This resource book is designed to provide administrators, teachers and other educational personnel with a compendium of information derived from research and current educational practices which will facilitate the implementation of effective organizational and instructional strategies. A brief description of the common characteristics of children at each age level from five to twelve years is offered. Practical guidelines for teachers for making sound decisions, planning effectively, implementing plans and evaluating the instructional process are provided. Suggested time allotments for subject areas (in minutes per week) and sample timetables are presented. Also described are several strategies that may be of practical value to the teacher. These include questioning techniques, marking techniques, lesson planning, peer tutoring, and use of films, bulletin board displays, and notebooks. Additional information on learning resource center timetables, components of an elementary school guidance program, sample lesson plans and questioning strategies is provided in the appendices. (Author/MP)
A RESOURCE BOOK FOR ELEMENTARY SCHOOLS

J. W. B. Benson

and

P. J. Baker

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EDMONTON REGIONAL OFFICE

ALBERTA EDUCATION

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PREFACE

The document *Resource Book for Elementary Schools* is a product of the efforts of the staff of the Edmonton Regional Office of Education. Most of the writing, however, was done by a two-man team consisting of Messrs. Benson and Baker.

Mr. Benson conducted a needs assessment both through field personnel and the office staff. A first draft document, *Guidelines for Elementary School Organization*, was produced. Selected field personnel consisting of practicing teachers, principals, supervisors and superintendents were asked to assess this document and provide suggestions.

On the basis of this feedback, some topics were deleted; others have been added.

This document will now be distributed with a view to further revisions and additions. The main objective is to provide a service document which will be functional and not prescriptive.

N. J. Andruski
ACKNOWLEDGMENTS

A Resource Book for Elementary Schools has been brought to this stage of development because many very busy and very interested educators have been willing to devote a great amount of time to the enterprise. We are especially grateful to the teachers, principals, assistant superintendents, superintendents and department officials who requested such a resource book and who shared ideas as to the content and then reviewed the original document in order to judge the applicability of the material. The writers wish to acknowledge this indebtedness to all these individuals, as well as to those who assisted in the initiation and the planning of the book.

John W. B. Benson

Peter J. Baker
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INTRODUCTION

The basic aim of elementary school education is to help students grow and develop to their fullest potential. The school, however, is not the only agency responsible for the education of children. Influences of the home, the church and the community must also be considered, since these are a vital part of the child's environment. The education provided by the school, unlike other forms of education, can readily be planned and directed. Thus, the school is able to integrate all those educational resources which will ultimately contribute to the optimal development of each child. In view of societal changes, more than ever before, teachers and principals require guidance and direction in organizing programs and instruction in order to serve the needs of all children.

In Alberta, a Junior-Senior High School Handbook has always been available for the purpose of providing guidelines for the organization and administration of programs and instruction at the secondary school level. Appropriate guidelines for elementary school organization in the form of an Elementary School Handbook may be available in the near future. To date, there is no authorized source to which principals and teachers may turn for information and direction. The absence of appropriate guidelines creates uncertainties and concerns on the part of school personnel when decisions pertaining to program organization and instruction are made. Principals and teachers recognize the need for more direction and are seeking assistance from educational authorities in this respect. School evaluation reports, school surveys and observations based on classroom visitations confirm the necessity for some definitive guidelines at the elementary school level.
This resource book is intended to satisfy identified needs by providing information, direction and alternatives for more effective organization and instruction in the elementary school. The information contained herein is in no way prescriptive but is offered as a practical approach for the improvement of organization in elementary schools.
PURPOSE AND GOALS

Purpose

The purpose for developing definitive guidelines for elementary school organization is to provide administrators and teachers with a compendium of information derived from research and current educational practices which will facilitate the implementation of effective organizational and instructional strategies and ultimately achieve the aim of elementary education which is to provide opportunities for children to develop to their fullest potential not only as individuals but as members of society.

Goals

1. To provide information to school administrators, teachers, and other educational personnel concerning the organization and operation of the elementary school.

2. To provide guidelines, based on research and current educational practices, which have proven to be useful and practical in making sound decisions affecting planning, implementation and evaluation of instructional processes.

3. To serve as a reference source of information concerning educational practices.

4. To acquaint teachers with a wide variety of instructional strategies.
Child development involves growth in body, mind and personality. To understand a child, one must try to understand his ways of growth at different stages of development. He is born into a culture subject to the powerful influences of home, school and community. He is also subject to deep-seated growth forces which shape his individuality. As a child grows older, his body matures. The increasing maturity of his brain permits mental abilities to develop. He is also becoming increasingly involved in a greater variety of experiences which enhances his learning processes. Thus, the development of mental ability depends on biological maturing and on accumulative learning. According to research on the development of thought and intelligence, researchers have postulated that growth of mental ability in children passes through different stages and follows certain patterns. The abilities that a child acquires during one period of his development are a foundation for those which follow.

Characteristics of Elementary School Children

Each child is unique in physical appearance, in experience, in mental ability and in his rate of growth and development. There are, however, certain characteristics common to all children which are dominant at each stage of development. It is essential that teachers have knowledge and understanding of characteristics peculiar to children at different age levels in order that they may be able to respond and adjust more effectively to children's needs.

A brief description of the common characteristics typically found in children at each age level from five years to twelve years is presented for study and review.
The Five-Year Old Beginner

The five-year old is ready to be away from home for a few hours each day. While adjustment to school may take a little time for some, most children adjust quite readily because children of this age like new experiences. The things he sees and does on the way to school and in school absorb his interests. He likes to create things, pretend, imitate and impersonate, listen to music, respond to rhythms, sing, talk, ask questions, do things for himself and do that which is expected to him.

He is beginning to have control of his body movements. Growth at this stage is slower and more uneven than in earlier years. The large muscles are well developed, hence, he is able to run, skip, climb and jump. However, he still requires directed activities for large muscle development. The five-year old is very active but he tires easily and needs frequent rest periods interspersed with activities. His attention span is short so activities should be varied in order to maintain interest. Since he cannot sit still for long periods of time, teaching periods should be kept short. Small muscles are not yet sufficiently developed to allow for finely controlled movements such as handwriting.

Sight and hearing are not sufficiently developed to allow him to make fine discriminations between shapes of words, small letters or between the sounds of similar words. This is often the cause of failure to recognize sight vocabulary words. Eye muscle control is also such that the child is unable to change focus from long to short distances quickly, hence, copying from the blackboard should be delayed until later. What the child really needs at this time are readiness activities.

The five-year old enjoys being with other children. Although sharing and cooperation are not part of his behavior patterns, his natural gregariousness provides a good basis for developing the working-together idea. This is a good time to help him establish patterns of socially acceptable behavior.
The teachers must accept the child as he is and build on this foundation in order to expand his talents, awaken his interests, direct his energies towards productive learning activities and help him to develop his individual potential.

The Six-Year Old

Six is the age of disequilibrium. The child is thrusting out, trying new things, wanting too much and finding it difficult to adapt to others because his own demands are so strong. He is delightful in his vigor, in his energy and in his readiness for anything new. His appetite for new experiences is prodigious. It is difficult for him to choose between any two alternatives because he wants both. It is also most difficult for him to accept criticism, blame and punishment. He has to be right; he has to be praised; he has to win. If all goes well, he can be warm enthusiastic, eager and ready for anything. If things go badly, tears and tantrums are the result.

He has difficulty in sitting still for long periods of time. His short attention span and lack of concentration result in work being started but not always completed.

The six-year old is susceptible to colds, communicable diseases and fatigue. Excessive fatigue accounts for much of his adverse behavior. Many children who are otherwise ready for first grade cannot manage a full school day every day and, hence, provision for a shorter day should be considered. Small muscles and visual abilities are still under-developed so activities requiring fine muscle and hand-eye coordination are difficult to perform.

Learning at age six occurs through operations with concrete materials and grows as a child's experience with objects and ideas increases. Activities should emphasize the use of a variety of manipulative materials and exposure to ideas and concepts through
discussion. He learns easily by rote but without the benefit of comprehension. He possesses a faster, more flexible and more mobile cognitive apparatus which allows him to start to make relationships in terms of time and space. He is beginning to differentiate between that which is real and that which is fantasy.

The Seven-Year Old

Seven is the withdrawn age. The seven-year old tends to retreat from new situations and naturally seems to withdraw from other people. He likes to be alone and prefers to watch, to listen and to stay on the edge of any scene. He is a television watcher, a radio listener and possibly a reader. He tends to get into a melancholy mood, during which time he complains that everyone - parents, teacher and others, are picking on him. However, this very likely exists only in his imagination.

Physical growth at this stage is slow and steady. The seven-year old still tires easily and needs a balance between active and quiet activities. His hands are very busy touching, exploring and feeling all that with which he comes in contact.

His intellect is in the ascendancy. He is more discriminating and refined in what he sees and does. Abstract thinking is beginning. Learning is easier and understanding is better, particularly when he is actively involved in making and handling objects. Language is rapidly developing and is rigorously used in reading, writing and speaking. He often demands too much of himself. He either enters into tasks over-zealously and doesn't know when to stop or else he may give up before he even begins. He needs the help of the teacher to know how to start and when to finish.

The seven-year old is characteristically tense, anxious and apprehensive about his own inadequacies, the future and unfamiliar situations. He wants to be independent but does not trust himself.
He is extremely dependant on the teacher for support and encouragement and the personal relationship with the teacher is all-important at this age. He is anxious for approval from the teacher, parents and other children which acts as an influential motivating factor.

The Eight-Year Old

The typical eight-year old is vigorous, enthusiastic, expansive, constantly busy and ready to challenge the world. He is constantly looking for new and challenging experiences, trying out new things, making new friends and, with his characteristic speed, covers a good deal of ground very rapidly.

Physical growth continues at a regular rate, his general health is improved and he tires less quickly than the seven-year old. Much active play is needed and organized games are particularly enjoyed. He likes to have rules and insists that everyone follows them. He tends to be daring and reckless so intense competition should be avoided.

The eight-year old is interested in his relationships with others and he wants to develop good two-way relationships, especially with his mother. At this age "clubs" are formed. Belonging to a group provides security, opportunity to carry out plans of his own making and also provides the setting in which he can learn to give and take criticism. He tends to be argumentative, high-spirited, curious and highly interested in the world around him. Although careless and noisy, he is friendly and responsive. For all his seeming brashness and bravado, he is much more sensitive than one might expect. He needs protection from trying to do too much and from too excessive self-criticism when he meets with failure.

The eight-year old can be satisfied by positive school experiences. He displays increased powers of evaluation of others and of himself. He does not appreciate detailed directions or full instructions but prefers a hint or a cue. Because hand-eye coordination is improved, he is able to write well and perform tasks requiring short-distance focusing.
He prefers to work for immediate reward rather than simply for the sake of being helpful. Collecting things to form a collection is intriguing at this age. This interest should be exploited by the teacher in science and social studies classes. Activities involving dramatization, role playing, oral communication, performing for an audience, and reading aloud appeal strongly to the eight-year old.

The Nine-Year Old

Maturity, self-reliance, and extreme independence are the major characteristics of the nine-year old. Nine is the age of perfecting skills and of real solid accomplishment. The nine-year old has ideas and interests of his own and is capable of carrying out any desired activity without too much direction. Although he dislikes and resists "bossing" and may display displeasure, he will eventually obey requests, particularly if no issue is made of it. He needs to be given detailed instructions to begin with and occasionally reminded but there is less arguing on his part. Increased attention span allows him to maintain interest and to concentrate on a task for several hours. If left pretty much to himself and if treated as the mature creature he considers himself to be, the nine-year old usually gets along pretty well and does display a remarkable amount of self-reliance and capability. It is important not to impose oneself on a child of this age. He wants and needs to have his maturity, his independence, and his separateness respected.

There is a disquieting side to the child of this age. He tends to oppose authority, to worry a great deal, to complain and to have anxieties. He complains that tasks imposed at home and at school are "too hard." These complaints, which usually take the form of real physical feelings of discomfort, are psychosomatic in that they are related to disliked tasks.

Boys and girls of this age show bursts of energy and enjoy active rough and tumble play. However, girls begin to differ in play
interests and frequently turn to quiet activities such as skipping and hop scotch. Learning new skills and doing them well is characteristic of this age. This is a good time to encourage the child to become involved in structured challenging activities which require a higher and more exacting development of skills. Such activities could include learning to play a musical instrument and participating in organized team sports.

This age group prefers realism to fantasy in both play and study. The nine-year old performs well in those subject areas in which he has the most interest. He is able to reason quite well and deal with abstract concepts. He is eager to learn more about different people and their culture. He has a strong sense of right and wrong and has high expectations for himself and others.

The Ten-Year Old

Ten is an age of predictable, comfortable equilibrium in which the child is satisfied with self, parents, teachers and the world in general. He obeys all rules easily and naturally and seems to gain status in his own eyes by his obedience. This age group needs a chance to express thoughts and feelings. They respond well when adults show confidence in them. The ten-year old is nice and friendly and establishes comfortable relationships with people. He is straightforward, flexible and doesn't take life too seriously.

This age is exemplified by marked differences in growth patterns. Some show rapid growth with significant increases in height and weight. Explanations about the differences in physical development between boys and girls and between those of the same sex are needed in order to alleviate anxiety. The ten-year old is desirous of mastering new skills. Competence in play skills produces feelings of confidence, so a variety of sports activities which allow him to "let off steam" and to develop improved coordination are necessary. Working in groups
and as a team member takes on particular significance at this age and the child has a better understanding and appreciation of the potential of group activities. The desire to belong to a group and to be like his peers is very strong.

The ten-year old possesses a well-organized cognitive system and is increasingly able to use his higher mental processes in formulating his own ideas and opinions. In school, performance improves when work is regularly appraised by the teacher. Even though the appraisal may be negative, it provides the type of feedback that the child requires in order to make satisfactory adjustments. Recall or memory processes are improving and the use of formal thinking and logic are beginning to develop. Logical thinking is no longer based on the use of concrete objects only. The ten-year old is beginning to be able to deal with words and ideas as things. He is able to accept the hypothetical conditions of a problem and will attempt to produce an answer. He recognizes that others have points of view which differ from his own and he makes comparisons to learn whether his reasoning and solutions to problems agree with that of other people. His thinking has become socialized rather than egocentric.

The Eleven-Year Old

This age is sometimes referred to as the period of disorganization. Feelings and moods change quickly and so the eleven-year old is unpredictable and often uncooperative. He is alert and energetic but periods of high activity are often followed by periods of inertia. He is sometimes over-critical of parents and teachers but he needs to be treated with patience and understanding. He responds well to those adults who are supportive and show faith in him.

The peer group takes on added importance. Many types of peer groups are formed at this stage and include school activity groups, community activity groups, and neighbourhood gangs. Whether groups are formal or informal, most are composed of members of the same sex. Boys'
groups tease girls' groups and girls' groups pointedly ignore boys' groups. An informal peer group often takes on the qualities of a gang with a leader, a code of behavior and a set of values and norms. At this age, the eleven-year old realizes that people make rules which may be changed if so desired. Because it is a new discovery, it is exciting to develop his own rules in cooperation with his peers. Membership in a gang helps to establish an identity and creates a sense of belonging which is so essential at this age.

According to theories of cognitive development, age eleven is the beginning of the stage or period of formal operations and logical thought. This continues through to adulthood. By age 15, the individual will have developed the mental operations necessary for adult thinking. Formal thinking at this stage is characterized by a systematic approach to problem solving, consideration of several variables at the same time, skill in forming hypotheses and the ability to generalize by applying principles to many different situations. The eleven-year old can think and reason in purely abstract terms. However, he may not always be consistent in his thinking and may revert to the level of concrete operations in attempting to solve a problem.

Cognitive development at this age has implications for instruction. The eleven-year old is now able to imagine several alternative explanations for the same phenomena. For example, in social studies, he can look at an event in history and comprehend that there may be two sides to a question or more than one explanation for the cause of an event. He can deal with propositions which are contrary to fact and will question rules or facts as given by someone else. In science, this suggests that the student is ready to experiment in order to test a hypothesis or principle rather than simply accept it as a given fact not to be challenged. He can now understand relations between and among symbols representing concepts which have never been
experienced directly. This implies that, in mathematics, operations using a variable "x" to represent a quantity may now be introduced and used in solving abstract problems.

It should be recognized that there will be some inconsistencies in thinking among eleven-year olds, which may be traceable to differences in cognitive style. Some children tend to be impulsive thinkers, others reflective, some focus on details, while others search for general themes. Nevertheless, classroom instruction at this stage should be designed to encourage maximum development of the potential cognitive abilities of the eleven-year old through a variety of activities which will challenge and extend his mental processes.

The Twelve-Year Old

Age twelve is generally considered to be the beginning of the stage called pre-adolescence of pubescence. This is the period of time encompassing the physical, psychological, and social changes which lead to puberty. The timing and duration of pubescence varies between individuals and between the sexes. For many youngsters, this period signifies the ending of childhood and is marked by a rapid growth spurt, somewhat disorganized and unpredictable behavior, and a strong need to belong to peer groups of their own sex.

The pre-adolescent growth spurt produces rapid physical changes in body size and shape with resultant increases in height, weight and strength. To the boys, strength, physical skill and athletic prowess are very important. This is a social asset since those who are successful at games gain popularity. In girls, interest in athletics is declining but physical appearance is beginning to assume great importance. Physical needs during this period of rapid growth demand large amounts of food and rest. Meeting these needs is often a problem because of the youngster's insistence upon making his own
decisions concerning diet and sleep. Minor discomforts and ailments are commonplace and often include dietary indiscretions, excessive perspiration, acne, eye troubles and emotional instability.

