

DOCUMENT RESUME

ED 133 972

EC 092 880

TITLE Overview of Curriculum.
 INSTITUTION Saint Lucie County Public Schools, Ft. Pierce, Fla.
 NOTE 21p.; Best Available Copy

EDRS PRICE MF-\$0.83 HC-\$1.67 Plus Postage.
 DESCRIPTORS *Curriculum Guides; Elementary Secondary Education; *Handicapped Children; Handwriting; Language Arts; Mathematics; Motor Development; Reading; Sciences; Social Studies; Spelling

ABSTRACT

Provided is an overview of the St. Lucie County (Florida) curriculum for school-aged handicapped children. The basic curriculum is broken down by grade levels for the following subject areas: reading, language arts, spelling, handwriting, mathematics, social studies, science, and gross and fine motor development.
 (SBH)

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OVERVIEW OF CURRICULUM

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READING

The child will be administered the St. Lucie County Reading Survey WRAT. Other tests, placement tests, will be available to determine strengths and weaknesses in individual areas. After all testing has been completed, both formal and informal, the child will be placed in appropriate level of the reading program used within that school.

MATH

The child will be administered the WRAT and other informal Math surveys. After all testing has been completed, both formal and informal, the child will be placed in appropriate level of math, in the series used by the school. (Holt) Both Reading and Math Hierarchy Checklists will be used when applicable.

SPELLING

The child will be administered the WRAT. After all testing has been completed and the reading level is taken into consideration, the child will be placed in either the appropriate level of spelling book or the child will work with spelling in conjunction with his reading level. (The first and second grades are largely a period of general language development which is basic to growth in writing and spelling. During this period the pupil's vocabulary will be enriched through many meaningful experiences, such as dramatic representation, word games, words connected with pictures, and other activities.)

HANDWRITING

Handwriting is taught in relation to the total school program and to the language activities of everyday life. Diagnosis of handwriting is a continuous and cooperative process. With many of our children, before handwriting can be taught, many gross motor skills will have to be acquired.

LANGUAGE

Individuals will be placed in a language program based on their abilities in the area of Language Arts.

SCIENCE AND SOCIAL STUDIES

Individual differences such as age, ability, and interests will be taken into consideration when placing children within any level of science or social studies. Group placement will be used as often as possible.

CAREER EDUCATION

Depending on the age level of the child, the child will be placed in an awareness program used within the county. Not all of the county materials will be of use due to the handicapping conditions of some of the students. Since this will be the case, each child will be presented with materials that would best fit him and allow for his particular handicap.

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ACTIVITIES OF DAILY LIVING

Incorporated within the school setting will be opportunities for the students to become aware of, and as proficient as possible, in the areas of self help skills, dressing, making a bed, cooking, planning meals, sewing, proper care of self (good grooming), proper care of food, proper care of clothing, and safety in the home. The age and abilities of the child will be taken into consideration in all of these areas.

ADAPTIVE P. E. AND MUSIC

All of the Physically Handicapped children will benefit from these countywide programs.

GROSS AND FINE MOTOR

Children will be placed on a program for gross and fine motor development, depending upon their individual differences and levels of development.

PHYSICAL THERAPY

Students will be examined by a doctor. This will be done by their own personal family physician or by the Division of Children's Medical Services. September 25, will be the date, as of now, for the doctors affiliated with Children's Medical Services to come to St. Lucie County. At this time, the children will be examined by the physician and he will give medical prescriptions for physical therapy to the physical therapist. This service will be repeated again in March of 1977. Should any medical prescriptions need to be updated before this time, arrangements will have to be made either with the family or elsewhere, before any type of physical therapy can be continued.

PROCESS DEFICIT AREAS

If it is suspected that a child has a learning disability, that is not attributable to his or her physical handicap, appropriate diagnostic instruments would be used to investigate that area. Those children found to have a process deficit will be appropriately placed on a prescriptive program for their particular deficit area.

