The elementary learning disabilities classroom curriculum guide is designed to provide individualization through precision teaching and to provide a scope and sequence which permits some skills to be continued throughout the elementary program. A list of performance objectives is provided in each of the following skill areas: cognitive/perceptual motor readiness skills; reading; mathematics; communication skills (listening, speaking, written expression, handwriting, spelling); social studies; science; social/emotional; career education; and physical education, art, and music. A philosophy statement precedes each of the skill area lists. A review of selected materials and teaching methods for each of the skill areas is appended as well as forms for monitoring student progress in the skill areas. (PHP)
THE ELEMENTARY LEARNING DISABILITIES
CLASSROOM CURRICULUM GUIDE

OF

THE GROSSE POINTE PUBLIC SCHOOL SYSTEM

1979

Special Education Services
Division of Instruction
THE GROSSE POINTE PUBLIC SCHOOL SYSTEM
389 St. Clair Avenue
Grosse Pointe, Michigan 48230

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Joseph Spagnoli
Assistant Superintendent - Instruction
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INTRODUCTION

Educators have long been aware that the quality of a child's learning depends heavily upon basic integrity in emotional, sensory, motor, and intellectual areas. This awareness came to be translated instructionally to mean that a student with normal emotional functioning, vision, hearing, and intelligence would learn in a regular classroom, and a student with abnormal functioning in one or more of these areas would require a special education placement.

However, within the last thirty years largely due to the research efforts of such authorities as Strauss, Cruickshank, Gallagher, Doll, and Myklebust, another type of child has been identified; the learning disabled child. A learning disabled child is one who has the basic integrities described above, but despite this, he or she cannot learn in the usual manner. Categories into which these children may fall include disturbances in perception, concept formation, language, and/or motor functioning. Behaviors often include hyperactivity, distractibility, impulsivity, and low frustration tolerance. Consequently, a learning disabled child does not achieve with the quality or at the rate commensurate with his or her intelligence in one or more of the basic academic skill areas.

In the Grosse Pointe Public School System, Special Education Services personnel formally identify learning disabled children utilizing guidelines from the Michigan Special Education Code established under the Provisions of Public Act 198 of 1971. Section R340.1713, Learning disabled defined, reads:

Rule 13. "Learning disabled" means a person identified by an educational planning and placement committee, based upon a comprehensive evaluation by a school psychologist or certified psychologist or certified consulting psychologist or an evaluation by a neurologist, or equivalent medical examiner qualified to evaluate neurological dysfunction, and other pertinent information, as having all the following characteristics:
(a) Disorder in 1 or more of the basic psychological processes involved in understanding or in using spoken or written language, which disorder may manifest itself in imperfect ability to listen, think, speak, read, write, spell or do mathematical calculation.

(b) Manifestation of symptoms characterized by diagnostic labels such as perceptual handicap, brain injury, minimal brain dysfunction, dyslexia or aphasia.

(c) Development at less than the expected rate of age group in the cognitive, affective or psychomotor domains.

(d) Inability to function in regular education without supportive special education services.

(e) Unsatisfactory performance not found to be based on social, economic or cultural background.

Most of the children so identified have problems of mild to moderate severity for which modification of instructional program within the regular classroom is possible and preferred. However, for children with severe specific learning disabilities, a special class placement is necessary to provide a highly individualized program with alternate instructional materials, methods and techniques necessary to promote maximum levels of success. It is to serve the needs of these children that this curriculum guide is designed.

Reginald P. Sienkiewicz
Director - Special Education Services
PHILOSOPHY

"...our first paradigm for work with children with learning disabilities is to vary our approach with each child that it corresponds to his specific needs."

Marianne Frostig

Both regular and special education students share characteristics which have implications for their educational programming. They all require opportunities to develop their strengths and diminish their weaknesses so as to improve the quality of life through intellectual, social, and emotional fulfillment within the parameters of their basic endowments. However, observation and experience have taught us that for learning disabled children, self-actualization is a difficult process. Very early in their experiences, these children, whose cognitive-perceptual-motor systems progress unevenly, develop a vulnerability which often leads to secondary emotional difficulties. Initial sources of their distress seem to be two-fold: feelings of frustration as they attempt to gain personal mastery, and feelings of tension and frustration when responses from significant others reflect disappointment and/or disapproval. Consequently, the first step in meeting the educational needs of learning disabled students is to identify them as early as possible and provide intervention to mitigate the impact of negative emotional dynamics which affect motivation and self-esteem so critically.

Secondly, it is necessary to plan the most appropriate program within the least restrictive environment inhibiting the development of a variety of splinter skills which do not contribute to additional learning.

The primary goal of the learning disabilities classroom educational program is to facilitate the acquisition of basic life skill competencies which will enable the student to become a productive adult regardless of the severity of his/her handicapping condition. With this goal in mind, it is necessary, then, to acknowledge
that the emphasis of the program is placed on the basic academic skill areas with additional subjects being offered to the extent that they will benefit the student. This position is consonant with the Guidelines from the Michigan Special Education Delivery System which states, "...Although it cannot be expected that all handicapped children can complete the normal course of study, each child must have access to as much of the continuum from which he/she can benefit..."

The Grosse Pointe Learning Disabilities Classroom Curriculum Guide is designed to provide both the organization and the flexibility requisite to develop each student's program. Continuity of program throughout the student's elementary school experience if he/she remains in the classroom, or preparation for ever increasing mainstreaming if the student's progress warrants it, are possible. Further, the Guide is designed to facilitate individualization through precision teaching, and to provide a scope and sequence which allows that some skills may need continual and simultaneous development throughout the elementary program. The scope and sequences have been derived largely from three sources: The Minimum Performance Objectives of the State of Michigan, the Modular Educational Achievement Descriptor (MEAD) Objectives and the Grosse Pointe regular education curriculum.

In the Guide, MEAD computer code numbers follow each MEAD objective. Since these objectives are written in abbreviated form, it is important to refer to the appropriate MEAD book for the objective in its' entirety. To use the Guide, the teacher selects a list of performance objectives for each student in the class. It is intended that some objectives will be selected from each curriculum area. This list serves as the basis for his/her individual educational program. Because of the degree of individualization involved, it is probable that no two students will have the same set of objectives to accomplish. However, within certain areas, some students' needs may be similar.
Levels of competence are assessed for each of the student's performance objectives, the results of which are recorded in the STUDENT ACHIEVEMENT PROFILE. The Profile is a booklet which accompanies the student from year to year and includes the performance objectives outlined in the Guide.

Exceptions to the above procedures are Social Studies and Science which are presented according to topics, not performance objectives. The focus in these areas is to expose students to broad social and scientific principles. Full explanations of the underlying concepts are found in the appropriate Grosse Pointe regular education curriculum guides.
Assessment within the Learning Disabilities Classroom is an ongoing procedure throughout the school year. It is based on information gathered both formally and informally under a variety of conditions. All students placed in a Learning Disabilities Class have received an individual psychological evaluation and in addition, most have been evaluated by the teacher/consultant. Therefore, many students will have had comprehensive perception and achievement testing as part of these studies.

In preparation for initial entrance in the Learning Disabilities Program, a minimum achievement battery, which may include comprehensive tests of reading, spelling and mathematics chosen to assess the area(s) of specific disability, is administered. This procedure serves to insure sufficient information on which to formulate the Individual Educational Plan. Subsequently, longitudinal data on student progress is acquired through achievement test batteries which are administered when the student transfers to another level or within a maximum of three years. During interim years, student assessment includes a variety of measurement techniques, such as criterion-referenced tests, teacher-made tests, observations and standardized measures. In addition, MEAD criterion items are available for the assessment of each MEAD performance objective. Assessment is planned to be accomplished as part of the instructional program where possible. In-depth standardized testing as needed in certain cases is administered utilizing the total resources of the Department of Special Education Services. For example, in addition to the classroom teacher, the reading specialist, teacher of the speech and language impaired or the teacher/consultant may assist with the evaluation process.
COGNITIVE-PERCEPTUAL-MOTOR READINESS SKILLS PHILOSOPHY STATEMENT

A variety of systems develop within children which contribute to their impressions and understandings of the world around them. Critical among these areas are cognition, perception and motor development. The appropriate development of each system and the ultimate effectiveness of their inter-relatedness contribute to the quality of learning and self-esteem. Therefore, it is critical to provide experiences which will assist the child to acquire basic readiness skills prior to the introduction of formal academics.

The complexities of real systems become only too apparent when we see severely learning disabled children. For them the development of individual or integrated systems is amiss. To remediate and to prevent further aberrations in the acquisition of readiness skills, it is appropriate to determine the lowest stage at which the child can function well and build on it.

The first system to develop is the gross motor system. Consequently, the first learnings are motor learnings. The child must have an accurate picture of him/herself to use as a point of reference for everything else within his/her experiences. Research does not substantiate the claim that gross motor functioning determines success in reading. However, the development of balance, posture, flexibility, coordination and rhythm most certainly contribute to the development of ego skills which are basic to positive self-esteem and confidence.

Visual, auditory and language systems have been linked clearly with academic success. To decode words, the integration of visual symbols with auditory equivalents is essential. To understand what is read, language is essential. To write, the eye and hand must be coordinated.

It is important to note that the scope and sequence which follows is listed developmentally within each category. The format is not meant to suggest that the skills in one category should be acquired prior to experiences in any other category.
COGNITIVE-PERCEPTUAL-MOTOR READINESS SKILLS

SCOPE AND SEQUENCE

A. Gross Motor Skills

1. Demonstrates awareness of body position in surrounds (space)
2. Demonstrates ability to change body position to reach destinations (direction)
3. Demonstrates ability to control body when using both sides simultaneously, individually, or alternately (balance)
4. Throws a ball with a reasonable degree of accuracy
5. Jumps feet together
6. Jumps simple obstacles without falling
7. Hops on one foot
8. Gallops
9. Skips in normal pace
10. Coordinates movement with named body parts
11. Moves correct hand and foot upon command 055C
12. Moves right and left as directed 055D

B. Eye-Hand Coordination

1. Draws line from left to right on blackboard
2. Uses whole arm in reproducing shape on blackboard 029A
3. Uses whole arm in reproducing shape in clay pan 029B
4. Uses whole arm in reproducing shape in sand 029C
5. Uses whole arm in reproducing shape in space 029D
6. Uses whole arm in reproducing shape in paper 029E
7. Uses whole arm in drawing an arc 030A
8. Copies model of intersecting lines 030B
9. Draws line across paper in direction requested 030C
10. Draws line from left to right on paper 030C
11. Cuts out simple shapes 059A
12. Pastes simple shapes with boundaries 057D
13. Reproduces lines of angle on pegboard 030D
14. Reproduces pattern on pegboard 030E
15. Reproduces pattern on pegboard with 30-second stimulus 031A
16. Builds 10-piece vertical structure 056C
17. Creates 2- and 3-dimensional forms
19. Colors simple object within black lines 058B
20. Colors two or three objects within a picture

C. Visual-Discrimination of Size
   1. Selects objects which are same size
   2. Sorts objects by size of design, as directed
   3. Selects pictures of items of varying size
   4. Points to pictures of big and little objects 152D
   5. Arranges pictures from smallest to largest objects
   6. Places hand on larger set from visual inspection
   7. Points to larger of two objects 062E
   8. Picks up smaller of two objects 063A
   9. Arranges pictures from smallest to largest objects
   10. Picks up longest or shortest object as requested 064A
   11. Chooses picture of tallest or shortest child 061D
   12. Arranges pictures from shortest to tallest

D. Visual Discrimination of Shape
   1. Identifies four shapes by name 060D
   2. Selects object of same shape as model 063B
   3. Selects objects which are same shape 062C
   4. Picks up two objects of similar shape
D. **Visual Discrimination of Shape (continued)**

5. Matches and pastes shapes according to model

E. **Visual Discrimination of Color**

1. Selects objects which are same color 062B
2. Identifies three primary colors 152C
3. Names primary colors on pictures
4. Sorts twenty objects into four groups according to color
5. Identifies eight basic colors

F. **Likenesses and Differences**

1. Identifies likenesses and differences of sequenced patterns 060D
2. Identifies same and different forms in series
3. Selects one object of five which is different
4. Points to pictures of common objects in book

G. **Sequencing**

1. Duplicates pattern of three to five objects
2. Places five pictures in correct sequential order
3. Places three pictures of sets in sequence by number (1-5)

H. **Closure**

1. Identifies missing part of object drawn; draws picture complete
2. Manipulates parts to form whole object
3. Names object from outline print folded in half
4. Solves six-to-eight piece puzzle
5. Completes pattern of three, given first object of series and model

I. **Figure Ground**

1. Cuts out dominant object in a picture
2. Works simple puzzles with dominant forms
3. Follows intersecting lines
4. Colors the dominant object
5. Solves a simple maze
J. Perceptual Constancy
   1. Recognizes the same object drawn in different sizes
   2. Recognizes forms in different positions and from different angles
   3. Recognizes varying forms of same objects (kinds of dogs, cats)

K. Auditory Memory
   1. Reproduces tapped rhythms of teacher, with eyes closed
   2. Repeats sequence of three words given by teacher, with eyes closed
   3. Repeats sentence of five words spoken by teacher, with eyes closed
   4. Listens to stories and retells in own words

L. Auditory Discrimination
   1. Identifies source of environmental sounds, such as indoor, outdoor
   2. Identifies specific sounds such as, animals within homes, within school
   3. Identifies sound to visual symbol
   4. Screens out background noise for selective listening

M. Conceptual Thinking
   1. Identifies objects according to class or family
   2. Identifies objects according to position: front, back; over, under; etc.
   3. Identifies sequence of time and action (first, last, near, far)
   4. Duplicates or predicts certain simple patterns
   5. Gives personal data verbally (name, age, address)
   6. Follows simple oral directions; one, two, then three at a time
   7. Answers correctly simple questions
   8. Understands terms such as days, weeks, seasons, months, etc.
   9. Identifies verbally major body parts: head, body, legs, arms
   10. Identifies verbally smaller body parts: elbow, teeth, wrist, hand, neck, heel, nose
   11. Understands simple associations: knives - cut, airplanes - fly
   12. Understands simple opposites: night - day, happy - sad, hot - cold, etc.
M. Conceptual Thinking (continued)

13. Understands simple abstractions: wish, hope, feelings, attitudes

14. Understands simple cause and effect: hot - burns, rain - wet

15. Can predict results of action: drop an egg, throw a ball at a window, etc.
In our society, reading is one of the most important means of communication. It is a primary tool through which to gain information, share ideas, and to entertain. Failure to learn to read eventually leads to difficulties in most other activities within the school experience, and it is because of this that reading disabilities have become the best known of learning problems.

"Dyslexia" is a specific disability term which often is applied to children who have a partial inability to decode and/or to understand the printed message. Three distinguishable types of reading disabilities that have been described are visual dyslexia, auditory dyslexia and visio-auditory dyslexia. Most of the children with reading disabilities have visual dyslexia, finding it difficult to learn and retain the appearance of letters and the inability to differentiate, interpret or remember words. It is believed that with visually dyslexic children, it is wise to make primary use of their auditory strengths which would include the utilization of an alphabetic or phonovisual approach to reading instruction. Auditory dyslexic children have difficulty learning and retaining the sounds of letters, and they are unable to distinguish similarities and differences between sounds, to perceive sounds within a word, to synthesize sounds into words, and to divide words into syllables. For them, visual strengths can be utilized by a whole word approach during the initial stages. Visio-auditory dyslexic children are the most difficult to teach because both visual and auditory perception is affected. For these children, the tactual-kineesthetic channel is utilized.

In view of the variety of reading disabilities, it is necessary to assume an approach which will gear the instructional strategies to the student's learning status. Even though it is wise to capitalize on the strengths of the student, the approach of reading instruction in the Learning Disabilities Classroom is to provide both compensation techniques and remediation. Compensation techniques focus on the strengths of the student to promote learning. Remediation attempts to develop areas of weakness. Hence, a visual learner may be taught initial reading vocabulary words by emphasizing the shapes of words. In addition, attempts are made to modify his/her auditory deficit, which will allow the student to develop word attack skills.
READING SCOPE AND SEQUENCE

WORD ATTACK SKILLS

PHONETIC ANALYSIS

Initial and Final Consonants
1. Identifies words with same initial consonant 181A
2. Fills in initial consonant sound, given picture clue to word 203D
3. Relates initial consonant sound to symbol 181C
4. Identifies ending consonant of words 181D
5. Fills in final consonant sound, given picture clue to word 203E

Medial Consonants
1. Identifies medial pronounced consonant sound 182D
2. Fills in medial consonant, given picture clue to word 204C

Consonant Blends
1. Identifies initial consonant blends of words 181E
2. Identifies ending consonant blends of words 182A
3. Fills in final blend, given picture clue to word 204A

Consonant Digraphs
1. Identifies initial consonant digraphs 182B
2. Identifies ending consonant digraphs of words 183C
3. Fills in beginning digraph, given picture clue to word 204B
4. Fills in final digraphs, given picture clue to word

Variant Consonants
1. Pronounces words with variant "c" and "g" sounds 184C
2. Identifies "r" -- pronunciation of "gh" and "ph" 204D

Vowel Identification
1. Identifies vowels in list of letters 204E
2. Selects word with same vowel sound as visual and oral key 206B
3. Uses model vowel sound to name object in picture 184E
Short Vowels

1. Matches short vowel sound in word with picture of object 205A
2. Circles letter of short vowel heard in word 205B
3. Pronounces words with short vowel in medial position 182E

Long Vowels

1. Tells which long vowel sound heard in word 207C
2. Reads names of objects and identifies long vowels 207B
3. Pronounces words with long vowels 183A
4. Pronounces words with long and short vowels in list 185D

Vowel Patterns

1. Pronounces words with vowel as final letter 208B
2. Switches from short to long vowel when final "e" added to word 207A
3. Fills in preceding vowel in words ending with "e" 206E
4. Underlines long vowel in ten words with vowel combination 205E
5. Circles vowel combinations heard in oral word list 206D
6. Fills in vowel combination, given picture clue to word 206C
7. Selects word with same vowel sound as in visual key, letters marked 206A
8. Pronounces and identifies "y" as consonant or vowel 208A
9. Identifies words with same final "y" sound 185C
10. Pronounces words containing "a - l" and "a - w" 185A
11. Pronounces words with vowels followed by "r, w, l" 207E
12. Selects vowel digraph to match one in stimulus word 184D
13. Identifies diphthongs "ew, oi, oy, ou, ow" in stimulus word 185B
14. Identifies silent letters in words in list 185E
15. Pronounces in sentences words with vowel-vowel combinations 207D
Abbreviations

1. Matches common words with abbreviation
2. Matches abbreviations to whole words 103D
3. Identifies terms meter, centimeter and abbreviations as linear
4. Identifies terms milliliter, liter and abbreviations as liquid
5. Reads measurement abbreviations as full words 201D

Contextual Clues

1. Infers meaning from statement 187E
2. Selects correct meaning of word in context from multiple meanings
3. Determines meaning of word from context of sentence 209C
4. Determines meaning of unknown word from context
5. Chooses words which complete sentence

Word Structure

1. Identifies common and proper nouns
2. Identifies compound words in list 183B
3. Identifies nouns as singular or plural
4. Identifies plurals in list 184A
5. Chooses singular or plural form of verb in sentence
6. Identifies contractions in list 183C
7. Identifies possessive form in context 186B
8. Identifies prefixes or suffixes 186D
9. Knows meaning of prefixes and suffixes 186D

Syllables

1. Can tell the number of syllables in a word auditorily
2. Identifies syllables in multisyllabic words 186A
3. Selects syllable of words containing long vowel 205C
4. Pronounces syllable "tion" as "shun" 205D
5. Divides into syllables words with one diphthong—one syllable
6. Divides into syllables words with double consonants
Syllables (continued)

7. Divides into syllables words with two consonants—two vowels
8. Divides into syllables words with one consonant between two vowels
9. Divides into syllables words with three vowels—three syllables

ORAL READING AND COMPREHENSION

Pre-Primer Level

1. Can read comfortably orally with 95% accuracy
2. Can read with comprehension accuracy of 80% or more

Primer Level

1. Can read orally without experiencing difficulty in pronouncing more than one word in 20 (95% accuracy)
2. After reading passage orally, can verbally answer comprehension questions regarding content with an accuracy of 80% or more

First Grade Level

1. Can read orally without experiencing difficulty in pronouncing more than one word in 20 (95% accuracy)
2. After reading passage orally, can verbally answer comprehension questions regarding content with an accuracy of 80% or more

Second Grade Level

1. Can read orally without experiencing difficulty in pronouncing more than one word in 20 (95% accuracy)
2. After reading passage orally, can verbally answer comprehension questions regarding content with an accuracy of 80% or more

Third Grade Level

1. Can read orally without experiencing difficulty in pronouncing more than one word in 20 (95% accuracy)
2. After reading passage orally, can verbally answer comprehension questions regarding content with an accuracy of 80% or more

Fourth Grade Level

1. Can read orally without experiencing difficulty in pronouncing more than one word in 20 (95% accuracy)
2. After reading passage orally, can verbally answer comprehension questions regarding content with an accuracy of 60% or more
Fifth Grade Level

