ACKNOWLEDGEMENTS

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ment Materials: Twist, Turn, and Lean.

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Fine Motor Development Materials: Twist, Turn, and Learn

The Fine Motor Development Materials: Twist, Turn, and Learn include 8 modules. Each module has been designed to enhance the development of specific fine motor functions. Listed below are the 8 modules, a brief description, and a sampling of skills that can be developed or reinforced using each module.

Fun Flowers:
A module mounted with multicolored flowers and with bells. Helps a child to develop grasp/release, reaching, raking, eye-hand coordination, finger manipulation/coordination, and tactual discrimination.

Clown Pull:
A colorful clown face appears in this module. Pulling alternately on the clown’s nose or bow tie causes a bell to sound. Helps the student in developing palmar grasp/release, and eye-hand coordination.
Four brightly colored geometric patterns come on two discs designed to be overlaid.

**SPINNER WITH OVERLAYS**

<table>
<thead>
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**HAPPY AIRPLANE**

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**CUP**

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**BELL CHIME**

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HOOK/LOOP PULL:
Two colorful strips of hook/loop material with handles for grasping are fastened to this module. This helps the child to develop grasp/release, pincer grasp, two-handed grasp, and two-handed pull.

HIDDEN POCKET:
This module has an elastic cloth pocket for hiding various objects. Helps the student to develop search techniques, tactual discrimination, and reaching/grasping skills.
Data Integration Skills
To develop cause-effect relationships
To develop object permanence
To develop visual attention

FLOWERS

To develop eye-hand integration
To develop imitation skills
To develop cause-effect relationships
To develop object permanence
To develop visual attention

FLOWERS
GOAL: FOCUSING/VISUAL ATTENTION

Objective: The child will focus on the Fun Flowers for a specified time period.

Procedure: 1. Activate the flowers to attract the child’s attention. If necessary, gently guide the child’s chin toward the flowers.
2. Wiggle them, then pause and reactivate them.
4. Encourage the blind child to feel the flowers once they have been covered.

3. Guide the child to pull off the cloth to find the flowers.

2. Ask the child, "Where did they go?"

Procedure: 1. Activate the flowers and while the child watches or as he feels them,

The child will locate the flowers when they are hidden under a cloth.

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Goal: Object Permanence
GOAL: CAUSE-EFFECT RELATIONSHIPS

Objective: The child will swipe at the flowers to activate them.

Procedure: 1. Physically guide the child to swipe at the flowers to move them.
             2. Pause, then cue him at his elbow to repeat the action.

Objective: The child will use an intermediate object to activate the flowers.

Procedure: 1. Present the child with a mallet with a rubber tipped end.
             2. Encourage him to strike the flowers with the stick.

Objective: The child will strike the center bells with one of the center flowers 3 out of 4 times.

Procedure: 1. Show the child how to pull the flowers back and then release in the direction of the bells.
             2. Guide the child physically to perform the action.
             3. Turn the tray in various directions and encourage him to manipulate some of the center flowers.
GOAL: IMITATION

Objective:
The child will imitate various actions 80% of the time.

Procedure:
1. Attract the child's attention, then pat the flowers with an up and down motion.
2. Physically prompt the child to imitate by guiding him at the wrist.
3. Guide the child at the wrist to imitate the motions.
4. If the child is totally blind, have the child hold on to your wrist to feel the direction of your action.
5. Alternate the different actions to encourage the child to discriminate direction and to motor plan the movements.

Other activities:
- Jiggling the module:-grasping a single flower with a palmar grasp and releasing it; grasping a single flower with a pincer grasp and releasing it; activating one flower at a time by flicking, pulling, or hitting. If the child is quite competent, you may have him imitate a simple rhythm, e.g., "one, two, . . ."

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GOAL: EYE-HAND INTEGRATION

Objective: The child will integrate eye and hand 4 out of 5 times.

Procedure:  
1. Place the tray in front of the child and cue him to swipe at it.
2. Move the tray quickly to one side and again prompt the child to strike the flowers.
3. Continue to move the tray to various positions to encourage the child to direct his gaze and integrate eye and hand actions.

Other activities: Place the module on casters. Push it back and forth to the child. Attach a string so the child can pull it towards himself or behind himself as he moves about the room.

Play a "stop and go" game with the module. Bounce the flowers with your hands over the child's hands, then put out his hands to stop their movement. Say "stop."

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Play a "stop and go" game with the module. Bounce the flowers with your hands over the child's hands, then put out his hands to stop their movement. Say "stop."
In a dark room, place a light in front of the module so its movements are shadowed on a wall. Shake the flowers and encourage the child with sufficient vision to explore the moving shadows.

