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Components in a Comprehensive and Integrated Sex Education Program for the Kindergarten

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COMPONENTS IN A COMPREHENSIVE AND INTEGRATED
SEX EDUCATION PROGRAM FOR THE KINDERGARTEN



A Thesis
Presented to
the Graduate Faculty
Central Washington State College



In Partial Fulfillment
of the Requirements for the Degree
Master of Education



by
Joyce Lucile Johnson
August, 1968

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APPROVED FOR THE GRADUATE FACULTY

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To Dr. Luther Baker who helped me to understand the meaning of empathy, to my husband for his encouragement while serving in Viet Nam, and to our daughter Joy Ann for just being a teen-ager.

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CHAPTER I

INTRODUCTION

In sex education today information is being given in the home and classroom that adults were hesitant to consider for discussion ten years ago. Because of this hesitancy among professional educators and parents there is a lack of instructional information, confusion as to the age to begin sex education, doubt as to the real content of the school curriculum, and uncertainty as to where to secure resource materials and teaching personnel. Parents and teachers and others interested in meaningful sex education for young children are asking that the schools assume more responsibility for integrating into the school program instruction in reproduction and education for living.

There is now more realization that from birth children are acquiring ways of thinking and acting that will be influencing their sex behavior throughout their lifetime. The information and attitudes given to the kindergarten child commencing formal schooling, in addition to the previous information and attitudes of the home, will be basic preparation for the time when sex begins to concern him more personally. By the age of five years the child's faith in the permanency of the love relationship in the family should be sufficiently developed to allow him more easily to accept the learning

experiences in schooling outside of the home. If a young child has gained early sex information from his peers in a secretive manner, rather than in the home, the school can provide the impersonal atmosphere of the classroom to clarify any misconceptions.

With the realization that sex education has started with the birth of the child as he assimilates information and attitudes from the life surrounding him in his own home, and with the knowledge that more parents and teachers desire a continuing program of meaningful instruction, this study will attempt to provide reinforcement for sound teaching in the home and school. For the parents and teachers who are hesitant about inaugurating a program in a home or classroom situation there will be encouragement by means of instructional aids and guides. Synthesizing a procedure for kindergarten use will be a goal and the literature examined will be reviewed accordingly.

Specialists in the field of sex education emphasize that each home and school must plan to meet the individual needs of the child or of the school in the community. A kindergarten curriculum has been designed and tested and is proposed for consideration as a guide to future planning. The guide proposed in this thesis has been developed with the purpose of aiding personnel responsible for the sex education of young children in establishing a program that not only

relates the facts of life but assists in developing sound attitudes and feelings that will be significant in the child's sexual development. Ralph Eckert (11:12) reminds parents and educators that children need to know the sexual facts of life and love. Children need to develop their capacity to care about others and to develop a sense of right and wrong--a conscience. Needed is an improved ability to understand their impulses and to control their own behavior in terms of moral values. These qualities are called character and this study proposes to assist parents and teachers in attaining such needs of children to develop character. There are few challenges to parents and teachers so serious as the development of sound character.

In the process of meeting the requirements of this study, learning or teaching aids will be reviewed and compiled to aid in developing meaningful concepts for the kindergarten child. The creative use of learning devices and the art of effective communication will be stressed. Sex education for the young child will be only as valuable as the manner in which information is conveyed.

In the following chapter evidence will be given for a growing concern that sex education be offered in a continuous and integrated manner from kindergarten through high school. Increasing progress is being made in the upper grade area, but the lack of any definitive curriculum for kindergarten is

retarding development of that full program essential to realization of such a goal.

I. THE PROBLEM

Statement of the problem. It was the purpose of the study (1) to survey available resource material in sex education adaptable to the five-year-old level; (2) to design and test a method of integrating a program of meaningful sex education into the kindergarten curriculum; and (3) to provide reference to available resource material for teachers and parents so that there may be a home-school-child triangle of learning.

Importance of the study. This study was made in an attempt to develop a program of sex instruction that might coordinate home and school teachings with the needs of the kindergarten child. Parents and teachers are less hesitant to accept the challenge of sex education involvement when possessing sufficient informational background and usable resource material. Sex must be considered a part of growth, not an "act" in this study. Sex must be considered a part of personality and a part of love, as well as being male and female. The project study presented in this paper is in accordance with this belief.

II. METHOD OF INVESTIGATION

In previous generations there was often a hesitancy to discuss sex or sex education. At the present, many parents and teachers are afraid not to discuss sex education with those children for whom they are responsible. There is now the desire to cover as much material as possible and to forge ahead with good intent. Setting definite limitations as to scope and range of project and materials was a necessity in the planning of this study. Because of the lack of previous research and the past hesitancy to bring sex education to the forefront, there is now a temptation to use all at once the available material and knowledge. To do so would overshadow, rather than integrate with, the other basic educational requirements of reading-readiness and number programs, social living, and other developmental learnings of the preschool period. A balanced program was an aim in the study.

The samples. The kindergarten selected for the study had an average enrollment of thirty pupils in each of two sessions. The morning session contained twice as many boys as girls and the afternoon session maintained twice as many girls as boys throughout the nine month period of testing. Each session was two and one-half hours in length. Children were to be five years old by September tenth to enter the class. No retarded or handicapped children were enrolled in the class.

Place of study. This study was developed and tested at Annex Elementary School, Fort Lewis, Washington. Based on military property, this state-funded public school is populated with the dependents of the lowest ranking non-commissioned officers assigned to the various units on post. Because of the frequent reassignment of military personnel, a forty to sixty per cent turnover in school population was to be anticipated for planning purposes.

Family composition. The children living in this specific housing area are considered to be "culturally deprived" by government standards. Many of the students were born to parents of limited education, foreign birth or racially-mixed marriages. Forty per cent of the students in the program were Negro, fifty-seven per cent were Caucasians, and the remaining three per cent were mostly Oriental or of Spanish descent. The average family had five children. There was often more than one last name used to refer to other members in the family because the father had not adopted the children of his wife from a previous marriage.