1. Can read orally without experiencing difficulty in pronouncing more than one word in 20 (95% accuracy)

2. After reading passage orally, can verbally answer comprehension questions regarding content with an accuracy of 80% or more

Sixth Grade Level

1. Can read orally without experiencing difficulty in pronouncing more than one word in 20 (95% accuracy)

2. After reading passage orally, can verbally answer comprehension questions regarding content with an accuracy of 80% or more

SILENT READING COMPREHENSION SKILLS

Detail

1.Recalls details of story read 190E
2. Draws picture showing descriptive detail of story 042B
3. Answers questions about story just heard 022B
4. Recognizes quotations and speakers in written statement 191A
5. Tells sequence of events and character's feelings in story 189A
6. Identifies part of sentence answering "who, what, when, where" 193A
7. Selects pronoun to fill blank 192B
8. Inserts pronoun referent in second sentence 192C

Main Idea

1. Identifies topic sentence in paragraph 191D
2. Identifies main idea of written story 191C

Sequencing

1. Arranges scrambled words into sentence 188D
2. Arranges paragraphs in logical sequence 188E
3. Relates order of specific events in narrative 189A

Cause and Effect

1. Identifies cause and effect sentences 210B
2. Tells effect of cause presented orally or in writing 193D
Fact/Opinion
1. Distinguishes between statements of fact and opinion 188B
2. Identifies opinions of characters in story and adds own 027A

Inference
1. Infers meaning from statement 187E

Classification
1. Groups words under common heading 192E
2. Classifies words into given categories
3. Classifies phrases under "who, what, when, where" categories 193A
4. Sorts statements under key sentence 193B

Problem Solving
1. Identifies problem and solution in series of events 026E
2. Gives alternative solutions to problems in unfinished story 027C

Conclusions
1. Tells outcome of oral statement or pictured event 193C
2. States conclusion of narrative account 193E

Following Directions
1. Follows directions of one or more steps 189B
2. Follows printed directions on work sheet 189C

Summarizing
1. Selects summary title for statements 191E
2. Writes statement summarizing paragraph 192A
3. Identifies part of sentence answering "who, what, when, where" 190C
4. Classifies phrases under "who, what, when, where" categories 193A

Fact/Fantasy
1. Distinguishes between fact and fantasy in written selection 188A
VOCABULARY SKILLS

Sight Vocabulary (Word Recognition)

1. Pronounces Pre-primer Dolch List 186E
2. Pronounces Primer Dolch List 187A
3. Pronounces First Grade Dolch List 187B
4. Pronounces Second Grade Dolch List 187C
5. Pronounces Third Grade Dolch List 187D
6. Pronounces supplementary word list drawn from his experiential background
7. Reads direction words orally
8. Reads common sign words

Word Meanings

1. Selects correct homonym from context 190A
2. Identifies words as synonyms, antonyms, homonyms 190B
3. Tells if paired words have same meanings: middle-center 189D
4. Tells if paired words have opposite meanings: hot-cold 189E

Contextual Clues

1. Infers meaning from statement 187E
2. Selects correct meaning of word in context from multiple meanings
3. Determines meaning of word from context of sentence 209C
4. Determines meaning of unknown word from context
5. Chooses words which complete sentence
MATHEMATICS PHILOSOPHY STATEMENT

Historically, mathematics has received much less emphasis in curriculum research than has reading. However, the vital role of arithmetic skills in the life of an individual cannot be underestimated when such activities as telling time, handling money, traveling, and building are considered.

Not all learning disabled children have difficulty in mathematics. But for students who have a specific disability in the area of quantitative reasoning and/or auditory-visual associations, the term "dyscalculia" often is applied. This term is used to describe a partial inability to calculate, to manipulate number symbols, or to do simple calculations.

The Learning Disabilities Classroom curriculum in mathematics is designed a) to present a continuum of skills from which to develop the Individual Educational Plan for each student; b) to allow for a precision teaching model which includes a mastery emphasis of intensive skill development in one area being preferred to fragmentation; and c) in recognition of the goal of basic life competency. The scope and sequence follows closely the Grosse Pointe regular education program with two exceptions: comprehension of the process precedes rote memorization of facts, and increments are smaller and more specific. These changes are necessitated by the fact that children who have a specific learning disability in mathematics often have memory deficits which interfere with rote memorization. Further, they often do not relate and transfer learning in the way that most children do, which requires careful explanation at each minute step in a process.
MATHEMATICS SCOPE AND SEQUENCE

Numeration and Sets - Readiness

A. Color
   1. Identifies sets by attributes 076C
   2. Identifies three primary colors 152C
   3. Names primary colors on objects 051D
   4. Sorts 20 objects into 4 groups according to color 060A
   5. Uses color as 1 description of an object 015E
   6. Identifies 8 basic colors on chart 180A

B. Shapes
   1. Selects objects of same shape as model 063B
   2. Sorts objects by size or design, as directed 155A
   3. Identifies 4 shapes by name 060B
   4. Draws 4 shapes and names them 060D
   5. Picks out objects with 2 specific attributes 061C

C. Sequencing and Patterning
   1. Duplicates patterns of three to five objects 061B
   2. Matches shapes according to model 063B
   3. Completes pattern given first object of series and model 061E

D. Sets - Greater Than, Less Than
   1. Identifies set with most numbers (1-5); (6-10)
   2. Identifies set with fewest numbers (1-5); (6-10)
   3. Identifies sets having the same number of objects (equivalent sets)
   4. Identifies set with more members 063E
   5. Identifies set with fewer members
   6. Makes set with 1 more member than model 070D
   7. Draws set with 1 more member than model 070E
   8. Makes set with 1 fewer member than model 071A
   9. Draws set with 1 fewer member than model 071B
10. Makes set with more numbers than model 071D
11. Draws set with more members than model 070E
12. Makes set with fewer members than model 071C
13. Draws set with fewer members than model 071B
14. Identifies set containing a number between another two numbers
    (1-5); (6-10) 076C
15. Discriminates most/least; many/few objects in a set
16. Joins set of objects to determine a combined quantity: 3, 4, 5, 6, 7, 8, 9, 10

E. Uses Symbol Greater Than, Less Than

1. Demonstrates mastery of most/least, many/few objects presented in "Set"
   Section.

2. Identifies symbols as meaning "greater than", "less than"

3. Given a written pair of numerals, puts in the proper symbol - greater than
   or less than

F. Numeration (Numbers)

1. Counts by rote to 10, 20, 30, 40, 50, 60, 70, 80, 90, 100 111D
2. Counts objects: 3, 6, 8, 12, 16, 24 064D
3. Joins sets of objects to determine a combined quantity: 3, 4, 5, 6, 7, 8, 9, 10
4. Writes numerals in sequential order to 5, 10, 20, 30, 40, 50, 60, 70, 80, 90,
   100 075D
5. Reads number words to five, ten, fifteen, twenty, thirty, forty, fifty, sixty,
   seventy, eighty, ninety, one hundred, one thousand, ten thousand, hundred thousands,
   million 074E
6. Recognizes ordinal numbers to first, fifth, tenth, twentieth, thirtieth 076D
7. Recognizes and reads numbers to 9; 99; 999; 9,999; 999,999; 9,999,999
8. On request writes numerals of a quantity of 9; 99; 999; 9,999; 999,999; 9,999,999;
    9,999,999 or less 076A
9. Names numbers that come between 2 given numbers (0-10); (11-20); (21-30), etc. 065B
10. Names and writes numbers that come before and after given number (0-10); 
   (11-20); (21-30); etc. 065C

11. Counts by 10's to 100; 2's to 20; 5's to 100

12. Indicates odd and even numbers from 1 to 100

13. Identifies numbers and writes them in expanded notation (9-90); (90-999)

14. Recognizes fractional parts with denominator of 2, 3, 4, 5, 6, 7, 8

15. Recognizes fractional numerals with denominator of 2, 3, 4, 5, 6, 7, 8

16. Decimals: Reads tenths, hundredths, thousandths, ten thousandths

F. Place Value Ones, Tens and Hundreds

1. Picks out 10 objects on request 074B

2. Says "ten" when asked how many objects he has 074C

3. Separates 100 objects into 10 bundles 075E

4. Forms sets of 10 and labels them 075A

5. Collects 10 objects, says he has 1 ten and no ones 074D

6. Counts and groups objects in sets of tens and ones 077B

7. Represents numbers with counters 075B

8. Puts numbers under proper place value 077C

9. Shows knowledge of place value in written form 077D

10. Shows knowledge of place value of hundreds 112C

G. Addition of Whole Numbers

1. States sum of 2 sets of objects (1-5); (6-10); (11-20) 079A, 079D

2. Identifies addition and equal sign

3. Writes sum of 2 pictured sets with number sentences (1-5); (6-10); (11-20) 079E

4. Finds correct sums using number line (1-5); (6-10); (11-20)

5. Computes the sum of 2 (1) digit numbers to 6, 8, 10, 12, 15, 18, 20

6. Computes the sum of n 1-digit numbers

7. Computes the sum of a 1-digit and a 2-digit number not requiring regrouping

8. Computes the sum of 2 2-digit numbers, not requiring regrouping

9. Computes the sum of n 2-digit numbers, regrouping
10. Computes the sum of a 1-digit and a 2-digit number, requiring regrouping
11. Computes the sum of two 2-digit numbers, requiring regrouping
12. Computes the sum of n 2-digit numbers, requiring regrouping
13. Computes the sum of two n-digit numbers, requiring regrouping
14. Computes the sum of n n-digit numbers, requiring regrouping
15. Computes the sum of two amounts of money with decimals and up to 5 digits

H. Subtraction

1. States difference of 2 sets of concrete objects 082D
2. Given 2 pictured sets, states differences no greater than (5), (10) 083C
3. Identifies subtraction sign
4. Writes difference of 2 pictured sets (1-5); (6-10); (11-20) with number sentences
5. Finds correct differences using number line. Differences to (1-5); (6-10), (11-20) 084A
6. Computes the difference of 2 1-digit numbers. Minuends to 6, 8, 10, 12, 15, 18
7. Computes the difference of a 1-digit and a 2-digit number, no regrouping required
8. Computes the difference of 2 2-digit numbers, no regrouping required
9. Computes the difference of n 2-digit numbers, no regrouping required
10. Computes the difference of a two-digit number and a 1-digit number requiring regrouping
11. Computes the difference of 2 two-digit numbers, requiring regrouping 084B
12. Computes the difference of a 2-digit number and a 3-digit number requiring regrouping
13. Computes the difference of 2 3-digit numbers requiring regrouping 084C
14. Computes the difference of a three-digit number possessing 2 zeros and a two-digit number requiring regrouping
15. Computes the difference of a 3-digit number with a zero in the tens place and a 2-digit number requiring regrouping
16. Computes the difference of n n-digit numbers requiring regrouping

17. Computes the difference of two amounts of money with decimals and up to 5 digits with regrouping required

I. Multiplication

1. Writes array or addition problem to express multiplication fact

2. States "times" or "multiply" to sign "s"

3. Knows basic /x/ facts: 2's, 3's, 4's, 5's, 6's, 7's, 8's, 9's, 10's

4. Computes the product of a (2) (3) (4) digit number by a 1-digit number, no regrouping required

5. Computes the product of a (2) (3) (4) digit number by a 1-digit number, requiring regrouping

6. Given a 1-digit number and an amount of money with decimal and up to 4 digits, multiplies requiring regrouping

7. Computes the product of 2 two-digit numbers, requiring regrouping

8. Given a 2-digit number and a 3-digit number, multiplies requiring regrouping

9. Computes the product of an n-digit number and an n-digit number, requiring regrouping

J. Division

1. Partitions an even-numbered set of objects into n equal subsets

2. Given a pictured set, divides it into subsets to express a division equation

3. Identifies equation forms and signs \( \frac{a}{b}, \sqrt{c}, =, \frac{a}{b} \)

4. Writes division facts using same numbers as in given /x/ facts

5. Knows divisors to 2, 3, 4, 5, 6, 7, 8, 9

6. Divides a 2-digit number by a 1-digit number with a 2-digit number in the quotient, no remainder

7. Divides a three-digit number by a one-digit number, no remainder

8. Divides a number up to 4 digits by a one-digit number, no remainder

9. Divides a number up to 4 digits by a 1-digit number, with a remainder

10. Divides a number up to 4 digits by a 2-digit number, no remainder
11. Divides a number up to 4 digits by a 2-digit number, with remainder
12. Divides any number by a number up to 3 digits, with remainder
13. Divides any 2 numbers, and expresses the remainder as a fraction
14. Divides two numbers and expresses the answer in decimal form

K. Fractions

1. Distinguishes between "a part" of a unit and a "fractional part" of a unit
2. Names fractional parts of a geometric design (1/2, 1/4, 1/3) (a whole)
3. Divides a geometric design (a "whole") into fractional parts (1/2, 1/4, 1/3)
4. Writes fractions (1/2, 1/4, 1/3) as parts of a whole
5. Names fractional parts of a set (1/2, 1/4, 1/3)
6. Divides a set into fractional parts (1/2, 1/4, 1/3)
7. Writes fractions (1/2, 1/4, 1/3) as parts of a set
8. Writes half, third, and fourth when presented as parts of a set
9. Represents the number 1 in the form of a fraction
10. Describes and demonstrates, by means of a model, the meaning of numerator and denominator
11. Identifies fractional numerals by name
12. Given a geometric design divided into equal parts (1-10 parts), identifies
    the fraction formed by n ≤ 10 of these parts
13. Given a set of equal parts (1-10 parts), identifies the fraction formed by
    n ≤ 10 of these parts
14. Shows equivalency of fractions with denominators of 2, 3, 4, 5, 6, 8, 10
15. Changes fractions to higher or lower terms
16. Uses signs <, >, = to show relations between pairs of fractions
17. Renames mixed numbers and improper fractions, i.e. converts mixed numbers
to improper fractions and vice versa
L. Fractions - Addition and Subtraction

1. Adds 2 proper fractions with like denominators, no regrouping required
2. Subtracts 2 proper fractions with like denominators, no regrouping required
3. Adds proper fraction to a mixed number with like denominators, no regrouping required
4. Subtracts a proper fraction from a mixed number with like denominators, no regrouping required
5. Adds mixed numbers with like denominators (no regrouping required)
6. Subtracts mixed numbers with like denominators (no regrouping required)
7. Adds proper fractions with like denominators, regrouping required
8. Subtracts proper fractions with like denominators, regrouping required
9. Adds mixed numbers with like denominators, regrouping required
10. Subtracts mixed numbers with like denominators, regrouping required
11. Adds proper fractions with unlike denominators, regrouping required
12. Subtracts proper fractions with unlike denominators, regrouping required
13. Adds mixed numbers with unlike denominators, regrouping required
14. Subtracts mixed numbers with unlike denominators, regrouping required

M. Fractions - Multiplication

1. Given a set of objects (multiples of 2, 3, or 4 <12) and the fraction 1/2 or 1/3 or 1/4, marks off the given fraction of a set, and writes an appropriate number sentence using the word "of"
2. Defines "of" in multiplication
3. Multiplies unit fractions (numerator is 1; denominator is ≤10)
4. Multiplies fractions with numerators greater than one
5. Multiplies a whole number and a fraction
6. Multiplies a mixed number and a fraction
7. Multiplies a whole number by a mixed number
8. Multiplies a mixed number by a mixed number
N. Fractions - Division

1. Divides a whole number by a unit fraction
2. Divides a whole number by a fraction
3. Divides a fraction by a fraction
4. Divides a mixed number by a fraction
5. Divides a fraction or a mixed number by a whole number
6. Divides a mixed number or a whole number by a mixed number

O. Decimals - Basic Skills and Operations

1. Given a place value chart and a numeral of no more than three decimal places, describes the value of each digit in the numeral
2. Given a model of a fraction illustrating tenths, then hundredths, identifies, names, and writes the decimal illustrated 092A
3. Reads and writes decimal numbers, without a model
4. Given a decimal fraction, renames it as an equivalent decimal fraction 092C
5. Given a numeral with no more than three decimal places, rounds to the nearest whole number, tenths, or hundredths as requested
6. Given a decimal fraction, renames as a common fraction 091A
7. Changes a common fraction to a decimal fraction (using fractions with 10, 100, 1,000 etc. as a denominator)
8. Changes a proper fraction to a decimal fraction (up to three decimal places)
9. Changes a mixed number to a decimal number (up to three decimal places)
10. Adds decimal numbers (up to three decimal places), no regrouping required
11. Subtracts decimal numbers (up to three decimal places), no regrouping required
12. Adds decimal numbers, regrouping required
13. Subtracts decimal numbers, regrouping required
14. Multiplies a decimal number by a whole number
15. Multiplies 2 decimal numbers
16. Divides a decimal number by a whole number
17. Divides a decimal number by a decimal
P. Percents - Basic Skills and Operations

1. Changes a common fraction to an equivalent common fraction with a denominator of 100

2. Changes hundredths fractions and hundredths decimals to percents

3. Changes any proper fraction to a percent

4. Changes any mixed number to a percent

5. Changes any decimal number to a percent

6. Changes any percent to a proper fraction or a mixed numeral

7. Changes any percent to a decimal numeral

8. Finds a percentage of a whole number (25% of 24 = ?)

9. Finds what percent one number is of another, or writes the ratio of two numbers as a percent ( ? % of 24 = 6)

10. Finds a number if the percent of the number is known (25% of ? = 6)

Q. Story Problems

The goal of teaching computational skills is to enable the student to use such processes in solving daily problems. Therefore, the use of "story problems" is essential. These steps should be incorporated in solving problems using each computational skill. The following outline is from The Harmony Learning Disabilities Instructional and Mainstreaming Model Curriculum Guide for Reading, Written Language and Mathematics.

Be sure the student understands the vocabulary of the problem and has mastered the concepts necessary for solving the problem. A sequence of steps to help learning disabled students solve math problems follows:

1) Listen to or read problem

2) Analyze the problem by drawing a picture, arranging representative objects, or revisualizing

   a) Identify what to find out (What will the solution be?)

   b) Identify only the necessary information in the problem that is helpful in finding the solution.
c) Recognize and interpret key words to suggest the mathematical process or operation to use

(1) addition - "in all", and "all together", "totally"
(2) subtraction - "difference", "how many less or more", words of degree or comparison, -er, -est, "take away"
(3) multiplication - problem describes "equal group or quantity of, "each (group) has", and with additional terms at end of problem
(4) division - problem describes "total group or quantity", "divided equally among" each (sub-group) gets, etc.

d) Identify the steps necessary to solve problems

3) Compose a "number sentence" (e.g., Ann bought a loaf of bread for 79¢.) She also bought three apples for 10¢ each. How much money did Ann spend in all? Number sentence = $.79 + (3 x $.10) = $ _____

4) Compute and check computation for accuracy and check answer to see if it makes sense in the problem

5) Label the answer

R. Measurement - Readiness

1. Points to big and little objects upon request 062E - 063A
2. Points to pictures of big and little objects
3. Chooses picture of tallest or shortest object 061D
4. Selects objects of same size 062D
5. Arranges objects by size in ascending order 111C
6. Sorts objects by size or design, as directed
7. Arranges pictures in ascending order
8. Given up to 4 sets of linear non-standard units (pencils, clips, etc.) and a given distance, uses a "train" of each unit to measure the distance
9. Uses parts of the body (fingers, hands, feet, arms) to measure objects

10. Measures objects to the nearest inch, given a ruler scaled only in inches and half-inches

11. Constructs a measuring unit to measure length, given construction paper and an arbitrary unit ("thumbs", etc.)

S. Measurement - Concepts
1. States the quantity of a pair
2. Indicates objects purchased by the dozen
3. States the number of elements in a dozen

T. Measurement - English System - Linear
1. Measures objects to the nearest foot or yard, as requested, using a yardstick
2. Measures objects to the nearest half-inch, given a ruler scaled only in inches and half-inches
3. Identifies unit markings on a ruler scaled down to eighth-inches
4. Measures objects to the nearest quarter-inch, given ruler scaled into eighth-inches
5. Measures objects to the nearest eighth-inch, given ruler scaled into eighth-inches
6. Given a standard ruler scaled into sixteenth inches, measures objects to the nearest eighth-inch
7. Given a standard ruler, determines the number of inches in a foot
8. Given a standard yardstick, determines (1) the number of feet in a yard and (2) the number of inches in a given number of feet
9. Knows relationship of linear measurement units from memory:
   1 ft. = 12 in.; 1 yd. = 3 ft.; 1 yd. = 36 in.; 1 mi. = 5,280 ft.
10. Converts linear measurement units: in. to ft. and ft. to in.; yds. to ft. and ft. to yds.; yds. to in. and in. to yds.
11. Uses a linear conversion table to convert inches, feet, yards and miles to common units.