PRIMARY READING

Beginning Reading

- a. Stimulate interest in reading
- b. Adjust child to group learning situation
- c. Establish good work habits
- d. Introduce child to symbols as a means of expression

Reading Readiness

- a. Picture Reading
- b. Chart Reading

Pre-Primer Reading

Sight Vocabulary

Word Attack and Word Meaning Skills

Context Clues

Picture Clues

Structural Clues

Phonetic Clues

READING SKILLS FOR THE 4th, 5th and 6th GRADES

Developing comprehension

Reading to remember

Associating ideas and materials, comparing ideas, verifying, predicting outcomes, and drawing conclusions.

Organizing ideas and materials

Skill of speed through interest and the reading of easier material

Oral Reading when their is a purpose such as:

- a. Reading to improve oral reading
- b. Finding an answer to a pertinent question
- c. Sharing poetry, stories, scripts, etc.

From, Methods that Teach, by Blanche McDonald and Leslie W. Nelson

Indepth breakdown for each of these headings can be found under Section 2 pp. 49-58
 Section 3 p. 79

Text in County: Varies from school to school
 Basic format: St. Lucie County Reading Systems

SAMPLE BASIC LANGUAGE ARTS CURRICULUM

ORAL:

	Grade Levels
Conversation	K - 6
Listening	K - 6
Discussion	1 - 6
Storytelling	2 - 6
Announcements	2 - 6
Choric Verse	2 - 6
Jokes and Riddles	3 - 6
Explanations and Directions	3 - 6
Telephone Courtesy	4 - 6
Oral Reports	4 - 6

WRITTEN:

Written Language Readiness - Primary grades	1 - 3
Letter Writing	1 - 6
Writing Poetry	1 - 6
Keeping Records	1 - 6
Writing Announcements	2 - 6
Writing Headings for Papers	3 - 6
Creative Writing	3 - 6
Filling in forms	3 - 6
Writing Autobiographies	4 - 6
Writing Reports	4 - 6
Writing Summaries	4 - 6
Writing Diaries	4 - 6
Writing Bibliographies	4 - 6
Taking Notes	4 - 6
Writing Interviews	4 - 6
Writing Outlines	4 - 6
Writing Reviews	5 - 6

SAMPLE BASIC LANGUAGE ARTS CURRICULUM (cont.)

RESEARCH TECHNIQUES:

	Grade Levels
Alphabetizing	1 - 6
Using the classroom library and the public library	1 - 6
Using the Dictionary	3 - 6
Teaching Children How to Study	3 - 6
Using the Encyclopedia	4 - 6

SENTENCES 1 - 6

CAPITALIZATION 1 - 6

PUNCTUATION 1 - 6

PARAGRAPHS 2 - 6

PARTS OF SPEECH 4 - 6

Taken from, Methods that Teach, by Blanche McDonald and Leslie W. Nelson
Indepth breakdown for each of these headings can be found in Section 4, pp. 115-162

Text used in County: Our Language Today
Levels: K - 6

SPELLING

Spelling for Kindergarten and First Grade is usually of the incidental type. It should be a period of enjoyment for it is most important that the pupils be favorably oriented to spelling. Spelling readiness is just as important as reading readiness. Formal spelling may be introduced in the Second Grade.

From, Methods that Teach, by Blanche McDonald and Leslie W. Nelson, Section 5, pp. 167-168

Text: Basic Goals in Spelling
Levels: 2 - 6

SAMPLE BASIC CURRICULUM FOR HANDWRITING

MANUSCRIPT

Analysis of manuscript form

- A. Letters based on circles: O C D G Q q o c c
- B. Letters based on straight lines: A E F H I J K L M N T V W X Z Y k l t v w x y z i
- C. Letters combining straight lines and circles or parts of circles: B J P R S U
a b d f g h j m p q r s u
- D. Wide letters: O C D G Q q W
- E. Narrow letters: B P R S J K L E F T Y
- F. Medium letters: A I N T U V X Z

In writing manuscript always begin with the letter stroke farthest to the left.

Most straight line strokes begin at the top and move downward.

A small check or arrow can be used to indicate the starting point of each letter.

The children in the First Grade should make capital and tall letters approximately one inch high. The small letter should be approximately one-half inch high.