All families were living in government housing classified as desirable. Both parents were in the area during the time the children were enrolled in school. Reassignment to an area outside of the immediate vicinity made it necessary for the soldier and his family to release their government

quarters. The average take-home pay of the father was approximately three hundred dollars monthly. Absenteeism was low because of excellent medical treatment furnished all families at Madigan General Hospital. Preventive dentistry provided annual dental checks and fluoridation treatments, yet many of the children had very poor teeth because the army provided no further dental care for dependents. At least fifty per cent of the mothers were working outside of the home. No survey was made of the religious preferences.

Procedure. Administrative approval for presenting this study was granted some months in advance to facilitate planning. Early in the school year the parents were invited to an orientation explaining the program and the goals. Teaching materials were demonstrated and questions by the parents were encouraged. At mid-year a second meeting was arranged to explain the program to new arrivals, to report upon progress and to receive comments and suggestions as progress was surveyed.

Scope of material. To meet the challenge of the range in aptitudes and interests of the pupils, materials in this study were considered to be adaptable for the three-year-old to ten-year-old ability range predicted by previous testing. The resource materials available to teacher and parents were interchangeable during the nine-month duration of the planned

program. Since the availability of tested programs was limited to a relatively small number of published findings developed for specific areas and situations, these could be used only as guidelines in developing a study outline. The morning and afternoon sessions were given the same material and amount of consideration during the year.

Scope of program. This specific course of study was designed for the kindergarten child in general, yet tested in one specific classroom because of the limitations in time, funds, materials, professional preparedness and teaching assistance. The study was conducted by the teacher assigned to the classroom. There was a varied range of interests and experiences to be considered in the planning. This study was adapted to the school curriculum used in the Du Pont-Fort Lewis district, under the jurisdiction of Pierce County.

Pacing. Answering the questions of children truthfully and immediately is advocated in a meaningful program of sex instruction. The spontaneity of the five-year-old is a factor in commencing a study. If no questions were asked concerning reproduction, roles of the family members, or the growth of plants, animals, or children, the art of "pacing" was introduced, whereby the responsible adult asked a question or made a suggestion to stimulate the questions and discussions. Questions and suggestions would center around the interests of the group or a specific child.

Comprehensive sex education program. To include as many meaningful learning experiences as possible while developing this study with an integrated approach, the kindergarten activities of music, literature, art, numbers, audio and visual aids were included and referred to as suggested learning activities in the presentation of the project study.

Correct terminology. In reporting the experiment the frequent reference to correct terminology will emphasize the use of correct medical and biological terms for the various parts and functions of the human body as well as those of plants and animals. Proper names for genital organs are to be learned to discourage baby talk or vulgar terms. Helping children to understand that sex is something that can be discussed openly in the classroom is an easier task when correct terminology is understood and used in discussions. To differentiate from the term "sex education" which was specifically defined previously, sexuality will be interpreted as referring to whom and what a person is as determined by his respective character, values, attitudes and personality.

CHAPTER II

REVIEW OF THE LITERATURE

Designing an integrated program of meaningful sex education for the kindergarten child requires a study of recently-published findings and methods. Available resource materials suitable for five-year-olds will be surveyed. In addition, teaching aids for teachers and parents will be compiled and annotated. To comprehend better the use of such materials, research findings pertaining to the understanding of the young child will be summarized. The review of literature will be an important factor in establishing a working definition and a philosophy regarding sex education to justify the need for beginning sex education at the kindergarten level. The study of literature is intended to delineate the dimensions of the problem under consideration.

I. LITERATURE ON DEFINITION AND PHILOSOPHY OF SEX EDUCATION

In the literature surveyed, sex education is considered to be the total involvement of the home, school and community in helping the child to create desirable attitudes toward his own body and toward the meaning of his own sex and sexual role now and in the future. It is more than imparting factual information concerning reproduction.

Definition of sex education. Sex education is more than reproductive education. Authorities in the field of sex education add much strength to this point of view. Dorothy Baruch (4:8) contends that the giving of sex information is not all there is to sex education when she writes, "Sex education is a much broader, more complex and many-sided thing. . . . Many EXPERIENCES and NOT ALONE WHAT IS TOLD him enter into a child's sex education." Other specialists in this area add emphasis to this rationale with the following definitions:

. . . sex education in the broadest sense must educate the child for the fulfillment of his sexual role, to give optimum satisfactions in being a boy or in being a girl . . . the ties to parents must be strong enough and tender enough to ensure the possibility of a rich love life, yet not so strong or all-consuming as to prevent the child from later forming new love attachments in mature love and marriage (13:210).

Sex education is not just a matter of informing the child of the facts of reproduction and the physical relationship between men and women. It is made of many things--attitudes, feelings, personal example, practices of family living, and of course, information too (23:4).

One hears on every hand, "When is the best time to tell my children?" Sex education is not "telling," and it is not "when." It is a procedure, a skill, or maybe even an art--the art of adapting a child to himself and to the world about him, in respect to his sexual nature (43:1).

Sex education must involve more than relating the facts of life. A well-planned procedure is only as good as the attitudes it develops within the child concerning family life, his own body, and a future involving courtship and

marriage. That children are going to receive some sort of education in sex is a fact recognized by parents, teachers and school administrators. The important question these individuals raise, however, is "What kind of education will they receive concerning sex--and from whom?" Ralph Eckert (11:13) concludes, "The world is their classroom--their own feelings and the human beings they meet, their teachers." Sex education is not just reproduction education to be confined in a junior high school biology class. A well-defined and well-planned curriculum includes information appropriate for each level of maturation.

The literature reviewed stresses the fact that sex education involves children from the moment of their birth. To develop a universal awareness of this fact necessitates developing a philosophy in conjunction with an understanding of sex education. For those individuals concerned with education in sexual matters surrounding the children of today, reevaluation must be constant. Absorption of all possible findings may provide a firmer foundation upon which to base a philosophy and true feelings toward sex education.

Philosophy of sex education. The attitudes children derive from adult models is of much importance. Children may experience affirmative or negative reactions from their observations and experiences. It is important that parents

and teachers recognize this fact. The findings of Marion O. Lerrigo and Helen Southard reveal that the feelings and the attitudes in the young child's sexual development begin to form almost at birth. First to influence attitudes are the parents and home environment of the child, then playmates in conjunction with neighborhood, school, and community surroundings. In their study prepared for the Joint Committee on Health Problems in Education, Lerrigo and Southard (29:11) concluded, as did Ralph Eckert, "These attitudes may last over many years and may affect the individuals own approach to love, marriage and his idea of family life."