U. Measurement English System - Volume

1. Fills containers "full", "half-full", empty
2. Arranges glasses from full to empty
3. Determines the capacity of the container filled with water to the nearest cup, by experimentation
4. Identifies the terms cup, pint, quart, and gallon as units of liquid measure
5. Identifies common beverage containers as pints, quarts, half gallons, and gallons (e.g. empty milk cartons)
6. Determines by experimentation the number of: cups in a pint; pints in a quart; quarts in a half-gallon; quarts in a gallon
7. States the number of cups in a pint, pint in a quart, quarts in a gallon
8. Uses a table of equivalent measures to convert units of liquid measure
9. Converts units of liquid measure: cups to pints; pints to quarts; quarts to gallons, and vice versa

V. Measurement English System - Weight

1. Distinguishes between heavy and light objects
2. Identifies heavy and light objects from pictures
3. Uses a balance to determine the heavier (lighter) of 2 objects
4. Identifies ounces, pounds, tons as units of weight
5. Estimates the weight of an adult person
6. Uses a scale (bathroom or doctor's) to determine own body weight
7. Uses the weight of a given object to estimate the weight of a similar object of larger size
8. Uses the balance or scale to indicate in writing the weight of an object
9. Uses a table of equivalent weights to convert pounds to ounces, pounds to tons and vice versa
10. Converts units of weight without reference to a table

11. Adds or subtracts problems involving units of weight, without regrouping (converting)

12. Adds or subtracts problems involving units of weight with regrouping (converting)

13. Multiplies or divides units of weight by positive integers, without regrouping (converting)

14. Multiplies or divides units of weight by positive integers, with regrouping (converting)

15. Related spelling skills

16. Identifies terms of weight by sight: weight, pound, ounce, ton

17. Reads weight abbreviations as full words: wt., lb., oz.

18. Spells terms of weight

19. Spells weight abbreviations

W. Measurement Metric System - Linear

1. Identifies terms meter, centimeter and millimeter as linear

2. Identifies terms, abbreviations of metric linear measurement: m, cm, mm

3. Reads measurement abbreviations as full words: m, cm, mm

4. Given a meter stick or ruler with centimeters on it, identifies m, cm, mm unit markings

5. Measures objects to the nearest meter, given a meter stick

6. Measures objects to the nearest cm, given a meter stick or ruler with cm on it

7. Measures objects to the nearest mm, given a meter stick or ruler with mm on it

8. Knows relationship of metric units from memory:

   100 cm. = 1 m.

   10 mm. = 1 cm.

   1,100 mm. = 1 m.

9. Converts metric measurement units: mm. to cm., cm. to m., m. to km.
X. Measurement Metric System - Volume
1. Identifies the term liter as a unit of liquid measurement
2. Identifies the one that is one liter when given models that differ in size by at least 50%
3. Identifies the names and symbols for the terms liter and milliliter
4. States the number of milliliters per liter
5. Adds and subtracts measures expressed in liters or milliliters

Y. Measurement Metric System - Weight
1. Identifies kilograms and grams as units of weight
2. Uses a table of equivalent weights to convert grams to kilograms and vice versa
3. Identifies terms of weight by sight: kilogram, gram
4. Reads weight abbreviations as full words: kg., gm.
5. Spells metric terms of weight
6. Spells metric weight abbreviations

Z. Measurement English and Metric Systems - Area
1. Finds area of object outlined on graph paper by counting square units
2. Identifies the relationship between counting square units and multiplying length times width
3. Finds the area of a rectangle measured to the nearest whole unit, by using the formula L x W

AA. Measurement English and Metric Systems - Perimeter
1. Finds the perimeter of a box by placing inch blocks around its outside
2. Identifies the relationship between counting blocks on outside of a box
3. Finds the perimeter of a rectangle, measured to the nearest whole unit, by using the formula 2L + 2W or L + L + W + W

BB. Calendar - Days, Months, Years Readiness
1. Demonstrates understanding of terms describing succession (order of events): first, second, etc., before, after
2. Demonstrates understanding of terms describing physical time: early, late, past, present, yesterday, today, tomorrow, now

3. Demonstrates understanding of concept of age: born, old young, younger, older, youngest, oldest, etc.

CC. Calendar - Days, Months, Years

1. Names season of the year: summer, fall, winter, spring

2. Matches pictures to seasons of year

3. Names days of week in sequence

4. States the number of days in a week (7 days = 1 week)

5. Names months of year in sequence

6. States number of months in a year (12 months = 1 year)

7. States relationship between month, week, day, year

8. States months in seasons of year

9. Identifies a calendar by name and use

10. Identifies days of the week words by sight

11. Indicates the number of times a weekday occurs in a month, given a calendar

12. Indicates the number of days in a month, given a calendar.

13. Knows ordinal numbers: understands the relationship between ordinal numbers and numerals

14. Indicates on which day of the week a specific date will fall, given a calendar

15. Indicates on which date a specific day will fall, given a calendar

16. Given a calendar and a specific time interval with its starting date, indicate the ending date of the interval

17. Uses holiday notations to identify months of the year on the calendar

18. Identifies month words by sight

19. Locates special events on the calendar: birthday, Christmas, Thanksgiving, New Year's Day, Halloween, Valentine's Day, month school begins, month school ends
20. States the number of days in a year: 365 days = 1 year
21. States the number of weeks in a year: 52 weeks = 1 year
22. Identifies calendar abbreviations by sight: da., wk., mo., yr.
23. Writes date using numeral notation or word form, e.g.: Feb 23, 1979
   February 23, 1979 or 2-23-79

DD. Telling Time
1. Recognizes that a clock is used to tell time; defines clock
2. Writes numerals to 12 in the correct places on a blank clock face
3. Tells time to the hour, using a clock with only an hour hand
4. States orally the number of hours in a day
5. Identifies hour and minute hands on a clock
6. Tells time to the nearest hour
7. Tells time to the nearest half hour
8. Tells time to the nearest quarter hour
9. Tells time to nearest five minute interval
10. States orally the number of minutes in an hour
11. Tells time to the nearest minute interval
12. Writes time on a given clock face in time notation
13. Identifies a.m. and p.m. as abbreviations for morning and afternoon
    and evening
14. Uses a.m. and p.m. notation in writing time
15. Figures future time to the nearest hour
16. Figures past time to the nearest hour
17. Figures future time to the nearest half hour
18. Figures past time to the nearest half hour
19. States the number of seconds in a minute (60 seconds = 1 minute)
20. States the number of minutes in a 1/4 hour (15 minutes = 1/4 hour)
21. Figures future time to the nearest quarter hour
22. Figures past time to the nearest quarter hour
23. Converts time units: seconds, minutes, hours, days, weeks, months, years
24. Figures future time to the nearest five minutes
25. Figures past time to the nearest five minutes
26. Sets alarm clock to ring at a specified time: hour, half hour, quarter hour
27. Identifies time abbreviations by sight: hr., min., sec., ', "

EE. Temperature
1. Estimates temperature outside: cold, hot, warm
2. Identifies appropriate dress as related to outside temperature
3. Identifies a thermometer by name
4. Identifies a thermometer by name and purpose
5. Recognizes the relationship between temperature and mercury level on a thermometer
6. Reads a thermometer to determine correct temperature
7. Given a Fahrenheit or centigrade temperature, indicates if it is above or below freezing
8. States the body temperature of a healthy person
9. Reads the temperature at which an oven dial is set

FF. Measurement - Money
1. Identifies penny, nickel, and dime by name
2. Identifies the cent value of penny, nickel, and dime
3. Matches money equivalents: 1 nickel = 5 pennies; 1 dime = 2 nickels; 1 dime = 10 pennies
4. Identifies quarter, half dollar and dollar bill by name
5. Identifies the cent value of quarter, half dollar, and dollar bill
6. Orders give different U.S. coins from least to most or most to least in value
7. Matches money equivalents: 1 quarter = 25 pennies; 1 quarter = 5 nickels; 1 half dollar = 5 dimes; 1 half dollar = 10 nickels; 1 half dollar = 2 quarters; 1 dollar = 100 pennies; 1 dollar = 20 nickels; 1 dollar = 10 dimes; 1 dollar = 4 quarters; 1 dollars = 2 half dollars
8. Adds any amount of coins whose value is less than or equal to 1 dollar
9. Adds any amount of bills whose value is less than or equal to 10 dollars
10. Identifies $5, $10, and $20 bills by name
11. Writes money values using $ and decimal point
12. Identifies money words: penny, nickel, dime, quarter, half dollar, dollar, cent(s), money
13. Writes money values in symbols from written words
14. Identifies greatest and least amount of money written in symbols
15. Makes change up to $1, $5, $10, $20
16. Reads the face value of a filled-in bank check
17. Computes problems using dollar and cents notation
18. Approximates the amount of an odd number of quarters to the nearest dollar
19. Approximates the sum or difference of 2 money values less than or equal to $1.00 to the nearest ten cents
20. Approximates the sum or difference of 2 money values to the nearest dollar or ten cents
21. Chooses items to buy with a given amount of money
22. Makes change up to $100
23. Identifies information available from a filled-in check's stub
24. Identifies information available from a monthly bank statement for a checking account
25. Related spelling/reading skills:
   a) Identifies number words by sight
   b) Spells number words

**Geometry - Shapes**

1. Picks up 2 objects of similar shape
2. Selects objects which are same shape
3. Selects objects of same shape as model
4. Sorts objects by size or design, as requested
5. Identifies and names models of circles, squares, rectangles and triangles
6. Selects a given shape upon request
7. Identifies pictures of squares, circles, rectangles, and triangles
8. Uses whole arm in reproducing shape in space
9. Uses whole arm in reproducing shape on paper
10. Draws 4 shapes and names them
11. Names basic shape of object in picture
12. Identifies and names a parallelogram
13. Identifies and names a three-dimensional cube
14. Identifies and names a three-dimensional rectangular prism
15. Identifies and names a three-dimensional triangular prism
16. Identifies and names a three-dimensional cylinder

**HH. Geometry - Points and Lines**

1. Identifies and names models of broken lines, curved lines, and straight line segments
2. Identifies and names points, lines, line segments
3. Identifies and names intersecting lines
4. Identifies and names parallel lines
5. Identifies and names perpendicular lines
COMMUNICATION SKILLS PHILOSOPHY STATEMENT

Communication is the means whereby members of the animal kingdom interact with their own kind. It is only man who has acquired language in spoken and written forms which enables him to deal with the realm of ideas and reason. Written expression is the highest form of language and it is the last to be learned. It is a tremendously complex process which requires the inter-relationship of language, visual-motor and memory skills.

In the context of learning disabilities, the term "dysgraphia" is used to describe a partial inability to express ideas by means of written symbols. Specific disabilities in those areas may involve visual-motor integration, re-visualization and/or syntax problems. Visual-motor integration difficulties interfere with the memory and execution of motor patterns which are necessary for handwriting. Re-visualization difficulties prevent the student from remembering visually the images of letters and/or words necessary for spelling. Syntax difficulties interfere with the ability to organize ideas into correct language patterns.

All communication skills instruction in the Learning Disabilities classroom should contribute to the development of basic life skills. An approach which utilizes the learning status and experiences of each student is appropriate. In certain instances, the development of compensatory skills will be necessary. However, it is believed that most learning disabled students can acquire at least a functional level of competence through careful remediation.
LANGUAGE

Inasmuch as language serves as the basis for our learnings, it is crucial that each phase in the development of adequate language skills be identified and addressed instructionally. The Learning Disabilities Classroom places emphasis on three primary components of language: Listening (auditory), Speaking (verbal) and Written Expression.

Listening Skills

Few educators would dispute the fact that much of a student's school life is spent listening. Yet, listening seems to be the most elusive of the communication skills and the one to which relatively minor emphasis has been placed. Today many children are growing up in situations where "background" sounds include televisions which are silent only rarely, and stereo equipment which is prized on the basis of its ability to vibrate stationary objects. Such noise and confusion does not promote positive, discriminating listening skills so that it cannot be assumed that these skills will be acquired automatically. Therefore, it is imperative that the curriculum pay special attention to this area.

Research has demonstrated that good readers often will be good listeners, and, indeed, they are both receptive skills. However, listening differs from reading in three significant respects. The listener receives the message auditorily and can control neither the rate of presentation nor the number of repetitions. The reader receives the message visually and can control both rate and repetition. For many learning disabled students, distractibility, limited memory, and poor auditory discrimination characterize their performance. To facilitate the acquisition of listening skills for these students, it is wise to determine their level of competency and build on it. A general sequence includes listening to natural sounds, created sounds and voices, developing words to describe what is heard, listening for sequence, and then listening to anticipate, to determine meaning and to criticize. As is true in all areas of the curriculum
for learning disabled students, listening skill activities may be a continuing process which extends far beyond the time when regular students have acquired proficiency.

**Speaking Skills**

Oral language is the most common means of communication, and it is an essential precursor to the written form. An important function of speaking is to facilitate the exchange of information and ideas. However, functions of equal importance for learning disabled students include providing a means of expressing needs, desires, feelings and interacting socially with peers and others. Implications for the total individual, socially, emotionally and academically are clear.

The best way to improve speaking skills is to create an environment which stimulates vocabulary and language usage. By encouraging informal conversation, the teacher can assess the content and maturity level of the student and develop a program for him/her. The Learning Disabilities Program focuses on direct experiences with objects, people and places to build vocabulary. Reading aloud and story telling by the teacher assist in the development of skills, both in listening and speaking. The students, in turn, can move from informal conversation to formal discussion competencies utilizing correct word forms, pronunciation and sentence structure. The limited class size in the Learning Disabilities Program allows for many and varied verbal exchanges.

**Written Expression**

Previously it was stated that written expression is the highest form of language and the last to be learned. It is a complex process for all students, but when one considers the sensory integrities involved in the task, the implications for learning disabled students can be realized. Competencies in language, spelling, handwriting and punctuation are necessary. Any one or more of these areas may be specific disabilities for learning disabled students. Therefore, it is essential that the focus of the Learning Disabled Program be practical and life-skill oriented.
We must recognize that just as a child does not speak until he/she comprehends the spoken word, so the child does not use the written form until he/she reads. The fact that reading disabilities are so prominent in learning disabilities programs leads to the conclusion that difficulty with written expression will be prevalent, as well.

The goal of the Learning Disabilities Program is to assist each student in attaining the greatest level of competence possible. Each component necessary to use writing as a means of communication is presented and developed.

Written expression transcends time and space in a way speaking cannot. Therefore, it is believed that no student's creativity should be bounded by his ability or disability in handwriting, spelling or punctuation. In cases where these mechanical skills are limiting factors, creative language expressions such as stories or poems should be dictated or recorded to encourage growth in that area.
LISTENING SCOPE AND SEQUENCE

A. Discrimination
1. Identifies source of environmental sounds, such as thunder, rain, traffic
2. Identifies specific sounds, such as animal sounds, voices, doorbell
3. Discriminates between pitch (high or low sound), the timbre (quality of sound—soft, buzzy, harsh)
4. Identifies similarities and differences of sounds, such as containers filled with marbles, sand, bells
5. Identifies similarities and differences of words
6. Identifies rhyming words
7. Screens out background noise for selective listening

B. Sequence
1. Reproduces rhythm patterns of teacher, with eyes closed
2. Repeats sequence of three words given by teacher with eyes closed
3. Repeats sentence of five words spoken by teacher, with eyes closed
4. Listens to story and retells in own words
5. Follows directions 1, 2, 3, etc., related
6. Follows directions 1, 2, 3, etc., unrelated

C. Comprehension
1. Listens to sentence and fills in missing word
2. Listens to paragraph and answers factual questions
3. Listens to paragraph and answers inferential questions
4. Listens to story and answers factual questions
5. Listens to story and answers inferential questions
6. Listens to story and predicts outcome
SPEAKING SCOPE AND SEQUENCE

The following sequence is taken from the MEAD Reading Objectives written in an abbreviated form. The list is prefaced by fifteen items listed under Conceptual Thinking in the Cognitive-Perceptual-Motor Readiness Skills section of the Guide.

A. Conversations
   1. Uses personal pronouns in conversation 019B
   2. Uses pronoun "we" to refer to group membership 020B
   3. Restates sentence given 005C
   4. Answers questions with a sentence 016D
   5. Says complete sentences in group oral language experience 191B
   6. Uses varied inflection when telling a story 018D
   7. Uses compound or complex sentences to describe picture 023C
   8. Combines pairs into compound sentences 027D
   9. Combines short sentences into complete, more interesting sentences 051E
   10. Uses correct grammar to express ideas 027E

B. Directions
   1. Asks questions when he doesn't understand statement 020C
   2. Asks for explanations or directions when needed 023B

C. Modifiers
   1. Adds "ed" to words orally to denote modifiers 024D
   2. Chooses the modifier form to show comparative or superlative 911A
   3. Forms word family from root word 208E

D. Nouns
   1. Adds "er" to words orally to denote grammatical change 024C
   2. Adds "s" orally to denote plurality 025C
   3. Adds "s" orally to denote possession 025B
   4. Forms word family from root word 208E
E. Verbs
   1. Adds "s" orally to denote singular action 025D
   2. Adds "ed" to words orally to denote tense 024E
   3. Adds "s" orally to denote "is" in contraction 025A

F. Possessives
   1. Indicates possession by saying "mine" 012E
   2. Identifies ownership of familiar objects 016B

G. Suffixes
   1. Adds prefixes and suffixes in conversation to vary meaning 025E
WRITTEN EXPRESSION SCOPE AND SEQUENCE

The following sequence is taken from the MEAD Communication Objectives written in an abbreviated form.

A. Punctuation
   1. Uses capital letters 034A to 036B
   2. Uses abbreviations with correct punctuation 036C to 036D
   3. Uses the apostrophe 036E
   4. Forms complete sentences 037A
   5. Uses correct ending punctuation 037B
   6. Uses quotation punctuation 037C
   7. Uses the comma 037D

B. Usage involving Grammar
   1. Uses subject-verb agreement 039B
   2. Uses singular-plural appropriately 039C
   3. Uses possessives appropriately 039A
   4. Uses tenses appropriately 040D
   5. Uses contractions appropriately 040E
   6. Uses comparative-superlative appropriately 041A

C. Composition
   1. Following a group experience, draws picture and dictates sentence 042C
   2. Following experience, draws sequential pictures and dictates one sentence for each picture to make experience story 042D
   3. Writes a brief biographical sketch 042E
   4. Writes imaginary story 043A
   5. Writes a story, given a topic sentence 043B
   6. Writes a book report 043C
   7. Writes a story of personal experience 043D
   8. Writes a story of imagined experience 043E
   9. Writes letter-note 046
5. Writes a story, given a topic sentence 043B
6. Writes a book report 043C
7. Writes a story of personal experience 043D
8. Writes a story of imagined experience 043E
9. Writes letter-note

D. Poetry

1. Listens to short poems 050B
2. Illustrates main thought of given poem 050C
3. Writes poem that rhymes 050D
The purpose of handwriting is to provide an individual with a means of self-expression. In the Learning Disabilities Classroom, some students have deficits in visual-motor integration and/or revisualization skills, which interfere with their ability to copy and/or to recall the visual images of the letters. When this is the case, careful programming is essential to promote skill in the absence of excessive tedium and strain.

In an attempt to provide such a program, the following considerations are important:

1. Handwriting activities should relate to the student's experiences, interests, and other academic areas.

2. Techniques should be utilized which focus on the student's learning strength. Emphasis may take various forms such as, a) visual-auditory motor (see, describe movements, write the letter), b) visual-kinesthetic motor (see, trace, write), or c) visual-auditory-kinesthetic motor (see, trace, describe movements, write).

3. The goal of the handwriting curriculum is to develop skill to an automatic level, whereby it becomes an integrated component of written expression.

The discussion over whether to begin handwriting instruction in the manuscript or the cursive form has and undoubtedly, will continue to be debated for some time. The Grosse Pointe Manuscript System is designed to provide initial writing experiences which are consonant with the developmental stages of children and which allow for ease of transition to cursive forms. Therefore, in the Learning Disabilities Classroom, all children should have initial experiences with manuscript writing. However, for students who have severe visual-motor integration problems,
cursive writing should be introduced early. For such students, an early transition to cursive writing may minimize reversals, limit problems with spatial relationships, and provide continuity of flow.

Although the incidence appears to be low, there may be students in the Learning Disabilities Classroom for whom writing is a constant source of insurmountable frustration. With these children alternate forms, such as L'Nealian writing, or compensatory techniques, such as typewriting are viable instructional options.
HANDWRITING SCOPE AND SEQUENCE

The basic handwriting program for the Learning Disabilities Classroom follows both the Grosse Pointe Manuscript System and the Grosse Pointe Cursive Writing System as described in the Division of Instruction curriculum guides for regular education. The Grosse Pointe writing systems are prefaced by the fourteen MEAD objectives listed in the readiness section.