Physical and psychological growth are interrelated in many ways and have a direct effect upon social, intellectual and personality development. The youngster is beset by inner fears and anxieties because he has concerns about his rapid physical growth, appearance, feelings of inadequacy, social acceptance by peers and his efforts to build a new sense of identity. Parents and teachers should attempt to reduce these fears and anxieties through patience, understanding and wise counsel. Because sex roles become increasingly important, the larger average size and greater maturity of girls over boys often leads to adjustment problems, particularly in slow-maturing boys. These are manifested by a high incidence of unacceptable behavior at home and at school. Adjustment problems are also probably due to academic pressures, conflict with parents and teachers, poor relationships with peers and a poor self-concept. Whenever possible teachers should avoid the use of sarcasm, humiliation, excessive force, demands for conformity and open confrontation.

There are some notable characteristics which are common to this age group. Restlessness is almost a universal trait in these youngsters. They act as though it were torture to be quiet or to sit still. Restlessness also shows up as inattention, toying with gadgets and eagerness to be on the move. These youngsters seem to be so full of energy at times that they must "blow off steam" or explode. Attempts to stifle movement by adults can lead to trouble and this is often a serious issue in school situations.

Another characteristic is mood instability. Rapid changes in mood occur often for no apparent cause. A series of setbacks may leave a boy or girl despondent but a temporary success will find him exulting a few moments later. Another sign of such instability
is giggling. A gale of silly laughter will often interrupt or stop a
class activity, much to the annoyance and displeasure of the teacher.
Intensity about minor issues is commonplace. The most strenuous battles
often occur over petty matters. Not only at home, but also in the gang
and in school, feelings can be hurt and anger or fear be aroused by a
trivial incident or remark.

Ambivalence is a characteristic trait of this age group and
refers to the fact that youngster displays mixed feelings, usually
opposite extremes, about people or things. He will show love and hate
for the same individual. The boy who tries hard to please a teacher in
the classroom may, outside the school, be the very one to pin a
contemptuous nickname on her. Teachers are usually profoundly shocked
when this is discovered. A youngster will fight intensely to be independ-
dent of parents and yet try to retain his childhood ways. Other similar
forms of ambivalence are often identifiable.

The intense loyalty to the peer group or gang is a very common
characteristic of pre-adolescents. Boys belong to boys' gangs and girls
associate almost exclusively with their own sex. There is little social
contact except for a great deal of bickering between the sexes. Each
gang has its own code which defines how to dress, how to act and what
attitude to take towards adults. In his peer group, the youngster finds
both safety and strength.

Part of gang life is concerned with establishing independence
of adults and adult authority. In school, the group code often runs
counter to the school code or what teachers would like and this leads to
many unpleasant situations. The boy or girl who is praised by a teacher
is derided by the gang. Offenders against school rules are protected
from discovery. Disliked teachers may be baited and harassed unmercifully.
Gang members stick together in one another's presence and will never
"tell" on another member. Youngsters gain status in their groups through
acts of defiance. All of this has implications for the classroom setting
and the wise teacher will organize instruction, classroom activities and procedures for dealing with behavior problems with due care and consideration.

Cognitive development in the twelve-year old is a continuation of the stage of formal operations which had its beginning in the eleventh year. However, there is increasing sophistication in handling of formal operations and in dealing with abstract concepts. The twelve-year old delights in fantasy and daydreams and, to provide ideas for these, he may become an avid reader, movie goer and television-watcher. In the case of the early maturer, there may be indications that academic achievement and school work are beginning to assume less importance.
Today in education, there are many practices and issues which have not been clearly resolved and are of concern to teachers. There is a need to acquaint teachers with the findings of current educational research and of those practices which are being used effectively in many schools in order that they may be able to apply this knowledge to their own situations. The following information, which addresses itself to some of the basic issues and concerns, is intended to provide the teacher with sound direction and practical guidelines for improvement or change.
Concerns are often expressed by educators that many children who enter grade 1 are too immature. Some school officials question whether children should be starting school as early as 5½ years of age. Grade 1 is a very demanding year because society expects all children to begin reading, printing and doing arithmetic without delay. This is based on the assumption that the child is able to sit and listen attentively, has developed reasonably good hand-eye coordination and has developed the necessary social skills which will enable him to work independently without disturbing others. It cannot be emphasized too strongly that all children of five or six years of age should not be expected nor forced to learn until they are ready. The regular grade 1 program may be beyond the capacity of some children entering school.

There are children in primary grades who are experiencing difficulty in adjusting to formal language arts and mathematics programs. These difficulties generally continue and are compounded in upper elementary grades. Formal instruction given prematurely in reading, arithmetic, spelling and writing may result in poor learning habits, negative attitudes towards school, slower progress and the necessity for remedial instruction. Many students are of average ability but are immature and require more time and training in specific skills while allowing for natural maturation to occur. A student faced with frustration and failure at the start of his schooling will more likely become discouraged and develop a negative self-image with a consequent loss of interest in learning. For example, one of the main causes of reading problems is the imposition of formal instruction before the child is ready. This may also produce subsequent behavior problems which interfere with the learning process.
Alternatives are available for providing assistance to students who have been identified as lacking in readiness skills. One consideration may be a longer period of time in the Early Childhood Services (E.C.S.) program with continued emphasis on developmental skills. This period need not necessarily be a full year. For many children, a few months will produce sufficient growth and maturation to allow them to begin a regular grade 1 level, namely, in September and January. A type of non-graded or continuous program organization in the first two years would permit implementation of this approach.

Many schools are developing well-organized readiness programs at the grade 1 level. The main objective of such a program is to assist the child to progress as quickly as possible in developing those skills necessary to cope with a regular grade 1 program during the first year of school. During the first two or three weeks of grade 1, new students are carefully screened and tested in order to identify those who may require readiness assistance. These children are then placed in a junior grade 1 class. Others enter the senior or regular grade 1. In those schools where there is only one grade 1 room, the teacher groups the students into a junior and a senior group. Parents of selected students should be informed that their children will require a longer period of readiness instruction before beginning the regular grade 1 program for it is important that parents understand that the program does not mean failure or repeating grade 1 in the traditional sense.

Students in the junior group or class should receive a type of training program designed to improve readiness skills. It has been found in many cases that a child often matures and progresses enough by mid-year to transfer into the senior grade 1 program. The child then begins the regular grade 1 work and continues at his own rate of speed until the end of the term. In the second year, the child may continue with the regular grade 2 program if his progress has warranted it. If not, he will enter the senior grade 1 program. It is important that the programs at the junior and senior grade 1 levels and in grade 2 be very flexible in order to accommodate students of different maturity levels and who are working at different
levels of speed. This approach is meeting with considerable success in many schools.

Differentiated assignments within the grade 1 classroom is another way of accommodating those students who lack experiential background or skills.

Another alternative is to provide, in the second year of school, a program in which the child continues to do grade 1 work in a grade 2 classroom setting. It is possible that, in the course of the year, the child will reach the stage of development which will enable him to complete the grade 2 program as well.

A continuous progress or non-graded program may be considered in the first years of schooling as another method of dealing with students lacking in maturation and development. Such a program would give sufficient flexibility to accommodate those children lacking readiness as well as those who are advanced enough to attempt more complex learning tasks. Teachers will always be faced with the problems of adjusting the work of the classroom to suit the various needs of children of the same chronological age but who are at different developmental stages.
TIMETABLES

The timetable is an important component of elementary school organization. Every teacher is required to develop a schedule which will best serve the program and instructional needs of his/her grade or classes and which must also interrelate with the general school scheduling patterns established by the principal. A timetable is a plan designed to ensure that children will receive a balanced program of studies and to assist teachers to meet the needs, abilities and interests of students. The teacher's timetable must include all subjects listed in the Program of Studies for Elementary Schools for that particular grade and should also provide time for other kinds of meaningful learning activities throughout the day and the week. No subject should be neglected or overemphasized. Emphasis on particular subjects and times allotted will vary from grade to grade and from class to class. Hence, no two timetables in a school will necessarily be alike.

A timetable should be flexible. It must not dominate the teaching and learning processes. Admittedly, some flexibility is lost through specialization and departmentalization. This cannot be avoided since it demands that certain periods must be of the same length and scheduled during a particular time of the day or week. A rigidly imposed classroom timetable is likely to cause the teacher to violate his better judgment in order to make the timetable work. It may also result in situations where subjects are taught in isolation. On the other hand, too flexible a schedule may result in situations where certain subjects may receive no attention or only a limited amount of instructional time.

Flexibility in scheduling should be retained whenever possible so that, if any phase of learning is obviously in need of more time than is indicated on the timetable, this time can be made available. The current practice of integrating subject matter adds to the demands for flexibility. Subjects are usually arranged separately for convenience
sake but it is recognized that such an arrangement for some subjects tends to be artificial. For example, there is some question as to whether spelling should be taught as a separate subject. Group projects sometimes require that large blocks of time be set aside on the timetable. Blocks of time of varying lengths may also be required for discussion groups, field trips, quiet reading, research, sports and play activities, art, music and other activities of special interest to particular students. A lack of flexibility will undoubtedly have an adverse effect upon instruction and learning.

Educational research provides us with information related to some aspects of timetable development. The amount of time allotted to each subject or activity is one aspect covered by research. Studies have generally shown that spaced or distributed practice, that is, short periods, produce better results than massed practice or longer periods of instruction time. Research has also demonstrated that short breaks between practice sessions are advisable for some types of learning activities. The teacher will find that, both for purposes of improving a specific skill or for the sake of long term retention, timetables that permit shorter periods are superior. This is particularly true in the case of beginning learning or where the learning task is complex or difficult. In subjects requiring extensive preparation or warm-up and clean-up, as for example art or physical education, a longer period of time is necessary to produce improved learning. Those subjects which involve problem solving and creative thinking also require a continuous block of time without interruptions.

The order of subjects in the daily program and the time of the day in which subjects are offered has little significance for achievement. Traditionally it is common practice to schedule core subjects such as reading, mathematics and language in the morning, on the assumption that children are more receptive and alert, and
hence, that learning will occur more readily. However, there is no research evidence to substantiate this practice. It should be noted that, with minor exceptions, the particular order of subjects on a timetable is not significant to learning. Optimal learning is more a function of effective teaching than it is of the length of period, sequencing of subjects or of the time of day in which instruction is offered.

A functional timetable can be produced only through careful long and short range planning. When planning, the teacher should consider not only each day but also each work week, each month and the whole year. Finally, the timetable must be continually subjected to revision if it is to meet the needs, abilities and interests of developing children.

Many difficulties are often encountered by teachers and principals in developing timetables which will best serve a particular grade or class. This is particularly true in the case of beginning teachers and inexperienced administrators. Some teachers require assistance and close supervision in preparing classroom schedules. In a school, sources to which teachers may turn for practical information concerning timetabling, are extremely limited. Hence, there appears to be a need for some specific guidelines and sample timetables which may serve as a quick and easy reference.

The following information which consists of suggested time allotments for subject areas, sample timetables and an analysis of each timetable has been developed in order to assist school staffs. This information is based upon a review of research findings, current school practices and perceptions of consultants in the field. Two different tables of suggested time allotments are provided; one for grades 1 and 2 and the other for grades 3 to 6. Each recommends the daily minimum time which should be scheduled for each subject and an optimal range in minutes
per week. A variety of sample timetables designed for different grade levels provides some alternatives in terms of lengths of periods, sequencing of subjects and supplementary learning activities. Forms of flexible scheduling for a totally integrated day organization are also included. An analysis of times allocated to subject area in minutes per week follows each sample timetable. This allows one to make easy comparisons of time allotments between timetables.

The following explanations are offered as additional information in order that it may be more clearly understood as to the various activities which may be included in certain designated areas of the timetables.

Opening Exercises - attendance, religious and patriotic exercises, announcements, collecting monies, health inspection, news events, sharing experiences, planning the day, self-directed activities and story time.

Activity Centres - centres of interest such as mathematics, science, library corner, language, and play area.

Sharing Time - reporting experiences, role playing, reading poems or stories to the class and to each other, music activities and reporting on individual projects or hobbies.

Activity Time - singing and listening to music, action songs, recitations, games, observing and questioning (teacher directed).

Leisure Activities - reading and use of library, discussing topics of interest, art activities, crafts, and student self-initiated activities.
**GRADES 1 AND 2**

**SUGGESTED TIME RANGES FOR SAMPLE TIMETABLES**

Based on a 1500 Minute Week

<table>
<thead>
<tr>
<th>Subject</th>
<th>Range Minutes Per Week</th>
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<tbody>
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<td>Science</td>
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<td>Health</td>
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<td>Art</td>
<td>60-90</td>
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<td>Music</td>
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<td>Integrated Activities</td>
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<tr>
<td>Religious Instruction</td>
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<td>(Leisure, Interest Centres, Activity Time, Sharing Time).</td>
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<td>Time</td>
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Based on 1,200 minute week and daily time periods of 30 minutes.
ANALYSIS OF SAMPLE TIMETABLE

Grade 1

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<tr>
<th>Subject</th>
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<td>Physical Education</td>
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1,200 minutes per week
## SAMPLE TIMETABLE

### Grade I

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*Based on 1,500 minute week and daily time periods of 30 minutes.*
ANALYSIS OF SAMPLE TIMETABLE

Grade 1

Opening Exercises .................. 75
Language Arts .................. 525
Mathematics .................. 210
Music .................. 90
Art .................. 60
Health .................. 60
Social Studies ................. 150
Physical Education ............. 105
Leisure Activities .............. 75
Science .................. 150

1,500 minutes per week
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Based on 1,500 minute week and daily time periods of 30 minutes.
# ANALYSIS OF SAMPLE TIMETABLE

## Grade 1

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<tr>
<th>Subject</th>
<th>Minutes</th>
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<tbody>
<tr>
<td>Opening Exercises</td>
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<td>Language Arts*</td>
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<td>Health</td>
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<td>Music</td>
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<td>Leisure Activities</td>
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</tbody>
</table>

1,500 minutes per week

*Language arts consists of reading (150 min.), language development (225 min.), handwriting (75 min.) and story time (75 min.).
<table>
<thead>
<tr>
<th>Time</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
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* Based on 1,500 minute week and daily time periods of 40 minutes.
## ANALYSIS OF SAMPLE TIMETABLE

### Grade 1

<table>
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<tr>
<th>Subject</th>
<th>Minutes</th>
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*Language arts consists of reading (200 min.), language development (300 min.), and handwriting (75 min.).
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ANALYSIS OF SAMPLE TIMETABLE

Grade 1

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Language Arts* .......... 600
Mathematics ............ 100
Science ................. 100
Social Studies .......... 100
Physical Education and
  Action Activities ...... 125
Health .................. 60
Music and Action Songs .. 115
Art ...................... 60
Leisure Activities ...... 40
Sharing Time ............ 50
Interest Centres ........ 100

1,500 minutes per week

*Language arts consists of reading
(200 min.), language development
(200 min.), handwriting (75 min.)
and story time (125 min.).
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Based on 1,500 minute week and daily time periods of 30 minutes.
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1,500 minutes per week
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Based on daily periods of varying lengths.
## ANALYSIS OF SAMPLE TIMETABLE

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1,500 minutes per week

*Language arts consists of reading (250 min.), language development (160 min.), handwriting (75 min.), story time (50 min.) and spelling (75 min.).
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Based on 1,500 minute week and daily time periods of 30 minutes.
**ANALYSIS OF SAMPLE TIMETABLE**

**Grades 1, 2, and 3**

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**SUGGESTED TIME RANGES FOR SAMPLE TIMETABLES**  
Based on 1500 Minute Week  
Grades 3-6

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Based on 1,500 minute week with daily time periods of 30 minutes.
### ANALYSIS OF SAMPLE TIMETABLE

**Grades 3-6**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening Exercises</td>
<td>75</td>
</tr>
<tr>
<td>Language Arts*</td>
<td>450</td>
</tr>
<tr>
<td>Mathematics</td>
<td>150</td>
</tr>
<tr>
<td>Social Studies</td>
<td>150</td>
</tr>
<tr>
<td>Science</td>
<td>150</td>
</tr>
<tr>
<td>Health</td>
<td>60</td>
</tr>
<tr>
<td>Physical Education</td>
<td>120</td>
</tr>
<tr>
<td>Health</td>
<td>30</td>
</tr>
<tr>
<td>Art</td>
<td>60</td>
</tr>
<tr>
<td>Music</td>
<td>90</td>
</tr>
<tr>
<td>Second Languages</td>
<td>150</td>
</tr>
<tr>
<td>Sharing Time (including leisure activities)</td>
<td>75</td>
</tr>
</tbody>
</table>

1,500 minutes per week.