When those responsible for educating youth possess a sound understanding and insight into their own feelings they may accept the challenge of guidance with a sense of reassurance. Lerrigo and Southard also consider the basic core of sex education to be the continued, reassuring love of friendship that parents, teachers and youth leaders are able to give to those under their guidance. This section of the publication is appropriately titled, "Love is Basic."

In the informative publication, New Ways in Sex Education, Baruch reiterates concern for the overall education of youth so that sex education will be meaningful. The implication is that the aim of sex education is to find full-hearted and full-bodied satisfactions in mature and warm mutuality so as to develop one's fullest capacity for

love. To further define this philosophy she writes:

From out of the past come feelings that help and feelings that hinder. To help positive feelings grow high--To help negative feelings stay low--Both of these are important (4:7).

Sex and sexuality. In developing a rationale or philosophy, a basic requirement is to distinguish carefully between sex and sexuality. Reporting on the reasons present methods of sex education are failing to produce warm and responsible human beings, William Masters and Virginia Johnson cite the crucial difference between sex and sexuality that is being ignored in our nation:

Sex is physiology--what happens to the body as a result of sexual activity . . . sexuality is the dimension of personality that gains its impetus from the reproductive drive. It is our maleness or femaleness, from infancy onward, that stamps our whole being (35:123-4).

Adults responsible for educating the young may be reassured that sexuality is presently receiving closer scrutiny from professionals in this field of research. The truth that it is good to be a boy or girl, man or woman, and the acceptance of love and warmth found in a good relationship is more important than the precise details of sexual physiology.

The E. C. Brown Trust Foundation and the Sex Information and Education Council of the United States are organizations instrumental in promoting worthwhile programs in sex education and an awareness of the importance of sexuality.

In the philosophy of the E. C. Brown Trust Foundation, sex education has one main purpose:

. . . the dispelling of ignorance regarding sex and sexual processes and phenomena. In our philosophy, ignorance (whether it is related to sex or not) is evil. Ignorance about sex is particularly so because of the emotional fog in which the whole area of sex is usually shrouded (3:37).

The philosophy of meaningful concepts and attitudes being advocated in this study is aptly summarized by Lester Kirkendall, a scholar and leader in the field of sex education:

The important objective of sex education is to help pupils guide the sex impulse in such a way as to insure an individually and socially satisfactory adjustment to sex. Mere accumulation of a body of factual information is of little value. Matters of sex understanding should always be taught in the context of problems of adjustment (25:152).

Kirkendall suggests that to live more constructively and effectively an individual must understand sex as a phase of adjustment which affects living rather than knowing about sex simply as a matter of sex.

Developmental progression. In a survey reported by Helen E. Driver (10:95) it was discovered that the philosophies of schools and conscientious parents were similar in regards to sex education of young children. Impetus has been given to the importance of the integrated approach, that of building sex education into the curriculum from kindergarten through high school, rather than featuring isolated

instances of instruction in reproduction. The theory is that sex education should be a part of every course of the curriculum with much of the content arising incidentally. Dugald Arbuckle stresses spontaneity by stating:

The time for children to learn the "facts of life" is not when they are adolescents, when attitudes have become more important than the facts, but when they are young children who can absorb the facts without any personal identification, embarrassment, or threat (1:81-2).

In the same instance, it is important for the parents at home to remember that the feelings they show, the television programs they enjoy or books they read, the positive or negative manner in which they accept and answer questions of children is a form of integrated sex education--a form of continuous learning from birth. A combined school and home effort is important. Parents have the power to place classroom teachers on a pedestal, yet as Arbuckle (1:83) cautions, children should also be helped to realize that their teachers are ordinary people doing ordinary things such as having dates, going to dances, getting married and having babies. Parents and teachers must work together in the education of children, and education in sexuality is no exception. In this study parents are recognized as teachers because of the important role they play as the adult models in the lives of their children. The philosophy of sex education that has lead to the principles of the parents will be reflected in the attitudes of the children.

II. LITERATURE ON TRENDS IN SEX EDUCATION FOR YOUNG CHILDREN

The importance of answering truthfully the early questions of children is being taken into consideration by the increasing number of schools designing integrated curricula in sex education. In conjunction with this trend is the recognition of the importance of considering the aspects of sexuality. The literature reviewed also emphasizes other important trends in present day sex education and provides specific examples of (1) honesty and openness, (2) public acceptance, (3) improved teacher preparation, and (4) home-school cooperation.

Honesty and openness in answering questions. Questions of all children regarding sexual matters must be given honest and immediate answers. If the teacher, or parent, is uncertain of the correct answer it is permissible to admit uncertainty and volunteer to help the child in discovering an answer. There is no need for adult embarrassment as the imaginings of children produce challenging questions. It is the contention of Baruch (4:44) that out of the psychological work of recent years the many things we did not know about the imaginings of children have come to light and with this omission being corrected, the failures in sex education are being remedied. Findings did reveal the importance of giving the child truthful answers to questions.

Recently requests have come from responsible adolescents for more adequate sex instruction at younger ages. While working with high school youths in Oregon, Deryck Calderwood (6:291-298) asserted that a definite need exists for more effective and realistic sex education at ages much younger than adults seem willing to recognize. The need for more effective communication is apparent.

Youths' desire to know is stimulating attempts to discover what would be most helpful for them to learn. In addition, the time at which these young people believe this information should be commenced is being more carefully scrutinized. The present-day situation is reminiscent of the 1936 period when the Surgeon General, Thomas Parran, was attempting to remove the secrecy surrounding venereal disease and bring it into the open for discussion and understanding. Thomas Shaffer reminds us that we are faced with a somewhat similar situation with respect to education about sexuality. He writes, "Our goals are education about reproduction and sexual behavior and in addition, vocabulary, self-confidence, and ease in dealing with these subjects" (42:668).