A. Handwriting Readiness

1. Uses his whole arm in reproducing a circle and/or specified shape in space after demonstration.

2. Uses his whole arm in reproducing a circle and/or specified shape using a large sheet of unlined paper and a crayon at a desk; on a slant board

3. Uses large arm movements with a sheet of unlined paper and a large crayon to scribble

4. Uses his whole arm he will reproduce an arc on a large sheet of unlined paper using large beginners pencil

5. Using his whole arm he will reproduce a vertical line on unlined paper using a large pencil

6. Using a large crayon he will be able to copy two intersecting lines

7. The student will copy large M and N strokes with crayon on large unlined paper

8. The student will imitate V stroke on paper with crayon

9. Demonstrates that he recognizes the direction of a line by drawing on paper with crayon direction requested (e.g., down, slanted, across)

10. Reproduces a square with angle accuracy of 85°
11. Using a pencil, paper and model, he will copy the figure
12. First by imitation, then pattern and finally a 30 second pattern stimulus, the student will reproduce horizontal and vertical lines on a pegboard
13. Uses correct writing posture at desk
14. Holds pencil correctly

B. Sequential Order of Letters - Manuscript

Lower Case
1. Group 1 o c a g d e q s
2. Group 2 l t b k f p i j
3. Group 3 r n m h
4. Group 4 u y w
5. Group 5 v x z

Upper Case
1. Group 1 O G C Q S
2. Group 2 D P B R
3. Group 3 I L E F T H
4. Group 4 A V W X Z K M N
5. Group 5 U Y J

C. Sequential Order of Letters - Cursive

Lower Case
1. Group 1 i u w e r s
2. Group 2 t d p p
3. Group 3 l b h k f
4. Group 4 m n v x y z h
5. Group 5 o a c d g q
6. Group 6 j g p y z q f
7. Group 7 b v w o r s
<table>
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<td>Group 7</td>
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</tbody>
</table>
SPELLING

As part of the written communication skills, spelling is an essential component. Spelling in itself is a complex process which involves auditory and visual discrimination, memory, sequentialization, analysis, synthesis and the integration of all these skills. An aspect of the English language which makes it difficult to encode is its eclecticism. Some English words have been derived from different countries at different times in history, and consequences of which have included different letters for representing sounds. Pronunciation and regional dialects further complicate the encoding process. For example, the word "February" generally is pronounced by omitting the first "r" and the word "taught" is pronounced as "tot" in New England.

In the Learning Disabilities Classroom, many children have difficulty with spelling. Poor readers tend to be poor spellers, although the exact nature of the relationship has not been defined. There are authorities who believe that spelling words should be as much as two levels below the student's reading vocabulary. This suggests that students can best spell words that they can read automatically.

Spelling in the Learning Disabilities Classroom has variety with regard to approach, method and activities to offer each student a program which will be the most useful for him/her. Emphasis is placed on the student's learning strength with words being drawn largely from his/her experiences. Incorporation of the Dolch Basic Sight Vocabulary paced as can best benefit the student is recommended. Spelling is seen as a means of communicating, not an isolated skill which is an end in itself.
SPELLING SCOPE AND SEQUENCE

The scope and sequence outlined is taken largely from MEAD in an abbreviated form.

A. Phonetic

1. Writes initial consonants from dictated words
2. Writes initial clusters from dictated words
3. Writes dictated consonant-vowel-consonant pattern words
4. Writes dictated pattern words with short vowel
5. Writes dictated words having two-letter blends with short vowels
6. Writes dictated words having digraphs and short vowel
7. Writes dictated words having three-letter blends with short vowel
8. Writes dictated pattern words having final "e" denoting long vowel
9. Writes dictated words having two-letter blend with long vowel
10. Writes dictated words having digraphs and long vowel
11. Writes dictated words having three-letter blends with long vowel
12. Writes dictated words containing letters c, g, s
13. Writes dictated r-controlled words
14. Writes dictated words containing vowel combinations
15. Writes dictated words having silent letters

B. Word Sets

1. Forms word family from root word
2. Forms new words from roots using prefixes and suffixes
3. Affixes correct endings to list of words
4. Writes dictated words having affixes
5. Writes homonyms dictated in sentences
6. Writes abbreviations of days of the week, months of the year
7. Writes abbreviations of common words

ERIC
C. General Spelling

1. Spells words at automatic level 044C
2. Spells unknown words 044B
3. Writes dictated words impossible to decode 047C
4. Spells independently the words used in his writing 044D
SOCIAL STUDIES PHILOSOPHY STATEMENT

To live effectively and productively within a society and an international community, awareness of and some understanding of primary characteristics and relationships are necessary. This position holds true for all students, regardless of classification.

In the case of the Learning Disabilities Program, social studies is presented with the underlying purpose of exposing the students to broad social concepts in each unit. This serves to insure that youngsters who are not mainstreamed in this area will receive formal instruction. Special class placements are predicated upon significant skill deficits, the most common of which is reading. This, then, restricts the use of printed materials. Further, some students have language deficits which limit their comprehension to concrete and semi-concrete levels. For these students, both reading and discussion are a labor. Still others have problems with temporal and spatial awarenesses. Translated curriculum-wise, this suggests that dates and words such as "1620" or "ancient" are meaningless to a student who has not grasped the meaning of "yesterday" and "tomorrow". Also, "2500 miles" offers little information to a student who cannot estimate the distance from the classroom door to the window.

Therefore, the Learning Disabilities Program emphasizes an experience-oriented instructional approach to social studies. Field trips, films and demonstrations are important. "Hands on" is the focus. For example, to augment an introduction to the farm, the class visits a farm. This experience allows the student to see a farm, smell a farm, and touch a farm. For a learning disabled student there may be no better way to build understanding. Older students can best learn cultural differences by visiting ethnic communities and tasting the food, observing the dress, and listening to the language.

It is believed that the experience approach to social studies has the potential to stimulate interest and enthusiasm for the unit areas and for learning in general.
SOCIAL STUDIES SCOPE AND SEQUENCE

The following scope and sequence includes the units outlined in the Social Studies Curriculum of the Grosse Pointe Public Schools. Unit topics have been grouped into Levels I, II and III as opposed to the existing six grades. This organization more nearly approximates the non-graded level procedure used in the Learning Disabilities Classrooms.

Developmental Programs

Families
Homes
Food
School Life

Level I
First Year
The Family

The Child and the Family
Traditions, values, and customs
Patterns and roles
Providing for needs—food, shelter, clothing, recreation

The American Family Today
Farm, suburban, urban, Native American

American Families of the Past
Pilgrim, frontier, Native American grandparents

Families in Other Cultures
African, Japanese, Mexican

American Ideals
Rights and responsibilities
Leaders and heroes

My Country
Holidays
Safety
Native American Life
Circus Life (optional)
Symbols and process
Opportunities and ethnic heritage
Holidays

Second Year
Transportation
Early and modern methods of land transportation
Water and air transportation
Important people in transportation history

Communities
School and community relationships
Community transportation
The neighborhood
Public buildings
Commercial buildings
Consumer-producer relationships
Communities of the past and present
Communities in other regions of the world
Communities in warmer lands
Communities in colder regions

Level II
First Year
Library Skills
Map and Globe Skills

Different Ways of Living in Natural Environmental Regions
Plains regions
Rainforest regions
Mountain regions
Desert regions
Coastal regions
Exploring Cities

Location

Metropolitan groups

Urban change

Production of goods and services

Distribution of products

Social, political, and economic business functions;

industrial areas, housing, and recreation

Metropolitan government

Second Year

Map and Globe Skills

Explorers of America

People contributing to heritage

The spirit of exploration

Our indebtedness to explorers

Great explorers past and present

Settlers in America

Native North Americans

Traditions and institutions

Ethnic groups

Preservation and change in America

Pioneers of America

Mobility in population

The Western movement

Great American pioneers

Leaders in America

Conflicts and power struggles

Qualities of leadership

Functions of leaders

Great American leaders
Innovators in America

Innovation and change
Humanitarian innovators
Inventors
Scientific and technological developers

Native Americans

Michigan Yesterday

Michigan Indians
French missionaries and traders
Michigan governors
Farming, forestry, and manufacturing

Level III

First Year

Industrialization and Urbanization
The geography of the United States and Canada
Agrarian to industrial transformation
Improvements in transportation and communication
Application of power resources
Specialized factories
Population growth and change

Political, Religious, and Educational Development
Government in the United States
Religion in the United States
Education for Democracy in the United States

Cultures
Occupations
Recreation

Michigan Today

Geography
Tourism
Agriculture
Manufacturing

Second Year
Prehistoric Man--Africa, Asia, Europe
Locations and time
Adaptations and use of environment
Food, shelter, and clothing
Movement and migration patterns
Inventions and discoveries
Contributions to mankind

Cradles of Civilization--North Africa, Middle East, Far East
Location and time
Laws and government
Religion
Economic systems
Effects of geography upon culture
Contributions to current cultures
Studies of contemporary countries located in the same areas

Ancient Greece and Rome
Location and time
Laws and government
Religion
Effects of geography upon culture
Art and architecture
Education

The Middle Ages and Renaissance in Central and Northern Europe
Medieval dynamics
Church contributions
Feudalism
The Crusades
Rise of cities
Renaissance people
Renaissance changes and results
Studies of contemporary countries in the area
Eastern and Western Europe Including the Soviet Union
Geography
Revolutions—industrial, political, social, economic
Contemporary cultures
Current changes
Relationships with the U.S.A.
Basic political and economic philosophies
As a part of every student's formal education, acquaintanceship with the field of science, both as a methodology and as a body of knowledge, is essential.

In the case of the Learning Disabilities Program, science is presented with the underlying purpose of exposing students who are not mainstreamed to broad science concepts. Disabilities for students who do not attend regular classes for science often are multiple. They may include difficulty with organizational skills making the collection of data a problem. Language deficits may complicate the understanding of abstract concepts and the acquisition of scientific terminology. Reading and mathematics disabilities limit the reception and the expression of certain scientific relationships. Therefore, teaching strategies and curriculum in the Learning Disabilities Class must be oriented toward observation and experimentation to the extent to which the student can benefit. As is the case with other curriculum areas, a "hands on" approach is essential.

The current (1978-79) Grosse Pointe elementary science program, the Science Curriculum Improvement Study (SCIS), allows for many experiences of the kind above described. Used adaptively, it is a valuable resource for science instruction. Further, it is believed that this approach can provide a foundation enabling the Learning Disabled student to make the transition to other materials, such as those adopted for the 1979-80 school year if/when mainstreaming occurs.
The following scope and sequence includes the units outlined in the Science Curriculum of the Grosse Pointe Public Schools in abbreviated form. Unit topics have been grouped in Levels I, II and III as opposed to the existing six grades. This organization more nearly approximates the non-graded levels procedure used in the Learning Disabilities Classroom.

Developmental Programs

Weather and Seasons
The Environment
The Human Body and the Senses
Living and Non-living Things
Health

Level I

First Year
Sharpening the Powers of Scientific Observations, Discrimination, and Accurate Description
Life Science...Organisms
Physical Science...Material Objects

Second Year
Observing and Interpreting Change Through Interaction on Plant and Animal Development
Life Science...Life Cycles
Physical Science...Interaction and System

Level II

First Year
Observing and Experimenting with Increasingly Complex Phenomena Moving Toward an Understanding of Energy, Matter, and Ecosystem
Life Science...Population
Physical Science...Sub-Systems and Variables
Second Year
Exploring Physical Conditions That Shape An Organism's Environment and Spatial Relationships

Life Science...Environments
Physical Science...Relative Position and Motion

Level III
First Year
Applying the Systems Concept, the Identification of Variables, and the Interpretation of Data to Energy Transfer and Food Transfer

Life Science...Communities (Food Transfer)
Physical Science...Energy Sources

Second Year
Integrating the Exchange of Matter and Energy Between Organisms and Their Environments. Relating Matter and Energy to Electrical Phenomena. The Concept of the Scientific Model.

Life Science...Ecosystems

Physical Science...Models/Electric and Magnetic Interactions
SOCIAL-EMOTIONAL PHILOSOPHY STATEMENT

For some time special educators and mental health workers have recognized the deep distress to children and parents caused by learning disabilities. A learning disabled child rarely has visible physical stigmata, which often contributes to the belief that all else is "normal". However, at varying stages after birth, differences become evident between the Learning Disabled child and the child across the street. Perhaps he or she doesn't respond as spontaneously, doesn't learn from experience as easily or doesn't know how to do as many things as age mates. Interpersonal relationships soon become strained when the child's interaction is atypical. However, it is no wonder that the child's responses to the world around him differ from others. Many learning disabled children have perceptual distortions, language problems and conceptual confusion which make it difficult to understand exactly what is expected of them. Still other learning disabled youngsters are hyperactive, impulsive and disruptive. Given all of these characteristics, it is understandable that learning disabled children exhibit behavioral traits such as difficulty sharing, difficulty forming friendships, temper tantrums, difficulty with competition (fair play) and withdrawal. A pattern of inability to understand what is expected or the inability to control the self enough to do what is expected leads to failure and censure. Whatever self-esteem was present, quickly diminishes as the child is caught in a self-perpetuating cycle of more failure and more censure. It is essential that the area of social-emotional skills be addressed systemically and with high priority in the learning disabilities curriculum.
SOCIAL-EMOTIONAL SCOPE AND SEQUENCE

The following sequence is taken from the MEAD Social-Emotional Objectives written in an abbreviated form.

Work Habits

A. Completion of Task

1. Completes task on time 160A
2. Completes task accurately 160B
3. Shows concern about quality of work by neatness 160C
4. Locates and uses necessary materials and returns them after use 160D
5. Prepares self with items necessary for assignment completion 160E
6. Demonstrates attention 161A

B. Independence

1. Corrects errors and completes task 161B
2. Corrects error found on own and completes task 161C
3. Demonstrates persistence toward working on task 161D
4. Applies skill or knowledge to similar situation 161E
5. Arranges to do some of not-liked activity before access to some liked activity 162A
6. Asks for assistance on difficult task 162B
7. Demonstrates appropriate participation during unstructured school situation 162C
8. Chooses task and completes it independently 162D
9. Performs assigned tasks without feedback for one week 162E
10. Demonstrates longer periods of delayed gratification when denied request to participate 163A
11. Continues to work on task, despite request by peer group to engage in some "well-liked" task activity 163B
12. Completes and turns in homework assignment with 95% independent level work 163C
C. Follows Directions
1. Follows various forms of appropriate (time, place, ability) directions 163D
2. Follows direction at designated time 163E
3. Demonstrates positive approach to directions 164A
4. Exhibits positive attitude toward criticism by attempting to correct 164B

D. Realistic Evaluation of Work Habits
1. Demonstrates ability to set reasonable task goals 164C
2. Makes positive statement re: own improvement 164D
3. Identifies factors which affect school work production 164E

Relationships

A. Resolve Conflict
1. Tells acceptable and unacceptable language 165A
2. Tells acceptable and unacceptable behaviors 165B
3. Chooses games or materials which are not dangerous 165C
4. Reviews verbally and draws conclusions on appropriate action in situation 165D
5. Acknowledges misbehavior when misbehaves 165E
6. Participates and accepts outcome in competitive situation 166A
7. Delays gratification when fulfillment of goal is delayed 166B
8. Demonstrates cooperation by working toward a common goal 166C

B. Expression of Affect
1. Verbalizes angry feelings in appropriate manner 166D
2. Writes "x" number of appropriate behaviors to practice in anger-inducing situations 166E
3. Makes complimentary statements to others 167A
4. Responds appropriately in emotional social situation 167C
5. Discusses possible ways of expressing emotion 167D
6. Describes times that emotion has been experienced 167E
7. Describes behavior and possible effect on others 168A
8. Continues working, asking for help, trying again in frustration/failure situations 168B

C. Social Cues
1. Names emotion in real social situation 168C
2. Identifies and responds to criticism or praise 168D
3. Listens to others without interrupting 168E
4. Demonstrates appropriate assertiveness in conflict situation 169A
5. Demonstrates ability to share knowledge and material 169B
6. Labels feelings 169C
7. Responds to situation appropriately to positive or negative clues—talk, frown, smile 169D
8. Demonstrates behaviors to use when approaching another person 169E
9. Tells verbally which roles could be assumed in given situation 170A
10. Participates and interacts in group situations "x" times per day/week 170B
11. Stops unacceptable behavior when "pressed" by group 170C
12. Describes reactions where people have attempted to manipulate him 170D
13. Lists model behaviors will emulate 170E
14. Names ways for acquiring new behaviors 171A

D. Respecting Rights of Others
1. Demonstrates knowledge of when/how to use possessions of others 171B
2. Demonstrates considerate behaviors 171C
3. Adheres to code of conduct, courtesy, respect, appropriate to setting 171D
4. Demonstrates knowledge of rules which maintain group cohesion 171E
5. Discusses strengths and weaknesses with teachers 172A
6. Lists goals for self 172B
7. Relates ways he has tried to change behavior in positive way 172C

Environment

A. Laws
1. Tells rules/laws given a situation 172D
2. Lists consequences of breaking a law/rule 172E
3. Attends classes except for legitimate excuses 173A
4. Is prompt for class 173B
5. Abides by school rules 173C

B. Maintain Environment
1. Keeps room and work area clean 173D
2. Helps maintain environment 173E

C. Reality
1. Makes positive statements of abilities in each area 174A
2. Tells if situation is real or imagined 174B
Career Education in the Learning Disabilities Classroom permeates all of the curriculum areas which have the acquisition of basic life skills at the core. Significant components in the process of preparing for adult fulfillment and the world of work include knowing the self (competencies, preferences, personality traits), understanding the social milieu (family, community, institutions, interrelationships, beliefs, attitudes) and the ability to combine these elements so as to best plan for the future. Basic academic subjects are addressed to the development of scholastic competencies with social-emotional skills and social studies focusing on the development of self awareness and a variety of social dynamics. Because of the fact that areas are covered elsewhere, the Career Education Scope and Sequence is brief. However, it is designed to include important objectives not addressed specifically in other sections of the Guide.
CAREER EDUCATION SCOPE AND SEQUENCE

The following sequence is taken from the MEAD Career Education Objectives written in an abbreviated form.

Self

A. Motor Skills

1. Snap and unsnap snaps 120A
2. Lace and unlace 120B
3. Tie and untie bow knots 120C
4. Buckle and unbuckle shoe, belt 120D
5. Zip and unzip zippers 120E
6. Walks forward on walking board (15 feet) 121A
7. Walks sideways on walking board 121B
8. Walks backwards on walking board 121C
9. Runs 20 times in place 121D
10. Hops on one foot 121E
11. Hops alternately for 50 yards within 20 seconds 122A
12. Runs 50 yards 122B
13. Folds properly - paper, towels, blanket 122C (a)
14. Carries properly - books, groceries, papers 122C (b)
15. Stacks properly - books, cans 122C (c)
16. Sorts properly - putting like objects together 122C (d)
17. Inserts properly - object into envelope, bag, carton 122C (e)
18. Lifts heavy items properly 122C (f)
19. Sweeps properly - broom, vacuum, push broom 122C (g)

B. Appearance

1. Makes statement about his/her appearance 122D
2. States appropriate dress for given occasion 122E
3. Demonstrates knowledge of acceptable appearance 123A
4. States ways to care for clothing properly 123B
5. Demonstrates ability to care for personal items 123C
6. Selects proper clothing for each weather condition 123D
7. Demonstrates knowledge of dress for designated job 123E
8. States clothing appropriate for predicted weather conditions 124A

C. Attitude
1. Lists personality traits important in working with others 124B
2. Seeks assistance if he/she has a problem 124C
3. Names his/her abilities 124D
4. Seeks adult aid in resolving interpersonal problems 125E
5. Lists five health rules to do a job successfully 143A
6. Lists six characteristics which employer would look for in employee 124E
7. Lists four characteristics needed for a given job title 125A
8. Visits one employer and lists personal characteristics employer wishes of employees 125B
9. Demonstrates ability to select job that fits interest and abilities 125D

D. Personal Information
1. Communicates personal data verbally - address, birthdate, parent's names, telephone number, etc. 126A
2. Writes names correctly - first, middle, last 126B
3. Writes parent's names 126C
4. Writes telephone number 126D
5. Writes complete address 126E
6. Writes birthdate - month, day, year 127A
Pre-Vocational

A. Job Investigation

1. Knows mechanics of performing home duties
2. Lists verbally responsibilities of family members
3. Names five jobs performed outside of home
4. Lists four types of part time work
5. Lists four types of summer work
6. Names three employers in community
7. Names five occupational opportunities in community

B. Transportation and Communication

1. Knows mechanics of phone usage
2. Uses phone directory appropriately
3. Uses phone to solicit emergency aid - fire, police, ambulance
4. Names newspapers which carry information about area in which lives
5. Writes a want ad
6. Finds want ads in which interested and qualified to apply
7. Names key locations within community
8. Gives directions from home to various sites
9. Lists cost of transportation by various means
10. Rates longest and shortest times for various means of transportation
11. Names reliable sources for directions when lost
12. Selects from list people who would know streets and places best in community
C. Tools and Safety

1. Knows proper care of classroom supplies 131D
2. Gives five examples of classroom neatness procedures 131E
3. Defines word "tool" as applies to everyday life 132E
4. Identifies names of tools found in the home 132A
5. Identifies "tools" found in classroom 132B
6. Recognizes potential dangers in series of pictures 132C
7. Carries hazardous classroom items in correct manner 132D
8. States name and function of any ten tools 133C
9. Lists hand tools for gardening/landscaping 133D
10. Demonstrates knowledge of need for good safety practices 135C
11. Names and identifies two tools used in measurement of ingredients 135E
12. States at least five safety rules applying to most jobs 144A
PHYSICAL EDUCATION, ART AND MUSIC PHILOSOPHY STATEMENT

Physical education has long been an integral component of the curriculum for both regular and special education students with art and music more usually having been left to the status of financial and/or administrative penance. Gradually, the value of all three of these subjects has been acknowledged. Physical education, art, and music now are recognized to have the potential to enhance the quality of life by offering to the student additional avenues for creativity and self-expression. Further, they assist in the development of self-discipline and perceptual skills (tactile, auditory, verbal). In the case of learning disabled students, one or more of these avenues may be the only ones open to them, especially when words appear to be juxtapositioned on the page, stories are written in confused order, and verbal expression does not convey the intended message to the listener. Therefore, whether the student actively participates in or limits involvement to appreciation for and interest in physical education, art, and music during the school years, he/she will be enriched and better able to relate to the culture at large of which these areas are so vital.