Small letters which go below the line should extend approximately one-half inch.

All capital letters and tall letters, such as b, f, h, k, and l, are the same height (double that of small letters). The d, p, and t are a space and a half tall.

Loops of letters extending below the line should go down one space. If the lower loops extend too far, they interfere with the tops of letters written on the line below and the writing becomes illegible.

Letters should be placed close together. Words should be farther apart and separated by a space at least the width of the capital letter H.

CURSIVE

The change to cursive writing is usually made in the Third Grade

- A. There should be readiness for the transition to cursive
- B. The change should be made slowly
- C. The success of transition depends on these two things:
 - 1. How well the manuscript writing has been taught
 - 2. How correct the method is for making the transition

Procedures for introducing cursive writing are:

- A. Transcribing and showing that the manuscript letters are the basis for the cursive

a b c d e f g h i j k l m n o p q r s t u v w x y z
a b c d e f g h i j k l m n o p q r s t u v w x y z

HANDWRITING (cont.)








B. Pointing out similarities and differences between manuscript and cursive writing

1. Likenesses of forms
2. Height of small and tall letters
3. Length of letters extending below the line
4. Letters vastly different in form
5. Slant of letters
6. Loops on some instead of straight lines
7. Letters connected in words
8. Sweeping strokes with pauses at certain points in the formation of certain letters
9. Wider spacing between letters
10. i's and j's dotted and the t's and x's crossed after completion of the word

C. Using blackboard for demonstration purposes, emphasizing connecting strokes

D. Having children practice one small letter at a time and later, combining several letters into simple words

E. Introducing small letters one at a time, in the following order, according to the initial stroke:

Beginning Stroke	Letters	Practice Words
undercurve 	i e u w r s j	in, it, is, ill, enter, us, use, we, win, run, rest, see, sit, just, job
undercurve 	t p l b h k f	to, tin, ten, pie, pen, pet, lie, let, lip, bit, bun, bell, hill, hit, his, kite, kind, kept, feel, fell, fur, from
overcurve 	a o c d g q	an, after, art, off, or, open, cat, cent, chin, close, did, dirt, dust, go, get, quit, quiet, queen
overcurve 	m n v x y z	men, mine, met, no, net, nine, vine, very, vest, you, yes, yarn, zoo, zebra
Ending Strokes		
	a c d e f h i k l m n p q r s t u x	sea, tea, tale, would, hundred, blue, inside, off, leaf, much, laugh, talk, week, until, hall, cream, farm, learn, moon, sheep, lamp, hour, farmer, class, yours, first, count, fox, six, wax, rub, tub, who, ago, know, draw
	b o v w	
	g j y z	nothing, flag, candy, money, buzz

HANDWRITING (cont.)

Middle and Upper Grade Writing

- A. Create a high standard for written work so that the child will turn in papers that evidence his best handwriting.
- B. A specimen of the child's handwriting should be made the first week of the new term. This can be done by having the pupil date a paper and write, "This is a sample of my best handwriting." He should sign his name. Specimens should be made each month and kept in a folder.
- C. Handwriting should be correlated with spelling.

From, Methods that Teach, by Blanche McDonald and Leslie W. Nelson

Indepth breakdown for each of these headings can be found in Section 5, pp. 180-183

PRIMARY COUNTING (Grades 1 - 3)

1. Concrete Stage
2. Picture Stage
3. Semi-concrete Stage
4. Abstract symbol Stage

UPPER GRADE COUNTING (Grades 4 - 6)

1. Place value

PRIMARY ADDITION (Grades 1 - 3)

1. Signs
2. Commutative Law
3. Simple addition
4. Addition combinations
5. Column addition
6. Adding 1-place numbers to 2-place numbers
7. Carrying (beginning)

UPPER GRADE ADDITION (Grades 4 - 6)

1. Self-checking problems
2. Understanding of addition chart
3. Know the 100 addition facts
4. Carrying

PRIMARY SUBTRACTION (Grades 1 - 3)