Have the child crawl through a barrel toward the toy as you activate it.
CLOWN PULL

Goals:  
To develop visual tracking skills
To develop grasp strength
To develop cause-effect relationships
To develop bilateral, parallel movements
To develop spatial/directional relationships

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Procedure:
1. Sitting behind the child, position the module vertically before the child.
   - Verbal prompts and visual cues:
     - The child will visually track the pull(s) (clown's nose and bow tie), given.

Objectives:

Goal: Visual Tracking

6. Pause before moving the pull back across the board.
5. If necessary, guide the child to look by applying gentle support under his chin.
4. Slowly move the pull through the midline.
3. Say to the child, "What's that?" and ask that he watch.
2. Attract the child's visual attention to the pull by tapping it or rapidly moving it to create a noise.
1. Sitting behind the child, position the module vertically before the child.
   - Verbal prompts and visual cues:
     - The child will visually track the pull(s) (clown's nose and bow tie), given.
GOAL: CAUSE-EFFECT RELATIONSHIPS

Objective: The child will move the pulls independently.

Procedure: 1. Guiding the child’s hand, help him move the nose and bow tie pulls.
2. Stop immediately and exclaim, “Listen! Where’s that noise?” Reactivate the pull saying, “There it is!”
3. Tell the child to make the noise. “You try it.” If necessary, tactually prompt him to move the pull.
Procedure:

1. Place the module on a flat surface.
2. Place the child's hand on one of the pulls and then position your hand over the child's.
3. Guide the child to pull the nose or bow tie.
4. Help him release the first pull and grasp the second.
5. Prompt the child to begin pulling downward. Midway through the action,
6. Repeat the activity, rotating the pulls.

Objective:
The child will use a palmar grasp to move the pull when given assistance.

Goal: Grasp Strength and Initiation
GOAL: BILATERAL COORDINATION

Objective: The child will develop the coordination to manipulate both knobs simultaneously and in a synchronized manner.

Procedure: 1. Position both pulls so that their accompanying strings are equal.
       2. Place each of the child’s hands on the pulls.
       3. Guide him to pull with one hand and extend with the other in a synchronized and coordinated fashion.
       4. Have the child pull the nose and bow tie back and forth, pulling the bow tie and then the nose, et cetera.
Procedure:

1. Place the child's thumb on the first joint on the side of the pull and one side of the pull.
2. Secure his fingers by placing your hand over his. Help him manipulate his thumb on the opposing side.
3. Reposition the child's hand on the pull and prompt him to move it.

Objective:
The child will use a radial digital grasp to move the pull in a specified manner.
RATTLES

Goals:  To develop visual attention and focusing
        To orient auditorily
        To develop cause-effect relationships
        To develop spatial/directional relationships
        To develop flexibility of digits
        To develop object permanence
        To develop bilateral alternating coordination skills
        To develop imitation
        To develop visual discrimination
**Objective:**

The child will visually attend to the rattles for a specified time period.

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**Procedure:**

1. Place the child on his tummy over a wedge or supported at a 45° angle.
2. Support the tray in a vertical position 8 to 12 inches from the child's eyes.
3. Spin the rattles and draw the child's attention to them by guiding him under his chin. Verbally prompt him to look.
4. Reward the child's attention with the spinning of the colorful rattles.

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**Goal:** Focusing/Virtual Attention
GOAL: AUDITORY ORIENTATION

Objective: The child will locate the rattles auditorily, 3 out of 5 times.

Procedure: 1. Place the rattles to the side of the child (be sure the child has sitting balance) and activate them. Encourage him to look for them.

2. Position the rattles behind the child and, if blind, slightly out of his reach in front of him. Encourage the child to search until he locates them. Physically prompt the child to reach and to turn his body in order to locate the rattles.
Goal: Cause-Effect Relationships

Procedure:

1. Cluing the child at the forearm, move his hand over the rattles several times, pause, then repeat.

2. Hold his hand above the rattles to see if he will attempt to recalculate them.

Objective:

The child will activate the rattles with a swiping motion.
GOAL: SPATIAL/DIRECTIONAL RELATIONSHIPS

Objective: The child will appropriately orient his body to activate the rattles.

Procedure: 1. Place the rattles horizontally before the child and guide him to move his hand across them sideways.

2. Place the rattles vertically and guide the child to swipe at them with an up and down motion.

3. Switch the position of the rattles at varying intervals to see whether he understands the relationships of their position to the direction in which he must move his hand.
The child will visually discriminate individual colors of the rattles before activating them.  

Procedure:  
1. Cut red, blue, green, orange, and yellow construction paper into shapes.  
2. Ask the child to spin the rattle that matches the color of the construct.  
3. If the child is nonverbal, model the appropriate actions until he under- 

tions paper.  

Objective:  
The child will visually discriminate individual colors of the rattles before activating them.
GOAL: Imitation/Digit Flexibility

Objective: The child will initiate striking the individual rattles.