Regular education students who attend the Grosse Pointe Public Schools are especially fortunate to have the opportunity to experience physical education, art, and music in ways delineated by a carefully prepared curriculum guide in each area. The philosophies of each acknowledge the importance of experiences for all children; with individualization provided to meet their needs. Quotations from each curriculum guide stating this commitment follow:

Physical Education - ".challenging and successful movement experiences for elementary school children in a program that promotes the inclusion of all children rather than the exclusion of many is an essential aid to the development of a positive self-concept."
Art

"Art is individualized so as to allow all children to achieve experiences of success regardless of their verbal, mathematical, or other abstract abilities."

Music

"..music instruction should provide for the needs of all students regardless of their degree of talent, interest, and accomplishment.."

The focus of these subjects is suited ideally to the needs of learning disabled students. Assignment of the Learning Disabilities Classes to the regular education specialists in physical education, art, and music in time allotments commensurate with regular education classes is appropriate and can only benefit students.
APPENDIX

The following list of methods and materials has been compiled by teachers of learning disabled students. It is not designed to be all inclusive, but it is an attempt to present some materials and considerations for their selection which have been helpful in meeting the instructional needs of special students in the past. It should be noted that a MEAD materials and resource guide is projected for distribution in September of 1979. This will provide additional tools for curriculum implementation.
The tests listed below have been incorporated into the MEAD Program and have been cross-referenced to the objectives in each curriculum area. For additional information, refer to the MEAD title: Selected Educational Tests Referenced to MEAD Objectives.

An Inventory of Primary Skills
Brigance Inventory of Basic Skills
Classroom Reading Inventory
Detroit Tests of Learning Aptitude
Developmental Task Analysis
Durrell Analysis of Reading Difficulty
Early Identification of Learning Disabilities
Educational Assessment Inventory
Key Math Diagnostic Arithmetic Test
Peabody Individual Achievement Tests
Roswell-Chall Diagnostic Test of Word Analysis Skills
Santa Clara Inventory of Developmental Tasks
Suspected Learning and Behavioral Disabilities
Teacher's Handbook of Diagnostic Inventories
Teacher's Handbook of Diagnostic Screening
Wide-Range Achievement Test
Woodcock Reading Mastery Tests
COGNITIVE-PERCEPTUAL-MOTOR READINESS

Visual Perception Program - Developmental Learning Materials

Reading Readiness Box - Milton Bradley

Eye-Hand Integration Exercises - Developmental Learning Materials

Pegboard and Design Cards - Developmental Learning Materials

Beginning Mazes - Wipe Offs - Trend Enterprises

Same and Different Cards - Developmental Learning Materials

Size Sequencing Cards - Developmental Learning Materials

Shape Dominoes - Developmental Learning Materials

Visual Discrimination Flip Books - Developmental Learning Materials

Same and Different Cards - Developmental Learning Materials

Color Bingo - Trend Enterprises

Go Fish - Ed-U-Cards

Color Match-Ups - Playschool

Frostig Worksheets/Books - Follett Publishing Company

Teaching Association Cards - Developmental Learning Materials

Figure Ground Activity Cards - Developmental Learning Materials

Sequential Picture Cards - Ideal

Sequential Picture Cards - Developmental Learning Materials

What Part Is Missing - Story Cards - Milton Bradley

Basic Cut Puzzles - Developmental Learning Materials

Cross the Brook - Ideal

Clear Stencils - Developmental Learning Materials

Shape Stencils #6021 - Ideal

Form Boards - #6031 - Ideal

Parquetry Blocks and Designs - Developmental Learning Materials
Visual Readiness Skills - Continental Press

Buzzer Board and Cards - Developmental Learning Materials

Dubnoff School Program - Sequential Perceptual Motor Exercises

**AUDITORY DISCRIMINATION**

Auditory Perceptual Training (APT) Series - Developmental Learning Materials

Familiar Sounds - Developmental Learning Materials

Sounds I Can Hear - Scott Foresman Company

Rhyming Word Activity Cards - Trend Enterprises

Rhyming Word Wip-Offs - Trend Enterprises

Rhyming Words Cards - Ideal

**CONCEPTUAL**

Association Cards - Developmental Learning Materials

Orientation Views - Developmental Learning Materials

Motor Expressive Cards - Developmental Learning Materials

Opposite Activity Cards - Trend Enterprises

Color Recognition Set #55 - Ir:structo

Color and Alphabet Transparency - Lyons and Carnahan

Classification - Opposites - Ideal

Alphabet Book - Science Research Associates

Letter Tracking - Perceptual Activities - Ann Arbor Publishers
Three General Remedial Methods

A. The Fernald Method (Multisensory-whole word)
(Fernald, Remedial Techniques in Basic School Subjects, New York McGraw-Hill Co., 1943)

Stage 1. Tracing
The word is written for the student on a strip of paper about 4 X 10 inches in large manuscript or cursive writing. He traces the word with his finger in contact with the paper, saying each part of the word as he traces it. This is repeated until he can write the word from memory. Word is written on an index card for later practice. The following points are stressed:

1. Finger contact is important; tracing in the air or with a pencil is less useful.
2. The student should never copy a word, but always write from memory.
3. The word should always be written as a unit.
4. The student must say each part of the word either to himself or out loud as he traces it and writes it.

Stage 2. Writing without Tracing
After a while (days in some cases, weeks in others) the student does not need to trace most new words. He looks at the word in script, says it to himself several times, and writes it from memory. Index cards with the words in print take the place of the large word strips.

Stage 3. Recognition in Print
It becomes unnecessary to write each new word on a card. The student looks at the word in print, is told what it says, pronounces it once or twice, and writes it from memory.

Stage 4. Word Analysis
The student begins to identify new words by noting their resemblance to words he already knows, and it is no longer necessary to teach him each new word. Although phonic sound of word parts is not allowed, skill in word analysis is gradually developed.
Total nonreader: or children with severe reading disabilities are started at stage 1. No special techniques are used to overcome such difficulties as reversals or omissions. These are said to drop out without special attention.

NOTES: Good for child with visual memory difficulties who reverses words or mixes up little words. Test visual memory by using test with word stimuli - eg: Durrell.

Also good for child who can't be taught auditorily, can't blend words, needs whole word approach. Also good with hyperactive.

Fernald Approach - Multisensory approach to teaching whole words. Visual, Auditory, Kinesthetic, Tactile

1. Say the syllables as trace; don't spell or sound out. Trace 3-4 times.
2. Child writes word as he says it. If child misses word, go all the way back and start tracing again.
3. 1 to 1 method. Can only teach individually.

Method That Can Be Used With Groups: Visual-Motor Word Method

1. Teach words that will be taught for the day. Initially teach word in isolation. Say the word to give context (in sentence).
2. Look at the word and say it.
3. Close eyes and make picture of it.
4. Remove word card. Write the word (each kid does).
5. Then read a story using the word. Make games with word.

With Fernald - Select a set of materials that will teach reading through whole word method. Use Fernald to teach vocabulary.

B. The Orton-Gillingham Approach (Multisensory-phonetic)


The technique is based upon the constant use of association of all of the following: how a letter or word looks, how it sounds, how the speech organs or the hand in writing feels when producing it.

The following associations are taught:

Association I - Visual Auditory - Kinesthetic (Speech)
   a. Student shown the printed symbol and repeats its name after the teacher. (V-A)
   b. After name mastered, sound made by teacher and repeated by student (A-K) (basis for oral reading)
Association II
a. Teacher makes sound and student names letter (S-A) (oral spelling)

Association III: Visual-Kinesthetic (Writing)
a. Student watches as teacher makes the letter and explains its form, orientation, starting point, direction of strokes.
b. Student traces teacher's model until adequate (V-K)
c. Student copies letter (K-V)
d. Pupil writes letter from memory.
e. Next step - "write letter that has this sound" (A-K) (basis of written spelling)

Strengthening Fundamental Associations with Stimulus - Response Drills
a. Teacher shows letter, student gives its name.
b. Teacher forms symbols with student's hand while he looks away, student gives the letter name.
c. Teacher dictates name, student writes letter.
d. Teacher gives name, student responds with sound orally.

Drills are repeated with substitution of the letter sound for the letter name.

"The most important linkages...are those which enable the pupil to translate the printed letter into its sound as the basis for reading and to give the letter name or write the letter for a spoken sound as the basis for spelling."

Good for: Child who can't learn through whole words.

Recommend: Use O-G techniques with older students (i.e. use drills) and use with phonetic/linguistic series. Just use 3 drills.

The teacher's manual gives specific instructions for teaching the grapheme-phoneme relationships. Stories are also included for use when the student has attained a certain level.

If you use the method with a phonetic/linguistic series, follow the order of that series adapting the Orton Gillingham drills to the other suggestions for teaching in the series you've selected.

NOTES: Rigorous, drill-oriented for child. Could take 2 yrs. of 45 min. lessons. Should be able to decode any word and be at 4th grade level.

Need manual and set of cards "Phonetic Drill Cards" and The Jewel Box (about $30) to teach technique.
Lesiak suggests using other materials and adapting this method to the materials.

Method is stimulus-response drill method. Association 1; Association 2; Association 3.

Orton-Gillingham - teaches cursive writing only.

Slingerland is better for younger students.

C. The Slingerland Approach


Adaptation of Orton-Gillingham approach for group work, meant to be used as the total approach to language.

Language Arts Period divided into two blocks of time
  1. Auditory Approach (oral and written spelling)
  2. Visual Approach (Reading)

The Auditory Approach

Through the auditory approach students learn the name, the sound of, and how to write consonants and vowels. In the initial stages, short vowel sounds are learned.

a. One-stroke manuscript writing is used for handwriting.

b. Students learn to pair a key word for each letter:
   eg: h-house - /h/

When several letters have been learned, the child is taught to blend sounds and spelling skills.

The Visual Approach

Decoding words is postponed until blending for spelling, taught in the Auditory Approach, becomes reasonably automatic and functional.

A reading series teaching words by sight is recommended to teach in the Visual Approach. The sequence taught in that series is followed.

Four structured steps are utilized to foster recognition and recall of reading vocabulary:

a. Teacher names; children repeat
b. Teacher names; children finds and repeats
   c. Teacher gives meaning; child finds and reads
   d. Child reads, group repeats

(Note: Lesiak feels that the Fernald Method or Visual-Motor Method can be utilized before the four steps above.)
D'Nealian is now published by Scott Foresman.

Slingerland - works best with kids who need multi-sensory auditory.

Depending on the child, the teacher may find he responds best to the Auditory Approach and has difficulty learning to read with the Visual Approach. If that is the case, simply teach reading under the Auditory Approach following the sequence of skills taught by the series you select for reading.

NOTES: Slingerland - adaptation of O-G Manual - about #11 - 12 - All you need.

Slingerland meant to be used in group, so can use with individual approach.


Slingerland - make pictures for every sound-symbol relationship.

Slingerland - uses 1 stroke manuscript.

Assume, when using this method, that these kids don't know sound or name.

Auditory Discrimination Training -

1. Games - I'm going to say some words. If they sound like "house" in the beginning, clap your hands.

2. Look for workbooks, where child must write letter each time see it. Holt, Rhinehart - good workbook. Primary Phonics

Auditory Approach - mostly for handwriting and spelling

Visual Approach -

Step 1 - Write words on board. Ask each child to say word after told what it is.
Step 2 - Have kids go find word.
Step 3 - Give definitions - have kid go find it.

Could join with Fernald - kids could write or trace.

Materials Adaptable for Use

With the Three Methods

I. Materials

a. Should use a basal program - provides structure L.D. kids use.

1. Basal
2. Supplemental - skill reinforcement
3. Recreational
4. If you're teaching visual approach, could you skip phonetic bit till child is ready?
5. Are all skills taught - eg: comprehension and study skills?
6. Does child learn about real world while reading?
b. To decide if material is adaptable

1. What is vocabulary or sound-symbol load? Skill Load?
2. Reinforcement and Review?
   a. Is review multisensory? Eg: Write word vs. circle
3. Can read w/o new words some selections?

II. Materials with whole-word (sight) and teaching emphasis (visual)
(For use with Fernald method and/or Slingerland Visual Approach)
Note: The first five programs (beginning levels) are most appropriate for primary grade students.

   (Basic skill strand, readiness strand, reading in content area strand)
   Tight vocabulary control.
   Vocabulary is carefully controlled. In Level 3 (transition to reading) learn 14 basic words which are reviewed (or taught if skip Level 3) in Level 4. Vocabulary in Levels 4, 5, 6, (preprimers) is introduced slowly (only 1 new word is introduced on a page). To provide for absorption of new words, segments of text have no new words. Level 6 is basically an "absorption" book. Rebuses and label words are used in levels 4-6 to keep vocabulary at a low level, but make stories more interesting. Vocabulary control continues through end of grade 1 (level 8) where no more than 2 new words appear on a page and where "absorption" sections continue. Phonics workbooks are provided which could be purchased separately to review phonic skills. In workbooks, write words several times.
   Transition (Readiness) books are available for grades 2 and 3 where skills for the previous year are reviewed. The transition pattern for Level 9 includes five separate paperback books, and a workbook. It is considered best to finish the books in sequence to avoid vocabulary problems. The vocabulary of the books is carefully controlled. Only a few new words are introduced in each book. These words are listed in the manual. The transition pattern for Level II reviews skills taught in the second year and includes five books and a workbook. Only a few new words are introduced. These books are recommended for students who need to establish more firmly a basic vocabulary to become fluent readers.

   A content area strand (Pattern for Applying Reading Skills in Subject Matter Areas) is available for grades 1-8 teaching reading in content area subjects (e.g. social studies, science, arithmetic). Instructional material is interwoven with the subject matter material and consists of instruction in reading skills, questions to guide reading, aids in vocabulary development and checks on comprehension. Materials seem appropriate for use with older students, picture and story-wise. Don't "talk down".

   Pp levels - books 4, 5, 6. Vocabulary in Teacher Guide.

b. Ginn 720 (c. 1976) (Levels 1-13, Grades K-6)

Words for reading are classified as Basic Words (Levels 2-9) Enrichment Words (5-9), Decodable Words (3-9), Words for Attention (9-13), Specialized Vocabulary (10-13).
The first reading text is a write-in text introducing 38 words. Words are introduced by "sight" and reinforced by writing and seeing in many situations. Words are introduced slowly, generally 1 per lesson at the beginning, up to 2 at times. At the end of each unit, a consumable book for vocabulary reinforcement is available.

The vocabulary through first grade continues to be carefully controlled (Level 3 up to 4 words per story; Level 4 up to 4 or 5).

The series uses criterion referenced evaluation and provides booster activities for students not meeting mastery level. Supplemental activities built into program.

NOTES: Ginn - Fits in well with Fernald Method.

Level II - Pocketful of Sunshine - write-in text. Introduce 17 consonant sounds.

Big jump between 2nd grade and 3rd grade books - doesn't have transition material like Harper and Row.

At the end of manual, have cumulative word lists.

- minimal vocabulary load
- supplementary "Skills Packs"
- 80% criterion level - if doesn't meet, uses "Booster" pages.
- Maintains careful vocabulary control until Level 5. At Level 5, have heavy load, need to know "decoding".


Series is based on premise that teaching the use of context clues (semantic and syntactic) is most important for efficient reading. Using the context and beginning sounds should help decode most words once a basic vocabulary is established.

In Level A consonants and 16 high-frequency words are taught. (These words account for 28% of a running vocabulary in books written for 3rd or 4th graders.) These 16 words are repeated an average of 53 times in Level B and account for 850,1400 running words in that level. Rebuses are used to help make language natural. In Levels B-F (grade 1) high frequency words are taught as basal words with sufficient repetition to build them into a sight vocabulary.

A complete assessment program is included in the teaching sequence.

d. Laidlaw Reading Program (c.1976) (Levels 1-13; Grades 1-6)

The Laidlaw Reading Program is organized into 3 broad classes of materials:
1. Basic (core) for all pupils
2. Prebasic for students needing a more gradual introduction of basic vocabulary and skills. Prebasic materials are provided for all levels in grade 1 and for the beginning of grades 2-6.
3. Expansion for able readers to provide indepth development and expansion of critical and creative reading skills. The reading level is approximately the same as that at the end of the basic. (Could be used as recreational reading for learning disabled students.)

Would recommend placing learning disabled students directly into Basic Level 2 (which teaches the sound/symbol relationships for consonants) rather than Prebasic 2 since Prebasic 2 materials emphasize learning letter names. This could be accomplished at the same time sounds are taught. One can choose to use Basic Level 2 continually throughout the beginning program since these skills are not essential to learning to read in the program.

Beginning with Prebasic Level 3 words are introduced by sight. A distinction is made between basic (high frequency) and special words. Words are continually reinforced with writing and through word games throughout the first grade sequence in both the Prebasic and Basic materials. Rebuses are used through level 5 to keep the vocabulary load down.

NOTES: 6 Levels in 1st grade
1. Vocabulary load does get heavy at times
2. Teaches all letter names in Prebasic 2.
3. Basic 2 teaches sound/symbol relationships (end notes)

The vocabulary load is generally acceptable up to Level 5. Story lessons generally introduce 5 or fewer words. The load increases somewhat in Levels 5 and 6, but can be kept within reason with proper instruction before a story is read.

Prebasic materials provide "skillstops" and "Funstops" for reinforcing vocabulary and skills rather than separate workbooks. Separate skill books are provided for the Basic materials beginning with Level 3.

For Prebasic materials different forms of guidance (for guiding silent reading) are provided to meet the needs of individual students.

NOTES:

Lesiak - Laidlaw - heavy vocabulary load.

e. Holt Basic Reading System (c.1977) (Levels 1-15 Gr. 1-6)

In Level 2 sounds of language and letters introduced (all consonant and short vowel sounds. By the end of each unit, child can write 3 letter words by filling in the initial consonant or missing vowel. Sixteen words to be encountered in Level 3 are introduced as whole words with attention drawn to consonant sounds.

Sounds/symbol relationships are reviewed in Level 3. Words are introduced as "sight" or as words to be decoded using initial consonant substitution making some of the vocabulary load high.

Unique feature: inclusion of spelling lessons in grade 2 materials.
NOTES: One of few whole word reading programs that teaches spelling along with reading. A child must know concept of rhyming words and consonant substitution to profit from this series. Can't skip consonant lessons. Does have emphasis on writing. Basically, a visual approach

f. Phoenix-Reading Series (Prentice-Hall, c.1974)

Designed for students in grades 4-6 or above reading 2 (or more) years below grade level. Three levels (A, B, C) are available, each presenting a comprehensive one school year sequence. Action readers (workbooks) would provide a separate phonetic skills program.

Reading Levels: A, 2-3; B, 3-4; C, 4-5.

NOTES:

1. Begins at 2nd grade level. Geared for boys and inner-city level.
2. No color. Black and white. Each level has 5 magazine type sections. Takes a year to get through a level.
3. Fairly well-controlled
4. Deals with social problems or environmental problems.
5. Problem: Uses idiomatic expressions like "learning the ropes" Action Reader workbook can be taught separately. Phonics workbook appropriate to older kids.

g. Action Reading System (Scholastic)

Two programs "Action" and "Double Action" for junior and senior high school students reading form 2.0 5.0 reading level.

Readability. Action 2.0 4.0, Double Action: 3.0-5.0

h. Mott Basic Language Skills Program (Allied Ed. Council, C. 1970's)

Comprised of: Semi-Programmed Series (Levels 1.0-9.5) Classroom Series (Levels 1.2-9.0) Comprehension Series (Levels 2.7-7.2) Word Attack Skills Book (Levels 1.2-5.0) Word Bank (Levels 3.0 5.0) Consumer Buying - Basic Number and Money (Level 3.0 5.0) Placement Guide

Appropriate for junior and senior high students and adults

III. Materials with phonetic/linguistic emphasis (For use with Orton-Gillingham Approach or Auditory Approach of Slingerland)

a. Palo-Alto Reading Program (Harcourt, Brace, Javonovich, c. 1973)

(Lev e l s 1-21, grades 1-3)

Developmental series for grades 1-3. Linguistic program structured in sequential steps, a total language arts program. (Multisensory)
b. **Programmed Reading** (McGraw Hill, c.1973) *(Levels Readiness - 23, Grades K-3)*

Developmental series for grades 1-3 written in a programmed learning format, phonic/linguistic.

**NOTES:** Lesiak - Palo Alto is best auditory program. Can slow pace down - use with Orton-Gillingham or Slingerland. Try to teach skills in lower books and skip books for older kids if stories are too dippy.

Start with Book 4.

**Multisensory** - teach handwriting, spelling, and writing.

c. **Recipe for Reading** (Educators Publishing Service, c.1975)

Manual is based on the work of Orton-Gillingham and contains lessons designed to teach the sounds of the language. Students learn to use letters in writing, spelling and reading. Beginning instruction centers around 9 letters: hard c, short o, short a, d, hard g, m, l, h.

Specific directions are given in the manual for preparing required materials and for presenting each lesson.