1. Regrouping process
2. Sign
3. Simple Subtraction
4. Beginning borrowing

UPPER GRADE SUBTRACTION (Grades 4 - 6)

1. Self-checking problems
2. Understanding subtraction chart
3. Know the 100 subtraction facts
4. Borrowing

BEGINNING MULTIPLICATION (Approximately Grade 3)

1. Commutative law
2. Sign
3. Simple multiplication
4. Developing the Multiplication Tables
5. Combination of addition and multiplication

UPPER GRADE MULTIPLICATION (Grades 4 - 6)

1. Carrying in Multiplication
2. Multiplying by 2-place numbers
3. Understanding multiplication chart
4. Self-checking procedures
5. Know the 100 facts in multiplication

DIVISION (Grades 4 - 6)

1. Know signs
2. Division (sequential development of processes)
3. Understanding of division chart
4. Self-checking procedures
5. Know 90 facts in division

MATH (cont.)

FRACTIONS (Grades 3 - 6)

Fractions in the first and second grades are used in meaningful situations, such as $\frac{1}{2}$ an apple, or $\frac{1}{2}$ sheet of paper.

1. Know signs
2. Understanding fractions
 - a. equal parts of a whole
 - b. proper fractions
 - c. improper fractions
 - d. mixed numbers
3. Sequential development of processes
 - a. reduction of fractions
 - b. changing to higher terms
 - c. addition
 - d. subtraction
 - e. multiplication
 - f. division
 - g. self-checking procedures for all processes

MONEY (Grades 1 - 6)

1. Value of money
2. Signs
3. Sequential development of arithmetic processes and self-checking methods.

DECIMALS (Grades 5 - 6)

1. Understanding of decimal point and decimal place names
2. Reading decimals
3. Sequential development of arithmetic processes and self-checking methods

APPROXIMATING AND ESTIMATING (Grades 4 - 6)

Children should be taught how to approximate and "round out" numbers in practical situations.

Children should be taught how to estimate answers.

MEASURES (Grades 1 - 6)

1. Understands
 - a. Length, width, height
 - b. Area
 - c. Liquid measure
 - d. Dry measure
 - e. Weight
 - f. Time
 - g. Meters
 - h. Centimeters
 - i. Kilometers
 - j. Perimeter
 - k. Symmetry
 - l. Space
 - m. Volume
 - n. Temperature
 - o. Graphs
2. Abbreviations
3. Arithmetic processes in relation to measures
4. Self-checking procedures

MATH (cont.)

GEOMETRY (Grades 1 - 6)

1. Recognizes
 - a. Circle
 - b. Square
 - c. Rectangle
 - d. Triangle
 - e. Lines and Rays
 - f. Points, Paths and Line Segments
 - g. Curves
 - h. Intersecting and Parallel Lines
 - i. Polygons
 - j. Cylinders and Cones
 - k. Angles
2. Construction of geometric figures using protractor and compass

ROMAN NUMERALS (Grades 3 - 6)

1. Present sequentially

From, Methods that Teach, by Blanche McDonald and Leslie W. Nelson, Section 6, pp. 194-236
Also, Holt School Mathematics Text Books

Text: Holt School Mathematics

Levels: 1 - 6

GEOGRAPHY

Kindergarten

Home and school

First Grade

Home and school

Second Grade

Home and school community

Third Grade

Community and City

Fourth Grade

The State

Fifth Grade

The United States and Her Possessions

Sixth Grade

Canada, Our Northern Neighbor

Mexico, Our Southern Neighbor

Central America, The Connecting Link of the Americas

Our Neighbors in South America

HISTORY

Kindergarten, First and Second Grades

Special Holidays

Third Grade

The City

Fourth Grade

The State

Fifth Grade

The United States

Sixth Grade

Neighbors of the United States

CITIZENSHIP

Kindergarten through Sixth Grade

- a. Duties and responsibilities needed by successful boys and girls
- b. Social courtesies required to live happily with others
- c. Good health habits necessary to healthful living
- d. Safety points needed in school
- e. To study the local and county government

From, Methods that Teach, by Blanche McDonald and Leslie W. Nelson

Indepth breakdown for each of these subheadings can be found under Section I pp. 1-17.

