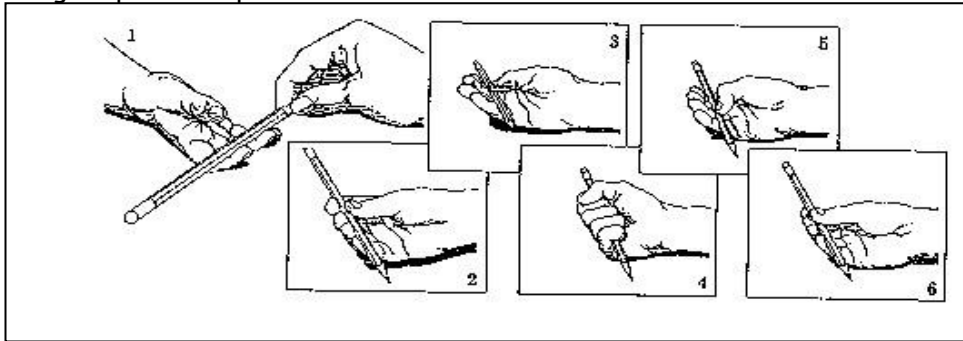


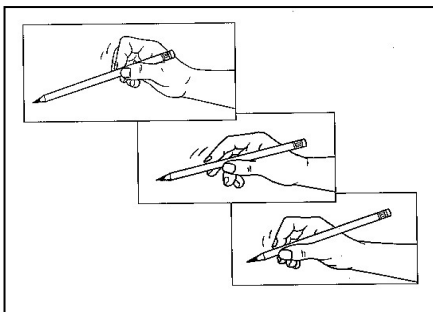
In-Hand Manipulation

In-hand manipulation is the ability to hold and move an object within one hand. In-hand manipulation skills are essential to the handwriting process because they allow the student to move the pencil from the palm to the fingers, make needed adjustments to the pencil for writing, and turn the pencil from writing to erasing with one hand. In-hand manipulation skills are divided into three major categories: translation, shift, and rotation. All categories may include "stabilization" which is the ability to hold objects with the ring and pinky fingers while moving an object with the thumb, index and middle fingers.

Translation is the ability to move objects from the fingertips to the palm or the palm to the fingertips such as moving coins from the palm to the fingertips to place in vending machine or picking up pennies and moving them from the fingertips to the palm.



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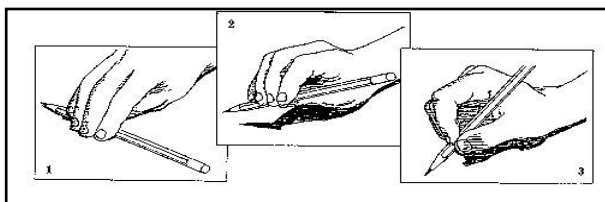


Shift is the ability to move an object in a linear manner with the fingertips, such as repositioning the pencil in the fingers to position for writing or fanning playing cards in the hand.

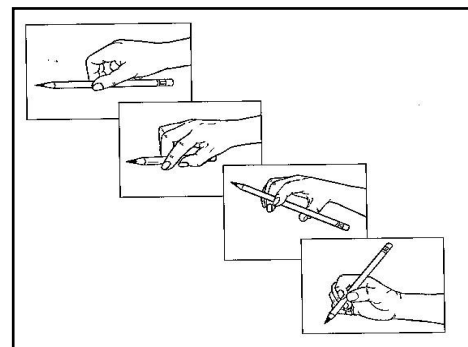
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Rotation is the ability to turn an object around in the pads of the fingers and thumb (simple rotation) or turning an object from end to end (complex rotation) such as flipping a pencil from writing end to eraser.

Simple Rotation



Complex Rotation

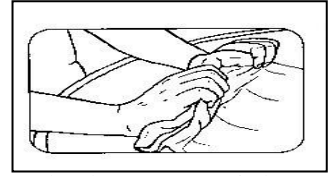


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Center Ideas for Building In-hand Manipulation Skills

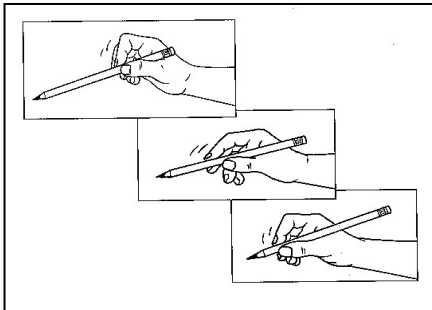
- **Towel Scrunch**-Have student place wrists on the table with the towel flat in front of them. Holding one end of the towel with both hands, scrunch into a long roll.

Also have students crumple newspaper or make paper balls



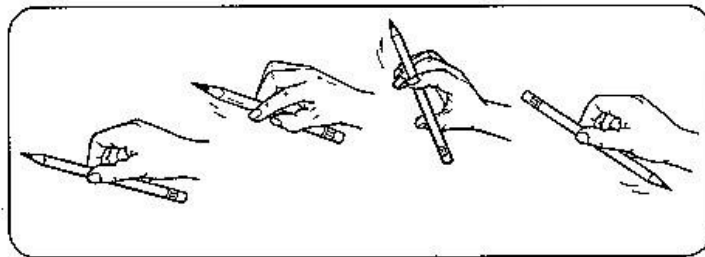
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- **Coins**-Rotate coins clockwise and counterclockwise; held with thumb, index and middle finger. Place coins on table and have child flip them over.
- **Chopsticks**- Pick up small objects, edibles. Walk fingers up and down the chopsticks.
- **Tops**-Spinning contest; Spin on a flat surface (book or tray) and tilt it. Try to keep it from falling off. Walk across room while spinning on book.
- **Marbles**- Hide various colored marbles in hand and ask child to rotate a specific color into the thumb and index fingers.
- **Stringing beads, paper clips; make paper chains**
- **Cotton Swab Painting**- Using two paint colors, have student paint with cotton swab flipping from one end to the other.
- **Hole Punch Art**-Have child use paper punch to punch out picture.
- **Pencil Walking**



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- **Pencil Flips**



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*See reference page for Amundson(3), Bridgeman(5), and Olsen(9).