**Materials:** Manual, sequence chart, masters, series of story books.

d. **Primary Phonics More Primary Phonics** *(Educators Publishing Service)*

Primary Phonics is a phonic approach to the teaching of reading. More Primary Phonics reinforces the skills developed in Primary Phonics.

Both series are comprised of workbooks and storybooks. Each workbook is progressive in difficulty with constant review. The storybooks are comprised of words containing the phonetic elements taught in the workbooks.

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**ADDITIONAL METHOD - MATERIALS**

**Multi-Sensory Approach** - The Neurological Impress Method

Auditory emphasis - Miami Linguistic Readers - D. C. Heath and Company  
Stern Structured Reading - Houghton - Mifflin  
Phonovisual Method Remedial Reading Drills - Hegge, Kirk and Kirk

Visual emphasis - Scott Foresman Open Highways

Others - Reader's Digest Skill Builders - Readers Digest  
Barnell Loft Specific Skills Series - Dexter and Westbrook, Ltd.  
Sullivan Programmed Readers - McGraw Hill  
Structured Reading Program - Random House  
Bookmark Reading Program - Harcourt, Brace, Jovanovich, Inc.
READING

Kinder-Fun Series - Ann Arbor Press
Learning to Think - Thelma Thurstone
Alphabet Book - Science Research Association
Instant Readers, Primary - Bill Martin - Harcourt Brace
Sounds Readers/w Cassettes - Bill Martin - Harcourt Brace
Bomar Reading Incentive Program w/Cassettes, books and film strips - Bomar Co.
Monster Books - film strips, cassettes - Bomar Co.
Clues - Kit; tapes, books, game; - Educational Progress, Inc.
Pal Reading Rally Games - Xerox Corp.
The Game Tree Boxes - Xerox Corp.
Sound Foundation Program - Developmental Learning Material
Written Language Cards - Developmental Learning Material
Distar Reading, Distar Language Kit - Distar Publishing
Specific Skills Series - S.R.A. Inc.
Interaction Cards - Houghton-Mifflin
Initial and Final Consonants - Ideal
Beginning Sounds - Wipe Offs - Trend Enterprises
Alphabet Motor Training - Developmental Learning Material
Systems 80 - Reading Program
Hoffman - Reading Program ) Machines
Language Master - Language Reading Program )
Stern Structured Math - Houghton, Mifflin
Mathematics Around Us - Scott Foresman
Mathematics Readiness Program - Modern Curriculum Press
Moving Up in Numbers, Money, Time, and Story Problems - Developmental Learning Materials
Simple Lattice Approach to Mathematics Subtraction, Multiplication, Division - Prentice Hall
Field Mathematics Program - Field Enterprises
Individual Computational Skills Program - Houghton-Mifflin
Spectrum Mathematics - Laidlaw
Unifax Structured Math
Math Games - Creative Teaching Associates
Greater Cleveland Math Program - S.R.A.
Field Math Program
Multiplication Fact Gorillas - Trend Enterprises
Shopping Game - Developmental Learning Material
Fraction Dominos - Developmental Learning Material
Cuisinart Rods
Fraction Matchups - Developmental Learning Materials
Coins and Bells - Developmental Learning Materials
Number Bingo - Trend Enterprises
Number Lotto - Simplex
Match-Ups - #1-24 - Playschool
Mathematics for Individual Achievement - Houghton-Mifflin
COMMUNICATION SKILLS

Listening and Speaking

Below are listed specific materials to encourage language development skills. However, in a more general way, the use of drama, pantomime, and puppetry is encouraged as a means of developing listening skills and speaking ability, creative expression, ideas, concepts and feelings across the entire scope of the curriculum.

Language Big Box - DLM
Peabody Early Learning Experiences
Peabody Language Kit - Level #1 and #2
Here Comes Howie Kit - Language & Perceptual Discrimination - Bell & Howell

HANDWRITING

D'Nealian Handwriting - Scott, Foresmen and Company
Manuscript and Cursive Writing - Ann Arbor Publishing
Cursive Writing Duplicating Materials - McGraw-Hill/Instructo
Cursive Writing Under the Big Top - Lee Momurry - Prentice Hall Learning Systems, Inc.
Cursive Writing; Words and Letters - Ann Arbor Publishers
Cursive Forms - by Karen McBratnie
    The Teacher's Assistant
    P. O. Box 58
    Plymouth, Mich. 48170

The Grosse Pointe Manuscript System
The Grosse Pointe Cursive Writing System
Cursive Handwriting - Dubnoff

SPELLING

Sound Foundations Materials - Developmental Learning Materials
Michigan Program Spelling - Ann Arbor Publishers
Dolch Words

Sounds Foundations - Developmental Learning Materials

Spello - Michigan Products
PPP
an
and
away
big
blue
can
come
down
find
for
funny
go
help
here
I
in
is
it
jump
little
look
make
me
my
not
one
play
red
run
said
see
the
three
to
two
up
we
where
yellow
you
P,
al
am
are
at
ate
be
black
brown
but
came
did
do
eat
four
get
good
have
he
into
like
must
new
no
now
on
our
out
please
pretty
ran
ride
saw
say
she
so
soon
that
there
they
this
two
under
want
was
well
went
what
white
who
will
with
yes
GRADE #1
after
again
an
any
as
ask
by
could
every
fly
from
give
going
had
has
her
him
his
how
just
know
let
live
may
of
old
once
open
over
put
round
some
stop
take
thank
them
then
think
walk
were
when
GRADE #2
always
around
because
been
before
best
both
buy
call
cold
does
don't
fast
first
five
found
gaye
goes
green
its
made
man
off
or
pull
read
right
sing
sit
sleep
tell
their
these
those
upon
us
use
very
wash
which
why
wish
work
would
write
your
GRADE #3
about
better
bring
carry
clean
cut
done
draw
drink
eight
fall
far
full
got
grow
hold
not
hurt
if
keep
kind
laugh
light
long
much
myself
never
only
own
pick
seven
shall
show
six
small
start
ten
today
together
try
warm
SOCIAL - EMOTIONAL

Choice and the Individual - Grosse Pointe Social Studies Curriculum Guide
TAD - American Guidance Company
Duso the Dolphin - American Guidance
I've Got to be Me- (book & record) - Marlo Thomas
Consequence Cards - Developmental Learning Materials
Reaction Cards - Developmental Learning Materials
Sensitivity Cards - Developmental Learning Materials
Learning About Values - Learning Resource Center

CAREER EDUCATION

Career Flip Books - Developmental Learning Materials
Career Environment Cards - Developmental Learning Materials
Occupational Match-Ups - Developmental Learning Materials
RESOURCES

Learning Disabilities; Concepts & Characteristics

Gerald Wallace and James A. McLaughlin
Charles E. Merrill Publishing Company

Learning Disabilities; A Competency Based Approach

Larry A. Faas
Houghton-Mifflin Company

The Harmony Learning Disabilities; Instructional and Mainstreaming "odel
Curriculum Guide for Reading, Written Language, and Mathematics

Greg Kirch, Ph.D.
Project Director

Produced by Ingham Intermediate School District; Mason, Michigan
2630 West Howell Road
Mason MI 48854
# Student Achievement Profile

**LEARNING DISABILITIES CLASSROOM**

For

<table>
<thead>
<tr>
<th>Name</th>
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<table>
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<tr>
<th>Student Number</th>
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<th>Level III</th>
<th>Teacher(s)</th>
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The student achievement profile consists of performance objectives grouped into the following curriculum areas: Cognitive-Perceptual-Motor Readiness Skills, Reading, Mathematics, Communication Skills, Social-Emotional, and Career Education. The profile is designed to provide a longitudinal record of a student's achievement from year to year throughout his/her tenure in a Learning Disabilities Classroom.

Columns provided at the left of the pages indicate four levels of competency for each objective. The teacher indicates the level by writing the month and the year in the appropriate box. Below the four competency level terms are defined.

IN PROCESS - Introduction and development of the skill

ACHIEVED WITH MAINTENANCE - Passed post test, but needs regular review for retention

ACHIEVED - Demonstrates mastery unassisted over a significant period of time

REVIEW - Has reached "ACHIEVED" level, but after extended time period (summer vacation, etc) requires additional emphasis to re-attain mastery level
COGNITIVE-PERCEPTUAL-MOTOR READINESS SKILLS

SCOPE AND SEQUENCE

A. Gross Motor Skills

1. Demonstrates awareness of body position in surrounds (space)
2. Demonstrates ability to change body position to reach destinations (direction)
3. Demonstrates ability to control body when using both sides simultaneously, individually, or alternately (balance)
4. Throws a ball with a reasonable degree of accuracy
5. Jumps feet together
6. Jumps simple obstacles without falling
7. Hops on one foot
8. Gallops
9. Skips in normal play
10. Coordinates movement with named body parts
11. Moves correct hand and foot upon command 055C
12. Moves right and left as directed 055D

B. Eye-Hand Coordination

1. Draws line from left to right on blackboard
2. Uses whole arm in reproducing shape on blackboard 029A
3. Uses whole arm in reproducing shape in clay pan 029B
4. Uses whole arm in reproducing shape in sand 029C
5. Uses whole arm in reproducing shape in space 029D
6. Uses whole arm in reproducing shape in paper 029E
7. Uses whole arm in drawing an arc 030A
8. Copies model of intersecting lines 030B
9. Draws line across paper in direction requested 030C
10. Draws line from left to right on paper 030C
11. Cuts out simple shapes 059A
12. Pastes simple shapes with boundaries 057D
13. Reproduces lines of angle on pegboard 030D
14. Reproduces pattern on pegboard 030E
15. Reproduces pattern on pegboard with 30-second stimulus 031A
16. Builds 10 piece vertical structure 056C
17. Creates 2- and 3-dimensional forms
19. Colors simple object within black lines 058B
20. Colors two or three objects within a picture

C. Visual-Discrimination of Size

1. Selects objects which are same size
2. Sorts objects by size of design, as directed
3. Selects pictures of items of varying size
4. Points to pictures of big and little objects 152n
5. Arranges pictures from smallest to largest objects
6. Places hand on larger set from visual inspection
7. Points to larger of two objects 062E
8. Picks up smaller of two objects 063A
9. Arranges pictures from smallest to largest objects
10. Picks up longest or shortest object as requested 064A
11. Chooses picture of tallest or shortest child 061D
12. Arranges pictures from shortest to tallest

D. Visual Discrimination of Shape

1. Identifies four shapes by name 060D
2. Selects object of same shape as model 063B
3. Selects objects which are same shape 062C
4. Picks up two objects of similar shape
D. Visual Discrimination of Shape (continued)
   5. Matches and pastes shapes according to model

E. Visual Discrimination of Color
   1. Selects objects which are same color 062B
   2. Identifies three primary colors 152C
   3. Names primary colors on pictures
   4. Sorts twenty objects into four groups according to color
   5. Identifies eight basic colors

F. Likenesses and Differences
   1. Identifies likenesses and differences of sequenced patterns 060D
   2. Identifies same and different forms in series
   3. Selects one object of five which is different
   4. Points to pictures of common objects in book

G. Sequencing
   1. Duplicates pattern of three to five objects
   2. Places five pictures in correct sequential order
   3. Places three pictures of sets in sequence by number (1-5)

H. Closure
   1. Identifies missing part of object drawn; draws picture complete
   2. Manipulates parts to form whole object
   3. Names object from outline print folded in half
   4. Solves six-to-eight piece puzzle
   5. Completes pattern of three, given first object of series and model

I. Figure Ground
   1. Cuts out dominant object in a picture
   2. Works simple puzzles with dominant forms
   3. Follows intersecting lines
   4. Colors the dominant object
   5. Solves a simple maze
J. Perceptual Constancy
   1. Recognizes the same object drawn in different sizes
   2. Recognizes forms in different positions and from different angles
   3. Recognizes varying forms of same objects (kinds of dogs, cats)

K. Auditory Memory
   1. Reproduces tapped rhythms of teacher, with eyes closed
   2. Repeats sequence of three words given by teacher, with eyes closed
   3. Repeats sentence of five words spoken by teacher, with eyes closed
   4. Listens to stories and retells in own words

L. Auditory Discrimination
   1. Identifies source of environmental sounds, such as indoor, outdoor
   2. Identifies specific sounds such as, animals within school
   3. Identifies sound to visual symbol
   4. Screens out background noise for selective listening

M. Conceptual Thinking
   1. Identifies objects according to class or family
   2. Identifies objects according to position: front, back, over, under; etc.
   3. Identifies sequence of time and action (first, last, near, far)
   4. Duplicates or predicts certain simple patterns
   5. Gives personal data verbally (name, age, address)
   6. Follows simple oral directions; one, two, then three at a time
   7. Answers correctly simple questions
   8. Understands terms such as days, weeks, seasons, months, etc.
   9. Identifies verbally major body parts: head, body, legs, arms
   10. Identifies verbally smaller body parts: elbow, teeth, wrist, hand, neck, heel, nose
   11. Understands simple associations: knives - cut, airplanes - fly
   12. Understands simple opposites: night - day, happy - sad, hot - cold
M. Conceptual Thinking (continued)

13. Understands simple abstractions: wish, hope, feelings, attitudes

14. Understands simple cause and effect: hot - burns, rain - wet

15. Can predict results of action: drop an egg, throw a ball at a window,
READING SCOPE AND SEQUENCE

WORD ATTACK SKILLS

PHONETIC ANALYSIS

Initial and Final Consonants

1. Identifies words with same initial consonant 181A
2. Fills in initial consonant sound, given picture clue to word 203D
3. Relates initial consonant sound to symbol 181C
4. Identifies ending consonant of words 181D
5. Fills in final consonant sound, given picture clue to word 203E

Medial Consonants

1. Identifies medial pronounced consonant sound 182D
2. Fills in medial consonant, given picture clue to word 204C

Consonant Blends

1. Identifies initial consonant blends of words 181E
2. Identifies ending consonant blends of words 182A
3. Fills in final blend, given picture clue to word 204A

Consonant Digraphs

1. Identifies initial consonant digraphs 182B
2. Identifies ending consonant digraphs of words 183C
3. Fills in beginning digraph, given picture clue to word 204B
4. Fills in final digraphs, given picture clue to word

Variant Consonants

1. Pronounces words with variant "c" and "g" sounds 204C
2. Identifies "f" -- pronunciation of "ch" and "ph" 204D

Vowel Identification

1. Identifies vowels in list of letters 204E
2. Selects word with same vowel sound as visual and oral key 205B
3. Uses model vowel sound to name object in picture 204E
Short Vowels
1. Matches short vowel sound in word with picture of object 205A
2. Circles letter of short vowel heard in word 205B
3. Pronounces words with short vowel in medial position 182E

Long Vowels
1. Tells which long vowel sound heard in word 207C
2. Reads names of objects and identifies long vowels 207B
3. Pronounces words with long vowels 183A
4. Pronounces words with long and short vowels in list 185D

Vowel Patterns
1. Pronounces words with vowel as final letter 208B
2. Switches from short to long vowel when final "e" added to word 207A
3. Fills in preceding vowel in words ending with "e" 206E
4. Underlines long vowel in ten words with vowel combination 205E
5. Circles vowel combinations heard in oral word list 206D
6. Fills in vowel combination, given picture clue to word 206C
7. Selects word with same vowel sound as in visual key, letters marked
8. Pronounces and identifies "y" as consonant or vowel 208A
9. Identifies words with same final "y" sound 185C
10. Pronounces words containing "a - l" and "a - w" 185A
11. Pronounces words with vowels followed by "r, v, l" 207E
12. Selects vowel digraph to match one in stimulus word 184D
13. Identifies diphthongs "ew, ol, oy, ou, ow" in stimulus word 185B
14. Identifies silent letters in words in list 185E
15. Pronounces in sentences words with vowel-vowel combinations 207D
Abbreviations

1. Matches common words with abbreviation
2. Matches abbreviations to whole words 183D
3. Identifies terms meter, centimeter and abbreviations as linear
4. Identifies terms milliliter, liter and abbreviations as liquid
5. Reads measurement abbreviations as full words 201D

Contextual Clues

1. Infers meaning from statement 187E
2. Selects correct meaning of word in context from multiple meanings
3. Determines meaning of word from context of sentence 209C
4. Determines meaning of unknown word from context
5. Chooses words which complete sentence

Word Structure

1. Identifies common and proper nouns
2. Identifies compound words in list 183B
3. Identifies nouns as singular or plural
4. Identifies plurals in list 184A
5. Chooses singular or plural form of verb in sentence
6. Identifies contractions in list 183C
7. Identifies possessive form in context 186B
8. Identifies prefixes or suffixes 186D
9. Knows meaning of prefixes and suffixes 186D

Syllables

1. Can tell the number of syllables in a word auditorily
2. Identifies syllables in multisyllabic words 186A
3. Selects syllable of words containing long vowel 205C
4. Pronounces syllable "tion" as "shun" 205D
5. Divides into syllables words with one diphthong---one syllable
6. Divides into syllables words with double consonants
Syllables (continued)

7. Divides into syllables words with two consonants—two vowels
8. Divides into syllables words with one consonant between two vowels
9. Divides into syllables words with three vowels—three syllables

ORAL READING AND COMPREHENSION

Pre-Primer Level

1. Can read comfortably orally with 95% accuracy
2. Can read with comprehension accuracy of 80% or more

Primer Level

1. Can read orally without experiencing difficulty in pronouncing more than one word in 20 (95% accuracy)
2. After reading passage orally, can verbally answer comprehension questions regarding content with an accuracy of 80% or more

First Grade Level

1. Can read orally without experiencing difficulty in pronouncing more than one word in 20 (95% accuracy)
2. After reading passage orally, can verbally answer comprehension questions regarding content with an accuracy of 80% or more

Second Grade Level

1. Can read orally without experiencing difficulty in pronouncing more than one word in 20 (95% accuracy)
2. After reading passage orally, can verbally answer comprehension questions regarding content with an accuracy of 80% or more

Third Grade Level

1. Can read orally without experiencing difficulty in pronouncing more than one word in 20 (95% accuracy)
2. After reading passage orally, can verbally answer comprehension questions regarding content with an accuracy of 80% or more

Fourth Grade Level

1. Can read orally without experiencing difficulty in pronouncing more than one word in 20 (95% accuracy)
2. After reading passage orally, can verbally answer comprehension questions regarding content with an accuracy of 80% or more
Fifth Grade Level

1. Can read orally without experiencing difficulty in pronouncing more than one word in 20 (95% accuracy)

2. After reading passage orally, can verbally answer comprehension questions regarding content with an accuracy of 80% or more

Sixth Grade Level

1. Can read orally without experiencing difficulty in pronouncing more than one word in 20 (95% accuracy)

2. After reading passage orally, can verbally answer comprehension questions regarding content with an accuracy of 80% or more

SILENT READING COMPREHENSION SKILLS

Detail

1. Recalls details of story read 190E

2. Draws picture showing descriptive detail of story 042B

3. Answers questions about story just heard 022B

4. Recognizes quotations and speakers in written statement 191A

5. Tells sequence of events and character's feelings in story 189A

6. Identifies part of sentence answering "who, what, when, where" 193A

7. Selects pronoun to fill blank 192B

8. Inserts pronoun referent in second sentence 192C

Main Idea

1. Identifies topic sentence in paragraph 191D

2. Identifies main idea of written story 191C

Sequencing

1. Arranges scrambled words into sentence 188D

2. Arranges paragraphs in logical sequence 188E

3. Relates order of specific events in narrative 189A

Cause and Effect

1. Identifies cause and effect sentences 210B

2. Tells effect of cause presented orally or in writing 193D
Fact/Opinion
1. Distinguishes between statements of fact and opinion 188B
2. Identifies opinions of characters in story and adds own 027A

Inference
1. Infers meaning from statement 187E

Classification
1. Groups words under common heading 192E
2. Classifies words into given categories
3. Classifies phrases under "who, what, when, where" categories 193A
4. Sorts statements under key sentence 193B

Problem Solving
1. Identifies problem and solution in series of events 026E
2. Gives alternative solutions to problems in unfinished story 027C

Conclusions
1. Tells outcome of oral statement or pictured event 193C
2. States conclusion of narrative account 193E

Following Directions
1. Follows directions of one or more steps 189B
2. Follows printed directions on work sheet 189C

Summarizing
1. Selects summary title for statements 191E
2. Writes statement summarizing paragraph 192A
3. Identifies part of sentence answering "who, what, when, where" 190C
4. Classifies phrases under "who, what, when, where" categories 193A

Fact/Fantasy
1. Distinguishes between fact and fantasy in written selection 188A
VOCABULARY SKILLS

Sight Vocabulary (Word Recognition)

1. Pronounces Pre-primer Dolch List 186E
2. Pronounces Primer Dolch List 187A
3. Pronounces First Grade Dolch List 187B
4. Pronounces Second Grade Dolch List 187C
5. Pronounces Third Grade Dolch List 187D
6. Pronounces supplementary word list drawn from his experiential background
7. Reads direction words orally
8. Reads common sign words

Word Meanings

1. Selects correct homonym from context 190A
2. Identifies words as synonyms, antonyms, homonyms 190B
3. Tells if paired words have same meanings: middle-center 189D
4. Tells if paired words have opposite meanings: hot-cold 189E

