Promoting wellness. Ensuring care.

Vancouver Paediatric Team

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PRE-PRINTING & PRE-WRITING SKILLS

There are several skills a student must have in order to learn to write independently. These are called pre-writing skills and include the following:

- (1) The ability to **balance without the use of the hands**. A student may require a more supportive chair with arm rests or cushions on either side (see "positioning").
- (2) The ability to **grasp and release an object voluntarily**. Skill develops initially from a fist grasp to a more mature, tripod grasp (see "developmental grasp patterns").
- (3) The ability to **use the two hands in a leader / assister fashion**. One hand will anchor the paper while the other hand writes. Hand dominance / preference will gradually develop, interchangeable hand use is acceptable in earlier stages of development (up to about a 5-6 year level).
- (4) The ability to interact with the environment in constructive play.
- (5) The ability to **co-ordinate eyes and hands in an appropriate perceptual-motor fashion**. The student needs adequate visioning order to imitate and copy shapes necessary for printing.

POSITIONING

To acquire pre-writing skills, the student should be able to use a variety of positions and change them frequently. When the student is sitting at a desk or table, try to observe the 90-90-90 rule ... hips, knees, ankles at 90° to the floor with the student's rear to the back of the seat. Proper desk height is within 2 inches of the student's elbow when his/her arms are hanging at his/her sides.

Stability is the key in positioning. Some students may require extra support to maintain positions adequately; for example, use a cushion under the student's trunk or shoulders in prone (tummy lying) or put cushions on either side of his/her hips in a chair.

Some Positions



Ask yourself:

Is my student seated in a steady, stable position?

Is my student sitting up as straight as possible? Is my student leaning to one side?

Are my student's feet touching the floor?

e?
All Fours
Side Leaning

Laying Down

Standing



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DEVELOPMENTAL STAGES IN PRE-WRITING

STAGE PERFORMANCE Explorative or Destructive mouths or crinkles paper bangs crayons on paper Scribbling scribbles randomly scribbles spontaneously in a horizontal or vertical direction scribbles in a circular direction imitates a horizontal / vertical **Imitation** scribble watching the trainer and them attempting to imitates a circular scribble reproduce product imitates a horizontal / vertical line imitates a circular line copies a line Copy child receives no visual copies a circle, cues on the process of the drawing, is just told imitates a cross to "make one like this" copies a cross ***Note the difference imitates a diagonal line between imitation and copying*** copies a diagonal line $imitates \rightarrow copies a square$ $imitates \rightarrow copies an X$ $imitates \rightarrow copies a triangle$

SUGGESTIONS

allow child to play with different toys, take them apart, stacking

provide lots of blank and colouring picture paper, encourage and assist frequently

use hand over hand movement

try making the hand movement in the air from left to right and up and down

use a pegboard to make a row (horizontal or vertical) progress to a circle, square, etc.

start with dots and ask the child to connect them to make shape

refer to activities for prewriting

imitates → copies a diamond

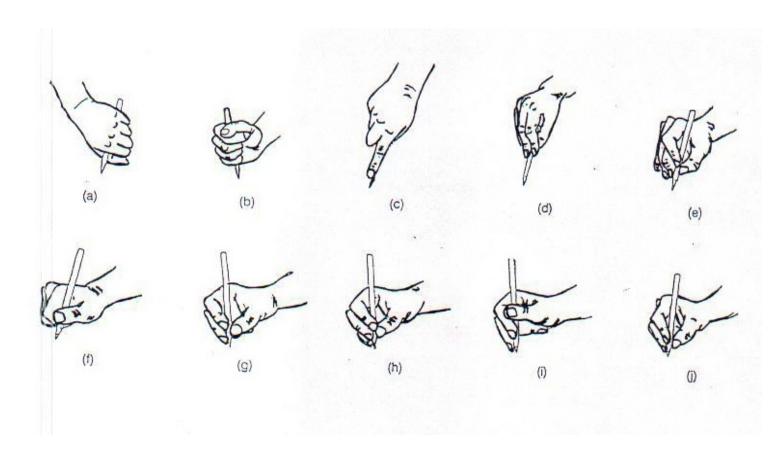


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Children will progress through these stages at different rates and need lots of experience and practice at each step. Try not to have specific expectations for progress: ie. that if a student can copy a cross one week by the next week he/she should be able to copy a square. Writing readiness should be stressed. A child may not have reached the developmental stage (neurologically, emotionally, physiologically) for handwriting skills.

DEVELOPMENTAL GRASP PATTERNS

Children progress through different grasp patterns as they gain more muscle control and strength in the muscles of the hand. The following illustrations show general developmental patterns a child may exhibit and the complexity with which they should progress. Interchangeable hand use is acceptable for children up until age 5—6, yet the child should be showing a definite preference for one hand for many activities. Remember that children are not consistent and may change grasp patterns frequently or adapt them according to activity. The child should be allowed to experiment with the different patterns but teachers can encourage and facilitate progression to developmentally more complex grasps.



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ACTIVITIES FOR PRE-WRITING

• Remember, pre-writing activities are not limited to pencil/pen/crayon and paper at the table. Try to use a variety of body positions and a variety of media that appeal to all the senses; touch, taste, small, hearing, vision, proprioception and balance. Try using varied materials and adapt them; for example, foam padding wrapped around utensils, triangle grips, chubby crayons and pencils, etc.

Begin with basic, full body movements and activities using larger movements then progress to smaller movements.

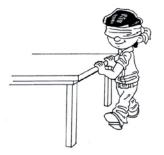
PROPRIOCEPTION (feedback from muscle movement in space)

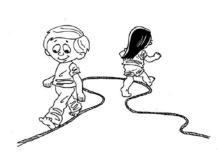
- make "body letters" (make shapes the child is learning to form) then finger letters
- do push-ups, wheelbarrow races, tug-o-war
- use a weighted pencil / pen
- draw in the air with a "wand" (ie. paper towel roll, stick)
- use a scarf or string to make circles in the air
- use blindfold activities



BALANCE

- walk along straight and curved paths or shapes the student is learning marked on the floor with masking tape
- "hokey pokey"
- use blindfold activities







VISION

- play eye tracking games "I Spy", target games, ball toss
- try using different colours of crayons, chalk, markers, pencils, etc.
- try writing on:

aluminum foil

construction paper

paper bags waxed paper



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TACTILE (touch)

- block building
- sort different sized rocks, seeds, buttons, etc.
- manipulate nuts and bolts, clothespins, buttons, snaps
- use squirt bottles
- use finger paints, lotions, pudding, oatmeal to finger paint
- change the temperature of the materials (ie. warm up the lotions or put markers in the refrigerator)
- try finger push-ups, wrap an elastic around fingers and spread apart
- draw with a piece of string/yarn
- trace with fingers around stencils
- use a peg board to make shapes then letters
- try writing on sandpaper with different crayons, chalks, etc.
- try writing in the sand, mud, or in shaving cream on a smooth surface



SMELL (olfactory)

- use scented markers
- add perfume / bath oil / vanilla / mint to finger paints

HEARING (auditory)

- attach bells to paintbrushes or writing utensil
- draw to music

TASTE

- finger paint with whipped cream, jello
- draw with cheese spread on crackers
- decorate cake / cookies

