. Do 5 times.
* Crinkle up a sheet of newspaper into a ball with one hand, then unwrinkled and straighten it out as much as possible. Repeat with other hand.
* Place palm of one hand on the desk and raise each finger off the desk. Repeat with the other hand.
* Place a small object in the palm of one hand (paper clip, button, coin, etc.). Using the fingers of that same hand only, move the object from the palm to the fingertips and place onto the desk. Repeat with the other hand, or do the activity with both hands if possible.
 |

* 1. **Scissors**
1. Teach child to place scissor with thumb in small hole, index finger out (steering finger), and middle/ring fingers in large hole – **(see Appendix E)**
2. Place a piece of colored tape on the small hole for a visual guide for thumb placement
3. Teach child to cut vertically with thumbs of both hands pointed up toward the ceiling, elbows held at side of body – (**see Appendix E)**
4. Teach child to cut paper on side of cutting hand, vertically verses horizontally

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1. Teach child to manipulate paper verses turning scissor
2. If the child’s desk is the appropriate height, have the child place elbows on the desk while cutting
3. If remaining on lines is difficult, trace over the outline to be cut with a thick black marker
4. Have the teacher cut around the shape to get rid of excess paper that may be hard for the child to manipulate
5. Make sure the child uses the tip of the scissor blades when cutting out curves, circles and smaller areas
6. **Legibility**
7. #1 RECOMMENDATION: Reference proper posture and paper positioning samples in Appendix section – Appendix A and Appendix B
8. Use double-lined paper, Handwriting Without Tears recommended paper
9. Use a slanted surface such as a 3-ring binder turned sideways or slant board
10. Have student use every other writing line to increase readability and decrease line confusion
11. Use narrow lined paper verses wide lined
12. Use colored paper when creating worksheets to decrease glare and contrast
13. Use colored lines for visual cues (highlight bottom lines) or highlight the space between lines to indicate where student should write
14. Use a weighted pencil or add a weight to a standard pencil to increase pressure
15. Create word shape worksheets to practice writing skills – go to **atozteacherstuff.com**
16. Use Handwriting Without Tears font (on all district computers) to create letter/word writing worksheets that provide sizing boxes and starting dots
17. Use handwriting based multi-sensory activities
	1. Place a visual cue (smiley face, dot, etc.) in the upper left hand corner of writing paper as a cue to student where to start letters
	2. Use the wet, dry, try approach to teaching
	3. Use roll-a-dough or play dough to form letters
	4. Color in a picture by writing one letter repeatedly
	5. Use the “trace and do” approach for letter formation
	6. Check your school’s Assistive Technology kit for “reversal rulers” package
	7. Use Handwriting Without Tears font with arrows for proper directional orientation as practice letter sheets
18. Allow extra time for writing assignments with a focus on legibility verses neatness
19. Test orally, use multiple choice, or use one-word answer blanks to decrease amount of writing and hand fatigue
20. **Reversals**
21. Provide a letter strip for visual cues – stress that “b” comes before “d”
22. Say that the lowercase “b” is the bottom half of the uppercase “B”

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1. Say that “b” is the first letter in baseball – so make the bat (a vertical line down) and then the ball at the bottom
2. Draw pictures using the letters “b” for bat/ball and “d” for dog:
	1. “b” looks like a bat with a ball stuck to its right side – so draw a cricket bat and a red cricket ball
	2. “d” looks like a dog with its tail up behind him – start “d” by drawing a dog body then its tail going up
	3. Give the cue that “d” is a magic “c” letter – so start with a magic “c” and add the big line
3. Play games using letter dice and laminated word cards
	1. Throw dice and find a word card that does NOT end in that letter
	2. Throw dice and find word ending with that letter
	3. Compare differences in similar words
	4. Color letter in with marker on laminated word card
4. Check your school’s Assistive Technology kit for “reversal rulers” package
5. Practice activities to reinforce awareness of left/right directionality (like Hokey Pokey or Simon Says)
6. Do a letter sort using plastic or magnetic letters – talk about straight lines and curves to describe letter formation
7. Go to websites that promote correction of reversals such as
	1. <http://practicalpages.wordpress.com>