Text used in County: Not yet available
Levels 1 - 8

SAMPLE BASIC CURRICULUM FOR SCIENCE

KINDERGARTEN AND PRIMARY GRADES

1. While Primary Grade children are developing an interest in the world about them, they will encounter many experiences that will contribute to their readiness for reading. These firsthand experiences will also provide incentives for related creative activities and will aid in the promotion of social attitudes.
2. Teaching suggestions:
 - a. Build a background of simple, scientific information by:
 - (1) Exploring the possibilities in the immediate community.
 - (2) Visiting the Nature Study Department.
 - (3) Contacting the agriculture centers.
 - (4) Attending workshops and demonstration lessons.
 - (5) Securing reference books.
 - b. Stimulate the children's interests by helping them to understand a few basic facts about plants and the ways in which they are used for daily living.
 - c. Create an atmosphere in the classroom of cooperation and freedom to discuss. In such an atmosphere, children are encouraged to do things and to talk about their activities.
 - d. Realize that science provides the background for greater vocabulary development. Understand that planning, evaluating, experiencing, and much informal conversation may develop through the use of science materials.
 - e. Encourage the children to share their science experiences with the group. Something of interest to show promotes ease during discussion.
 - f. Emphasize the ideas expressed rather than the form of the expression.
 - g. Know that printed material becomes vitally interesting when it supplies the answers to questions concerning science or serves as a record of science experiments.
 - h. Help the children compose group stories about their science learnings and keep records of their science interests. These are not necessarily used for reading charts, although they may serve as a springboard to reading.
 - i. Make tentative plans for a class garden if space is available. It is important to select a small plot which is easily accessible to the classroom. The children should plan the arrangement of the garden, the plants to be used, the ways to observe growth, etc.
 - j. Demonstrate how to plant seeds and young plants.
 - k. Teach the children how to use tools correctly, and to understand the purpose and care of the simple tools provided.
 - l. Help the children to recognize and destroy such weeds as pigweed, devil grass, shepherd's purse, etc.
 - m. Help the children with problems concerning the cultivation of plants.
 - n. Provide opportunity for related number experiences. Stimulate related language, music, rhythmic, and art activities.
 - o. Encourage the children to work in small groups rather than individually.
 - p. Give the children an opportunity to share garden produce and flowers.
 - q. Plan simple science experiments when the children's questions indicate a lack of understanding or a need for clarification of thinking.
 - r. Provide opportunities for the children to learn about and care for some of the following:
 - (1) Rabbits
 - (2) Guinea Pigs
 - (3) Ducks
 - (4) Setting hens
 - (5) White mice
 - (6) Goldfish or guppies
 - (7) Turtles or snails

SCIENCE (cont.)

- (8) Spiders (in insect cages)
- (9) Ant colonies (in glass jars)
- (10) Bees (in hives)

- s. Arrange the physical environment to provide the necessary cages, food, and other materials for the animals.
- t. Provide experiences that will help the children recognize relationships between and within animal families.
- u. Help the children gain an appreciation of bird life and an understanding of the ways in which birds help mankind.

3. Some additional child activities are as follows:

- a. Discuss trial and error, experiments, and classifications.
- b. Explain why certain things happen as a result of certain causes.
- c. Contribute information to be used in an experience chart.
- d. Measure and count stakes to be used in outlining beds and making rows in a school garden plot.
- e. Recognize the difference between helpful and harmful plant insects.
- f. Compare plant growth with (child's) own growth.
- g. Experiment with a variety of materials to establish a scientific fact, such as floating cork, wood and/or a leaf.
- h. Experiment with magnets because of their fascination for children. Use a horseshoe magnet to discover that it will attract only things made of iron and that its attraction is strong at the ends and weak in the center.
- i. Know, through observation, that sun, rain, wind, and clouds indicate changes in the weather.
- j. Understand, through observation, the meaning of such items as:
 - (1) Weather
 - (2) Season
 - (3) Summer
 - (4) Winter
 - (5) Spring
 - (6) Autumn
- k. Make a weather chart and record weather changes
- l. Make simple science collections, such as:
 - (1) Shells
 - (2) Feathers
 - (3) Seeds
 - (4) Leaves
 - (5) Stones
 - (6) Flowers
- m. Hatch frog eggs; observe them changing into tadpoles and then into frogs.
- n. Use a magnifying glass to observe the plants and animals.
- o. Make a feeding shelf, a bird bath, or a birdhouse for wild birds.
- p. Take walks to observe insects. Collect specimens of insects.
(Could take short walks within proximity of the schoolroom.)
- q. Observe caterpillars and note:
 - (1) How they spin their cocoons.
 - (2) How long they remain in their cocoons.
 - (3) How they emerge.
 - (4) How long it takes for their wings to dry and strengthen.
 - (5) Their protective coloration.