Contextual Clues

1. Infers meaning from statement 187E
2. Selects correct meaning of word in context from multiple meanings
3. Determines meaning of word from context of sentence 209C
4. Determines meaning of unknown word from context
5. Chooses words which complete sentence
MATHMATICS SCOPE AND SEQUENCE

Numeration and Sets - Recognition

A. Color
1. Identifies sets by attributes 076C
2. Identifies three primary colors 152C
3. Names primary colors on objects 051D
4. Sorts 20 objects into 4 groups according to color 060A
5. Uses color as a description of an object 015E
6. Identifies 8 basic colors on chart 180A

B. Shapes
1. Selects objects of same shape as model 063B
2. Sorts objects by size or design, as directed 155A
3. Identifies 4 shapes by name 060B
4. Draws 4 shapes and names them 060D
5. Picks out objects with 2 specific attributes 061C

C. Sequencing and Patterning
1. Duplicates patterns of three to five objects 061B
2. Matches shapes according to model 063B
3. Completes pattern given first object of series and model 061E

D. Sets - Greater Than, Less Than
1. Identifies set with most numbers (1-5); (6-10)
2. Identifies set with fewest numbers (1-5); (6-10)
3. Identifies sets having the same number of objects (equivalent sets)
4. Identifies set with more members 063E
5. Identifies set with fewer members
6. Makes set with 1 more member than model 070D
7. Draws set with 1 more member than model 070E
8. Makes set with 1 fewer member than model 071A
9. Draws set with 1 fewer member than model 071B
10. Makes set with more numbers than model 071D
11. Draws set with more numbers than model 070E
12. Makes set with fewer members than model 071C
13. Draws set with fewer members than model 071B
14. Identifies set containing a number between another two numbers
   (1-5); (6-10) 076C
15. Discriminates most/least; many/few objects in a set
16. Joins set of objects to determine a combined quantity: 3, 4, 5, 6, 7, 8, 9, 10

Uses Symbol Greater Than, Less Than

1. Demonstrates mastery of most/least, many/few objects presented in "Set" section.
2. Identifies symbols as meaning "greater than", "less than"
3. Given a written pair of numerals, puts in the proper symbol - greater than or less than

Numeration (Numbers)

1. Counts by rote to 10, 20, 30, 40, 50, 60, 70, 80, 90, 100 111D
2. Counts objects: 3, 6, 8, 12, 16, 24 064D
3. Joins sets of objects to determine a combined quantity: 3, 4, 5, 6, 7, 8, 9, 10
4. Writes numerals in sequential order to 5, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100 075D
5. Reads number words to five, ten, fifteen, twenty, thirty, forty, fifty, sixty, seventy, eighty, ninety, one hundred, one thousand, ten thousand, hundred thousand, million 074E
6. Recognizes ordinal numbers to first, fifth, tenth, twentieth, thirtieth 076D
7. Recognizes and reads numbers to 9; 99; 999; 9,999; 99,999; 999,999; 9,999,999
8. On request writes numerals of a quantity of 9; 99; 999; 9,999; 99,999; 999,999; 9,999,999 or less 076A
9. Names numbers that come between 2 given numbers (0-10); (11-20); (21-30), etc. 065
10. Names and writes numbers that come before and after give: number (0-10); (11-20); (21-30); etc. 065C

11. Counts by 10's to 100; 2's to 20; 5's to 100

12. Indicates odd and even numbers from 1 to 100

13. Identifies numbers and writes them in expanded notation (9-90); (90-999)

14. Recognizes fractional parts with denominator of 2, 3, 4, 5, 6, 7, 8

15. Recognizes fractional numerals with denominator of 2, 3, 4, 5, 6, 7, 8

16. Decimals: Reads tenths, hundredths, thousandths, ten thousandths

Place Value Ones, Tens and Hundreds

1. Picks out 10 objects on request 074B

2. Says "ten" when asked how many objects he has 074C

3. Separates 100 objects into 10 bundles 075E

4. Forms sets of 10 and labels them 075A

5. Collects 10 objects, says he has 1 ten and no one 074D

6. Counts and groups objects in sets of tens and ones 077B

7. Represents numbers with counters 075B

8. Puts numbers under proper place value 077C

9. Shows knowledge of place value in written form 077D

10. Shows knowledge of place value of hundreds 112C

Addition of Whole Numbers

1. States sum of 2 sets of objects (1-5); (6-10); (11-20) 079A, 079D

2. Identifies addition and equal sign

3. Writes sum of 2 pictured sets with number sentences (1-5); (6-10); (11-20) 079F

4. Finds correct sums using number line (1-5); (6-10); (11-20)

5. Computes the sum of 2 (1) digit numbers to 6, 8, 10, 12, 15, 18, 20

6. Computes the sum of n 1-digit numbers

7. Computes the sum of a 1-digit and a 2-digit number not requiring regrouping

8. Computes the sum of 2 2-digit numbers, not requiring regrouping

9. Computes the sum of n 2-digit numbers, regrouping
10. Computes the sum of a 1-digit and a 2-digit number, requiring regrouping
11. Computes the sum of two 2-digit numbers, requiring regrouping
12. Computes the sum of n 2-digit numbers, requiring regrouping
13. Computes the sum of two n-digit numbers, requiring regrouping
14. Computes the sum of n n-digit numbers, requiring regrouping
15. Computes the sum of two amounts of money with decimals and up to 5 digits

Subtraction
1. States difference of 2 sets of concrete objects 082D
2. Given 2 pictured sets, states differences no greater than (5), (10) 083C
3. Identifies subtraction sign
4. Writes difference of 2 pictured sets (1-5); (6-10); (11-20) with number sentences
5. Finds correct differences using number line. Differences to (1-5); (6-10), (11-20) 084A
6. Computes the difference of 2 1-digit numbers. Minuends to 6, 8, 10, 12, 15, 16
7. Computes the difference of a 1-digit and a 2-digit number, no regrouping required
8. Computes the difference of 2 2-digit numbers, no regrouping required
9. Computes the difference of n 2-digit numbers, no regrouping required
10. Computes the difference of a two-digit number and a 1-digit number requiring regrouping
11. Computes the difference of 2 two-digit numbers, requiring regrouping 084B
12. Computes the difference of a 2-digit number and a 3-digit number requiring regrouping
13. Computes the difference of 2 3-digit numbers requiring regrouping 084C
14. Computes the difference of a three-digit number possessing 2 zeros and a two-digit number requiring regrouping
15. Computes the difference of a 3-digit number with a zero in the tens place and a 2-digit number requiring regrouping
16. Computes the difference of n-digit numbers requiring regrouping.

17. Computes the difference of two amounts of money with decimals and up to 5 digits with regrouping required.

**Multiplication**

1. Writes array or addition problem to express multiplication fact 084E

2. States "times" or "multiply" to sign "x" 085A

3. Knows basic /x/ facts: 2's, 3's, 4's, 5's, 6's, 7's, 8's, 9's, 10's 085B

4. Computes the product of a (2) (3) (4) digit number by a 1-digit number, no regrouping required.

5. Computes the product of a (2) (3) (4) digit number by a 1-digit number, requiring regrouping 085E

6. Given a 1-digit number and an amount of money with decimal and up to 4 digits, multiplies requiring regrouping.

7. Computes the product of 2 two-digit numbers, requiring regrouping.

8. Given a 2-digit number and a 3-digit number, multiplies requiring regrouping.

9. Computes the product of an n-digit number and an n-digit number, requiring regrouping. 086A

**Division**

1. Partitions an even-numbered set of objects into n equal subsets.

2. Given a pictured set, divides it into subsets to express a division equation.

3. Identifies equation forms and signs $\div$, $\frac{a}{b}$, $a \div b$, $a \div b$.

4. Writes division facts using same numbers as in given /x/ facts 086E.

5. Knows divisors to 2, 3, 4, 5, 6, 7, 8, 9.

6. Divides a 2-digit number by a 1-digit number with a 2-digit number in the quotient, no remainder.

7. Divides a three-digit number by a one-digit number, no remainder.

8. Divides a number up to 4 digits by a one-digit number, no remainder.

9. Divides a number up to 4 digits by a 1-digit number, with a remainder.

10. Divides a number up to 4 digits by a 2-digit number, no remainder.
11. Divides a number up to 4 digits by a 2-digit number, with remainder
12. Divides any number by a number up to 3 digits, with remainder
13. Divides any 2 numbers, and expresses the remainder as a fraction
14. Divides two numbers and expresses the answer in decimal form

Fractions

1. Distinguishes between "a part" of a unit and a "fractional part" of a unit
2. Names fractional parts of a geometric design (1/2, 1/4, 1/3) (a whole)
3. Divides a geometric design (a "whole") into fractional parts (1/2, 1/4, 1/3)
4. Writes fractions (1/2, 1/4, 1/3) as parts of a whole
5. Names fractional parts of a set (1/2, 1/4, 1/3)
6. Divides a set into fractional parts (1/2, 1/4, 1/3)
7. Writes fractions (1/2, 1/4, 1/3) as parts of a set
8. Writes half, third, and fourth when presented as parts of a set
9. Represents the number 1 in the form of a fraction
10. Describes and demonstrates, by means of a model, the meaning of numerator and denominator
11. Identifies fractional numerals by name
12. Given a geometric design divided into equal parts (1-10 parts), identifies the fraction formed by \( n \leq 10 \) of these parts
13. Given a set of equal parts (1-10 parts), identifies the fraction formed by \( n \leq 10 \) of these parts
14. Shows equivalency of fractions with denominators of 2, 3, 4, 5, 6, 8, 10
15. Changes fractions to higher or lower terms
16. Uses signs <, >, = to show relations between pairs of fractions
17. Renames mixed numbers and improper fractions, i.e., converts mixed numbers to improper fractions and vice versa
Fractions - Addition and Subtraction

1. Adds 2 proper fractions with like denominators, no regrouping required
2. Subtracts 2 proper fractions with like denominators, no regrouping required
3. Adds proper fraction to a mixed number with like denominators, no regrouping
4. Subtracts a proper fraction from a mixed number with like denominators, no regrouping required
5. Adds mixed numbers with like denominators (no regrouping required)
6. Subtracts mixed numbers with like denominators (no regrouping required)
7. Adds proper fractions with like denominators, regrouping required
8. Subtracts proper fractions with like denominators, regrouping required
9. Adds mixed numbers with like denominators, regrouping required
10. Subtracts mixed numbers with like denominators, regrouping required
11. Adds proper fractions with unlike denominators, regrouping required
12. Subtracts proper fractions with unlike denominators, regrouping required
13. Adds mixed numbers with unlike denominators, regrouping required
14. Subtracts mixed numbers with unlike denominators, regrouping required

M. Fractions - Multiplication

1. Given a set of objects (multiples of 2, 3, or 4 <12) and the fraction 1/2, 1/3, or 1/4, marks off the given fraction of a set, and writes an appropriate number sentence using the word "of"
2. Defines "of" in multiplication
3. Multiplies unit fractions (numerator is 1; denominator is ≤10)
4. Multiplies fractions with numerators greater than one
5. Multiplies a whole number and a fraction
6. Multiplies a mixed number and a fraction
7. Multiplies a whole number by a mixed number
8. Multiplies a mixed number by a mixed number
Fractions - Division

1. Divides a whole number by a unit fraction
2. Divides a whole number by a fraction
3. Divides a fraction by a fraction
4. Divides a mixed number by a fraction
5. Divides a fraction or a mixed number by a whole number
6. Divides a mixed number or a whole number by a mixed number

Decimals - Basic Skills and Operations

1. Given a place value chart and a numeral of no more than three decimal places, describes the value of each digit in the numeral
2. Given a model of a fraction illustrating tenths, then hundredths, identifies, names, and writes the decimal illustrated
3. Reads and writes decimal numbers, without a model
4. Given a decimal fraction, renames it as an equivalent decimal fraction
5. Given a numeral with no more than three decimal places, rounds to the nearest whole number, tenths, or hundredths as requested
6. Given a decimal fraction, renames as a common fraction
7. Changes a common fraction to a decimal fraction (using fractions with 10, 100, 1,000 etc. as a denominator)
8. Changes a proper fraction to a decimal fraction (up to three decimal places)
9. Changes a mixed number to a decimal number (up to three decimal places)
10. Adds decimal numbers (up to three decimal places), no regrouping required
11. Subtracts decimal numbers (up to three decimal places), no regrouping required
12. Adds decimal numbers, regrouping required
13. Subtracts decimal numbers, regrouping required
14. Multiplies a decimal number by a whole number
15. Multiplies 2 decimal numbers
16. Divides a decimal number by a whole number
17. Divides a decimal number by a decimal
P. Percents - Basic Skills and Operations

1. Changes a common fraction to an equivalent common fraction with a denominator of 100

2. Changes hundredths fractions and hundredths decimals to percents

3. Changes any proper fraction to a percent

4. Changes any mixed number to a percent

5. Changes any decimal number to a percent

6. Changes any percent to a proper fraction or a mixed numeral

7. Changes any percent to a decimal numeral

8. Finds a percentage of a whole number (25% of 24 = ?)

9. Finds what percent one number is of another, or writes the ratio of two numbers as a percent (25% of 24 = 6)

10. Finds a number if the percent of the number is known (25% of ? = 6)

Q. Story Problems

The goal of teaching computational skills is to enable the student to use such processes in solving daily problems. Therefore, the use of "story problems" is essential. These steps should be incorporated in solving problems using each computational skill. The following outline is from The Harmony Learning Disabilities Instructional and Mainstreaming Model Curriculum Guide for Reading, Written Language and Mathematics.

Be sure the student understands the vocabulary of the problem and has mastered the concepts necessary for solving the problem. A sequence of steps to help learning disabled students solve math problems follows:

1) Listen to or read problem

2) Analyze the problem by drawing a picture, arranging representative objects, or revisualizing

   a) Identify what to find out (What will the solution be?)

   b) Identify only the necessary information in the problem that is helpful in finding the solution.
c). Recognize and interpret key words to suggest the mathematical
process or operation to use

(1) addition - "in all", and "all together", "totally"
(2) subtraction - "difference", "how many less or more", words
of degree or comparison, -er, -est, "take away"
(3) multiplication - problem describes "equal group or quantity
of, "each (group) has", and with additional terms at end of
problem
(4) division - problem describes "total group or quantity",
"divided equally among" each (sub-group) gets, etc.

d) Identify the steps necessary to solve problems

3) Compose a "number sentence" (e.g., Ann bought a loaf of bread for 79¢.)
She also bought three apples for 10¢ each. How much money did Ann
spend in all? Number sentence = $.79 + (3 x $.10) = $___

4) Compute and check computation for accuracy and check answer to see
if it makes sense in the problem

5) Label the answer

R. Measurement - Readiness

1. Points to big and little objects upon request 062E - 063A
2. Points to pictures of big and little objects
3. Chooses picture of tallest or shortest object 061D
4. Selects objects of same size 062D
5. Arranges objects by size in ascending order 111C
6. Sorts objects by size or design, as directed
7. Arranges pictures in ascending order
8. Given up to 4 sets of linear non-standard units (pencils, clips, etc.) and
a given distance, uses a "train" of each unit to measure the distance
9. Uses parts of the body (fingers, hands, feet, arms) to measure objects
10. Measures objects to the nearest inch, given a ruler scaled only in inches and half-inches 105E
11. Constructs a measuring unit to measure length, given construction paper and an arbitrary unit ("thumbs", etc.)

S. Measurement - Concepts
1. States the quantity of a pair
2. Indicates objects purchased by the dozen
3. States the number of elements in a dozen

T. Measurement English System - Linear
1. Measures objects to the nearest foot or yard, as requested, using a yardstick
2. Measures objects to the nearest half-inch, given a ruler scaled only in inches and half-inches
3. Identifies unit markings on a ruler scaled down to eighth-inches
4. Measures objects to the nearest quarter-inch, given ruler scaled into eighth-inches
5. Measures objects to the nearest eighth-inch, given ruler scaled into eighth-inches
6. Given a standard ruler scaled into sixteenth inches, measures objects to the nearest eighth-inch
7. Given a standard ruler, determines the number of inches in a foot
8. Given a standard yardstick, determines (1) the number of feet in a yard and (2) the number of inches in a given number of feet
9. Knows relationship of linear measurement units from memory:
   1 ft. = 12 in.; 1 yd. = 3 ft.; 1 yd. = 36 in.; 1 mi. = 5,280 ft.
10. Converts linear measurement units: in. to ft. and ft. to in.; yds. to ft. and ft. to yds.; yds. to in. and in. to yds.
11. Uses a linear conversion table to convert inches, feet, yards and miles to common units

U. Measurement English System - Volume
1. Fills containers "full", "half-full", empty
2. Arranges glasses from full to empty
3. Determines the capacity of the container filled with water to the nearest cup, by experimentation
4. Identifies the terms cup, pint, quart, and gallon as units of liquid measure
5. Identifies common beverage containers as pints, quarts, half gallons, and gallons (e.g. empty milk cartons)
6. Determines by experimentation the number of: cups in a pint; pints in a quart; quarts in a half-gallon; quarts in a gallon 107A
7. States the number of cups in a pint, pint in a quart, quarts in a gallon
8. Uses a table of equivalent measures to convert units of liquid measure
9. Converts units of liquid measure: cups to pints; pints to quarts; quarts to gallons, and vice versa 107E

V. Measurement English System - Weight
1. Distinguishes between heavy and light objects
2. Identifies heavy and light objects from pictures
3. Uses a balance to determine the heavier (lighter) of 2 objects
4. Identifies ounces, pounds, tons as units of weight
5. Estimates the weight of an adult person
6. Uses a scale (bathroom or doctor's) to determine own body weight
7. Uses the weight of a given object to estimate the weight of a similar object of larger size
8. Uses the balance or scale to indicate in writing the weight of an object
9. Uses a table of equivalent weights to convert pounds to ounces, pounds to tons and vice versa
10. Converts units of weight without reference to a table
11. Adds or subtracts problems involving units of weight, without regrouping (converting)
12. Adds or subtracts problems involving units of weight with regrouping (converting)
13. Multiplies or divides units of weight by positive integers, without regrouping (converting)
14. Multiplies or divides units of weight by positive integers, with regrouping (converting)
15. Related spelling skills
16. Identifies terms of weight by sight: weight, pound, ounce, ton
17. Reads weight abbreviations as full words: wt., lb., oz.
18. Spells terms of weight
19. Spells weight abbreviations

Measurement Metric System - Linear
1. Identifies terms meter, centimeter and millimeter as linear
2. Identifies terms, abbreviations of metric linear measurement: m, cm, mm
3. Reads measurement abbreviations as full words: m, cm, mm
4. Given a meter stick or ruler with centimeters on it, identifies m, cm, mm, unit markings
5. Measures objects to the nearest meter, given a meter stick
6. Measures objects to the nearest cm, given a meter stick or ruler with cm on it
7. Measures objects to the nearest mm, given a meter stick or ruler with mm on it
8. Knows relationship of metric units from memory:
   \[100 \text{ cm} = 1 \text{ m}\]
   \[10 \text{ mm} = 1 \text{ cm}\]
   \[1,100 \text{ mm} = 1 \text{ m}\]
9. Converts metric measurement units: mm. to cm., cm. to m., m. to km.
X. **Measurement Metric System - Volume**

1. Identifies the term liter as a unit of liquid measurement
2. Identifies the one that is one liter when given models that differ in size by at least 50%
3. Identifies the names and symbols for the terms liter and milliliter
4. States the number of milliliters per liter
5. Adds and subtracts measures expressed in liters or milliliters

Y. **Measurement Metric System - Weight**

1. Identifies kilograms and grams as units of weight
2. Uses a table of equivalent weights to convert grams to kilograms and vice versa
3. Identifies terms of weight by sight: kilogram, gram
4. Reads weight abbreviations as full words: kg., gm.
5. Spells metric terms of weight
6. Spells metric weight abbreviations

Z. **Measurement English and Metric Systems - Area**

1. Finds area of object outlined on graph paper by counting square units
2. Identifies the relationship between counting square units and multiplying length times width
3. Finds the area of a rectangle measured to the nearest whole unit, by using the formula L x W

AA. **Measurement English and Metric Systems - Perimeter**

1. Finds the perimeter of a box by placing inch blocks around its outside
2. Identifies the relationship between counting blocks on outside of a box
3. Finds the perimeter of a rectangle, measured to the nearest whole unit, by using the formula 2L + 2W or L + L + W + W

HB. **Calendar - Days, Months, Years Readiness**

1. Demonstrates understanding of terms describing succession (order of events): first, second, etc., before, after
2. Demonstrates understanding of terms describing physical time: early, late, past, present, yesterday, today, tomorrow, now