The trend today is to recognize sex education as many things, with honesty being foremost. In a newly-published edition, Helene Arnstein enumerates some of the facets of sex education:

It is education for honesty between parent and child, for personal responsibility and morality, for love and tenderness between a man and a woman. It is education for many kinds of relationships between human beings; and it is much more. Sex education is a never-ending process that will continue in various and subtle ways in the years ahead, until a child becomes an adult--and it goes on and on even after that . . . your child has been learning about sex and acquiring attitudes about it from the day he was born (2:45).

Public acceptance. There is a growing tendency for a more companionable and relaxed relationship between adults and young people in the family. Many parents are increasingly eager to provide sex information for their children and are better prepared than earlier generations because of the increasing opportunities for the study of child development and family life.

The much-publicized program of Glen Cove, New York, was brought about by frustrated mothers and fathers asking for the type of program that is now receiving the enthusiastic support of the entire community. In the accounting of "Sex Education Begins in the Kindergarten," John G. Rogers (38:6) confirms the approval accorded to this project.

A well-informed authority in Family Life education, Elizabeth S. Force, reported in the Journal of Marriage and the Family (12:99-101) that Washington D. C. schools began a program in 1958 where "Sex factors in life are neither overemphasized nor bypassed." Her report included the work of the Cincinnati, Ohio public schools where such a program

has been carefully developed during the past twenty years with realistic emphasis on sex education aspects being considered as a part of the total instructional effort in both personal and social living. In Baltimore, Maryland, and in Kansas City, Missouri, courses are presented at the high school level. The foregoing are examples of similar programs in many of the communities throughout the nation. Roanoke, Virginia, presents a Family Life education program from grades 1-12. A revised curriculum of Worthington, Ohio, has been used as a basis for the first curriculum, covering kindergarten through twelfth grade, by the Committee on Health Guidance in Sex Education of the American School Health Association (17:9-10).

Sex education in the schools of Sweden has received considerable attention in the United States. Brigitta Linner (32:4) reports that Sweden is one of the very few countries where sex education is compulsory in the schools and because of a definite need for knowledge on this subject:

Instruction starts with the first school year. The scope of this initial school instruction is limited to how the sexes differ, where children come from and how they develop before birth, how they are born and in what ways they depend upon their mothers, fathers and homes (32:5).

The philosophy of the Swedish people is presumed to be that when the parents cannot give necessary guidance to young people the task then belongs to the schools which, next to the homes, are the nearest authority. Linner contends that the ideal solution is home-school cooperation.

A survey instigated by UNESCO (46:99) surmised from the information received that most of the countries reporting do begin a form of education for family life before the age of fourteen and sometimes as early as the first year of school. Countries reporting were: Austria, Belgium, Denmark, France, Great Britain, British Guiana, Hungary, Ireland, Norway, Holland, U.A.R., Sweden, Switzerland, Czechoslovakia, Yugoslavia and the United States of America.

Improved teacher preparation. Children and adolescents want answers to their questions concerning sex. Many parents and teachers are asking for aid in providing the answers. The public is ready to move forward, yet there is hesitancy upon the part of many schools to provide sex information in the classroom. A large number of school officials are aware of the need for education about sexuality but are concerned because of the lack of qualified teachers and the seemingly unfounded fear of public reaction. In a survey of attitudes of administrators concerning sex education, Warren Johnson and Margaret Schutt (21:67-8) found there may be a lack of well-qualified teachers, yet there is more material and information available for the resourceful and interested teacher and many teachers are taking advantage of such materials to better prepare themselves. The Johnson-Schutt report included the findings of a Gallup Poll completed in

May, 1965, indicating that 69 per cent of the adults in the country approve of schools giving courses in sex education. Public acceptance of sex courses in the schools increases the need for adequately prepared teachers.

Workshops in Sex Education are being offered at various colleges to better prepare classroom teachers to meet the challenge. A 1968 Sex Education Workshop at Central Washington State College, directed by Dr. Luther Baker, met the needs of teachers and community leaders concerned with the basic concepts of sex education methods and materials. The University of Minnesota announced the Third Institute of Sex Education. The C. S. Mott Foundation Children's Health Center in Flint, Michigan, sponsored their second annual Sex Education Institute. The University of Southern California presented a course on "Sex and Family Life in Education." Throughout the nation specialists in the area of sex education are presenting their findings to classroom teachers as the National Council on Family Relations and regional groups inform educators of opportunities for advancement.

According to the U. S. Office of Education, Federal funds are available to help schools and teachers develop sex and family life courses. Phyllis Wright (50:52) reports that many state education and health departments are taking advantage of such offerings and are working out guidelines for programs soon to materialize. Schools in the United

States actually presenting programs in sex education may commend their teachers for pioneering in curriculum developments to fit the needs of their particular areas. Teachers in Tulsa, Oklahoma, have been aided in developing a program extending from kindergarten through high school. Kirkendall (25:283-4) reports that the kindergarten approach used by the teachers centers around the personal and social development of the child, whereas the main objective in the later years is a program to assist young people in achieving a better home and family life in their childhood homes.

Many teachers will accept this responsibility of instilling good attitudes and values while aiding the youngsters seeking answers to their questions when teachers are receiving parental and administrative approval and support. The K-8 Teachers' Resource Guide for Family Life Education (39) is indicative of the ability of teachers in San Mateo, California, who have received guidance in planning.

Home-school cooperation. Authorities in command of sex education projects have recognized the value of a cooperative home-school-community triangle so that learning may be effective and meaningful. This is an important development in sex education in our schools today as is verified by the report of Lerrigo and Southard:

. . . Any school program of sex education should be developed in close cooperation with parents and parents' groups. It is essential that parents understand what is

done and are willing that it be done. Invitations to assist will often result in helpful cooperation and yield surprisingly fruitful results (29:64).

As this recognition materializes in the schools of the United States, and other areas in the world, the trend toward better home-school relationships will hopefully continue to improve as needs of children are met and realized. The home, school and community are more aware of the needs as noted by various agencies and areas pioneering in developing integrated programs of sex education within the content of the curriculum.