*Language arts consists of reading (150 min.), language (150 min.), handwriting (75 min.), and spelling (75 min).*
<table>
<thead>
<tr>
<th>Time</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00</td>
<td>Opening Exercises</td>
<td>Opening Exercises</td>
<td>Opening Exercises</td>
<td>Opening Exercises</td>
<td>Opening Exercises</td>
</tr>
<tr>
<td>9:15</td>
<td>Language Arts</td>
<td>Language Arts</td>
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<td>Language Arts</td>
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</tr>
<tr>
<td>9:45</td>
<td>Science</td>
<td>Science</td>
<td>Science</td>
<td>Science</td>
<td>Science</td>
</tr>
<tr>
<td>10:15</td>
<td>R E C E S S</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>10:30</td>
<td>Spelling</td>
<td>Spelling</td>
<td>Spelling</td>
<td>Spelling</td>
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<tr>
<td>11:00</td>
<td>Language Arts</td>
<td>Language Arts</td>
<td>Language Arts</td>
<td>Language Arts</td>
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</tr>
<tr>
<td>11:30</td>
<td>Physical Education</td>
<td>Physical Education</td>
<td>Physical Education</td>
<td>Health</td>
<td>Physical Education</td>
</tr>
<tr>
<td>12:00</td>
<td>N O O N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1:00</td>
<td>Sharing Time</td>
<td>Sharing Time</td>
<td>Sharing Time</td>
<td>Sharing Time</td>
<td>Sharing Time</td>
</tr>
<tr>
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<td>Language Arts</td>
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<td>Language Arts</td>
<td>Language Arts</td>
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<tr>
<td>2:15</td>
<td>R E C E S S</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2:30</td>
<td>French</td>
<td>French</td>
<td>French</td>
<td>French</td>
<td>French</td>
</tr>
<tr>
<td>3:00</td>
<td>Music</td>
<td>Art</td>
<td>Music</td>
<td>Art</td>
<td>Music</td>
</tr>
<tr>
<td>3:30</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Based on 1,500 minute week and daily time periods of 30 minutes.
ANALYSIS OF SAMPLE TIMETABLE
Grades 3-6

Opening Exercises .... 75
Language Arts .......... 600
Science ................ 150
Physical Education .... 130
Health .................. 30
Social Studies ......... 150
Second Languages ..... 150
Music .................. 90
Art ..................... 60
Sharing Time .......... 75

1,500 minutes per week
<table>
<thead>
<tr>
<th>Time</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00</td>
<td>Opening Exercises</td>
<td>Opening Exercises</td>
<td>Opening Exercises</td>
<td>Opening Exercises</td>
<td>Opening Exercises</td>
</tr>
<tr>
<td>9:10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mathematics</td>
<td>Mathematics</td>
<td>Mathematics</td>
<td>Mathematics</td>
<td>Mathematics</td>
</tr>
<tr>
<td>9:50</td>
<td>Language Arts</td>
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</tr>
<tr>
<td>10:30</td>
<td>RECESS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:45</td>
<td></td>
<td></td>
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<tr>
<td>11:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11:25</td>
<td>Second Languages</td>
<td>Second Languages</td>
<td>Second Languages</td>
<td>Second Languages</td>
<td>Second Languages</td>
</tr>
<tr>
<td>12:00</td>
<td>NOON</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1:10</td>
<td>Science</td>
<td>Science</td>
<td>Science</td>
<td>Art</td>
<td>Science</td>
</tr>
<tr>
<td>1:40</td>
<td>Physical Education</td>
<td>Health</td>
<td>Physical Education</td>
<td>Art</td>
<td>Physical Ed. and/or Health</td>
</tr>
<tr>
<td>2:20</td>
<td>RECESS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2:35</td>
<td>Social Studies</td>
<td>Social Studies</td>
<td>Library</td>
<td>Social Studies</td>
<td>Social Studies</td>
</tr>
<tr>
<td>3:15</td>
<td>Remedial Work</td>
<td>Remedial Work</td>
<td>Integrated Activities</td>
<td>Remedial Work</td>
<td>Integrated Activities</td>
</tr>
<tr>
<td>3:10</td>
<td></td>
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</tbody>
</table>

Based on 1,500 minute week with time periods of 40 minutes.
ANALYSIS OF SAMPLE TIMETABLE

Grades 3-6

Opening Exercises ....... 50
Mathematics ............ 200
Language Arts .......... 360
Music .................. 80
Second Languages ...... 175
Science ................. 160
Art ..................... 80
Physical Education
and/or Health .......... 160
Social Studies .......... 160
Remedial Work .......... 45
Integrated Activities ... 30

1,500 minutes per week
<table>
<thead>
<tr>
<th>Time</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00</td>
<td>Opening Exercises</td>
<td>Opening Exercises</td>
<td>Opening Exercises</td>
<td>Opening Exercises</td>
<td>Opening Exercises</td>
</tr>
<tr>
<td>9:15</td>
<td>Religious Education</td>
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<td>Religious Education</td>
<td>Religious Education</td>
<td>Religious Education</td>
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<tr>
<td>9:45</td>
<td>Language Arts</td>
<td>Language Arts</td>
<td>Language Arts</td>
<td>Language Arts</td>
<td>Language Arts</td>
</tr>
<tr>
<td>10:15</td>
<td><strong>RECESS</strong></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>10:30</td>
<td>Language Arts</td>
<td>Language Arts</td>
<td>Language Arts</td>
<td>Language Arts</td>
<td>Language Arts</td>
</tr>
<tr>
<td>11:00</td>
<td>Music</td>
<td>Health</td>
<td>Music</td>
<td>Health</td>
<td>Music</td>
</tr>
<tr>
<td>11:30</td>
<td>Science</td>
<td>Science</td>
<td>Science</td>
<td>Science</td>
<td>Science</td>
</tr>
<tr>
<td>12:00</td>
<td><strong>NOON</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1:00</td>
<td>Second Languages</td>
<td>Second Languages</td>
<td>Second Languages</td>
<td>Second Languages</td>
<td>Second Languages</td>
</tr>
<tr>
<td>1:30</td>
<td>Mathematics</td>
<td>Mathematics</td>
<td>Mathematics</td>
<td>Mathematics</td>
<td>Mathematics</td>
</tr>
<tr>
<td>1:35</td>
<td><strong>RECESS</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2:15</td>
<td>Physical Education</td>
<td>Social Studies</td>
<td>Physical Education</td>
<td>Art</td>
<td>Physical Education</td>
</tr>
<tr>
<td>2:30</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>3:00</td>
<td>Social Studies</td>
<td>Social Studies</td>
<td>Social Studies</td>
<td>Art</td>
<td>Social Studies</td>
</tr>
<tr>
<td>3:30</td>
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</table>

Based on 1,500 minute week with some extended periods.
## ANALYSIS OF SAMPLE TIMETABLE

### Grades 4-6

<table>
<thead>
<tr>
<th>Subject</th>
<th>Minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening Exercises</td>
<td>75</td>
</tr>
<tr>
<td>Religious Instruction</td>
<td>150</td>
</tr>
<tr>
<td>Language Arts</td>
<td>300</td>
</tr>
<tr>
<td>Music</td>
<td>90</td>
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<tr>
<td>Health</td>
<td>60</td>
</tr>
<tr>
<td>Science</td>
<td>150</td>
</tr>
<tr>
<td>Second Languages</td>
<td>150</td>
</tr>
<tr>
<td>Mathematics</td>
<td>225</td>
</tr>
<tr>
<td>Social Studies</td>
<td>150</td>
</tr>
<tr>
<td>Physical Education</td>
<td>90</td>
</tr>
<tr>
<td>Art</td>
<td>60</td>
</tr>
</tbody>
</table>

1,500 minutes per week
SUGGESTED INTEGRATED DAY ORGANIZATION

GRADE 1-6

Integrated Day A

Language Arts & Social Studies ....................... 1/2 day
Mathematics, Science & Health ........................ 1/4 day
Physical Education, Music & Art ....................... 1/4 day

Integrated Day B

Communications .............................................. 1/2 day
  Reading
  Language
  Spelling
  Writing
  Fine Arts

Humanities ..................................................... 1/4 day
  Social Studies
  Physical Education
  Fine Arts

Environment .................................................... 1/4 day
  Mathematics
  Science
  Health
Integrated Day C

9:00  COMMUNICATIONS - 90 minutes
10:30
10:45  ENVIRONMENT - 75 minutes
12:00
1:00  HUMANITIES - 75 minutes
2:15
2:30  COMMUNICATIONS - 60 minutes
3:30
GROUPING

Grouping is based upon the premise that, within each grade, children differ widely in maturity, health, social and cultural background, intelligence, interests, attitudes and habits. The purpose of grouping is to make teaching more effective by adapting the curriculum, the materials and the learning environment to the abilities and needs of each child while at the same time creating and organizing for collective guidance whereby it becomes possible for the school to serve its students as a whole.

Learning at any level can only be successful when the individual is ready for it. The pupils must have acquired a sufficient level of mental maturity to handle abstractions and see relationships. This maturity is dependent upon mental ability, accumulated experience and upon attitude. Thus, pupils should be grouped for instruction on the basis of particular strengths or needs. The fast-learning and most mature pupils should be challenged to work to capacity and should have enriched and extended experiences on their social and chronological levels. What they need most from the teacher is not more instruction, but inspiration to enable them to make extended use of their abilities to become creative learners. For the slow learning pupils, special adaptations will also have to be made such as making assignments shorter and simpler. These pupils need more first hand experience, more illustrative material and more repetitions to fix any learning.

All pupils need experiences in working independently and in groups. It follows that the teacher must plan a variety of groupings to meet these differing requirements. Groupings could include:

- a) individuals working on assignments, inquiry, research, practice, or preparing materials.
- b) work groups chosen by the children or suggested by the teacher. In this case, from two to five pupils work together on reading or number games, carry out an experiment, make a model, or help one another to research a topic.
c) larger teaching groups useful for teaching specific skills or aspects of a subject.

d) class groups, that is, the groups consists of the entire class. This grouping is useful for such activities as planning a project, story-telling, physical education and dramatic performances.

Throughout the day, the teacher will need to guide children through their individual sequence of tasks. The groupings should be retained only as long as needed.

The numerous aspects of grouping may be summarized under two types of organization, sectioning and intraclass grouping. Sectioning encompasses the procedures used in allocating the pupils of a given grade into convenient sized classes. Pupils may be assigned randomly or grouped according to some skill or need. Ability grouping or achievement grouping would be an example of the latter. Ability grouping may be used effectively when it grows out of the needs of the curriculum and when it is varied and flexible. Pupils can be grouped for special work, whether advanced content or remedial instruction, in a given subject. Teachers can more easily carry out specific plans appropriate for one ability level without having to provide for other pupils for whom the particular content may be inappropriate. Pupils at all levels can be freed to participate more fully without fear of derision either for being "too dumb" or "too smart". Intraclass grouping consists of dividing the class into smaller subgroups for instructional purposes. In reading it is not uncommon to find a teacher working with three or four subgroups. In spelling, pupils may be grouped in pairs. Subgroups are useful in mathematics, social studies, language arts, as well as physical education. Teachers find intraclass grouping convenient and feel they get closer to the learning difficulties of individuals, hence tasks and materials are better adapted to individual needs. Other values of intraclass grouping include opportunity to assist learning leadership and followership skills, critical thinking, group planning and evaluation.
GROUPING FOR READING IN GRADE ONE

Working with three sub-groups in reading is a common practice since a wide range of reading abilities exists in most classrooms. Children are usually clustered on the basis of some degree of readiness for instruction. A few children have well developed skills and are able to read at their level without too much difficulty. Others still require some instruction in the development of particular basic skills. A third group may lack readiness and require the experiences which will lead to learning the skills necessary for reading.

It is important that the teacher has a knowledge of the strengths and weakness, and the ability levels as well as the present level of achievement of each pupil. Such information may be obtained from teacher observations, readiness tests, I.Q. tests and diagnostic reading tests and used by the teacher in the selection and placement to students in the different reading groups. In primary grades, three reading groups are commonly used for instruction.

The teacher must prepare the lessons thoroughly in order that sufficient materials and activities are available for each group. The concepts and skills to be taught must be appropriate to the level of each group and all assignments must be designed to reflect this orientation.

The sample reading lesson which follows (see Table 1) is designed to show the activities which may be used by the teacher when teaching three groups. The lesson begins with the teacher making a presentation to the total class. At this time the teacher introduces the new words from the story and covers such aspects as pronunciation, meaning, word structure and spelling. The teacher then works with group one and stimulates interest by introducing the story and by relating the story or the characters to some personal aspect of the child's life. The purpose for reading the story is also set at this time. Meanwhile groups two and three are actively listening to the discussion. Group one is assigned to read the story silently and answer purpose questions as well as comprehension questions which have been prepared on work sheets or written on the blackboard. The
seat work requires a high level of thinking and students are required to write answers in complete sentences.

The teacher moves to groups two and three and repeats the vocabulary development part of the lesson. Emphasis this time is placed on word recognition and use. The purpose for reading the story is set for group two and they are assigned to read the story silently after which they will complete work sheets or workbook exercises requiring one word answers. The teacher, now working with the third group only, reviews the vocabulary emphasizing pronunciation and recognition. Since these pupils have been involved in three presentations they are now prepared to deal with the words in the story more successfully. This group reads the story orally with the teacher and receives an assignment which requires a minimal level of response, such as finding the vocabulary words in the story or drawing one of the characters.

The teacher next circulates among the students and provides individual assistance. This activity is followed by marking the work accomplished by each group, starting with group one. The lesson ends with a review and summary of the story with the total class. This type of lesson presentation allows the teacher to provide total class instruction, small group instruction and individual attention with differentiated tasks and assignments appropriate to the different ability levels.

Educators seek various kinds of grouping practices in their attempt to differentiate instruction. It is, therefore, essential to recognize that, no matter how precise the selection of pupils may be or how varied and flexible the student deployment is, grouping arrangements, by themselves, serve little educational purpose. Real differences in academic growth result from what is taught and learned in the classroom. Therefore, emphasis must be placed on the differentiation of tasks through selection of appropriate content and the use of effective teaching strategies. Grouping procedures may be used very effectively by the teacher in meeting the needs of all students in a class.
### Table 1

**GROUPING FOR READING IN GRADE ONE**

<table>
<thead>
<tr>
<th>GROUP ONE</th>
<th>GROUP TWO</th>
<th>GROUP THREE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vocabulary Development</strong> (New words from story to be studied).</td>
<td><strong>Listen to discussion and prepare for further work.</strong></td>
<td><strong>Listen and prepare for further work.</strong></td>
</tr>
<tr>
<td><strong>Introduction-motivation</strong></td>
<td><strong>Purpose for reading</strong></td>
<td><strong>Vocabulary Development</strong></td>
</tr>
<tr>
<td><strong>Read to find answers to purpose questions.</strong></td>
<td><strong>Pronunciation &amp; recognition</strong></td>
<td><strong>Emphasis on recognition and word use (meaning)</strong></td>
</tr>
<tr>
<td><strong>Answer in sentence form.</strong></td>
<td><strong>Introduction-motivation</strong></td>
<td><strong>Listen and prepare for further work.</strong></td>
</tr>
<tr>
<td><strong>Assignment</strong></td>
<td><strong>Purpose for reading</strong></td>
<td><strong>Oral reading with teacher.</strong></td>
</tr>
<tr>
<td><em>(Comprehension questions)</em></td>
<td></td>
<td><strong>Introduce-motivation</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Pronunciation &amp; recognition</strong></td>
<td><strong>Listen and prepare for further work.</strong></td>
</tr>
<tr>
<td><strong>Extended Reading</strong></td>
<td><strong>Assignment</strong></td>
<td><strong>Oral reading with teacher.</strong></td>
</tr>
<tr>
<td><em>(Other stories on same theme)</em></td>
<td><em>(Complete exercises)</em></td>
<td></td>
</tr>
<tr>
<td><strong>Teacher assistance to individuals</strong></td>
<td></td>
<td><strong>Assignment.</strong></td>
</tr>
<tr>
<td><strong>Mark assignment</strong></td>
<td><strong>Find other stories on same theme.</strong></td>
<td><em>(Draw favorite character or event, or identify vocabulary words.)</em></td>
</tr>
<tr>
<td><strong>Creative assignment</strong></td>
<td><strong>Mark assignment</strong></td>
<td><strong>Mark assignment</strong></td>
</tr>
<tr>
<td><em>(Compare or contrast stories or reaction to stories)</em></td>
<td></td>
<td><strong>Complete work</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Evaluate</strong></td>
</tr>
</tbody>
</table>

**Review and Summary**

**Total Group**
CLASS SIZE, PUPIL-TEACHER RATIO AND TEACHING LOAD

Class size, pupil-teacher ratio and teaching load are different concepts and each has a distinct meaning. Class size refers to the number of students assigned to a classroom. Average class size for a school is calculated by dividing the total school enrolment by the number of operating classrooms. For example, if a school has 330 students in 11 classrooms, the average class size for the school would be 30.

Pupil-teacher ratio refers to the figure obtained when the enrolment is divided by the total number of certified staff members in the school. If, in the above example, a total staff consists of 11 classroom teachers, a half-time remedial teacher, a half-time music specialist, a half-time counsellor and a full-time principal which gives a full-time equivalent of 13.5, then the pupil-teacher ratio would be 24.4 to 1.

Teacher load refers to the number of different students that a teacher meets for instruction during the day or the week. In the above example, if some departmentalization is practised and a teacher meets six different classes per day, then the teacher load would be 180. The concepts of class size, pupil-teacher ratio and teacher load must be taken into consideration in planning the instructional program and in staffing.

Class sizes vary from grade to grade, from school to school and from system to system. The size of the school jurisdiction and the geographical location are often determinants of class size. Many school systems favour low enrolments at the grade 1 level. Maintaining enrolments in the low twenties allows the teacher greater opportunity to provide the individual attention which is so necessary to the beginner. Budget considerations, staffing and instructional programs are unfortunately based on the pupil-teacher ratio, a figure which does not always accurately reflect the needs of the school.

Various interest groups in our society are requesting a reduction in class size. Commendable as this may be, educational research has been
unable to indicate, with any degree of certainty, the optimum class size at
any given grade level. There are many variables involved and needs vary from
subject to subject and situation to situation. Research shows that improved
instruction and learning are generally the direct result of the effectiveness
of the teacher in the classroom. Teacher effectiveness might be increased if
class sizes were reduced. However, it has been found that teachers tend to
teach in much the same way regardless of the size of the class.

Teaching load affects teacher effectiveness. A heavy teaching
load, where a teacher is required to interact with many different personalities
during the course of the day, increases teacher fatigue and decreases efficiency.
Although a teacher may have fewer lesson preparations, the amount of time
required for marking student work and for recordkeeping is substantially increased.
Meeting a large number of students for relatively short periods is not conducive
to the development of close teacher-pupil relationships. A type of school
organization which decreases teaching load would be preferable.
SELF-CONTAINED CLASSROOM OR DEPARTMENTALIZATION

Today there is a difference of opinion relative to the advantages and disadvantages of non-departmentalization and of departmentalized teaching in the elementary schools. The traditional or non-departmentalized teaching (the self-contained classroom) is the type where one teacher is responsible for all the subjects taught in a given grade. Departmentalized instruction is characterized by the fact that a teacher who is highly trained in a field of knowledge is assigned to teach only that subject to a class. Thus a class has a different teacher for each subject similar to the system used in high schools.

The advantages of the self-contained classroom include: (1) flexibility in daily scheduling, (2) greater opportunities for integration of subject matter and (3) establishment of closer working relationships between the teacher and the children which tend to enhance the total learning process.