3. Demonstrates understanding of concept of age: born, old young, younger, older, youngest, oldest, etc.

Calendar - Days, Months, Years

1. Names seasons of the year: summer, fall, winter, spring 094A
2. Matches pictures to seasons of year 093E
3. Names days of week in sequence 092E
4. States the number of days in a week (7 days = 1 week)
5. Names months of year in sequence 093A
6. States number of months in a year (12 months = 1 year)
7. States relationship between month, week, day, year 093C
8. States months in seasons of year 094A
9. Identifies a calendar by name and use
10. Identifies days of the week words by sight
11. Indicates the number of times a weekday occurs in a month, given a calendar
12. Indicates the number of days in a month, given a calendar
13. Knows ordinal numbers: understands the relationship between ordinal numbers and numerals
14. Indicates on which day of the week a specific date will fall, given a calendar
15. Indicates on which date a specific day will fall, given a calendar
16. Given a calendar and a specific time interval with its starting date, indicate the ending date of the interval
17. Uses holiday notations to identify months of the year on the calendar
18. Identifies month words by sight
19. Locates special events on the calendar: birthday, Christmas, Thanksgiving, New Year's Day, Halloween, Valentine's Day, month school begins, month school ends
20. States the number of days in a year 365 days = 1 year
21. States the number of weeks in a year 52 weeks = 1 year
22. Identifies calendar abbreviations by sight: da., wk., mo., yr.
23. Writes data using numeral notation or word form, e.g.: Feb 23, 1979
   February 23, 1979 or 2-23-79

DD. Telling Time
1. Recognizes that a clock is used to tell time; defines clock 094B
2. Writes numerals to 12 in the correct places on a blank clock face
3. Tells time to the hour, using a clock with only an hour hand
4. States orally the number of hours in a day
5. Identifies hour and minute hands on a clock
6. Tells time to the nearest hour 094C
7. Tells time to the nearest half hour 094C
8. Tells time to the nearest quarter hour 094D
9. Tells time to nearest five minute interval 094E
10. States orally the number of minutes in an hour
11. Tells time to the nearest minute interval
12. Writes time on a given clock face in time notation
13. Identifies a.m. and p.m. as abbreviations for morning and afternoon and evening
14. Uses a.m. and p.m. notation in writing time 095B
15. Figures future time to the nearest hour
16. Figures past time to the nearest hour
17. Figures future time to the nearest half hour
18. Figures past time to the nearest half hour
19. States the number of seconds in a minute (60 seconds = 1 minute)
20. States the number of minutes in a 1/4 hour (15 minutes = 1/4 hour)
21. Figures future time to the nearest quarter hour
22. Figures past time to the nearest quarter hour
23. Converts time units: seconds, minutes, hours, days, weeks, months, years
24. Figures future time to the nearest five minutes
25. Figures past time to the nearest five minutes
26. Sets alarm clock to ring at a specified time: hour, half hour, quarter hour
27. Identifies time abbreviations by sight: hr., min., sec., ‘, "

EE. Temperature
1. Estimates temperature outside: cold, hot, warm
2. Identifies appropriate dress as related to outside temperature
3. Identifies a thermometer by name
4. Identifies a thermometer by name and purpose
5. Recognizes the relationship between temperature and mercury level on a thermometer
6. Reads a thermometer to determine correct temperature
7. Given a Fahrenheit or centigrade temperature, indicates if it is above or below freezing
8. States the body temperature of a healthy person
9. Reads the temperature at which an oven dial is set

FF. Measurement – Money
1. Identifies penny, nickel, and dime by name
2. Identifies the cent value of penny, nickel, and dime
3. Matches money equivalents: 1 nickel = 5 pennies; 1 dime = 2 nickels; 1 dime = 10 pennies
4. Identifies quarter, half dollar and dollar bill by name
5. Identifies the cent value of quarter, half dollar, and dollar bill
6. Orders give different U.S. coins from least to most or most to least in value
7. Matches money equivalents: 1 quarter = 25 pennies; 1 quarter = 5 nickels; 1 half dollar = 5 dimes; 1 half dollar = 10 nickels; 1 half dollar = 2 quarters; 1 dollar = 100 pennies; 1 dollar = 20 nickels; 1 dollar = 10 dimes; 1 dollar = 4 quarters; 1 dollar = 2 half dollars
8. Adds any amount of coins whose value is less than or equal to 1 dollar
9. Adds any amount of bills whose value is less than or equal to 10 dollars
10. Identifies $5, $10, and $20 bills by name 097C
11. Writes money values using $ and decimal point 096D
12. Identifies money words: penny, nickel, dime, quarter, half dollar, dollar, cent(s), money
13. Writes money values in symbols from written words 097A
14. Identifies greatest and least amount of money written in symbols
15. Makes change up to $1, $5, $10, $20
16. Reads the face value of a filled-in bank check
17. Computes problems using dollar and cents notation
18. Approximates the amount of an odd number of quarters to the nearest dollar
19. Approximates the sum or difference of 2 money values less than or equal to $1.00 to the nearest ten cents
20. Approximates the sum or difference of 2 money values to the nearest dollar or ten cents
21. Chooses items to buy with a given amount of money
22. Makes change up to $100
23. Identifies information available from a filled-in check's stub
24. Identifies information available from a monthly bank statement for a checking account
25. Related spelling/reading skills:
   a) Identifies number words by sight
   b) Spells number words

**Geometry - Shapes**

1. Picks up 2 objects of similar shape 060C
2. Selects objects which are same shape
3. Selects objects of same shape as model
4. Sorts objects by size or design, as requested
5. Identifies and names models of circles, squares, rectangles and triangles 060B

6. Selects a given shape upon request

7. Identifies pictures of squares, circles, rectangles, and triangles

8. Uses whole arm in reproducing shape in space 029D

9. Uses whole arm in reproducing shape on paper 029E

10. Draws 4 shapes and names them

11. Names basic shape of object in picture

12. Identifies and names a parallelogram

13. Identifies and names a three-dimensional cube

14. Identifies and names a three-dimensional rectangular prism

15. Identifies and names a three-dimensional triangular prism

16. Identifies and names a three-dimensional cylinder

II. Geometry - Points and Lines

1. Identifies and names models of broken lines, curved lines, and straight line segments

2. Identifies and names points, lines, line segments

3. Identifies and names intersecting lines

4. Identifies and names parallel lines

5. Identifies and names perpendicular lines
LISTENING SCOPE AND SEQUENCE

A. Discrimination
1. Identifies source of environmental sounds, such as thunder, rain, traffic
2. Identifies specific sounds, such as animal sounds, voices, doorbell
3. Discriminates between pitch (high or low sound), the timbre (quality of sound—soft, buzzy, harsh)
4. Identifies similarities and differences of sounds, such as containers filled with marbles, sand, bells
5. Identifies similarities and differences of words
6. Identifies rhyming words 180E
7. Screens out background noise for selective listening

B. Sequence
1. Reproduces rhythm patterns of teacher, with eyes closed
2. Repeats sequence of three words given by teacher with eyes closed
3. Repeats sentence of five words spoken by teacher, with eyes closed
4. Listens to story and retells in own words
5. Follows directions 1, 2, 3, etc., related 006A
6. Follows directions 1, 2, 3, etc., unrelated 005E

C. Comprehension
1. Listens to sentence and fills in missing word
2. Listens to paragraph and answers factual questions
3. Listens to paragraph and answers inferential questions
4. Listens to story and answers factual questions 022B
5. Listens to story and answers inferential questions
6. Listens to story and predicts outcome
SPEAKING SCOPE AND SEQUENCE

The following sequence is taken from the MEAD Reading Objectives written in an abbreviated form. The list is prefaced by fifteen items listed under Conceptual Thinking in the Cognitive-Perceptual-Motor Readiness Skills section of the Guide.

A. Conversations
   1. Uses personal pronouns in conversation 019B
   2. Uses pronoun "we" to refer to group membership 020B
   3. Restates sentence given 005C
   4. Answers questions with a sentence 016D
   5. Says complete sentences in group oral language experience 191B
   6. Uses varied inflection when telling a story 018D
   7. Uses compound or complex sentences to describe picture 023C
   8. Combines pairs into compound sentences 027D
   9. Combines short sentences into complete, more interesting sentences 051E
   10. Uses correct grammar to express ideas 027E

B. Directions
   1. Asks questions when he doesn't understand statement 020C
   2. Asks for explanations or directions when needed 023B

C. Modifiers
   1. Adds "ed" to words orally to denote modifiers 024D
   2. Chooses the modifier form to show comparative or superlative 941A
   3. Forms word family from root word 208E

D. Nouns
   1. Adds "er" to words orally to denote grammatical change 024C
   2. Adds "s" orally to denote plurality 025C
   3. Adds "s" orally to denote possession 025B
   4. Forms word family from root word 208E
E. Verbs
1. Adds "s" orally to denote singular action 025D
2. Adds "ed" to words orally to denote tense 024E
3. Adds "s" orally to denote "is" in contraction 025A

F. Possessives
1. Indicates possession by saying "mine" 012E
2. Identifies ownership of familiar objects 016B

G. Suffixes
1. Adds prefixes and suffixes in conversation to vary meaning 025E
WRITTEN EXPRESSION SCOPE AND SEQUENCE

The following sequence is taken from the MEAD Communication Objectives written in an abbreviated form.

A. Punctuation
1. Uses capital letters 034A to 036B
2. Uses abbreviations with correct punctuation 036C to 036D
3. Uses the apostrophe 036E
4. Forms complete sentences 037A
5. Uses correct ending punctuation 037B
6. Uses quotation punctuation 037C
7. Uses the comma 037D

B. Usage involving Grammar
1. Uses subject-verb agreement 039B
2. Uses singular-plural appropriately 039C
3. Uses possessives appropriately 039A
4. Uses tenses appropriately 040D
5. Uses contractions appropriately 040E
6. Uses comparative-superlative appropriately 041A

C. Composition
1. Following a group experience, draws picture and dictates sentence 042C
2. Following experience, draws sequential pictures and dictates one sentence for each picture to make experience story 042D
3. Writes a brief biographical sketch 042E
4. Writes imaginary story 043A
5. Writes a story, given a topic sentence 043B
6. Writes a book report 043C
7. Writes a story of personal experience 043D
8. Writes a story of imagined experience 043E
9. Writes letter-note
5. Writes a story, given a topic sentence 043B
6. Writes a book report 043C
7. Writes a story of personal experience 043D
8. Writes a story of imagined experience 043E
9. Writes letter-note

D. Poetry

1. Listens to short poems 050B
2. Illustrates main thought of given poem 050C
3. Writes poem that rhymes 050D
HANDWRITING SCOPE AND SEQUENCE

The basic handwriting program for the Learning Disabilities Classroom follows both the Grosse Pointe Manuscript System and the Grosse Pointe Cursive Writing System as described in the Division of Instruction curriculum guides for regular education. The Grosse Pointe writing systems are prefaced by the fourteen MEAD objectives listed in the readiness section.

A. Handwriting Readiness

1. Uses his whole arm in reproducing a circle and/or specified shape in space after demonstration.

2. Uses his whole arm in reproducing a circle and/or specified shape using a large sheet of unlined paper and a crayon at a desk; on a slant board

3. Uses large arm movements with a sheet of unlined paper and a large crayon to scribble

4. Uses his whole arm he will reproduce an arc on a large sheet of unlined paper using large beginners pencil

5. Using his whole arm he will reproduce a vertical line on unlined paper using a large pencil

6. Using a large crayon he will be able to copy two intersecting lines

7. The student will copy large M and N strokes with crayon on large unlined paper

8. The student will imitate V stroke on paper with crayon

9. Demonstrates that he recognizes the direction of a line by drawing on paper with crayon direction requested (e.g., down, slanted, across)

10. Reproduces a square with angle accuracy of 85°
11. Using a pencil, paper and model, he will copy the figure
12. First by imitation, then pattern and finally a 30 second pattern
stimulus, the student will reproduce horizontal and vertical lines
on a pegboard.
13. Uses correct writing posture at desk
14. Holds pencil correctly

B. Sequential Order of Letters - Manuscript

Lower Case
1. Group 1 o c a g d e q s
2. Group 2 l t b k f p i j
3. Group 3 r n m h
4. Group 4 u y w
5. Group 5 v x z

Upper Case
1. Group 1 O G C Q S
2. Group 2 D P B R
3. Group 3 I L E F T H
4. Group 4 A V W X Z K M N
5. Group 5 U Y J

C. Sequential Order of Letters - Cursive

Lower Case
1. Group 1 i u w e r s
2. Group 2 t d p p
3. Group 3 l b h k f
4. Group 4 m n v x y z h
5. Group 5 o a c d g q
6. Group 6 J g p y z q f
7. Group 7 b v w o r s
SPELLING SCOPE AND SEQUENCE

The scope and sequence outlined is taken largely from MEAD in an abbreviated form.

A. Phonetic

1. Writes initial consonants from dictated words
2. Writes initial clusters from dictated words
3. Writes dictated consonant-vowel-consonant pattern words
4. Writes dictated pattern words with short vowel
5. Writes dictated words having two-letter blends with short vowels
6. Writes dictated words having digraphs and short vowel
7. Writes dictated words having three-letter blends with short vowel
8. Writes dictated pattern words having final "e" denoting long vowel
9. Writes dictated words having two-letter blend with long vowel
10. Writes dictated words having digraphs and long vowel
11. Writes dictated words having three-letter blends with long vowel
12. Writes dictated words containing letters c, g, s
13. Writes dictated r-controlled words
14. Writes dictated words containing vowel combinations
15. Writes dictated words having silent letters

B. Word Sets

1. Forms word family from root word
2. Forms new words from roots using prefixes and suffixes
3. Affixes correct endings to list of words
4. Writes dictated words having affixes
5. Writes homonyms dictated in sentences
6. Writes abbreviations of days of the week, months of the year
7. Writes abbreviations of common words
C. General Spelling

1. Spells words at automatic level 044C
2. Spells unknown words 044B
3. Writes dictated words impossible to decode 047C
4. Spells independently the words used in his writing 044D
SOCIAL-EMOTIONAL SCOPE AND SEQUENCE

The following sequence is taken from the MFAD Social-Emotional Objectives written in an abbreviated form.

Work Habits

A. Completion of Task

1. Completes task on time 160A
2. Completes task accurately 160B
3. Shows concern about quality of work by neatness 160C
4. Locates and uses necessary materials and returns them after use 160D
5. Prepares self with items necessary for assignment completion 160E
6. Demonstrates attention 161A

B. Independence

1. Corrects errors and completes task 161B
2. Corrects error found on own and completes task 161C
3. Demonstrates persistence toward working on task 161D
4. Applies skill or knowledge to similar situation 161E
5. Arranges to do some of not-liked activity before access to some liked activity 162A
6. Asks for assistance on difficult task 162B
7. Demonstrates appropriate participation during unstructured school situation 162C
8. Chooses task and completes it independently 162D
9. Performs assigned tasks without feedback for one week 162E
10. Demonstrates longer periods of delayed gratification when denied request to participate 163A
11. Continues to work on task, despite request by peer group to engage in some "well-liked" task activity 163B
12. Completes and turns in homework assignment with 95% independent level work 163C
C. Follows Directions
1. Follows various forms of appropriate (time, place, ability) directions 163D
2. Follows direction at designated time 163E
3. Demonstrates positive approach to directions 164A
4. Exhibits positive attitude toward criticism by attempting to correct 164B

D. Realistic Evaluation of Work Habits
1. Demonstrates ability to set reasonable task goals 164C
2. Makes positive statement re: own improvement 164D
3. Identifies factors which affect school work production 164E

Relationships

A. Resolve Conflict
1. Tells acceptable and unacceptable language 165A
2. Tells acceptable and unacceptable behaviors 165B
3. Chooses games or materials which are not dangerous 165C
4. Reviews verbally and draws conclusions on appropriate action in situation 165D
5. Acknowledges misbehavior when misbehaves 165E
6. Participates and accepts outcome in competitive situation 166A
7. Delays gratification when fulfillment of goal is delayed 166B
8. Demonstrates cooperation by working toward a common goal 166C

B. Expression of Affect
1. Verbalizes angry feelings in appropriate manner 166D
2. Writes "x" number of appropriate behaviors to practice in anger-inducing situations 166E
3. Makes complimentary statements to others 167A
4. Responds appropriately in emotional social situation 167C
5. Discusses possible ways of expressing emotion 167D
6. Describes times that emotion has been experienced 167E
7. Describes behavior and possible effect on others 168A
8. Continues working, asking for help, trying again in frustration/failure situations 168B

C. Social Cues
1. Names emotion in real social situation 168C
2. Identifies and responds to criticism or praise 168D
3. Listens to others without interrupting 168E
4. Demonstrates appropriate assertiveness in conflict situation 169A
5. Demonstrates ability to share knowledge and material 169B
6. Labels feelings 169C
7. Responds to situation appropriately to positive or negative clues—talk, frown, smile 169D
8. Demonstrates behaviors to use when approaching another person 169E
9. Tells verbally which roles could be assumed in given situation 170A
10. Participates and interacts in group situations "x" times per day/week 170B
11. Stops unacceptable behavior when "pressed" by group 170C
12. Describes reactions where people have attempted to manipulate him 170D
13. Lists model behaviors will emulate 170E
14. Names ways for acquiring new behaviors 171A

D. Respecting Rights of Others
1. Demonstrates knowledge of when/how to use possessions of others 171B
2. Demonstrates considerate behaviors 171C
3. Adheres to code of conduct, courtesy, respect, appropriate to setting 171D
4. Demonstrates knowledge of rules which maintain group cohesion 171E
5. Discusses strengths and weaknesses with teachers 172A
6. Lists goals for self 172B

7. Relates ways he has tried to change behavior in positive way 172C

Environment

A. Laws

1. Tells rules/laws given a situation 172D
2. Lists consequences of breaking a law/rule 172E
3. Attends classes except for legitimate excuses 173A
4. Is prompt for class 173B
5. Abides by school rules 173C

B. Maintain Environment

1. Keeps room and work area clean 173D
2. Helps maintain environment 173E

C. Reality

1. Makes positive statements of abilities in each area 174A
2. Tells if situation is real or imagined 174B
CAREER EDUCATION SCOPE AND SEQUENCE

The following sequence is taken from the MEAD Career Education Objectives written in an abbreviated form.

Self

A. Motor Skills

1. Snap and unsnap snaps
   - 120A
2. Lace and unlace
   - 120B
3. Tie and untie bow knots
   - 120C
4. Buckle and unbuckle shoe, belt
   - 120D
5. Zip and unzip zippers
   - 120E
6. Walks forward on walking board (15 feet)
   - 121A
7. Walks sideways on walking board
   - 121B
8. Walks backwards on walking board
   - 121C
9. Runs 20 times in place
   - 121D
10. Hops on one foot
    - 121E
11. Hops alternately for 50 yards within 20 seconds
    - 122A
12. Runs 50 yards
    - 122B
13. Folds properly - paper, towels, blanket
    - 122C (a)
14. Carries properly - books, groceries, papers
    - 122C (b)
15. Stack properly - books, cans
    - 122C (c)
16. Sorts properly - putting like objects together
    - 122C (d)
17. Inserts properly - object into envelope, bag, carton
    - 122C (e)
18. Lifts heavy items properly
    - 122C (f)
19. Sweeps properly - broom, vacuum, push broom
    - 122C (g)

B. Appearance

1. Makes statement about his/her appearance
   - 122D
2. States appropriate dress for given occasion
   - 122E
3. Demonstrates knowledge of acceptable appearance
   - 123A
I. States ways to care for clothing properly 123B
5. Demonstrates ability to care for personal items 123C
6. Selects proper clothing for each weather condition 123D
7. Demonstrates knowledge of dress for designated job 123E
8. States clothing appropriate for predicted weather conditions 124A

C. Attitude
1. Lists personality traits important in working with others 124B
2. Seeks assistance if he/she has a problem 124C
3. Names his/her abilities 124D
4. Seeks adult aid in resolving interpersonal problems 125E
5. Lists five health rules to do a job successfully 143A
6. Lists six characteristics which employer would look for in employee 124E
7. Lists four characteristics needed for a given job title 125A
8. Visits one employer and lists personal characteristics employer wishes of employees 125B
9. Demonstrates ability to select job that fits interest and abilities 125D

D. Personal Information
1. Communicates personal data verbally - address, birthdate, parent's names, telephone number, etc. 126A
2. Writes names correctly - first, middle, last 126B
3. Writes parent's names 126C
4. Writes telephone number 126D
5. Writes complete address 126E
6. Writes birthdate - month, day, year 127A
Pre-Vocational

A. Job Investigation

1. Knows mechanics of performing home duties
2. Lists verbally responsibilities of family members
3. Names five jobs performed outside of home
4. Lists four types of part time work
5. Lists four types of summer work
6. Names three employers in community
7. Names five occupational opportunities in community

B. Transportation and Communication

1. Knows mechanics of phone usage
2. Uses phone directory appropriately
3. Uses phone to solicit emergency aid - fire, police, ambulance
4. Names newspapers which carry information about area in which lives
5. Writes a want ad
6. Finds want ads in which interested and qualified to apply
7. Names key locations within community
8. Gives directions from home to various sites
9. Lists cost of transportation by various means
10. Rates longest and shortest times for various means of transportation
11. Names reliable sources for directions when lost
12. Selects from list people who would know streets and places best in community
C. Tools and Safety

1. Knows proper care of classroom supplies
2. Gives five examples of classroom neatness procedures
3. Defines word "tool" as applies to everyday life
4. Identifies names of tools found in the home
5. Identifies "tools" found in classroom
6. Recognizes potential dangers in series of pictures
7. Carries hazardous classroom items in correct manner
8. States name and function of any ten tools
9. Lists hand tools for gardening/landscaping
10. Demonstrates knowledge of need for good safety practices
11. Names and identifies two tools used in measurement of ingredients
12. States at least five safety rules applying to most jobs