III. LITERATURE ON JUSTIFICATION FOR BEGINNING SEX EDUCATION AT KINDERGARTEN LEVEL

Sex education is a continuous process from birth through childhood, adolescence, young adulthood to parenthood, and then, as suggested by Thomas Shaffer (42:667) the circle closes in this endless series of stages in life and begins again with the birth of a child in the next generation. John Gagnon comments about the contextual importance of this learning process:

What is learned is important; however, it is the context in which it is learned that is more important. The exchange of sexual information among children is clandestine and subversive, and studies show that 90 per cent of what American children learn is from their peers, and the manner in which parents attempt to teach their children reinforces this learning structure (15:224).

Schools must accept the child where he is, for what he is, and what he is to become and build the most well-balanced

life possible with all of the facilities available. The most well-balanced life possible must be built so that each child may grow, as Kirkendall and Calderwood (26:74) wrote, ". . . with a knowledge and understanding of human sexuality which our generation never possessed."

In the continuum of learning there is a time and place for assimilating knowledge, for wanting to know more of the unknown, for discovering and experimenting to add more meaning to newly formed conceptions. This observation is verified by the five-year-old as he leaves the home for the atmosphere of the classroom. A report by the Child Study Association (7:29) explains that at this period the home ties of the child continue to remain very strong as new contacts are made with other people who are to become important to him, such as teachers, schoolmates, parents of new friends and community helpers. These people will present their points of view and offer information that will help to shape and affect his outlook on life. At this stage of development, the five-year-old will begin to hear, see and do more which influences his actions as he leaves the home environment for that of school and community experiences.

As the horizon of the young child widens he will want answers to the questions stimulated by his entrance into a new area where books, travel, conversation, television and movies become more meaningful. It is at this time that the

schools can make the initial contribution of sex education for the child. Strain (44:38-43) and Lerrigo and Southard (30:28) conducted separate studies in stages of sexual development and both studies revealed that the child of kindergarten age may develop more intense curiosity and ask searching questions about many things, including birth, as there is so much that is new to ask about and discover. During this phase questions often dominate his conversation with the same questions being often repeated. The older kindergarten children, six years of age, showed much curiosity and asked questions about body structure and function. Sex exploration and masturbation may occur and questions may be asked about the father's part in reproduction. The facts of life are confusing to the minds of young children. Adults responsible for this age group must be patient, clear and truthful and expect to have important questions repeated.

It is at this time the child will want to know more about sex matters because he is still so close to his baby years as he is attempting to gain a foothold in the outside world. For adults who feel a five-year-old is too young to receive complete answers to the questions he asks, the Child Study Association of America advocates:

You may feel a temptation to put him off, to wait till "later." Don't do it. The answers you give him now, added to what you have told him before, will be his basic preparation for the time when sex begins to concern him more personally. It will be easier for both of you if he is comfortable and familiar with the facts of life (30:29).

In the clinical study, Sex in Childhood and Youth, Alfred Schmieding (40:13) proclaims, ". . . if sex instruction has been carried on from early childhood through adolescence, preparation for marriage should be much easier." The philosophy of this paper coincides with his belief:

The need for sex education grows out of the close relationship of sex to the total of personality. The individual cannot be a well-balanced, well-adjusted person unless he or she is also well-balanced and well-adjusted in his or her sex life . . . sex and sex education is not a separate entity existing by itself. . . . It is intimately part and parcel of the individual's philosophy of life. It is an essential factor in the make-up of character (40:3-4).

The need does exist for developing a program of sex education for the children commencing with their formal schooling. "In sex education the child takes the early lead," writes James L. Hymes as he reiterates that at the age of three, or four, or five years, children ask questions about sex for a very obvious reason:

Children are surrounded by themselves. They are surrounded by the two sexes. They are surrounded by the fact of reproduction, both human and animal. Naturally . . . as their power to think matures, their desire to know about body functions and reproduction also develops (19:205).

Teachers and parents are further assured by Hymes (19:205-6) that they do not need to hold back on teaching about sex, but rather teach when the time is right by answering the questions of young children when they are asked, and five-year-old children ask many questions. It is also

Hymes' contention that it is a mistake to ignore children's questions about sex and worry about sex being so fascinating to the kindergarten child that they will never stop asking questions. Rather, the teachers should take their lead from what the child wants to know and answer all questions immediately, yet briefly. The value of spontaneity may be immeasurable. As children mull over their questions and answers, adults responsible for such education must be constantly prepared to impart additional information or repeat information previously given.

Helen Driver (10:105) makes the following points about the importance of the school in sex guidance:

1. Whether parents wish to recognize it or not, the fact is that children believe what they learn at school is more important than what they learn at home. For this reason, sex guidance provided by the school assumes great value in the mind of the child.
2. When the school acknowledges the importance of the subject of sex the result is to give it a position of dignity in the mind of the child.

The importance of the home is by no means undermined in achieving a successful integration of sex education into the curriculum of the kindergarten. Eckert (11:13) recognizes that parents are most often with the children and are able to take advantage of the more natural occasions for making their children feel comfortable about being boys and girls. Parents do have privileges more important than those that teachers will have. As the executive director of SIECUS, Mary Calderone, explained:

. . . the best sex education of all is done by two parents who love and respect each other deeply and who convey this love and mutual respect to their children without words as well as with words. Words can convey facts, but attitudes are built by exposure to the examples of people we love and admire (5:18).

Schools with an integrated program of sex education from kindergarten through high school are not being given the privilege to begin sex education for the five-year-old. Schools are being given the opportunity to continue the education, or correct the misinformation, that has been going on since the birth of the child.

IV. LITERATURE ON MATERIAL SPECIFICALLY DESIGNED FOR KINDERGARTEN

The lack of material specifically designed for teaching sex education in the kindergarten is disturbing to teachers and parents sincerely interested in promoting such a program. There is a lack of resource materials and books that the five-year-old can actually use. The review of literature in this general area produced an ample amount of opinions on the understandings and meanings to be developed in the kindergarten, yet few authors specified sources for obtaining suitable materials to illustrate their suggestions in the classroom or home.

Credit must be given to those schools and publishing firms pioneering in the development of curriculum and teaching

aids for the young child. In the area of curriculum development and in materials specifically designed for the kindergarten level there is limited material available. Specific citations are to be found in the appendix in the section entitled "Annotated Listing of Resource Material."