Some disadvantages of this type or organization are that: (1) one teacher cannot be expected to be highly knowledgeable in all subjects, particularly in view of the increasing amount of content in subject areas, (2) opportunities for students to be exposed to the expertise of a subject specialist are minimal or non-existent, (3) student contacts are limited to one personality for the whole day, which may create hardships in those instances where there are personality conflicts and (4) preparation time and time for meeting with other school personnel cannot be scheduled easily.

Music should be integrated with as many other subjects as possible. During a school day, the teacher will find that music activities can become an intrinsic part of such subjects as physical education, art, literature, drama and social studies. Integration can be more effectively used in a self-contained classroom situation.

In recent years, there has been a trend away from the completely self-contained classroom towards the use of teacher specialists and
departmentalization. Some of the advantages claimed for departmentalization include the following: (1) it provides for more efficient instruction, (2) it offers an enriched curriculum, (3) more highly trained teachers can be secured, (4) it allows for centralization of equipment and resource materials in a specially designated classroom and (5) students have contact with more than one teacher personality.

Arguments against departmentalization are that: (1) it overemphasizes subject matter, (2) it prevents integration of subject matter, (3) teachers are narrow specialists and lack a broad understanding of curriculum and child development, (4) it lacks flexibility in scheduling and in length of periods, (5) behavior problems are more difficult to handle, (6) frequent interruptions due to period change may affect learning and (7) it destroys the unity of school life for the student.

Research studies on the effectiveness or superiority of one type of organization over the other often report findings which are contradictory or inconclusive. Departmentalization does appear to have an advantage in subjects such as arithmetic and science. However, many studies indicate a generalized superiority for the self-contained classroom in that the total learning process is better coordinated and integrated.

On the basis of research and an analysis of curriculum and school practices, it would appear that the most effective type of organization is a modified self-contained classroom which uses the expertise of teacher specialists in such subjects as music, art and physical education, especially at the upper elementary level. Specialist teachers may also be used as resource persons to the staff. They may act as advisers, organize teacher in-service and assume responsibilities for curriculum development and selection of resource materials.

A music specialist on staff may be used in different ways. Generally, the music teacher is assigned to teach all the music in
certain grades. During music periods, the homeroom teacher either teaches in another classroom or else has preparation time. An alternative approach would be to have the music specialist teach one or two periods per week with the homeroom teacher present. The teacher would observe and assist during this time but would be responsible for teaching the remaining music periods unassisted. Such an approach provides valuable in-service training and encourages direct involvement of the regular classroom teacher in the music program.

Regardless of the type of classroom organization used, every teacher must still be a generalist in elementary education, in the sense that she must diagnose children's individual learning needs, select appropriate materials and provide a learning environment which emphasizes the total growth and development of the child.
THE MULTIGRADE CLASSROOM

Today many school jurisdictions are being faced with declining enrolments in their elementary classrooms. As a result the multigrade classroom is becoming a common form of organization. Many teachers now can no longer expect to enjoy the privilege of teaching in a single grade setting and are confronted with the task of learning how to organize and how to function in a multigrade classroom situation. Often these teachers do not have the necessary skills to teach in this type of classroom and need assistance in developing the techniques required by this type of organization.

A multigrade classroom may be defined as a classroom which contains two or more consecutive grade levels. However, in the discussions following the primary concern will be on classrooms organized with two grades.

Multigrade classes are often formed in schools because of low enrolments or because of the desire to maintain uniform class sizes. Whenever possible the students should be selected on the basis of academic ability and the ability to work independently. Teachers should be selected on the basis of experience, willingness, and skills necessary to teach in a multigrade classroom. Multigrade classrooms increase teacher work load; consequently smaller class size and extra preparation time should be given primary consideration. Studies indicate that combinations may be made at any level but certain combinations such as grade 2 and 3 or 4 and 5 or 5 and 6 are preferable. Research also indicated that division two classes are better suited to multigrade arrangements because older students are better able to work on their own and are less dependent on the teacher. Classes which include grade 1 and those crossing divisions (e.g., grades 3 and 4) appear to be the least suited to a multigrade situation. In a grade one classroom there already exists a type of multigrade situation in that there is a group of students lacking readiness and another group who have the developmental skills necessary to proceed in a regular grade one program.

Students should be identified into three categories of ability: low, average and high. These categories are formed on the basis of IQ scores,
standardized achievement test battery scores, such as the Canadian Tests of Basic Skills, and teacher observations. There are certain grouping arrangements which provide for optimal learning in a multigrade classroom. The best arrangement appears to be high ability students from the lower grade level combined with average ability students of the higher level. (e.g., grade 5 high with grade 6 average). The second best arrangements is high ability students at both grade levels or average ability students at both grade levels. It is felt that these groupings are more effective for providing opportunities in having students work independently and for instructing the class as a total group.

In those cases where choices are not possible and where there is a small class of students of all ability levels, they should be placed in the lower grade of a multigrade classroom (e.g., grade 4 all levels of ability placed with a grade 5 average or high ability group). The most appropriate placement for low ability students with poor work habits is in the lower grade of the multigrade class. Further, according to research the optimal characteristics of a multigrade class would contain the following features: an average class size of 22, an equal number of students in each grade and an equal number of boys and girls.

The organization of the curriculum in a multigrade classroom must be such that the teacher makes the most effective use of the time available and provides adequate instruction to the students in both grades. Subjects such as reading, language and mathematics are not cycled and are taught as two separate grades. Social studies and science are generally cycled by teaching the course content of one grade to both grades in one year and the other grade course content the following year. Remaining subjects which include, music, physical education, art, health and second languages are taught to the total class using course content from either grade level. It should be noted that in those subjects which are not cycled certain concepts and skills may be taught effectively to both grades. (e.g., decimals, metrication, poetry and creative writing).

Timetabling need not be different in a multigrade classroom than in a regular classroom. However, teachers are required to plan daily lessons
and assignments more carefully and more extensively. It is difficult for some teachers to distribute the time effectively between the two grades. However, teaching two grades is essentially the same as teaching two groups as one would in the teaching of reading. The teacher must have the flexibility to be able to provide instruction to the whole class, small groups and individuals.

There are advantages and disadvantages to a multigrade classroom type of organization. Teachers report that there is insufficient time for individual student attention, class discussions, and practice activities. Other disadvantages include: increased teacher work load, difficulties in covering the course content of two curricula, reluctance or nonacceptance by teachers and parents, and the lack of preparation time. Some desirable aspects of the multigrade classroom are: equalizes class sizes, exposes students to different age groups and two grade levels, helps students to learn to work independently, provides opportunities for advance students to help weaker students and allows students in the lower grade to benefit from exposure of the curriculum of the higher grade. Most research studies indicate that multigraded groups exceeded single grade groups in reading, mathematics and language achievement. Multigraded students also showed greater gains in personality development, social adjustment, social maturity and independence.
There are a number of children who, although they may have a measured ability classified as normal, have difficulty in performing adequately in the areas of reading, spelling and language both oral and written. If these children receive adequate assistance at the proper time they are usually able to cope with work in the regular classroom. If adequate help is not given, related emotional and social problems compound this learning difficulty. The cumulative effects cause the children to fall further and further behind their peers. Specific and intensive assistance in a resource room is a means of providing the needed help. Thus, a resource room teacher is a useful adjunct to the classroom teacher.

Careful screening and selection of pupils is necessary in order to ensure that the assistance offered in resource centres meets the needs of the children. Those who have been assessed as having an average or above average intelligence quotient display a discrepancy between expected and actual performance; and those who show competence in other curriculum areas but are underachieving in the area of language arts, make good candidates. Children who have visual or auditory handicaps; those diagnosed as emotionally disturbed; and those with a low intelligence quotient are not well served by a resource room.

The resource room teacher, in cooperation with the classroom teacher and other pertinent personnel, should plan and implement individual programs so that the children receive assistance in reading, writing, oral language and listening. Such instruction may be given individually or in small groups of not more than six pupils. Pre-tests and post tests should be given by the resource room teacher and the results and analyses of these tests recorded. It is important to recognize that the classroom teacher is responsible for the learning accomplished by the pupil and that the resource room teacher is assisting the classroom teacher in this educational endeavour.
The classroom teacher identifies the pupil and, through consultation with the principal, resource room teacher and other specialist personnel arranges for the pupil to attend the resource room for a definite period of time with a definite program designed to teach the needed skills.

Timetabling may give the pupil a schedule which is constant, staggered or rotating. As it is not desirable to have the pupil constantly missing the same period, a staggered or rotating schedule is superior. Thus, the pupil will go to the resource room at a different period each day throughout the week. The timetable should be duplicated and given to each person so that the pupil, classroom teacher and resource room teacher have the same information. The principal should also have a copy of the timetable for the resource room.

Constant communication between classroom teacher and resource room teacher is essential.
A major concern of prospective, beginning and experienced teachers is classroom discipline or control. In the professional literature, the terms classroom discipline, classroom control and classroom management are used interchangeably. Classroom management refers to a complex set of behaviors a teacher uses to establish and maintain classroom conditions that will enable students to achieve their instructional objectives efficiently and thus enable them to learn. Effective classroom management is not an entity in itself but is the product of good teaching, supportive administrative policies and sound educational practices which provide a good learning and teaching climate in the classroom.

A great deal is expected of the classroom teacher and different people expect different things of him. Students expect the teacher to be fair, patient, pleasant, sincere and understanding. They want him to know his subject matter, be able to motivate them and maintain high interest, to respect them for what they are and they want very much to respect him. Parents expect even more of the teacher. They expect him to set standards for their children that they themselves frequently have been unable to set. They expect him somehow to hasten the process of maturing and some even expect the teacher to develop talents that do not exist. Administrators expect a great deal from the teacher as well. They believe the teacher should try to develop to the maximum the measured potential of all students, be cooperative and loyal, show an interest in and understanding of the individual child without losing sight of his responsibilities to the group and maintain good classroom control at all times. To meet such expectations and provide good classroom discipline, the teacher must rely on intelligence, talent and particularly, hard work. Not all discipline problems can be prevented but, most may be avoided by the teacher who plans his work effectively, who motivates students skilfully.
and who provides a friendly classroom climate.

A teacher's competence in classroom control is largely a function of his or her understanding of the dynamics of effective classroom management. No one best approach to classroom control has been found but, rather, there are several approaches based upon a sound philosophy and statement of principles which the teacher must understand in order to be able to select and apply those specific managerial behaviors most appropriate to specific situations.

A search of the literature reveals several different approaches to classroom management, each of which is derived from a particular philosophical or psychological base.

1. The Authoritarian Approach

   This approach views classroom discipline as the process of controlling student behavior through strict and constant supervision, heavy restraint and punishment. Punishment may take many forms and may be applied to the whole class and to the individual. It may include extra assignments, keeping the class in at recess or after school, sending students out of class regularly to stand in the corridor, writing lines, using sarcasm and ridicule and administering the strap for even minor offences. Discipline is achieved through fear and the teacher is the "boss". In such a classroom, discipline appears to be very good as long as the teacher is present but what would happen if the teacher were to leave the room?

2. The Permissive Approach

   Advocates of this approach take the view that the role of the teacher is to maximize student freedom, i.e., to help students feel free to do whatever they want whenever they want. To do otherwise, it is claimed, is to inhibit the child's natural development. This approach is the direct opposite of the authoritarian approach.
While these two approaches have their advocates and practitioners, neither is an effective or responsible approach to modifying inappropriate behaviors.

3. The Behavior Modification Approach

In this approach, the role of the teacher is to foster desirable student behavior and to eliminate undesirable behavior by applying principles from theories of reinforcement. The behavior modification approach is formed on a sound basis - the tenets of behavior psychology. It is based on the assumption that all behavior, both appropriate and inappropriate, is learned. Hence one assumes that (1) a few basic processes such as positive reinforcement, negative reinforcement, punishment and extinction account for learning at all age levels and under all conditions; and (2) learning is controlled largely by events in the environment. The basic premise is that the acquisition of a particular behavior is contingent upon learning that its performance will be rewarded; that is, the performance of that behavior will produce a form of reinforcement and that a behavior will be repeated and, thus, strengthened. The behavior being strengthened by reinforcement may be appropriate or inappropriate. However, if either type is rewarded, it is likely to continue.

Behavior modification then consists of using reinforcement (positive and negative) to increase the frequency of a behavior and using punishment to decrease the frequency of a behavior. Positive reinforcers include praise, attention, approval, affection, a smile or some other reward. For example, if the teacher smiles after a child raises his hand in class, and if his hand-raising behavior (as opposed to speaking out) is increased, then the teacher's smile is a positive reinforcer. Negative reinforcers are fines, detentions, not noticing or ignoring a student, removal from the classroom, sarcasm and ridicule. Negative reinforcement is the strengthening of a
behavior through the removal of an unpleasant (aversive) stimulus. This may be exemplified by the situation where a group of children are teasing (aversive stimulus) a boy in class. He finally spits (response) at one of the children and the teasing stops. The cessation of the teasing is a negative reinforcer and the boy is more likely to exhibit the spitting behavior in the future when teased.

Punishment is the use of an unpleasant stimulus (e.g., a reprimand or the strap) to eliminate an undesirable behavior which results in a decreased frequency of that behavior. For example, the child who is severely reprimanded or strapped for using obscene words will immediately stop saying the words and the frequency of using those words in the future will be decreased. Although punishment is not always effective in dealing with students, neither is it viewed as being completely unacceptable as a means of classroom management. It does have the advantage of immediately stopping an undesirable behavior and giving the teacher time to implement a reinforcement system for strengthening more acceptable patterns of behavior. There is no universal agreement or acceptance of the effectiveness of punishment and particularly corporal punishment, in classroom discipline and it remains a topic of controversy.

Behavior modifications advocates believe that the majority of behaviors are based on Thorndike's Law of Effect which states that an act may be altered in its strength by its consequences. If the teacher provides pleasant consequences for children's academic achievement or deportment, such behaviors are likely to recur than if they go unnoticed or are followed by unpleasant consequences. Stated in another way, ignoring inappropriate student behavior and showing approval of appropriate behavior is probably the key to effective classroom management.

4. The Positive Socio-emotional Climate Approach

The positive socio-emotional climate approach is based on the premise that effective classroom management is the process of creating a positive
socio-emotional climate in the classroom through the development of good interpersonal relationships, both between teacher and students and among students. The teacher is the key to developing these interpersonal relationships and the positive climate which in turn, will facilitate learning. Attitudinal qualities required in the personal relationships between the learner and the teacher include: (1) realness in the teacher, (2) teacher acceptance and trust of the student, and (3) teacher empathy regarding the student. The teacher should be guided by the fact that love and self-worth are the two basic needs which must be met if the student is to develop a success identity. A student needs to experience success; therefore, a teacher must provide opportunities to achieve success. Furthermore, if the student is to develop a positive sense of worth and view himself as worthy of respect, the teacher must treat him with respect.

Advocates of the socio-emotional climate approach also claim that a teacher must be committed to helping students avoid failure, since failure kills motivation, creates a negative self-image, increases anxiety, and leads to misbehavior. The classroom must be a place where the student feels safe and secure and where he has the opportunity to learn from mistakes and failure. The student does not live in constant fear of failure and failure is not accompanied by excessive criticism, ridicule and threats.

This approach is rooted in a philosophy that stresses empathy and acceptance in teacher-student relationships. The classroom climate influences learning and the teacher greatly influences the nature of that climate. When the student behaves inappropriately, the teacher is encouraged to "separate the sin from the sinner", that is, to accept the student while rejecting the behavior of the student. In all cases, the primary function is to establish positive relationships with each student. The implications of a socio-emotional climate approach to classroom management suggests that there is a concern for the development of the whole child, not just the academic learner.
5. The Group Processes Approach

This approach to classroom management is derived from the principles of social psychology and group dynamics. It is based on the assumption that (1) school takes place within a group context, and (2) the classroom is a social system with the characteristics of other social systems. The nature and behavior of the group has a significant effect on learning even though learning is an individual process. The critical role of the teacher is seen as the establishment and maintenance of a cohesive, productive, task-oriented classroom group. The teacher fosters group attractiveness and cohesion by directing praise and encouragement to the entire class and by encouraging adequate communication among members of the group. Students are also helped to develop group norms that are productive and satisfying. This would include, for example, the development of acceptable work standards and standards of conduct through a group decision-making process.

Group processes are used in solving problems, and it is believed that misbehavior is not an individual affair but that is a social affair contingent upon the nature of the group. In the case of misbehavior, the chief goal of the teacher is to help the group become responsible for its own actions and for its own management. An effectively functioning group exercises great control over its individual members.

6. The Adlerian Approach

Many teachers are faithful advocates of Alfred Adler's theory of human behavior which is based on a set of sound basic psychological premises that fit democratic principles. It is a practical social psychology which recognizes human equality and the use of democratic processes in dealing with children.

The child is seen as a social being who wants to belong and to find his
place at home, in school and in the world. If he misbehaves, it is because he has developed erroneous ideas about how to belong. A child's behavior can only be understood when we know its purpose or goal. All behavior is goal-directed. It indicates the ways and means that each child has discovered as his expression to gain status and significance. The child, being a decision-making organism, decides what he wants to do, often without being aware of what he has decided. The child can function only if he feels accepted by the group as a worthwhile member. The degree and extent of belonging and his ability and willingness to function depends on his development of "social interest" as Adler called it. Misbehavior indicates a lack of or a restriction of social interest which is due to a child's self doubts about finding a place in the group through useful and acceptable means. The misbehaving child has wrong ideas about himself and uses socially unacceptable means to gain social status and find his place in the group. It is the teacher's task to help the child realize why he is misbehaving and present alternatives for changing his behavior.

There are four mistaken goals of a child's misbehavior:
1. attention-getting;
2. power;
3. revenge (to punish or get even);
4. display of inadequacy. The four goals refer to the purpose or motivation of child's misbehavior. Only his actions and misbehavior can be labelled - not the child himself. Misbehaving children may be active or passive and in either case they may use constructive or destructive methods. The combination of the two pairs of factors leads to four types of behavior patterns: (1) active-constructive; (2) active-destructive; (3) passive-constructive; (4) passive-destructive. Any one of these behavior patterns may be used by the child to achieve his goal.