**8. Attention**

 **A. Distractibility**

1. Decrease environmental distractions by minimizing clutter in the classroom
2. Close classroom windows and doors during work periods to decrease outside noises and movement
3. Seat child away from windows and doors to minimize outside stimuli
4. Have child sit near the teacher so when he/she needs to focus the teacher can easily cue him/he
5. Use simple cues and less words when giving verbal directions
6. Stand close to the child when instructing – and when needed, place hands on child’s shoulders, giving slight downward pressure before giving instructions
7. Use a study carrel around child’s desk
8. Allow child to use headphones while doing work requiring extra concentration
9. Give child small increments of work with breaks in between to help them remain focused
10. Allow movement breaks such as using child as the teacher’s helper when passing out papers, etc.
11. Incorporate music into activities whenever possible
12. Place band between chair legs for child to use to kick, move with feet to alert body

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 **B. Organization**

1. Color code information by using a binder with separate colored folders inside for each subject, take home materials, etc.
2. Use picture or word schedules that list the child’s daily routine
3. Use index cards to simplify instructions that break down the steps of a task
4. Use a separate cart or place in the classroom to store books and belongings to keep the desk from becoming cluttered

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**Appendix A**

**Getting ready to**

**WRITE AT A DESK**

**PURPOSE:**

 To assist a student in finding a comfortable, efficient sitting position at a desk.

**EQUIPMENT:**

 Desk and chair that fit the student.

**PROCEDURE:**

 **Say to students:**

1. Sit down on your chair. It fits correctly if your feet rest firmly on the floor and your legs rest on the chair at a 90 degree angle.
2. Sit well back in the chair so that your hips

Touch the back of the chair.

1. Face the desk squarely.
2. Lean slightly towards the

Desk so that both forearms rest

on the desk. In the sitting

position, the desk should be

two inches above the height

of your elbows.

 **YOU ARE NOW READY TO WRITE**

**Appendix B**

**Getting ready to**

**POSITION PAPER FOR WRITING**

**PURPOSE:**

 To assist a student in positioning paper in the optimal position for successful writing.

**EQUIPMENT:**

 Properly fitted desk and chair

 Paper and pencil

**PROCEDURE:**

 Begin with the GETTING READY TO WRITE AT DESK classroom skills.

 **Say to students:**

1. Place your elbows on the desk.
2. Fold your hands together and rest your arms on the desk.

Your arms will form a triangle on your desk.

1. Place paper under your writing arm.
2. “Righties”: gently tip your head to the left.
3. “Lefties”: gently tip your head to the right.

 **YOU ARE NOW**

 **READY TO WRITE**

**Appendix C**

**Getting ready to**

**HOLD A PENCIL**

**PURPOSE:**

 Assist student with using a correct (tripod) pencil grasp.

**EQUIPMENT:**

 Assortment of pencils and grip aides.

**PROCEDURE:**

 **Say to students:**

 1. Identify your favorite hand for writing.

 2. With your favorite hand, pinch the end of the pencil with your thumb and pointe

 Finger about 1 inch from the point

 3. Now, have your helper hand rotate the pencil to rest in the web space.

 4. Position your middle finger under the pencil to complete the three finger triangle

 around the pencil.

 5. Bend your ring finger and little finger into the palm and rest your hand on the table.

**Appendix D**

**Getting ready to**

**CHANGE PENCIL GRASP**

**PURPOSE:**

 To teach a student how to change an inefficient pencil grasp.

**EQUIPMENT:**

 Assortment of pencils and grip aides.

**PROCEDURE:**

1. Have the student pick up the pencil with their dominant hand.
2. Tell them to place the pencil between their index and middle finger on their dominant writing hand .
3. Tell the student to close their fingers around the pencil tip, with the middle finger placed underneath the pencil, in the same positions as the proper tripod grasp.

**Appendix E**

**Getting ready to**

**USE A SCISSORS**

**PURPOSE:**

 To assist students in holding scissors correctly and completing cutting tasks.

 Using scissors with the correct grasp develops readiness skills for writing.

**EQUIPMENT:**

 Correct size and designed scissors for the student’s hand. Scissors should have small loop

 handles to prevent the fingers from sliding through to the knuckles and be sharp enough to

 actually cut.

**PROCEDURE:**

 ***Say to the students:***

1. Position your thumb in one loop on the scissors.
2. Position your middle finger (not your index finger) in the lower loop on the scissors.
3. Position the index finger below the scissor blade.
4. Scissors are held thumbs up. Practice opening and closing the scissors.

Once the student has shown an interest in cutting, has learned to hold scissors correctly, and can open and close the scissors in a coordinated fashion, it is time to introduce paper.

**YOU ARE NOW READY TO CUT**