4. Child learning and understanding are as follows:

- a. Young plants will be about the same as the parent plant.

- b. Most plants have roots, stems, branches, flowers, seeds, and fruit.
- c. Seeds will grow into plants if they are planted in the right season and cared for properly.
- d. Flowers and plants make the world more beautiful.
- e. Vegetables and fruits are very important in diet.
- f. All vegetables and fruits should be washed before they are cooked or eaten.
- g. Trees give wood for building houses. They give wood for fireplaces.
- h. There is a need for an artistic arrangement of plant beds as well as borders with necessary paths.
- i. Some plants are planted deeper and farther apart than others.
- j. All insects are not harmful.
- k. There is a difference between wild flowers and common garden flowers, such as:

Wild Flowers	Garden Flowers
Poppy	Nasturtium
Dandelion	Geranium
Lupin	Pansy
Sunflower	Sweet Pea

- l. The market where food is bought has certain fruits and vegetables "in season."
- m. There is a need for suitable clothing for different weather conditions.
- n. The changes of season and weather are important to the people who grow the food.
- o. Animals must not be handled too freely nor disturbed too often.
- p. The food requirements of animals vary, such as:
 - (1) Spiders will eat live flies.
 - (2) Some ants need grease and sweets.
 - (3) Field ants eat seeds.
 - (4) Bees should be given sugar syrup when they are unable to find flowers in bloom.
 - (5) Tadpoles will occasionally eat small bits of lettuce and hard boiled egg.
- q. In some ways all animals are alike.
- r. People are animals too.
- s. Animals differ according to their way of life.
- t. Animals live in water, on the land, in the air, or in a combination of these.
- u. Baby animals resemble their parents.
- v. Most animals prefer a special kind of home, food, and "friends."
- w. Some animals give food, clothing, and protection.
- x. Some animals, such as chipmunks and squirrels, store their food.
- y. Some water animals are born alive and others are hatched from eggs.
- z. Birds are very interesting:
 - (1) They are helpful because they eat harmful insects and insect eggs.
 - (2) They also destroy the seeds of weeds.
 - (3) Some birds may be kept as pets.
 - (4) Birds are beautiful to see and many of them have delightful songs.
 - (5) Birds have feathers, beaks, and clawed feet.
 - (6) The largest bird is the ostrich.
 - (7) The smallest bird is the hummingbird.
 - (8) The hummingbird is the only bird that can stop in flight and "back up."
 - (9) The eagle is the symbol of power in the United States.

SCIENCE (cont.)

MIDDLE AND UPPER GRADES

1. The Universe
 - a. Stars
 - b. Sun
 - c. Moon
 - d. Planets
 - e. The vastness of the Milky Way and of galactic systems beyond earth.
 - f. Causes of Day and Night
 - g. Seasonal changes
 - h. Tides
 - i. Eclipses
 - j. Outer space

2. The Earth
 - a. Origin
 - b. Formation of mountains
 - c. Weathering of rock into soil
 - d. Erosion
 - e. Volcanism
 - f. Prehistoric life
 - g. The forces that have changed and are changing the earth.

3. Conditions Necessary to Life
 - a. What living things need in order to exist.
 - b. How living things are affected by changes in the environment.
 - c. The struggle for existence.