Once the teacher recognizes the goal and the behavior pattern used, corrective techniques are employed to modify the motivation, rather than the behavior itself. When the motivation is changed, more constructive behavior usually follows. For more information and detail concerning the Adlerian approach to classroom management, the teacher is directed
to the following references: *Maintaining Sanity in the Classroom* by Dreikurs, Greenwald and Pepper and *Discipline Without Tears* by Dreikurs and Cassel (See bibliography).

7. The "Bag of Tricks" Approach

The "bag of tricks" approach is not derived from a philosophical or psychological base. Most teachers are familiar with this approach to classroom discipline. It consists of a list of things a teacher should not do when confronted with various types of classroom control problems. Because such lists of "do's" and "don't's" often have the appearance of quick and easy recipes, it is also known as the "cookbook" approach.

The "bag of tricks" approach lacks consistency and flexibility. Even though it appears to make a great deal of sense, there is no set of principles that permit the teacher to generalize to other problems. It tends to cause the teacher to be reactive to specific problems and use short-range solutions. It is a "band-aid" approach in that the prescription is applied after the offence has been committed. It is not a preventive approach, where problems may be anticipated before they actually surface in the classroom so that the teacher may be able to devise long-range solutions in order to prevent problems from occurring.

Another difficulty of the "bag of tricks" approach is that when the specific prescription fails to achieve its intended goal, the teacher is left without recourse to other alternatives because this approach deals in absolutes. If "such and such" happens, the teacher does "so and so". It does not allow the teacher to re-analyze the situation and select from a variety of equally attractive alternatives. Teachers, who rely primarily on the "bag of tricks" approach, are unlikely to become effective classroom managers.

Several approaches to classroom management have been discussed. There is not one approach which has been proved best and which can be recommended. The teacher is, therefore, encouraged to become thoroughly
familiar with a variety of positions and adopt a pluralist approach toward classroom management. A pluralistic approach will enable a teacher to select those techniques which are most appropriate to deal with a particular situation and not be tied to only one approach in establishing and maintaining effective classroom discipline.
The term, Learning Resource Centre, is being used more frequently today to designate the area commonly referred to as the School Library. This term reflects the variety of resources such as books, magazines, pamphlets, filmstrips, recordings, audiotapes and other materials which are found in this area and which students require to retrieve information.

The teacher-librarian or Learning Resource Teacher should have a clearly stated job description along with a statement of the aims and objectives for the operation of the learning resource centre. This individual is generally responsible for preparation of the budget, program development in cooperation with teachers, instruction in library science and research skills and participation in curriculum development. Other responsibilities include selection, organization, management and circulation of resources and equipment.

The principal is the key person in the organization and operation of the learning resource centre. His responsibilities include: the selection of adequate professional and para-professional staff, leadership in policy development, budget planning, program planning, so that the learning resource staff have sufficient time for preparatory work and routine tasks. Provision for cooperative working relationships between the teachers and the learning resource teacher, and regular evaluation of the services provided.

Scheduling of classes in the learning resource centre should be sufficiently flexible in order to meet the different needs of students and teachers as well as satisfy the objectives of the program. All students should have the opportunity to benefit from the library program which should provide time for library science instruction,
leisure reading, book selection and exchange, story-telling and browsing. In addition, there must be time available to allow for large groups, small groups or individual study and research related to classroom assignments. The library should be readily accessible to students and teachers at all times during the day. Therefore, it is desirable that the library is open before classes in the morning, during the noon hour and, for a short time, after school.

An example of a learning resource room timetable is included in Appendix B.
A basic aim of elementary school education is to help students grow and develop to their fullest potential. This can best be realized through an organized program or guidance services designed to help children to cope with their needs. Guidance is an attempt to help the immature but growing child to gain a better understanding of himself and others, to assist him in learning how to make wise choices, to encourage him toward optimal academic achievement and to give dignity to his individuality. Guidance seeks to individualize and humanize education by bringing the total facilities of the school to bear upon the optimum development of the individual child.

Elementary school guidance has the following goals:

1. To help children begin early to grow in their understanding of the role of education in their lives and to help them to mature in their own life-planning.

2. To enhance and make more functional our understanding of all children and to enhance and make more functional all children’s understanding of themselves and others.

3. To help children develop socially.

4. To help children with their goal-seeking, choice-making and life planning.

In addition to the four goals, there are several principles specifically related to guidance which are appropriate at the elementary school level.

1. Guidance is for all children.

2. Guidance is based on the concept that children have a right to assistance when they need it.
3. Guidance serves the child's needs in order to enhance his chances of realizing his potentialities for individual and societal ends.

4. Guidance is oriented towards understanding of self and others, goal seeking and choice-making.

5. Guidance is a continuous process and is an integral part of education.

6. Guidance is both present and future-oriented.

7. Guidance recognizes and responds to individual weaknesses but focuses on strengths.

8. Guidance is a shared responsibility involving teachers, the principal, the counsellor, the psychologist, the school nurse and the parents.

9. Guidance is dependent on having adequate information about the child and knowing him as well as accepting him as an individual.

10. Guidance services are preventive in nature.

Elementary school guidance has enjoyed less support and growth than secondary school guidance. As such, many elementary schools do not have a counsellor or an organized guidance program. Today, educators generally acknowledge that guidance should start in the elementary school. There is much evidence to indicate that forerunners of problems which emerge in junior or senior high school have their beginnings early in life and these should be dealt with at the elementary school level. The problems of elementary school children are caused by conditions which interfere with learning in school and these may be attributed to tensions in the home, physical defects or poor health, poor social relations, emotional levels, intellectual limitations, unsatisfactory methods of instruction and poor pupil-teacher relationships. Hence, elementary school guidance should be preventive and developmental rather than crisis-oriented.
Principals and teachers generally recognize the need for guidance in elementary schools. Since many schools do not have a guidance counsellor, it is the principal's responsibility to organize and coordinate the school guidance program in cooperation with the staff. The most common form of organization is the homeroom teacher concept of guidance where the teacher is responsible for guidance in his own class. This is not an unfamiliar role to most elementary teachers. The teacher's guidance functions should include identification of student needs, making referrals, working with parents and helping students who have learning difficulties. Individual counselling may also be undertaken but serious problems should be referred to a trained specialist. In general, the teacher should be a sincere, sympathetic listener and act as an advisor. The most important task is to develop and maintain excellent rapport and working relationships with children.

The teacher is the key person in a guidance program. His major contribution will obviously be in the classroom. Since he spends more time with the child than any other adult, except the parents, he knows the child better than other staff members. He discovers special talents and interests, he is aware of restricting physical defects and he detects abnormal behavior that may hinder the child's social, emotional and academic growth. He knows what affects children, what threatens them, what they believe about themselves and what they believe about others. Daily contact with the child places the teacher in a powerful position for observing and changing the child's behavior.

The teacher should create a classroom climate that encourages acceptance of self and others, promotes genuine friendships and facilitates optimum learning. Children reflect their teacher's attitudes and actions and the teacher should capitalize on this.

In the classroom, the teacher works with both individuals and with groups. The role of the teacher in a guidance program requires an understanding of the importance of group relations and he
must consider how group work can be used to help the child more variably, emotionally and academically. The teacher should also encourage informal group discussions wherein the children may express their thoughts and ideas without fear of consequences.

A child's security and stability are closely related to his academic achievement. Hence, the role of a teacher with a guidance point of view also includes the responsibility of helping the child succeed in mastering subject matter at his level of ability. Provision should be made for praise, success experiences and the development of a feeling of adequacy in relation to school tasks.

Characteristics of a Good Guidance Program

A good guidance program will seek to accomplish the following:

1. To sensitize teachers to the needs of children for affection, security, a feeling of self-worth and the opportunities to succeed, and to help teachers to know and use techniques in the classroom which will enable them to recognize each child's needs.

2. To provide individual and group counselling services for all children recognizing that guidance is not a privilege accorded to the maladjusted or problem child only but is a necessity for every normal child.

3. To provide suitable programs of orientation.

4. To provide a testing program, utilizing individual and group tests with the well established reliability and validity.

5. To collect complete and accurate information about the student from reliable objective and personal sources and to develop reporting procedures so that this information may be interpreted to the student and parents in a meaningful fashion so that maximum benefit from the information may be derived.

6. To make available clinical services to those children requiring specialized help.
7. To recognize that guidance must be concerned with the whole child in terms of his psychological, social and educational development.

8. To develop and maintain liaison and communication with community agencies which may be utilized to serve the student.

9. To recognize that, if guidance is to be effective, it must focus on the classroom teacher who is the key person in the program.

10. To provide for evaluative procedures in order to assess the effectiveness of guidance services.

Role of the Teacher in Guidance

1. Listening sympathetically to the student's description of his experiences or his problems.

2. Summarizing and clarifying what the student says so that he may more clearly state what his real problem is.

3. Identifying, in the classroom or elsewhere, symptoms of student difficulties that need to be followed up and assistance offered to the student.

4. Raising questions pertinent to the problem at hand and, at times, supplying information or advice directly to the student.

5. Referring the student to the various sources of information and/or persons for help.

6. Arranging for the student to have experiences that are perceived as helpful in his problem.

7. Consulting with the guidance counselor, other teachers, parents and others to gain a better understanding of the student's strengths and weaknesses in order to offer them help.

8. Associating with the student in outdoor activities and personality development.
9. Consulting with other staff members about individual cases.

10. Providing opportunities and encouragement for the student so that he or she may be able to approach you without fear, embarrassment or hesitation, and listening to the student with sincerity and understanding.

11. Making students understand and appreciate that you are "human".

12. Accepting the student as an individual and a human being.

Role of the Principal in Guidance

1. To assess the guidance services in the school.

2. To arrange for facilities and guidance resource materials.

3. To make provision for guidance in the school program.

4. To provide an atmosphere conducive to a guidance approach to learning.

5. To contribute professional leadership.

6. To share in individual and group counselling.

7. To provide for in-service.

8. To interpret guidance to students, teachers, parents and the community.

Role of the Guidance Counselor

1. Administering and interpreting tests.

2. Learning about pupils' occupational interests, capacities and opportunities.

3. Advising students, teachers and parents on guidance problems.

4. Serving as coordinator of all guidance program activities.
5. Establishing liaison with community agencies.

6. Collecting information on students and developing adequate records.

7. Assisting in the interpretation of guidance records to school staff, parents and students.

8. Helping to collect and disseminate educational and occupational information.

9. Furnishing and interpreting data as a basis for curriculum modification.

10. Organizing orientation programs.

11. Facilitating and arranging procedures for referrals to the health clinic, guidance clinic and psychological or psychiatric services for students with special problems.

12. Serving as a resource person to principal and teachers.

13. Establishing good rapport with teachers and students.

14. Counselling students.

An elementary school guidance program would not be complete without some form of orientation programs for preschoolers, grade 6 pupils and for new students transferring in during the school year.

Today, most communities operate a kindergarten program which is the educational component of Early Childhood Services. In many instances, these classes are housed in the elementary school building but are conducted quite independently of the school. Sometimes there appears to be little liaison and communication between teachers in Early Childhood Services and the grade 1 teachers in the regular school system. There is a need to establish open lines of communication with
a free flow of information and to develop closer working relationships between the grade 1 teacher and the kindergarten teacher. Reports containing pertinent information on each preschooler should also be available to the grade 1 teacher.

An orientation program for grade 6 pupils should also be organized. This is particularly important when pupils will be proceeding into grade 7 in another school. Orientation should include visits by the principal and counsellor of the receiving school, a visitation day to the new facilities and opportunities to meet the teachers. All pertinent information concerning courses, programs and school regulations should also be provided.

More time and care should be given to the new student transferring in during the year in order to assist him to make a smooth and less traumatic transition and adjustment to a new learning environment. The use of a "buddy" system or student "pal" has much merit. The parents should not be forgotten.
INSTRUCTIONAL STRATEGIES

An instructional strategy is an educational method for translating knowledge into learning. It refers to those teaching skills which facilitate the learning/teaching process. Teachers must have a wide variety of teaching strategies in order to meet different classroom situations. A teacher's effectiveness is severely limited if he is familiar with only one or two teaching approaches. When a teacher relies upon a single approach, such as the lecture or drill, students often become bored and may develop learning and discipline problems. A lack of methodological flexibility usually indicates a lack of knowledge of student needs, interests and optimum learning conditions. Therefore, it is reasonable to expect that teachers be competent in the use of a number of teaching strategies.

Teachers should attempt to expand their repertory of teaching tools. There are at least four valid reasons why a teacher should be proficiently prepared in a wide assortment of strategies: (1) different pupils learn best in different ways at different times, (2) some subject content is best served by use of a particular strategy or combination of strategies, (3) diverse objectives call for diverse approaches to meet the objectives, and (4) environmental factors, such as money, supplies, facilities and time, often dictate which strategies will be most effective.

The use of a variety of strategies can bring about a change from negative to positive attitudes in students and generate enthusiasm and confidence in the teacher. Gaining competency in a variety of strategies, however, comes only with knowledge followed by practice.

There is a vast number of teaching strategies currently available to teachers in elementary schools. Strategies may be arranged in categories for the purpose of meeting particular needs as
is illustrated below:

**Strategies for Small Groups**
- Conferences
- Group discussions
- Field trips
- Community resource personnel
- Role playing
- Buzz sessions
- Problem solving
- Project
- Student research
- Case studies
- Experience charts
- Questioning

**Strategies for Large Groups**
- Demonstration
- Simulation
- Lecture
- Observation
- Field trips
- Role playing
- Dramatization
- Story telling
- Socio-drama

**Strategies for Individualization**
- Independent study
- Individualized learning
- Contracting
- Programmed instruction
- Learning packages
- Tutorial
- Interest centres
- Behavior modification

**Strategies for Special Use**
- Discovery (inquiry)
- Drill-habit or skill forming lesson
- Interview
- Socratic
- Developmental lesson
- Recitation - discussion lesson
- Inductive - deductive lesson
- Questioning

The above list is not meant to be exhaustive. Strategies may be combined or blended to create new approaches in order to satisfy any teaching situation. The sophistication with which a teacher can select and apply strategies appropriate to a particular learning situation, identifies the competent professional in the classroom.
Several strategies, which may be of practical value to the teacher, are presented for study. These include: questioning techniques, lesson planning, peer tutoring, use of films, use of bulletin board displays, marking techniques and use of notebooks. Additional information on instructional strategies is included in Appendix E.
LESSON PLANNING

Organization for instruction includes long range, short range and daily lesson planning. The primary function of planning is to provide a systematic approach to a specific area of study which will integrate learning experiences in such a way that educational objectives can be achieved. An instructional plan is a proposal, not a recipe. There should be sufficient flexibility to allow the teacher to take advantage of learning opportunities which may arise and which should not be passed over because they do not fit the plan. Plans should be designed to cover the work of an entire school year, units of one to six weeks in length and the content material to be taught in a single day. Careful planning and organization provides the teacher with a sense of direction; a view of where he is going with a particular group of learners.

The Program of Studies for Elementary Schools prescribes the content to be covered in each subject area during the school year and this constitutes the basis for long range planning. The course content can be subdivided into teaching units of varying lengths which require considerably more detail. Preparation of unit plans represents the short range planning level. The daily lesson plan is the step-by-step organization describing what a teacher would like to have happen during a certain class period. These three levels of planning must be used by the teacher in order to facilitate the teaching-learning process.

The elements or components used in planning at the three different levels are generally similar but vary with the amount of detail which must be included.

Elements of the Yearly Plan

1. Subject
2. General objectives
3. Unit titles
4. Skills and concepts
5. References and resource materials
6. Evaluation
7. Proposed time period for each unit

Elements of the Unit Plan

1. Title
2. Objectives
3. Skills and concepts to be taught
4. General methods and learning activities
5. References and materials
6. Evaluation activities
7. Proposed length of time to complete the unit.

Resource units for different subject areas are available from many sources. Units are frequently developed by subject area teachers. They are also available commercially or may be found in some of the textbooks.

At times, the teacher will find it necessary to prepare short self-contained units which cover a specific topic or item of interest. These may not be directly related to the topic being studied but are designed to supplement the on-going instructional plan. Such units are usually planned by the individual teacher in order to satisfy specific needs.

The Daily Lesson Plan

1. Topic
2. Purpose or main idea
3. Specific objectives
4. References and resource materials for teacher and students.
5. Methodology
   (a) Concepts and skills to be taught
   (b) Learning activities necessary to master each concept or skill

6. Summary and review

7. Assignment

8. Evaluation

Objectives explain the purpose of the lesson by stating what the teacher hopes to accomplish. The methodology section presents a step-by-step outline of the procedures the teacher expects to follow to meet the stated objectives and how the teaching materials are to be used. Evaluation of the daily lesson is a review technique used to determine the success of the lesson in terms of: (1) the extent to which the objectives were achieved, and (2) the identification of the concepts which require re-enforcement or re-teaching. The assignment has several purposes: (1) to provide students with the opportunity to apply the concepts and skills which have been taught, (2) to give necessary practice and drill, (3) to allow the teacher to give individual help, and (4) to provide the teacher with the opportunity to assess what the child has learned.

Suggested Use of Time in a Forty-Minute Period

1. Five minutes - review of previous day's lesson
2. Fifteen minutes - presentation of new content
3. Fifteen minutes - class assignment
4. Five minutes - evaluation

Lessons may be generally classified as developmental or review. The introductory lesson and the inductive-deductive lesson are essentially forms of the developmental lesson. Examples of these types of lessons are included in Appendix D.
TEACHER-PARENT CONFERENCES

It is necessary and desirable that the school report accurately and fairly a child's development and progress. The parents' primary concern is with the development and progress of his own child, but the parent can understand the development of the individual only if such status and progress are related to some norm. The parent wishes to know the specifics of the child's development in reading, mathematics, music, social relations, and social maturity. They also want to know the child's status in relationship to other children of comparable age and grade. Most teachers use a comprehensive scale in determining pupil's reading ages or the grade equivalents of test scores and in comparing reading ages with mental ages. Thus, they have comparative information readily at hand. However, such information is usually not in a form in which it can be made meaningful to parents when the traditional device of relaying such information, the report card, is used.