Creative teachers, even using good professional guidelines, will find it necessary to develop much of their material and curricula. In lieu of ample material the daily life experiences of children are full of incidents to be furthered in providing worthwhile learning. Teachers and parents must take occasion to discuss with the young child the new baby in the home, care of pets and roles of family members. Natural situations for stimulating and answering questions are provided as children observe bathing, toileting and nursing periods. From these observations come discoveries, such as the difference between boys and girls, that may lead to the need for reassurance to ease any apparent distresses of young children. Milton Levine and Jean Seligmann (31:17) suggest that when the observations of daily life experiences lead to confusing discoveries, there be immediate assurance that even with noted differences between boys and girls, they are equally valued and wanted, and just as their functions are different, their functions are equally valuable.

Helen Manley (33:12) verifies the contention that there are many teachable moments for sex education which

should be carefully used so that sex attitudes and information can be developed in various phases of the curriculum. The seemingly fantastic ideas of a child may be real to him. Baruch (4:40) warns against jumping in with scientific information and disregarding what the child is thinking. It is wiser to give the child just what he has asked to know. Teachers must be patient and learn to listen to what their students are asking, and at the same time observe what they are not asking. Children can provide the guideline to what is to be taught to them and to the materials needed.

The publication of Levine and Seligmann (31:42-44) suggests instances from kindergarten through high school whereby the teacher and school may in some way be contributing to the child's picture of the male and female sex roles. Attention is directed toward an awareness of teaching possibilities or learning situations.

Planning a sound and integrated program means starting at the beginning to build for a specific subject or geographical area. In the implementation of such a program, Curtis Avery (3:38) presents ideas derived from the studies of the E. C. Brown Trust Foundation for certain communities in Oregon. Kirkendall (23:43-44) continually stresses that sex education should not be treated as a separate subject in the curriculum, but become a part of all learning activities as he offers beneficial guidance for the teacher interested in developing a significant procedure.

In a 1961 report on the Joint Committee on Health Problems in Education by the National Education Association and the American Medical Association, as edited by Lerrigo and Southard (29:64), findings were released noting the useful opportunities for sex education when parents and teachers plan together. Kirkendall and Helen M. Cox (27:140) listed practical suggestions for the school that is starting a program in sex education. Listed were areas where support for such projects might be expected.

The frustration of teachers and parents, caused by the lack of teaching materials, may be reduced with sufficient guidance and suggestions, as demonstrated by Strain (43:230) with available sex education activities at home and at school. The spontaneous activities of the home and the planned activities of the schools, as categorized by Strain, are interchanging since the 1951 publication date of the literature reviewed.

When working under the assumption that children possessing a good foundation of knowledge can teach each other, it is imperative that understandings and meanings be carefully developed. With the paucity of teaching materials for the kindergarten level, it is even more important that the interested teacher take advantage of all adaptable situations in lieu of materials. The kindergarten teacher can present the part that love and care play in family life, use the

correct terminology and help the children feel comfortable when using correct terms for functions and parts of the body.

For the classroom teacher designing a curriculum to include sex education in the kindergarten, or a committee planning a specific program of sex instruction, the following references deserve special attention. These books were used as background material for this study and are noted in the bibliography with the following numerical references:

References for children: Cockefair 8, Gruenberg 16, Langstaff 28, Meilach 36, Selsam 41, Wasson 48, Weil 49.

References for teachers: Daniels 9, Fricke 14, Johnson 20, Manley 34.

CHAPTER III

PROPOSED CURRICULUM OUTLINE FOR PROJECT STUDY

I. OVERVIEW

A suggested course of study in sex education for the kindergarten is designed to develop the following understandings or concepts:

What are plants? Plants are living things that cannot move alone, yet go through a complete life cycle of beginning, growing, changing and dying. There are many different kinds of plants, yet each produces its own kind. Plants from which new plants are produced are called parents. Plants cannot see, feel, smell or taste, yet they need air, sun, food, water, and care to grow.

What are animals? Animals are living things that can move alone and go through a complete life cycle of beginning, growing, changing and dying. There are many different kinds of animals, yet each produces its own kind. Animals from which new animals are produced are called parents. Animals can see, feel, smell, taste and need air, food, care and water to grow.

What are children? Children are living things, or human beings, born by their mothers, who will go through a life cycle of beginning, growing, changing and dying. Each

child must have a father to grow, as well as milk, food, water, shelter, air, exercise, clothing and care. Children hear, see, smell, feel, taste and talk.

From the understandings developed through available materials and experiences, this suggested study proposes to answer for the kindergarten child: (1) How Do Plants Grow?, (2) How Do Animals Grow?, and (3) How Do Children Grow?

Materials are interchangeable within each section or within the unit. A portion of one section may be interchanged to adapt to the needs and questions of the children. To allow for spontaneity, there is no established order of presentation. When a question is raised concerning a need, the teacher may find it necessary to consider the egg, or seed, involved in the growth of a plant, an animal and a child. Experiences are suggested that will help children to discover the various ways and means by which information concerning a problem may be gathered. The inquiry-type method of problem-solving will be introduced to the kindergarten child in this study. Growth and development of living things will be presented as a regular part of the class procedure and not as something unusual or different.

II. HOW DO PLANTS GROW?

Plants are readily accessible, easily handled, and provide worthwhile learning experiences for children. The

speed with which certain seeds sprout and grow is excellent for the short attention span of the younger child. Plants are easily carried by children and provide a good home-school continuity when initiating a study in reproduction. The study of plants is suggested as an introduction to sex education in the kindergarten as a means of integrating this study with other learning activities. Questions for Study will be answered as Fundamental Learning. The children will participate in the Suggested Activities initiated in the Introductory Learning Situations.

QUESTIONS FOR STUDY

INTRODUCTORY LEARNING SITUATIONS

What are Plants?

Plants are living things that cannot move alone, yet go through a complete life cycle. Trees, vegetables, flowers, shrubs and grass will be recognized as plants.

How do plants start?

Plants follow a pattern of growth, whether started from seeds, bulbs, cuttings, stems, roots or leaves. To observe the cycle of beginning, growing, changing and dying, plants will be started in the classroom, outside garden and in the home. Use of as many beginnings as possible will be advocated.