4. Living Things
 - a. Variety
 - b. Social life
 - c. Adaptations for protection
 - d. Life cycles of plants and animals
 - e. How animals obtain food
 - f. Their economic importance
 - g. Man's influence upon nature

5. Physical and Chemical Phenomena
 - a. Light
 - b. Sound
 - c. Gravity
 - d. Magnetism
 - e. Changes in matter
 - f. Atmospheric changes (weather)

6. Man's Attempt to Control his Environment
 - a. Gardens
 - b. Farms
 - c. Orchards
 - d. Inventions
 - e. Discoveries
 - f. Use of power
 - g. Use of minerals
 - h. His control of living things

SCIENCE (cont.)

- i. Communications
- j. Transportation
- k. Outer space

From, Methods that Teach, by Blanche McDonald and Leslie W. Nelson, Section 7, pp. 253-255

Text used in County: Understanding your Environment
Levels: 1 - 6

GROSS MOTOR DEVELOPMENT--What the child does with his whole body.

FINE MOTOR DEVELOPMENT--Motor behavior principally involving fingers, hands and arms.

The following list gives you the high points of the way hands and fingers learn to manipulate objects in the first ten years of life.

1 year: By this time the child can use his fingers individually. He can poke with his forefinger. He can pick up tiny objects with what is called "pincer prehension," that is, between thumb and forefinger. He can pick up a crumb or a tiny pellet. He can pull in a ring attached to a string.

15 months: The child of this age can place a small block on another and release it, building a tower of two. He can also place a round block in a round hole. He can scribble if given crayon and paper. In play he likes to put objects in and out of any handy receptacle.

18 months: Now he can build a tower of three small blocks, can imitate a vertical stroke with a crayon, and can turn the pages of a book and point to pictures. He likes to pull pull-toys in play. He can handle a spoon well enough partly to feed himself, even though with much spilling.

2 years: The 2-year-old can build a tower of six to seven blocks and can line up two or more to make a "choo-choo train." He can, if asked, imitate both a vertical and circular stroke made for him by an adult. He can fit toys together. He likes to string big beads. In feeding himself, he can handle a cup well and can keep the spoon from turning so that food spills.

2½ years: In grasping objects with his fingers he over-grasps (grasps too hard) and over-releases (opens fingers too wide). He can now build a tower of eight blocks and can add a block on top of his train for a chimney. He can imitate both vertical and horizontal crayon strokes; pushes a toy with good steering.

3 years: The child is now relatively skillful with his fingers. He can feed himself, spilling little. He can pour well from a pitcher, put on his shoes, and unbutton accessible buttons. In playing with clay he can make flat cakes or narrow strips as he chooses. He can build a tower of nine or ten blocks; he can imitate a bridge with three blocks. He can copy a circle from a picture and can imitate a cross if he sees it made.

4 years: The child can now manipulate a pencil well enough to draw his own version of a man and may be able to print a few letters. He can copy a cross and can fold and crease paper if somebody shows him how. He can use child's scissors and try to cut on a straight line. He can lace his shoes and button front buttons. He can now imitate a gate of five cubes with center cube tilted.

5 years: The child of this age likes to color within lines. He likes to cut and paste simple things, though he is not too good at this. He can put blocks together to form two steps if shown how; he can copy a square and a triangle. He can now print his first name.

6 years: Fine motor and adaptive ability have increased greatly by six years of age. The 6-year-old loves to make things with his hands, though he cannot tie his shoelaces. He cuts, pastes, colors, and manipulates material to make things that please him; he likes to build complicated structures with blocks or Tinker Toys. A boy can hammer, even though not skillfully. The child can now print capital letters, though with some reversals. He can print some words--especially his first and last name.

From here on, fine motor and adaptive abilities increase and improve. Thus the growing child learns to print and write better, becomes able to draw better and to do increasingly difficult puzzles. But the basic skills that have matured and developed even by six years of age can take him a long way. A tremendous amount of growth and increase of skill has been accomplished in this relatively short time from babyhood to first grade.

From, Child Care and Development, by Louise Bates Ames.