School staffs, in order to improve home-school communications have moved to individual teacher-parent conferences. These conferences are usually scheduled twice a year for ten to fifteen minutes. The following points have been found useful in conducting such conferences:

1. The teacher's greeting should be cordial and relaxed. Establish a friendly atmosphere. An examination of material somewhere in the room could be a good way to start. If no easy beginning is immediately evident, the teacher may wish to give a brief planned summary of the child's progress.

2. Let the parent know what you would like to accomplish during the conference.

3. Begin and end with favourable points.

4. Be ready to emphasize the areas where the child's growth is desirable.
5. Document this analysis with samples of his work.

6. Stress the next steps in the child's development rather than his variations from the norm or his defects.

7. Point up his social and emotional growth as well as his academic.

8. Realize that the conference is a two-way proposition and may be of more help to the teacher than to the parent.

9. Listen, encourage the parent to talk.

10. Find out how the parent is thinking and feeling about his child. The teacher cannot understand the child's behavior until he knows the parent's attitude.

11. Avoid giving direct advice when the parent gives a statement of his problem and then leans back saying, "Tell me what to do."

12. Be accepting. Nothing is gained by unkind remarks or by putting parents on the defensive.

13. Respect the parents' confidences. A teacher does well to hold in strictest confidence all that is told in an interview.

In order to be fully prepared for teacher-parent conferences it is essential that evidence of the pupil's progress on daily or weekly assignments, unit activities, and on tests be kept in a readily accessible file. Not all work needs to be kept but regular samples should be available.
The elementary school has been subjected to a variety of societal pressures within recent years. Today parents are demanding more of the school and have higher expectations for their children. This has resulted in an expanded curriculum and increased subject content. Within society and the educational community, there have been many misinterpretations of the real meaning of such oft heard terms as "excellence", "back to the basics", "forward to fundamentals" and "any child can learn anything in some intellectually honest form". The end result is that children are now required to do more school work at earlier ages, in order to cope with a curriculum which has been expanded far beyond the basic three "R's". Some schools have responded by assigning more work to be done at home.

Prescription of homework by the school encroaches on the time a child needs for play and also interferes with home-directed activities and responsibilities. Children of elementary school age are in a period when vital energies are being consumed by rapid growth and physical development and they must have time for rest and recreation. Furthermore, children are involved in music lessons, community sports activities, church activities and home tasks, all of which also constitute a significant part of their total education.

Homework is acceptable and desirable in some instances. A student, who is interested and motivated to pursue further study of a particular subject may do additional work at home. In the case of a child who has been absent from school and has missed a considerable amount of work, "catch-up" work may be assigned by the teacher. Again, if a student is having difficulty with concepts or skills and is unable to complete assignments during school time, additional homework directed specifically towards overcoming these weaknesses is warranted. Homework should not be used as a punishment for misbehaviour or as a means of attempting to motivate the child to greater effort. Any decisions concerning homework should be made with the best interest of the child in mind.
A TESTING PROGRAM FOR EVALUATION OF PUPILS

Evaluation of pupil achievement should be a systematic process of collecting, analyzing, interpreting, and judging information relative to the objectives of each course taken by the pupil. The purpose of evaluation is four-fold. First, testing is used to improve learning through assessing achievement, diagnosing areas of strength or weakness, and discovering skills and abilities. Second, it is to provide information on progress relative to objectives, time and other pupils of the same age or grade level, and effectiveness of the instructional program or materials. Third, it is to provide data on which promotion decisions may be made. Fourth, it is used as an indicator of the quality of education being presented.

Pupil evaluation should follow the principles of fairness and justness, of impartiality with all being treated equally with freedom from prejudice, of consistence or uniformity, and of having provision for appeal process.

The evaluation should cover the four major areas of learning. These areas being the cognitive domain, the affective domain, the psychomotor domain and the process skills.

Method of evaluation, frequency of evaluation, duration of the test period, the standard or criteria for marking are major considerations which must be considered in a testing program. The recording of the marks and reporting of the results are also major considerations in a testing program.

Standardized tests represent one source for data collection in the cognitive and affective domains. These tests have been divided into many different classifications. A common procedure is to use three broad classifications: aptitude tests, achievement tests, and measures of personality. However, a more detailed classification with discrete categories is preferable in describing an integrated testing program. The classification of tests includes: general ability or intelligence tests, achievement tests, aptitude tests,
interest inventories, reading readiness tests, measures of personality, and diagnostic tests.

A standardized test must be administered under standard conditions if the results are to be optimally useful. Strict adherence to the directions in the test manual is necessary.

Each school or school jurisdiction should have an evaluation policy covering the purposes of testing and the principals of evaluation along with decisions on the major considerations of evaluation. Many schools have found the following standardized testing model useful when combined with their overall evaluation policy. The model is not meant to be prescriptive and may be adopted in whole or in part.

Table 2
A STANDARDIZED TESTING PROGRAM MODEL

<table>
<thead>
<tr>
<th>Grade</th>
<th>Name of Test</th>
<th>Time of Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Metropolitan Readiness (Revised 1976)</td>
<td>September</td>
</tr>
<tr>
<td></td>
<td>Level II</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Metropolitan Achievement (Primary I Battery)</td>
<td>June</td>
</tr>
<tr>
<td>2</td>
<td>Canadian Cognitive Abilities Test</td>
<td>October</td>
</tr>
<tr>
<td></td>
<td>Primary II</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Metropolitan Achievement (Primary II Battery)</td>
<td>June</td>
</tr>
<tr>
<td>3</td>
<td>Canadian Test of Basic Skills, Level A (1976-3M)</td>
<td>June</td>
</tr>
<tr>
<td>4</td>
<td>Otis Lennon Intelligence Test</td>
<td>October</td>
</tr>
<tr>
<td></td>
<td>Canadian Lorge-Thorndike Intelligence Test</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Canadian Test of Basic Skills (Level 10) (1976-3M)</td>
<td>June</td>
</tr>
<tr>
<td>5</td>
<td>Canadian Test of Basic Skills, (Level 11) (1976-3M)</td>
<td>June</td>
</tr>
<tr>
<td>6</td>
<td>Canadian Test of Basic Skills, (Level 12) (1976-3M)</td>
<td>June</td>
</tr>
</tbody>
</table>
A simple marking technique for notebooks and all written work uses symbols to indicate errors. The symbols should be introduced in the early grades and their use increased as the child moves to higher grades. The following are suggested symbols which should be used consistently:

- N.S. - not a sentence
- N.P. - new paragraph
- I - indent
- sp - spelling error
- C - capital letter needed
- s - small letter needed
- M - meaning not clear
- P - punctuation incorrect
- A - missing word or words
- Gr - incorrect grammar
- W - wrong word (homoynym)
- Ill - illegible

In using this marking technique the teacher simply indicates the error via the symbol. The student then attempts to correct the error or errors. He may consult with the teacher if help is required.

A student's notebook should be a record and a summary of the work covered. Therefore, it should be so organized that it becomes a valuable tool in assisting the student with his studies. In general, title pages should be used to indicate new units and several spaces left between assignments. All work in the notebooks should have a title and a date and the page number from the text, if applicable. In social studies, a table of contents may be used to show how the notes are organized with each page in the notebook numbered. In all subjects, a section of the notebook should be kept for new vocabulary, words difficult to spell as well as for tests and quizzes.
Notebooks should be frequently examined by the teacher in order to check on handwriting, organization, legibility, neatness and completion of work or corrections. The teacher should examine assignments regularly whether marked by the student himself or by a classmate in order to diagnose error patterns. The teacher should examine all assignments in which a student performs poorly, that is, where the mark obtained is less than approximately 80%. This type of diagnosis will indicate to the teacher where reteaching is necessary.

Mathematics notebooks should have a wide column on the right side of the page for computation and rough work. The finished product is recorded on the left hand side of the page. All work should be done in pencil.

In subjects where it is applicable to use marking symbols, these symbols should be placed on the left hand side of the page. The marking pencil should be of a different color from that used to do the assignment. It is preferable to indicate the number correct on an assignment rather than the number wrong.
Educators recognize questioning as an important technique in teaching and learning. Teachers devote a large portion of the school day to question-centred discussions. Use of questioning as an effective teaching tool requires well-developed techniques, yet few teachers have received instruction in either the theory or the art of questioning. Many teachers have developed their techniques through trial and error or else attempt to teach as they were taught. At best, this is a questionable practice. The appropriateness and the quality of the questions used by a knowledgeable teacher will stimulate thinking, discussion, and, in the final analysis, learning.

Questions vary in complexity from that of the simple factual-recall type of question to that of the very complex evaluative type calling for the use of higher order mental processes. A taxonomy or categories of questions may be developed which correspond to the cognitive objectives at the six different levels of intellectual functioning identified by Benjamin Bloom in his Taxonomy of Education Objectives: Cognitive Domain, as listed below:

1. Knowledge or Memory - the student is asked to perform simple recall.
2. Comprehension - this includes a translation and interpretation and the student is asked to put information in another form.
3. Application - the student is asked to select facts, principles and/or generalizations and apply these to a particular problem.
4. Analysis - the student is required to identify and comprehend the elements or parts of a process, communication or a series of events.
5. Synthesis - the opposite of analysis; the student is required to combine and unify isolated data into a whole; he must engage in original creative thinking.
6. Evaluation - the student is asked to determine how closely a concept or idea is consistent with standards or values.

Researchers claim that, in elementary grades, classroom
questions are usually directed to the first two levels and seldom go beyond the application level. In fact, the factual-recall or memory type of question not only dominates most class interactions but is also the most prevalent type of question used by teachers even at the fifth and sixth grade levels. Yet research on child development indicates that these children are capable of being challenged with some abstract thinking. Questions requiring simple recall tend to inhibit thinking and discourage further discussion, since a single word response usually brings a thought pattern to an end.

Questions directed at the comprehension level usually take the form of translating ideas from a picture into words. Interpretation questions, where students are required to make comparisons, are often ignored. Teachers should evaluate their questioning techniques and prepare questions which are directed at the high levels of cognitive functioning.

There are two basic types of questions, namely, convergent or divergent. Convergent questions have only one possible answer while divergent questions have more than one answer.

The art of questioning is a skill which must be developed and proficiency is acquired only after much practice. There are some basic guidelines which teachers should follow.

1. Precise Wording

Questions should be precisely worded so that students clearly understand what is being asked. Poorly worded questions leave the student perplexed or confused so that he is unable to respond intelligently. Rephrasing a question may often introduce additional content which negates the original intent of the question and creates even greater confusion on the part of the student. The teacher must always give careful thought and planning to the wording of questions.
2. Sequencing

Questions should be related and provide continuity to the discussion of a topic. A question should be formulated so that it logically leads to others in a sequential manner and thus, new ideas and facts are being constantly introduced. This sequencing effect stimulates thinking, assists in maintaining interest and contributes to a fuller development and understanding of the subject under discussion.

3. Clarity of Purpose

Questions are posed with different purposes in mind, hence, the phrasing used should reflect clarity of purpose. Occasionally, the teacher may wish to review a lesson which has just been taught so questions would be aimed at identifying the important facts or concepts presented. At other times, questioning may be directed towards clearing up misconceptions, clarifying terminology or rephrasing a poorly worded question. Effective use can be made of the unexpected or surprise type of question in order to gain the attention of the class, introduce a lesson, heighten interest and curiosity, challenge the logic or credibility of a statement or even to provoke humour. Regardless of the circumstance, the teacher must always keep the purpose of the question clearly in mind and this should be clearly conveyed to the students.

4. Individualizing Questions

Individual differences and ability levels of the students in a class influence the type or level of question which should be used by the teacher. It is important that the teacher know each student well and be able to adjust the questioning to suit the student. Questions requiring higher levels of intellectual thinking should not be directed at the slow student or the disinterested student since this often results in embarrassment or humiliation. Conversely, low level, simple recall questions present little challenge to the very capable student. Careful phrasing of questions will enable the teacher to cope
more adequately with individual differences.

5. **Directing Questions**

Questions should be directed to the entire class in order to stimulate each student to think about an appropriate response. Following a pause, students may then be called upon to respond. A particular student should not be alerted or called upon by name to respond before a question is asked. In such cases, this is a signal for the other members of the class to ignore the question and not both to think about an answer, since someone else has already been chosen to respond. An exception to this guideline can be made in the case of an inattentive student.

6. **Eliciting Student Response**

Some students tend to be shy or withdrawn and hesitate to respond voluntarily to questions. Through skillful questioning, the teacher can encourage these students to participate more actively in class discussions. This also helps them to overcome their shyness and develop more confidence in their own abilities.

7. **Encouraging Student Questions**

Classroom instruction is often teacher-dominated. Whether it is a lesson presentation or a class discussion, the teacher tends to do most of the talking. The same can apply to questioning unless the teacher is aware of this tendency and makes a special effort to provide opportunities for students to ask questions as well. Students should be encouraged to ask questions not only of the teacher but also of other students in order to satisfy their curiosity. When asked a question, the teacher need not always be expected to provide the answer but should seize such an opportunity to elicit the answer from other members of the class.

The above guidelines are designed to assist teachers in perfecting questioning skills. However, there are also certain practices which must be avoided. Some of these are listed below:

1. Avoid asking questions requiring a "yes" or "no" answer.
2. Avoid the practice of accepting responses only from the bright students and the "hand-waving" volunteers while ignoring the rest of the class.

3. Avoid leading questions which reveal the teacher's personal biases or which strongly suggest the answer.

4. Avoid asking questions about unimportant, superfluous or irrelevant facts or issues which do not contribute to the topic being studied and which have little significant value.

5. Avoid embarrassing or humiliating a student by insisting upon a response when it is obvious that the student does not understand the question or does not know the answer.

6. Avoid changing an assertive statement into an interrogative by adding such words or phrases as: "O.K.?", "eh?" and "all right?" at the end of the sentence.

7. Avoid using incorrect grammar, slang and other improper forms of the English language in formulating questions.

Teaching and learning will become more effective if teachers make an effort to improve their questioning techniques. Additional information and examples of questioning strategies are included in Appendix E.
STUDENT MOTIVATION

Motivation is of particular significance to the classroom teacher as it helps in the direction, magnitude, and persistence of a child in learning. Though it is true that the child is the principal agent in his own education and development, it is too often true that many children fail to identify with the goal or purpose and apathetically go through the motions of participating in class activities without any real or lasting learnings. It is at this point in the teaching-learning process that teachers badly need to know, understand and use motivational procedures that inspire children.

A low level of motivation is considered by many as the number one learning problem for children at all levels in our schools. Yet, this is one area of teaching in which many teachers seem to be inadequately informed and equipped and feel the need for improved techniques or skills. This is in part, due to the conflicting and impractical concepts and theories on motivation and, in part, due to the fact that the teacher tries to tackle the problem on a group basis.

The behavior of unmotivated children is characterized by a lack of goal-directedness, energy, and emotional response to situations. This means that such children are not guided by self-directing goals in the selection of activities in their day-to-day school life. The motivated child is enthusiastic but the behavior of unmotivated children is characterized by lack of speed, intensity, and effort. The process by which an impulse to action is provided and by which the child is encouraged to put forth required energy is often missing.

Unmotivated children also differ in emotional response. That is, when confronted with certain situations, they often do not experience satisfaction or dissatisfaction. They do not express positive or negative emotional response; they are apathetic toward activities; they seldom give verbal expression of pleasure or pain. Over the years, these children have adopted a way of life that does not include perseverance. They do not work harder and longer on any one task.
than another.

The result is that these children, unlike their motivated classmates, do not achieve established goals and objectives. It may be that some of this variability in the achievement of objectives is due to differences between unmotivated and motivated children in such cognitive and socio-economic factors as: intelligence, aptitude, and family background. However, while not denying the significance of such characteristics, it is suggested that affective factors related to motivation may be more important.

To reach the unmotivated child and to help him cultivate a genuine zeal and enthusiasm in the learning process that will produce high achievement and positive attitudes, it is necessary to look at the unmotivated child's environment. A school-going child spends approximately half of waking time in the school environment. An active search for environmental variables in the school environment can provide etiological factors in the school that might have shaped and maintained unmotivated behavior. Such a search will help in restructuring activities for the unmotivated children in the school in the presence of other extrinsic source of positive motivation which are sufficiently strong to overcome the amount of inhibition or resistance to activity.

There are a number of characteristics in the school environment which might be related to low motivation among school children. Some such characteristics are:

1. **Group Centered**

   The physical and social environment in a conventional school caters to the needs of a group and, as such, the student's sense of individual identity may be lost in the impersonal educational mill, where he is processed through large lecture classes, tested by objective examinations and recorded in symbols on computer tape. To motivate each child in the classroom, he should be offered opportunities for learning experiences which are meaningful to him and in which he may become meaningfully engaged. This means providing individualized instruction.
2. Lack of Child Participation in Goal-Setting

In the mass educational process, educational goals and objectives are normally specified by teachers for a group of children and the individual child is usually not given an opportunity to participate in this goal-setting and decision-making. In truth, he may have in his own mind established a goal for himself quite different from that of the teacher. Such a child is bound to become unmotivated because classroom experiences have utterly different meanings for him. Therefore, child participation in the goal-setting is suggested as another step toward greater effort, greater understanding, and greater enjoyment and progress toward goals. Not only should students be encouraged to participate in the establishment of realistic, attainable, and worthy goals, but also in establishing the nature and order of their learning. Thus, to outline a task clearly and understandably would seem to be one of the most important motivational tools because such a step would guide the teacher in the teaching and the learner in his learning.