Does each seed contain a baby plant?

Seeds will be soaked, planted and observed in the classroom to note the baby plant growing within the seed.

Will seeds grow to be like the adult plant?

Continual observation will help children realize a baby plant will be like the adult plant or that seeds produce plants similar to the original plant.

What do plants need to help them grow?

Plants need water, sunlight, soil, warmth and care to grow. Planting and growing experiments will be suggested in the course of study.

The questions listed above in the introduction will be phrased as positive statements in the following section on plants. Resource materials to reinforce each concept will be listed following each learning situation that is suggested in the study.

FUNDAMENTAL LEARNING

SUGGESTED ACTIVITIES FOR FALL

- We learn about plants. As the children are making initial "Get Acquainted" tours of school, the need for grass, flowers, trees and shrubs will be noted. Indicate that these are all plants. Discuss the need for plants in the home, school and yard. Neighborhood walks will be taken to further awareness for necessity of plants in our lives.
1. There are many kinds of plants all around us.
 2. Different kinds of plants make our school and home look nicer.
 3. We eat different kinds of plants that are good for us.
 4. There are seeds in some of the fruit eaten by people.
 5. Some trees have seeds that are easy to find. The seeds can be planted in dirt.
- Kindergarten snack time will be used as an incentive for eating good foods such as carrot and celery sticks, apple and orange slices. For an experiment the apple and orange seeds will be planted. The carrot tops will be trimmed and sprouted in water.
- A walk to look for signs of fall could uncover acorns that are beginning to sprout. By planting the acorns in soil the children can see the tiny leaves of the oak tree appear.

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| 6. Vegetables have seeds that we can see. The seeds can be planted. | During harvest time the corn and pumpkin seeds will be compared to the harvested products so that the children can better realize the growth necessary to produce the vegetables people eat. |
| 7. Fish need plants to give them air in the water. | Starting the classroom aquarium will lead to necessity for plant and animal life in balanced aquarium. |
| 8. Each part of the flower has a name. | Introduce sex education instruction by using first ten slides of "How Babies Are Made," explaining plant growth. |
| 9. Flowers need eggs and pollen to grow. | |

RESOURCE MATERIALS

Books

- Blough, Glenn O., An Aquarium. Evanston, Illinois: Row, Peterson and Company, 1965.
- Foster Doris Van Liew, A Pocketful of Seasons. New York: Lothrop, Lee and Shepard Inc., 1961.
- Hathaway, Polly, Backyard Flowers. New York: Macmillan Company, 1965.
- Parker, Bertha Morris, The Wonders of the Seasons. New York: Golden Press, 1966.
- Rey, H. A., Elizabeth, Adventures of a Carnivorous Plant. New York: Harper and Row, 1942.
- Tresselt, Alvin, Johnny Maple-Leaf. New York: Lothrop, Lee and Shepard Company, Inc., 1948.
- Watson, Jane Werner, Plants and Animals. New York: Simon and Schuster, 1958.
- Webber, Irma E., Up Above and Down Below. Eau Claire, Wisconsin: E. M. Hale and Company, 1953.
- Wood, Dorothy, Plants With Seeds. Chicago: Follet Publishing Company, 1963.

Charts

Nasca, Donald, "Plants," The Instructor Primary Science Concept Charts, Dansville, New York: F. A. Owen Publishing Company, 1965.

Flannel Board Stories

Frost, Marie, "Benjie's Happy Surprise," Winkie Bear Stories. Elgin, Illinois: David C. Cook Publishing Company, 1965.

Records

"The Carrot Seed," Young Peoples Record Guild.

Slides

"How Babies Are Made," Creative Scope, Inc.

FUNDAMENTAL LEARNING

SUGGESTED ACTIVITIES FOR SPRING

We learn how plants start.

1. We can see new plants beginning to grow outside.
2. Some new plants start from seeds.
3. Seeds will start growing in water.
4. Some new plants start from roots, bulbs, stems, cuttings or leaves.

Discuss signs of spring as observed by children. Plan a walking tour to look for signs of spring. Use flannel board story "Benjie's Happy Surprise" in which Winkie Bear is happy spring has arrived.

Soak bean or radish seeds in water overnight. Soak pumpkin seeds that were saved and dried from Halloween pumpkins. Use corn seeds given to the class during fall visit to the farm. Soak pop corn kernels saved from Christmas activities. Line glass jars with wet paper towels. Put small amount of water in bottom of jars to keep towels damp. Place softened seeds that have been soaked overnight between damp paper and glass to observe sprouting.

Visit nursery or garden shop to see bulbs, roots and stems that will grow into new plants. Observe the gardeners starting new plants at Fort Lewis and spraying for weeds.

5. We can grow new plants from a leaf, stem or root. Put narrow end of sweet potato in a jar. Keep in dark place until the leaves begin to grow. Place in sun. Cut two inches off large end of a carrot. Place in a shallow bowl of water and hold carrot in place with pebbles. Peg large begonia leaf on damp sand with the veins up. Cut veins carefully and new plants will grow from slits. Make slanted cut through geranium stem, just below a leaf. Remove all but two or three top leaves and plant in soil. Observe new growth from each method.
6. Weeds are plants growing out of place.

Use Judy See-Quence Story "The Flower." Sing "It's Spring," page 9 in Sing a Song.

RESOURCE MATERIALS

Books

Foster, Willene, and Pearl Queres, Seeds Are Wonderful. New York: Melmont, 1963.

Krauss, Ruth, The Carrot Seed. New York: Harper and Brothers, 1947.

_____, The Growing Story. New York: Harper and Brothers, 1947.

_____, The Happy Day. Eau Claire, Wisconsin: E. M. Hale and Company, 1949.

Tresselt, Alvin, Autumn Harvest. New York: Lothrop, Lee and Shepard Company, Inc., 1951.

Webber, Irma E., Travelers All. Eau Claire, Wisconsin: E. M. Hale and Company, 1953.

Song Books

McLaughlin, Roberta, and Lucille Wood, Sing a Song. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1960.

Story Boards

"The Flower," by Judy, Sequence Story Board, The Judy Company, Minneapolis, Minnesota.