Procedure:
1. Encourage the child to watch closely. Tell him, verbally or with gestures, to spin the same colored rattle as you spin.
2. Initially, spin one rattle. When it stops, shine a light on it to encourage the child to spin the same one.
3. Repeat for all colors.
4. Next, point to each rattle once you have activated it, rather than illuminating it.
5. Finally, require the child to activate the same rattle independently.
Procedure: 1. Initiate the child from using all his fingers on his hand to activate the rattles.
   The child will activate the rattles individually with one finger.

Goal: Digit Flexibility

2. Place his index fingers on one of the rattles and with your opposite hand.

3. Repeat with each of his fingers.
   Them, offer tactile guidance initially.
   Hand show the child how to bend and straighten his finger to move

Objective: The child will activate the rattles individually with one finger.

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GOAL: OBJECT PERMANENCE

Objective: The child will remember where the rattles are located once they are removed from his sight.

Procedure:
1. Cover the rattles with a light weight cardboard box or a dull cloth.
2. Encourage the child to watch as you cover them. If totally blind, let him help you cover the rattles while tactually maintaining contact with them until they are completely covered.
3. Once the rattles are covered, exclaim "Where are they?" Help the child lift the cover and say "There they are!"
4. Immediately help him activate the rattles.
5. While the child is activating the rattles, hide them under the cover.
6. Slightly open the cover and let the child complete the task of removing it.
3. If necessary, cue him with tactile prompts on the backs of his hands.

Procedure: Repeat the cycle 3 or 4 times, then release the child's hands.

Objectives: Physically guide the child at his wrists to swipe the rattles in rhythmic motion with first his right, then his left hand.

The child will use alternating motions to activate the rattles.

GOAL: BILATERAL COORDINATION
HAPPY AIRPLANE AND BELL CHIME

Goals:  To develop focusing and attention
        To develop pincer grasp
        To develop wrist rotation
        To develop cause-effect relationships
        To develop digit flexibility
GOAL: FOCUSING/VISUAL ATTENTION

Objective: The child will visually attend to the motion of the modules for a specified period.

Procedure:
1. Place the child on his tummy. Position the module vertically to encourage the child to raise his head.
2. Activate the knobs, pause, then repeat.
3. Turn the child's head in the direction of the modules and say "Look!"
4. Rapidly spin the knobs; pause; then repeat.
5. Stop the knobs from spinning. Wait until the child looks, then reward his attention with the action.

GOAL: FOCUSING/VISUAL ATTENTION

Objective: The child will visually attend to the motion of the modules for a specified period.

Procedure:
1. Place the child on his tummy. Position the module vertically to encourage the child to raise his head.
2. Activate the knobs, pause, then repeat.
3. Turn the child's head in the direction of the modules and say "Look!"
4. Rapidly spin the knobs; pause; then repeat.
5. Stop the knobs from spinning. Wait until the child looks, then reward his attention with the action.
GOAL: PINCER GRASP/WRIST ROTATION

Objective: The child will spin the modules using a pincer grasp on the knob.

Procedure: 1. Place the child’s index finger and thumb on the knob.
2. Secure them gently with your hand and guide the child to turn the knob.
3. Gently secure the child’s last three fingers so that he can turn the knob only with thumb and index finger.
4. Repeat with the opposite hand.
Procedure:

1. Sit behind the child with the module positioned at a 45° angle. Move the child will repeatedly strike the knobs with his finger in order to spin them.

2. Guide him to move his fingers/hands with a striking motion in order the child’s fingers to the knobs, hand-over-hand, with the adult’s hands.

3. Release the child’s hand and cue him at his elbow to repeat the action. to turn the knobs.

Goal: Cause-Effect Relationships

Obstacle:
GOAL: WRIST ROTATION

Objective: The child will employ a palmar grasp to spin the knobs around.

Procedure:
1. Position the child’s hand over the knob so that his fingers are curled around it.
2. With your hand over the child’s, show him how to turn the knob.
3. Verbally prompt him to turn the knobs.
4. Change hands and repeat the activity.
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<td>1. Secure all the child’s fingers and his thumb, leaving his index finger.</td>
<td>The child will turn the knob with his index finger only.</td>
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<td>2. Place the tip of his index finger against the edge of on top of one of the knobs and encourage him to twist (rotate) his wrist to the opposite side.</td>
<td>Working with your hand over the child’s, vary the speed with which you turn the knobs. Indicate the speed with a gesture, or say “fast”, “slow”, “faster”, or “slower”.</td>
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<td>3. Guide the child in picking up his finger, returning it to the original starting point and repeating the action. Allow him to practice with each finger.</td>
<td>and with either hand.</td>
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**Activity:**

Other

**Goal:** DIGITAL FLEXIBILITY/WRIST ROTATION

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Perform a "stop and go" game with the modules. Gesture or say "go" and begin moving the knobs. Gesture or say "stop" and place the child's hands on the moving spinner. Provide him with physical or verbal prompts until he is able to perform the activity without assistance.
Note: Four interchangable spinner-patterns are included as overlays.