3. Absence of Prompt and Specific Feedback

In the conventional school environment, another factor that leads to lack of motivation is absence of prompt feedback. After he responds, the learner is often not provided with immediate and descriptive information concerning the correctness, appropriateness, or adequacy of his response to the task at hand. Too often, in our present school situation, learners do not know about the adequacy of their specific response because they are awarded an overall grade on the total assignment. Also feedback is very useful in redirecting the learner's performance as it identifies areas where he needs further practice and spells out how much of a correction is needed.

4. Reward Preference

Often no attempt is made in our schools to determine the reward preferences of each unmotivated child in advance of instruction, group discussion, or individual conference. The result is that some students do not manifest the observed behaviors even after persistent teacher effort. This shows that these students are not being rewarded for desired behaviors with their most preferred type of reinforcement. Therefore, in order to strengthen a child's motivations for learning, it
appears imperative to establish the child’s preference for reward and then to reward the child in a highly consistent manner, keeping the following three principles in mind: (1) liberally reward that behavior which is to be encouraged; (2) occasionally reward a stable behavior pattern in order to maintain it; and (3) avoid rewarding undesirable behaviors.

A low level of motivation is considered by many educators as the number one learning problem for children in our classrooms today. It is extremely important that we attempt to find methods and techniques which will be effective in motivating learning. Bulletin boards are a motivational tool. Peer tutoring also helps to alleviate this problem. Classroom organization and questioning techniques are also topics which need to be looked at in order to ensure an effective teacher-pupil interaction.
PEER TUTORING

The purpose of this article is to acquaint and stimulate interest among teachers and other personnel who deal with children in tutoring procedures that will maximize learning and positively affect attitudes, conduct, and self-concepts of school children. Peer tutoring provides a needed boost for slower children and is a very real way of involving older or more capable children and modifying their behavior and attitudes towards their own learning. Information on how to organize peer tutoring, the educational benefits of this approach and suggested steps that a teacher should take to insure an effective tutorial interaction is provided.

Of course, peer tutoring is not new. It was a widely used technique in the one-room school. The concept of peer tutoring is becoming increasingly popular again and is receiving increasing acceptance in many classrooms. The work done at the Teacher Educational Research Centre in New York and recent research projects involving peer tutors have uniformly found the outcomes to be positive: not only do the tutees benefit, but the tutors also show gain in attitude, self-esteem and school achievement. Besides, being beneficial to both tutees and tutors, such an approach frees teachers to provide remedial or enrichment work on an individual tutoring basis. This approach to learning provides for prompt feedback, reinforcement, and need satisfaction.

Essentially, peer tutoring means having one student assist another student during learning activities. In one approach to peer tutoring, tutors are older students who are asked to work with younger students. In a second approach, tutors are those students of the same class who have mastered a certain concept or concepts and have time and desire to help others with that concept.

In order to insure an effective tutoring interaction the teacher needs to pay attention to some of the steps that encourage
learners to demonstrate the desired performance. Suggested steps are:

1. Before initiating the program discuss purposes, procedures and methods with administrators, students and parents involved.

2. Tutors selected should be compatible. One approach is to have the tutee select a tutor from a predetermined list. The tutors must know the content and be good at verbalizing their thoughts. The tutors should be good models and exhibit desirable behavior in study skills, communication skills and manners. These tutors should be enthusiastic for enthusiasm is often contagious. The tutors must also be those who volunteer to perform such duties.

3. The tutees should be students who have been identified through testing and observation as having problems and have indicated that such efforts and interests on the part of others would be beneficial.

4. Training of tutors will also be beneficial. A meeting with a tutor to explain the work he is to cover and methods he may use to help the tutee will help both students. Tutor skills which may be emphasized are:
   a. communicate interest in the child
   b. communicate interest in the lesson
   c. create right atmosphere and rapport by being helpful and patient
   d. questioning techniques (the asking of simple questions which can be readily answered correctly)
   e. how to praise good effort.

5. The selection of time and place is important. These details are cooperatively decided by students and teacher. The place for a tutorial session should be outside the regular classroom in a special learning centre where adult assistance and supervision is available. A chart containing names of tutors and tutees plus applicable times as well as place of session should be posted. A session of fifteen minutes is adequate.

6. Tutorial sessions should be supervised. An adult teacher or paraprofessional should be available for monitoring proceedings and assisting in selection of materials needed. The supervisor may record results on profile sheets, check mastery of concept and assist by suggesting content or materials for future sessions.
7. Instructional materials need to be selected which are specifically related to the particular content and the instructional objectives. The selection should include different kinds of materials such as books, pamphlets, filmstrips, records and manipulative objects which are appropriate.

8. The teacher needs to meet with the tutor following the session to share experiences and discuss solutions to any problems encountered at this meeting. The teacher may also wish to meet with the tutee to discuss his perceptions of the experience. Such a meeting should inform the teacher about the effectiveness of the tutor.

9. A different tutor should be assigned to a tutee if (1) the tutor is found to be ineffective at the task, (2) the tutor-tutee relationship interferes with the progress of the tutee and (3) the tutor does not keep up with his own work.

In summary, it has been suggested the most effective teachers for some children may be other children. A list of procedures and techniques of tutoring has been suggested. Of course, to implement these procedures will take time and planning. However, if peer tutoring provides the needed boost for some students, then the effort has been worthwhile.
USE OF BULLETIN BOARD DISPLAYS

The classroom bulletin board is a visual aid which can help us "sell ideas" to the class. Industry spends more than a hundred million dollars a year for billboard advertising. In every classroom we have billboards which could be potent agencies for selling ideas. Why not use them?

The success of a bulletin board depends on the use of the material in class, as well as the effectiveness of the display itself. A good display must attract attention. This attention getting can be done by using color, a striking picture, an arresting arrangement of materials, or an eye-catching label -- one that arouses your curiosity but doesn't satisfy it. A student looking at the display should get an idea which will set off a chain of other ideas. The display may ask a question which will provoke other questions associated in the mind of the onlooker with the same problem.

To be successful, the display must hold attention. It will do so if it is developed on a unified theme as expressed in a slogan, a single picture, or a series of pictures. Usually the basic subject should be apparent at a glance. The material must be carefully selected to be made the focus of class attention and should form a major basis of discussion. This means the display must not be loaded with superfluous matter and be a planned part of the classwork.

Simplicity is the key to all good arrangements. An easy way to achieve this is to follow the architectural lines of the bulletin board. Use less material, more carefully selected, to put across an idea. The labels are important. Labels, done in large-sized letters, should be an integral part of the unit of work exhibited.

Mounting paper should take its place in the background. If the mounting is too bright, students will see only dazzling color which distracts from the object of interest.
Color, properly used, however, does attract attention. It has an intrinsic appeal which will command interest whether or not it has any direct bearing on the message of the display. Some devices used to secure concentration of visual interest are: brightness against darkness, warm colors against cool colors, pure colors against grey colors, detail and texture against flimsiness, and form against plain space. Color is more easily retained in the memory and makes the message more realistic. Use three dimensional objects which might lend effect to your display. A good display arouses curiosity but by not satisfying it class members are impelled to look further into the matter.

Here are some bulletin board suggestions which students may want to try. Perhaps they will get ideas for other displays from these.

Foreign lands. Exhibits might include articles brought back from a foreign country by local people. Such a display may result in having a guest speaker come in to talk about the country and explain the exhibit.

Field trips. The class can make a bulletin board display of an activity following a field trip or outdoor education activity. Students may write a description of their trip.

Conservation. Themes from displays might include: forest fires, flood control, wild animals and resources. Maps, drawings, graphs, and pictures may be combined to present facts, stir imagination and call for action on any of these themes.

Products. On a table before the bulletin board products from various countries can be exhibited, with a string going from each product to the country from which it came as shown on the bulletin board map.
Explorers. A good way to introduce a unit on early exploration is to cut out of white paper and pin to a blue background a compass, an astrolabe and the contents of the world. White string can be used to show routes of early explorers.

Eskimos. A map showing location of the Inuit people would serve to introduce a study of such a unit. Around the map place items of Eskimo life to attract attention to the display.

Neighbours. A good neighbour display can be used from kindergarten through the twelfth grade. Depending on the maturity of the students and the topic being studied, the theme might be "Good Neighbours in Foreign Countries", "A Good Neighbour in Our Town", "Be a Good Neighbour at Home", or "Be a Good Neighbour to Animals". From these themes students learn to respect the rights of others.

Stamps. A display of stamps of a foreign country or section of the world is often a good introduction to a unit. History topics can often be illustrated through stamp displays.

Books. Books for extensive reading in the current unit can be advertised attractively by bulletin board displays. Librarians are glad to have this advertising.

Here are other ways of advertising books. Show a time machine and book jackets with wings added plus a caption Travel Through Time. A clock with hands pointing to book jackets which served as the hours. The caption reads Make Time Worthwhile. Scissors, yarn, hammer and saw can be used to advertise seasonal books dealing with sports and similar topics identified with seasons. Decorate the board with leaves, paper doily snowflakes or flowers. Summertime -- And the Livin' is Easy could be a caption for a display showing a boy fishing (Huck Finn type) with a book in his lap; show book titles superimposed in a fish leaping from the water--waves outlined with yarn. Travel with Books - Airplanes follow a yarn route on a world map; book titles appear on each place silhouette.
Cartoons. Students can collect cartoons on a certain subject—such as labor, elections, prices. These can be displayed and then returned to their owners for their own personal collections if they become interested in cartoon collecting as a hobby.

Ribbon Maps. A world map is placed on the bulletin board. News events are posted around the outside of the map. Ribbons or colored strings go from each news event to the place on the map where the event occurred.

Local Industries. Material for display purposes can be requested from local industries. Sometimes this material is historical in nature, sometimes of current interest. Many firms are glad to cooperate in supplying such materials and respect the teacher's obligation to guard against advertising in the classroom.

What can I do? Such displays are effective. Pictures to suggest and illustrate several kinds of positive action an individual can take to promote better human relations or better government would be worthwhile.

Travel. For elementary school classes planning to study a country by taking a "trip" around it, a committee might investigate costs of travel. Graphs showing the comparative costs of travel could be displayed on the bulletin board. Travel posters and booklets are available from steamship, airline, bus, and railroad companies. These make colorful displays that can often be tied up with books about a region or a country; or they can be used to introduce a unit of work.

Snapshots. Interest in a hobby can be stimulated by a snapshot contest and can be directly tied up with local history. The snapshots, like any other bulletin board material, should be mounted carefully.

Maps. Colorful and informative bulletin board displays result from a good use of maps. By using the opaque projector and flashing an outline of a map on the bulletin board, a large map can be easily
traced on the background paper. Then the committee can fill this in to show products, natural resources, railroad, or other desired information.

**Famous People.** Silhouettes of famous people studies, with clues as to their identities, create interest. An opaque projector can help make the silhouettes. Transparencies and overhead projector are also used.

**Sports.** A display depicting the sports of various countries always has great appeal. This might be centered around the Olympic Games.

**Holiday Scrapbook.** Bulletin board committees can collect material for holiday exhibits or for special days.

**Hobby Displays.** There are lots of ways of showing how to use leisure time to advantage. Stick figures can be made to climb mountains, bicycle, weave, sail, swim, draw, or sew. This type of display can be adapted to any age level. In senior high, for example, hosteling might be advertised by having stick figures cycling up and down mountains and paths all around the bulletin board. Here and there they can stop to cook supper or take a swim. In the center, information about this kind of vacation could be posted.

Ideally, bulletin board displays should be planned and made by the students with the guidance of the teacher. Rotating bulletin board committees should act as clearing houses for display material. These committees should be on the lookout for posters, announcements, charts, clippings, data, diagrams, drawings, graphs, maps, models, news items, object pictures, specimens of material, and pupils' work. Pupils can analyze displays which they see about them daily -- movie posters, bus ads, and products advertised in shop windows. They should watch for posterboards and other materials that attract and hold their attention. This observation will help them to become critical and to improve their own work and will suggest many ideas which they may adapt to their own use.

Active student involvement in collecting, organizing and
Preparing materials for bulletin board displays is the teacher's primary responsibility. At times, however, the teacher should prepare the display. An example of a teacher prepared display is one used for introducing a topic or unit. Such a display is usually prepared prior to the actual class session and then explained by the teacher during the class discussion. This type of display should stimulate student interest in the topic and contribute to the educational objectives by providing an overview of what is to be studied. The teacher may also prepare a bulletin board display when time is a limiting factor. In these cases, the teacher may wish to visualize content by means of a bulletin board display and yet not take up a great deal of class time by involving pupil planning and preparation.

A "morgue" in which to store materials, including old displays that may be re-used, should be the responsibility of the bulletin board committee. This file should be set up by topics that fit conveniently into the pattern of the particular course. A large manila folder can be used to bring together the clippings, pictures, and other materials on each topic. The "morgue" could also include sketches of particularly effective displays observed elsewhere but adaptable to their own use. No file case for the "morgue"? How about orange crates painted by the art class.
USE OF FILMS

The use of motion picture films in the classroom can be an asset to the teacher-learning process. Before using a film, a teacher must ask himself the question, "What unique contribution will this film make toward the richer education of my students?" Thus a teacher needs to examine the unit to select from it those ideas which seem to lend themselves best to presentation through a film. Ideas which need motion, depict animation, time-lapse and micro-photography are aided by film. Historical events or re-enactment of these events are also depicted best through film. Therefore, the first step for the teacher in film use is to examine the teaching unit and select those ideas which best lend themselves to film presentation and select a film which presents these ideas best.

Generally, films serve to introduce a topic or furnish details concerning a particular aspect of a large unit or act as a summary or review of the unit. Therefore, out of the available films a teacher selects the one which is best suited to the purpose at hand and previews it. Previewing films serves two purposes. First, it affords the opportunity to ascertaining the purpose the film will serve. Second, it affords the opportunity of devising leading questions used in preparing the class for viewing as well as the opportunity to select follow-up activities. Decisions as to showing techniques may also be made during the preview.

Preparing or motivating the class through appropriate questions is essential to an effective presentation. The film should be connected with what has gone before and lead to future activities. When the class has been properly interested and possess a definite purpose for viewing the film the teacher has reached the appropriate time for presentation.

Following the presentation, activities are carried out which will clinch the learning that has taken place. Discussion to overcome misconceptions or to emphasize points should be carried out. The
follow-up period is the time to draw out the impressions gained from the film and to expose the ideas of each student to the powers of observation and critical thought of the class as a whole.

Some teachers have utilized tests based upon the film's content as a teaching device to be used in the follow-up period. Films viewed in order to gain appreciation of great moments in history or to set mood are best followed by a creative expression assignment.

Some films tell their story in one showing. Many films, however, are worth showing more than once. The second showing may grow out of the discussion period and may have the purpose of clearing up misconceptions or filling in missed concepts. The second showing may come many days after the initial presentation and is viewed in the light of subsequent study.

A film is not a self-sufficient tool. It needs the teacher to set the stage for its presentation and to follow it with appropriate activities. Motion picture films are but one of the worthy teaching devices available to teachers. It should not be used to the exclusion of other teaching aids, and should be integrated with the teaching process at the point where it can make its maximum contribution.
**APPENDIX A**

**LEARNING RESOURCE CENTRE TIMETABLE**

Week of Nov. 14 - 18

<table>
<thead>
<tr>
<th>Time</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before School</td>
<td>Note: LRC open as 8.00 a.m. when buses arrive. Activities: Students work on assignments; Primary students taught to use media equipment; Intermediate students preview motion pictures under supervision by LR teacher; LR teacher consults with classroom teachers re class assignments; works with Grade 8 students in using flannelboard story telling in primary grades.</td>
<td>Grade 8 (16 students) Skills lesson on card catalogue. Grade 6 Dictionary assignment (20 st.). Grade 8 Research in word making (16 st.).</td>
<td>Grade 1 Class 3 Group of (18) for instruction on using tape recorders. Listen to story tapes. Illustrate a favourite part of story.</td>
<td>Grade 2 Use card catalogue to locate all materials on their community helper. (15) Gr. 3 Class 7 Norse project cont.</td>
<td>Grade 2 Cont. report on Community helpers. (15) Class 10 Work independently on vocabulary assignment. (15)</td>
</tr>
<tr>
<td>1</td>
<td>Class 2 (15 students) Skills lesson on card catalogue. Grade 6 Dictionary assignment (20 st.). Grade 8 Research in word making (12 st.).</td>
<td>Grade 3 Class 7 Introduce “Norse” assignment (20).</td>
<td>Class 14 Gr. 7 Begin Biog. study of famous Canadians. (14) Class 12 Cont. research on outwitting (11).</td>
<td>Class 5 Gr. 8 Skills lesson on card catalogue (16) Subject cards today. Class 11 Gr. 7 Cont. biography study (14).</td>
<td>Grade 6 Class 12 Book talk on Science fio. books available in LRC. Follow-up for their study of “A Wrinkle in Time.”</td>
</tr>
</tbody>
</table>

**School profile:**
- 394 students
- Grades 7
- 15 classroom teachers
- 1 principal (5th classroom teaching)

**From RESOURCE SERVICES FOR CANADIAN SCHOOLS**

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APPENDIX B

COMPONENTS OF AN ELEMENTARY SCHOOL GUIDANCE PROGRAM

1. Guidance in-service programs
   - professional reading - periodicals, resource materials
   - institutes, workshops
   - inservice work - staff, county, district
   - A.T.A. - professional development programs

2. The role of the teacher in the guidance program

3. Demands of daily routine and time for counselling and guidance

4. Individual counselling
   - time, procedures, facilities

5. Group Counselling
   - time, procedure, facilities, areas or topics
   - class, large group, small group

6. Guidance testing program
   - promotion policies
   - diagnostic, standardized, group, individual tests
   - use of test results - interpretation and action

7. Confidentiality

8. Cumulative record files and Student Records
   - how maintained, where kept
   - how used by teachers

9. Learning disabilities and emotionally disturbed children
   - identification and screening
   - referrals, placement procedures
   - other agencies
   - interpretation and use of test results
   - remedial programs
   - teacher knowledgemability and preparation
10. Orientation programs
   - pre-schoolers
   - new students
   - grade VI students
   - staff involvement

11. Teacher - counsellor - principal relationships
   - consultation
   - cooperation
   - advisory
   - inservice
   - team approach

12. Consultation
   - with teachers, parents, administrators, community agencies, reporting to parents.

13. Use of community resources
   - discovery, assessing and utilization

14. School spirit, rapport, morale

15. Liaison, communication and articulation between Elementary School and Junior High School

16. Publicizing of school guidance services
   - to students, parents, community

17. Programs of remediation or enrichment
   - organization and implementation
   - individualized instruction, class loads

18. Opportunity rooms, and resource rooms
   - tests, interpretation of tests, decision making procedures.
   - flexibility (integration)
   - all day attendance part time or resource room concept
   - facilities and instructional materials
   - regular on-going evaluation of student progress

19. Evaluation of guidance services
APPENDIX C
Sample Lesson Plans
DEVELOPMENTAL

The Introductory Lesson

Title - Seaports and Leading Exports of Brazil.

Purpose of Main Idea - To learn major seaports and leading exports of Brazil.

Specific Objectives - To have students be able to (1) name three exports of Brazil, (2) locate cities on the coast which are usually major seaports, and (3) give reasons why the location of a city is related to its function.

References and Resource Material - Map of South America
Atlases
Reference books on cotton, coffee and rubber
Display items - coffee tin, rubber boot, cotton handkerchief
Bulletin board display
Outline map of Brazil on board

Methodology -

<table>
<thead>
<tr>
<th>Concepts or Skills to be Taught</th>
<th>Learning Activities</th>
</tr>
</thead>
</table>
| 1. Coffee comes from Brazil.    | Teacher: "There are three articles on display on the table. From what countries might we obtain coffee?"
|                                 | Student: "We get coffee from the West Indies and Arabia." |
|                                 | Teacher: "Quite right, but there are other countries as well. Will you add to the answer, _________?" |
|                                 | Student: "We get coffee from Brazil." |
|                                 | Teacher: "Yes, Brazil is one of the important coffee producing countries of the world."
|                                 | "The trademark on the boot says Perfect Rubber Company. From what countries might the company get the raw rubber used in making this boot?" |
2. Rubber comes from Brazil.

Student: "We get rubber from Africa."

Teacher: "Yes, Africa does produce rubber, but Africa is a long distance away. Rubber companies in Canada have another source of supply. What country might that be?"

Student: "We get rubber from Brazil."

Teacher: "Correct. Brazil produces large quantities of both rubber and coffee.

From where might the cotton used in making this handkerchief come?"

Student: "It could come from the United States, but probably it comes from Brazil."

Teacher: "Yes, large quantities of cotton come from the United States, but we also get cotton from Brazil. We have discovered that Brazil provides all three products on display."

Teacher: "Let us find out what we can about the places in Brazil where these products exported."

Teacher: "To what seaport in Canada would these products likely come?"

Student: "They would likely come to Montreal or Vancouver."

Teacher: "Just as these products enter our country by passing through seaports, so they leave Brazil by passing through seaports. On the chalk board is a list of leading commercial cities of Brazil. See how many you can find on the map on page 15 of your atlas. As you find one you may come to the board and locate the cities on the outline map. Print the name beside each location."

Teacher: "What do you notice about the location of each of these cities?"

Student: "All except two are on the seacoast."
5. Leading commercial cities.

Teacher: "Using the atlas find the Amazon River and follow it from its mouth to its source noting the number of tributaries."

Student: "The country must be very wet, perhaps, even swampy."

Teacher: "That seems reasonable. Since the area is near the equator what type of vegetation would likely be found there?"

Student: "It would likely be tropical jungle."

Teacher: "Yes. Which of the three products we have discussed might come from this area?"

Student: "Probably rubber because it grows in jungle areas."

Teacher: "Let's look at these pictures to see how raw rubber is produced on Brazilian plantations along the Amazon. You will note that the city of Manaos is in the centre of this area. What purpose is this city likely to serve?"

Student: "The raw rubber is probably collected there."

Teacher: "It is collected there. What would likely be done with crude rubber collected at Manaos?"

Student: "It would be taken down river."

NOTE: In a similar way the teacher can deal with all the cities listed.

Summary - From our discussion today we have found that coffee, rubber and cotton come from Brazil. Also we have found that these products are shipped from seaport cities to other countries. The function of a city is related to its location is another important finding.

Assignment - On an outline map of the Western Hemisphere indicate the cities and exports of Brazil. Draw lines to show ocean routes from the seaports of Brazil to Montreal. Boats with the name of the product are to be drawn on each route.

Evaluation - Check how accurately the students are completing the maps.
The Inductive-Deductive Lesson

The Inductive-Deductive Lesson is in essence a special form of the Development Lesson. The purpose of such a lesson is twofold:

1. to lead the pupils to formulate a generalization;
2. to give the pupils facility in applying the generalization to particular cases.

In the inductive phase the pupils examine a number of particular cases which will eventually lead to a generalization. For example, in mathematics the pupils might examine the following facts written on the blackboard: 35 + 4 = 39, 55 + 4 = 59, 15 + 4 = 19, 25 + 4 = 29. During the examination of these examples, attention is focused upon circumstances common to all the cases and a general statement is made. For the above example the statement might be any of the following:

1. If 4 is added to a two-digit number ending in 5, the first digit is unchanged and the second is 9.

2. In all additions of 4 to a two-digit number ending in 5 the first digit is unchanged and the second is 9.

The generalization is now tested by discovering whether it covers similar operations. Pupils may check generalizations by using 75 + 4 = 79. By using counters it can be demonstrated that seventy five plus four equals seventy nine. The generalization may also be tested by using the case of 45 + 4 = 49.

Now the deductive phase begins. The pupils are requested to apply the generalization to cases not used in the inductive step.
or in the testing of the generalization. Thus, the pupils may now find the totals for the questions of $65 + 4 = \square$, $85 + 4 = \square$, $5 + 4 = \square$, or $95 + 4 = \square$.

In the Inductive-Deductive Lesson the following steps are followed:

1. A series of examples are studied.
2. A common element is discovered.
3. There is a statement of a generalization about the common element.
4. The generalization is applied to additional examples.
5. Similar problems are solved using the generalization as the major tool in the solution.

The inductive deductive method has application in many elementary school subjects.
A REVIEW LESSON

Title - Settlement of Canada by Samuel de Champlain

Purpose or Main Idea - To review the information gained about the contributions made by the explorer, Samuel de Champlain, in the settlement of Canada.

Specific Objectives - Students will be able to: (1) list the contributions made by Champlain in the settlement of Canada, (2) explain why he had difficulty in establishing a colony, and (3) give reasons why Champlain can be called the "Founder of New France."

References and Resource Materials - student notes.

Methodology -

<table>
<thead>
<tr>
<th>Concepts and Skills to be Taught</th>
<th>Learning Activities</th>
</tr>
</thead>
</table>
| 1. History of Canada prior to Champlain's visit. | Teacher: "I have a question for everyone to consider. As you give your answers I will write them on the board in outline form. Question: "What was known about Canada before the time of Champlain?"
Student Responses: (a) Cabot visited Newfoundland and the Gulf of St. Lawrence (b) Fishing grounds were discovered near Newfoundland. (c) Cartier explored the St. Lawrence River. (d) He met the Indian inhabitants. (e) He discovered the winters were very difficult. (f) Stadacona became the centre of Cartier's activity. (g) French traders traded with the Indians. |
| 2. Champlain's contributions to what was known about Canada. | Teacher: "How did Champlain add to what was known about Canada?"
Student Responses: (a) He explored the Richelieu River, Lake Champlain, The Ottawa River, Lake Nipissing and parts of the Georgian Bay. |
3. Champlain's attempts at settling Canada.

Teacher: "How did Champlain try to make Canada a French colony?"

Student Responses: (a) He claimed the land he explored for France.
(b) He tried to establish a colony.
(c) He tried to interest the King of France in Canada.

Teacher: "What difficulties did Champlain have?"

Student Responses: (a) It was difficult to persuade settlers to come to Canada.
(b) It was difficult to look after the settlers.
(c) It was difficult to protect settlers from the Indians and the English traders.

Teacher: "How successful was Champlain's work?"

Student Responses: (a) He formed the first colony in Canada.
(b) He created interest in Canada's riches.
(c) He added much knowledge to what was known of Canada.
(d) He showed others the way.

Teacher: "Why can we give Champlain the title, "Founder of New France?"

Student Responses: (a) He explored the country.
(b) He attempted to establish a settlement.
(c) His work marked the beginning of the growth of Canada as a nation.

Summary - On the board we have listed all of the information on the contributions of Samuel de Champlain in the settlement of Canada.

Assignment - Copy the outline into your notebooks. Study your notes for a test on Friday.

Evaluation -
UNIT LESSON PLAN

Sample Science Unit

The following is a form of a two week unit plan which integrates science and other subjects using a variety of media materials.

Title - Our Aquarium

Resources and References - Bulletin board display of vocabulary pertaining to aquarium.
Materials for aquarium.
Science tests.

First Week

Monday - Introduction
   Review of bulletin board.
   Review of words
   Meaning of words

Tuesday - Pupils assist in setting up aquarium.
   Pupils produce notebook covers.

Wednesday - Creative writing.
   Pupils write a story on yesterday's encounter with the aquarium.
   What did you do?
   What did you see?
   How did you feel?
   What did you learn?

Thursday - Prepare diagram of aquarium.
   List parts.

Friday - List scientific and common names of each plant and animal.
   Draw a picture of each.

Second Week

Monday - Discuss evaporation of water in aquarium as part of water cycle. Relate to vocabulary or bulletin board. Set up committee to replace bulletin board display with pupils' work.

Tuesday - Film on photosynthesis.
Wednesday: Discussion on plant growth.

Thursday: Group sharing of experiences with aquarium and what has been learned.

Friday: Evaluation activities: test, worksheet, paragraph, story, picture and tape.
Social Studies

Grade IV - People in Alberta

Historical, economic, sociological and/or geographic analysis of Alberta's people, including comparison and contrast with other world areas that have similar historical, geographic and/or economic bases, for example, Australia, Argentina, U.S.S.R., Middle East oil producers, or Western U.S.A.

Unit comparing and contrasting the historical, economic and geographic aspects of Alberta and Australia.

Film - Golden Fleece

Time - 14 minutes
Content - Traces the story of Australian wool from sheep to auction room.

Lesson

Preliminary study -
Sheep regions - Darling Basin
Rainfall regions of Australia
Problems of drought
Methods of stock watering

Format - (1) Introduction (5 minutes)
Outline of film story.
Main points to look for.

(2) First Screening (15 minutes)
Showing complete and unbroken.

(3) Rewind time (10 minutes) - pupil technician -
Use atlases
Rainfall map to predict location of station in film.
Compare location to map showing distribution of stock. Discussion of foot rot and directive to notice feel of sheep for structure and composition. "Why are there comparatively few sheep on the Eastern Rain Coast?" "Where was the wool headed?"
Follow route of cargo from Sydney to England and to West Riding.
Use charts to show processing wool from washing, carding, combing to finished knitted product.
Outline of second showing.

Subsections indicated

a) Mustering
b) Dipping
c) Shearing
d) Classifying and Skirting
e) Transportation
f) Inspection by buyers
g) Auction

(4) Second Screening - broken into sections (25 minutes)

Discussion on each section.
Questions answered.
Various points of information recapitulated.
Misunderstandings and confusions untangled.

(5) Evaluation: Questionnaire given and marked (20 minutes)

Questions posed designed to make pupils analyze impressions and assimilate information.
Two sections:

a) recall or recollection of fact.
b) assessment of the qualities of the film.

Fifteen minutes to complete. Five minutes to mark.

(6) Follow-up

Draw map showing the distribution of sheep in Australia, the rivers, Darling and Murray plus four main parts.

Questionnaire for Film "Golden Fleece"
(15 minutes allowed for completion)

Section 1

1. The first part of the film shows sheep being gathered in for shearing. What is this process called?

2. What type of sheep is shown?

3. In one scene a windmill is shown. What is its use?

4. What is the Australian name for field?
5. Why is it necessary to "dip" sheep?

6. What type of shears are used by the shearers?

7. How long does it take a shearer to fleece a sheep?

8. What holds the fleece in one piece?

9. Are Australian flocks larger or smaller than British flocks?

10. Why are horses used by Australian sheepmen and not English shepherds?

11. How is wool sorted?

12. What things are looked for in classifying fleeces?

13. The fleeces are spread on a table, sorted and soiled or coarse parts of the edges are torn off. What is this process called?

14. The fleeces are packed into bales for transportation. (1) Of what material are the bales made; (2) approximately how much does each bale weigh?

15. To what city is the train headed?

16. What sort of people are inspecting the opened bales in the warehouses?

17. Mention two qualities of good wool.

18. How is wool sold?

19. Name the two major wool-producing states of Australia.

20. What is the name of the special building in which wool is sold?
Section 2

21. Does this film give a good impression of the story of wool? Yes/No.

22. Would it have been better in colour? Yes/No.

23. Do you consider the photography was generally good? Yes/No.

24. Is there any improvement that you would make to the film?

Social Studies

Grade III - XII - The Study of Societies

All societies have some form of: legal system, economic system, history, geography, philosophy, social interaction. In studying about societies there are certain concepts and skills which assist in gaining insights into societies.

Unit studying social interactions - (roles, norms, socialization patterns), economics - (needs, wants) and political structure of a group - (property concept, laws, authority).

Film - The Huntsman TK 3124

Time - 16 minutes
Content - A boy's attempt at finding his place in society.

Lesson

Preliminary study
Awareness of values
Value - dignity of man
   equality
   freedom
   justice

Format - (1) Introduction (5 minutes)
Main point to look for -
Which value issues are present in the film? 
Events leading to major decision,

(2) First Screening (35 minutes)
Interrupted showing. Stop film after title.
Is the title appropriate for the action seen so far?
Stop film after introduction of groundskeeper.
What is the man's job?
Stop film after lunch scene. Should the boy use the clubs facilities? Should the man have treated the boy the way he did? What is the attitude of the women? How did you feel when you saw the golf course?
Stop film after "punks" leave. What do you think about the older boys' action? How does the young boy feel? What should the boy do?
Stop film as groundskeeper comes after the older boys. How do you feel about the young boys' action? How does he feel at this time? Show to end.

(3) Discussion time (10 minutes)
Clarify happenings.
Various points of information recapitualted.

(4) Follow-up

(a) Write a paragraph explaining the boy's motivation in looking for golf balls.
(b) Debate whether the boy was justified in his action against the "punks".
(c) Explain in a paragraph why the boy dropped the two golf balls.
APPENDIX D

QUESTIONING STRATEGIES

Most educators recognize the question as an important tool in classroom practices and believe that questioning plays an important role in learning. Contributions to professional publications commonly attach great importance to questioning as a teaching technique and teachers commonly devote a large portion of the daily activity to question centered discussions.

Questioning is not an innate talent. It is a skill which must be developed. The following skeletal questions are examples of questions which may be applicable in classrooms for initiating, developing and evaluating a lesson. Planning clean-up at the conclusion of the lesson is also included.

Questions Before Commencement of Assignment.

Where are we going to work?
How can we make more space for work in our classroom?
Where is the best place for this material?
How should this equipment be arranged or spaced?
What is the first thing I should do?
Where might I find the information?
How does one find a book, filmstrip, picture, transparency, record?
To whom might I talk?
Where do I look in the book?
How do I open a book?
What do I do with the material no longer needed?
Why do I return the materials?
How do I use the record player?
Where do I plug the machine in?
What do I do with equipment that I am not going to use just for a minute?
When not in use where does this equipment go?
How do you carry equipment?
On which side do you work?
How should you place the book?
Where should you put the card when writing on it?
How should you stamp the book?
Where can you work?
What tools do you need?
How do you record what you see?
What are you looking for?
How many books, records, or strips do you need?
What do you do if you don't know a word?

Questions which may be Applicable in the Classroom

"Why do you say that?"
"Do you agree or disagree and why?"
"If you believe such-and-such, then how can you believe so-and-so?"
"Is such-and-such behavior (or belief) consistent with so-and-so behavior (or belief)?"
"What would you do in a case like this?"
"How do you explain this fact?"
"Why do you believe that?"
"Why would you do that?"
"Why do you think that so many people in our community believe so-and-so?"
"If you did that, what might the results be?"
"Can you define that clearly, and give us some examples?"
"What does this statement mean?"
"What other way could you say it?"
"Can you give an example or illustration of this?"
"How would you define this word?"
"How could we prove or disprove a statement like this?"
"How can we get facts which will answer this?"
"How reliable are such data?"
"What do these facts mean?"
"What can we conclude from a study of these data?"
"Which consequences do you prefer?"

Questioning for Developing Social Behavior

How do we cross streets?
How do we talk to each other?
What do we do when someone is speaking?
How do we indicate we have something to say?
How do we speak?

Questioning in Physical Education

The LIMITATIONS METHOD requires the teacher to ask questions which will challenge each child to move in a particular way. Each teacher develops his or her way of asking questions but the following phrases and words have proven successful.

Can you make a ("curled") shape?  
Could you change ....?  
Can you discover a new ....?  
Try to add on the ....?  
Can you add to this by ....?  
Try to vary ....?  
Can you find another way of ....?  
How many different ....?  
Can you add a different way to ....?  
Are you able to ....?  
Can you vary your shape to ....?  
See if you can ....?  
Can you improve on the ....?  
Attempt to do ....?  
Could you move from ....?  
Is it possible to ....?  
Could you shift ....?
Try to avoid "I" want you to do ...

Questioning for Planning Clean-up

What do you put away first?
How do you carry this item?
Where do you place this item?
What do you do with your finished product?
How do we store these items?
How do you clean brushes?
What happens to the extra paper?
Who should put the material away?
Who is responsible for cleaning the floor, desk, table?
When you are through cleaning what should you do?
What if there is still something left?
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