Goals: To develop bilateral alternating coordination skills
To develop imitation skills
To develop cause-effect relationships
To develop visual focusing and attending skills

SPINNER WITH OVERLAYS
GOAL: FOCUSING/VISUAL ATTENTION

Objective: The child will focus visually for a specified period of time.

Procedure: 1. Place the child on his tummy over a wedge or supported at a 45° angle on his back.

2. Support the tray in a vertical position 8 to 12 inches from the child’s eyes.

3. Activate the spinner and draw the child’s attention to it by guiding him under his chin. Verbally prompt him to look.
2. Hold his hand above the spinner to see if he will attempt to reactivate it. Several times, pause, then repeat.

**Objective:** The child will deactivate the spinner independently.

**Goal:** CAUSE-EFFECT RELATIONSHIP

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GOAL: IMITATION

Objective: The child will imitate spinning individual spinners.

Procedure:
1. Attract the child’s attention to the spinner. Activate one.
2. When it ceases to move, gesture or verbally tell the child to spin the same one.
3. Guide the blind child to locate the position of the stimulus spinner before you activate it.
Activity: Stick a piece of textured material or brightly colored tape on the surface.

Objectives: The child will use alternating motions to activate a spinner.

Procedure:
1. Physically guide the child at the wrists to swipe the spinner in a rhythmic motion with first his right, then his left hand.
2. Repeat the cycle 3 or 4 times, then release the child's hands.
3. If necessary, cue him with tactile prompts on the backs of his hands.

Goal: Bilateral Coordination
HOOK-LOOP PULL

Goals:  To develop grasp strength
        To develop pincer grasp
        To develop bilateral coordination skills
Procedure:
1. Place the module on a flat surface.
2. Place the child's hand on one of the pulls and then position your hand given assistance.
3. Guide the child to pull the hook-loop material.
4. Prompt the child to begin pulling. Midway through the action, release the child's hand.

Objective: The child will use a palmar grasp to pull the hook-loop material when given assistance.

Goal: Grasp Strength
GOAL: PINCER GRASP

Objective: The child will grasp the hook-loop rings with a pincer grasp.

Procedure:
1. Place the child’s index finger and thumb on the ring.
2. Secure them gently with your hand and guide the child to pull the rings.
3. Gently secure the child’s last three fingers so that he can pull the ring only with thumb and index finger.
4. Repeat with the opposite hand, followed by using both hands together.
Procedure:

1. Position both rings and place each of the child's hands on them.

2. Guide him to pull both rings outward in a coordinated attempt.

3. Guide the child's hand with physical prompts and verbal cues to pull both rings simultaneously.

Objective:

The child will develop the coordination to pull both rings simultaneously.

GOAL: BILATERAL COORDINATION
HIDDEN POCKET

**Goals:**
- To develop object concept
- To develop reaching and beginning search technique
- To develop cause-effect relationships
- To develop auditory localization

Examples of items to hide in pocket:
- Hand bell
- Porcupine squeak toy
- Halloween metal cricket
- Bike horn
- Rattles of various shapes
- Varied textures
- Sponges, plastic pot scrapers
- Scented items or cotton balls
Procedure:

1. Let the child explore a toy; then hide it in the module.

2. Say "Where's the dog?" (bell, etc.).

3. Then squeak it and say "There's the dog—you find him."

4. Continue to activate the toy to offer sound cues.

5. Prompt the child at his elbow or wrist to search in the space inside the hidden pocket.

Objective:

The child will locate the toy by reaching into the pocket.

GOAL: REACHING/AUDITORY LOCALIZATION
GOAL: DISCRIMINATION

Objective: The child will discriminate and identify a variety of items when presented within the pocket.

2. Say to the child, “Find the doggie.”
3. If he lingers on the sponge, say to him “Find the doggie,” and gently lift his hand from the sponge.
4. If he still doesn’t locate the dog, place his hand on the dog and say, “There’s the doggie!”
Procedure: 1. Insert several items, one at a time, into the pocket and teach the child

2. Once the child can independently activate at least two toys, insert

3. Place the child's hand on the toy and say, "What's that? You do it!"

4. If the child tries to ring the bell (and it's the squeak toy), say to him, "That's the puppy dog! How do you make him work?"

5. Allow him to explore the dog, then physically prompt him to squeeze it.

6. Interchange toys frequently to allow the child to learn which actions activate which toys.

Objective: The child will apply the appropriate schema to the object to activate the toy.

Goal: Cause-Effect Relationships