FUNDAMENTAL LEARNING

SUGGESTED ACTIVITIES

We learn that each seed contains a new plant.

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| <ol style="list-style-type: none"> 1. Each new plant is resting in the seed until it is planted. 2. Each lima bean has two seed leaves in which food is stored until the new plant can make its own food. 3. A new plant cannot grow without the food stored in the seed leaves. 4. The new plant is the embryo plant in each seed. The part of the embryo that is to be the roots will grow down. The part that is to be the leaves will grow upwards. 5. Plants must produce new plants to keep on living. 6. A microscope helps us learn more about things we cannot see without help. | <p>Soak lima beans overnight in water.</p> <p>Carefully split open the beans and examine. In the open bean can be seen the root, stem and two leaves of an embryo plant. (Correct terminology should be used.)</p> <p>Introduce the use of a microscope for further study of other seeds, leaves, roots, bulbs and stems.</p> <p>Continue to observe seeds sprouting between paper towels and glass jar. Note that the leaves are growing up and the roots are growing down.</p> <p>Secure good soil so that each child can plant two or three bean seeds in the milk cartons saved from the lunch period. Names will be written on masking tape and placed on cartons for identification. For variety different colored bean seeds will be planted in soil, and labeled with pictures drawn by the children. Different colored seeds add much speculation when planted.</p> <p>Recall the source of seeds being used. The lima bean seeds were purchased in the garden shop. The pumpkin seeds were saved from the Halloween pumpkins. The acorns found and planted in the fall were dropped from the oak trees. Some seeds were dried and saved from the gardens at home.</p> |
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RESOURCE MATERIALS

Books

Miner, Irene, The True Book of Plants We Know. Chicago: Children's Press, 1959.

Selsam, Millicent, Greg's Microscope. New York: Harper and Row, 1963.

_____, Play With Plants. New York: William Morrow and Company, 1949.

_____, Seeds and More Seeds. New York: Harper and Brothers, 1959.

FUNDAMENTAL LEARNING

We discover plants need certain conditions to grow.

1. Seeds need water to begin growing.
2. Seeds need soil to continue growing.
3. Seeds need sun and care to become new plants.
4. Plants need oxygen to grow.
5. Animals may help plants grow.

SUGGESTED ACTIVITIES

Observe seeds planted in glass jars and observe seeds planted in dirt.

Plant bean seeds in covered jars with poor soil. Place in a dark place and do not water. Compare with the seeds planted in good soil that are receiving water and care and are growing in the sun and air.

As seeds continue to sprout, plans will be made for an outside garden. A sunny spot with good soil and access to water will be chosen.

Seeds will be transplanted from milk cartons. The names of the children will be printed on wooden tongue depressors and used to mark individual plants. Young plants will be planted only after the soil is carefully worked and ready for the sprouting seeds.

Carrot seeds and flower seeds will be planted without previous soaking of seeds.

Continue observations of plants noticed during the initial tour of the school. What do the trees, shrubs and flowers need? Use the book Travelers All to stimulate thinking regarding movement of the seeds from one place to another. Inject the importance of earth worm or animal aid to growth of plants.

Pictures of trees, shrubs, vegetables and flowers may be cut from old magazines and garden catalogs for murals and scrap books.

RESOURCE MATERIALS

Books

Foster, Willene, and Pearl Queres, Seeds are Wonderful.
New York: Lothrop, Lee and Shepard Company, Inc., 1961.

Selsam, Millicent, Play With Plants. New York: William
Morrow and Company, 1949.

Webber, Irma E., Travelers All. Eau Claire, Wisconsin:
E. M. Hale and Company, 1953.

III. HOW DO ANIMALS GROW?

Many children possess a natural fondness for animals and the desire to own an animal of their own. There is a curiosity in children concerning nature. Animals in the homes and classroom stimulate interest and questions that may add much to the learning activities in the classroom.

Plants provide a more rapid answer to questions the young child may have concerning seeds and how they grow and the realization that in each plant seed, or egg, is potentially a baby plant. Children can see and feel plant seeds as they develop. It is hoped that these learnings will add to their concepts of animal life and how animals begin. Even though children cannot always see and touch this egg, they may better understand that animals also begin from an

egg, as do plants. If the comparisons are sufficient in number and the learning situations are presented as discoveries rather than telling facts, children will want to learn.

The concept of the beginning of human life may be more easily related to the birth and growth of animals as children care for and observe their pets and the animals brought into the classroom or visited by the children.

QUESTIONS FOR STUDY

INTRODUCTORY LEARNING SITUATIONS

What are animals?

Animals are living things that can move alone and go through a full life cycle. There are many kinds of animals, yet each animal produces its own kind. Domestic and wild animals, sea life and fowl will be studied. Insects observed by the children will be discussed.

How do animals start?

Animals follow a pattern of growth, whether born alive from the mother or hatched from an egg that can be seen. Chicken eggs will be incubated in the classroom. Frog eggs will be studied and litters of kittens and puppies observed.

Why do animals have families?

Animals produce young just like themselves and care for their young until the baby animals can take care of themselves. Mother animals with young will be brought to the classroom so that children can see the nursing process, or enjoy viewing the young learning to protect themselves while playing with the mother.

What do animals need in order to grow?

Animals need food, water, shelter and care to grow. Visits to the animal clinic and veterinarians will be scheduled to coincide with

the room experiments done with rats and mice. This situation is intended to help the children develop a sense of responsibility in caring for pets and animals.

FUNDAMENTAL LEARNING

SUGGESTED ACTIVITIES

We learn about animals.

1. There are many kinds of animals.
2. Animals are living things.
3. Animals need care.
4. Some animals can live in the school room.
5. Some animals must live outside.
6. We can learn more about animals from books, films, pictures, songs and people.
7. Some animals can be handled by the children.
8. Some animals and insects should not be touched by the children.
9. We can bring our pets to school to share with others.

At the beginning of the school year introduce animal life in the classroom by planning and stocking the aquarium. White rats may be available from the research clinic at Madigan General Hospital, Fort Lewis. Hamsters or gerbils will be added to the classroom display. Children will be invited to bring their own pets, with confirmation of parents and teacher.

Insects, earthworms, butterflies and other living creatures frequently observed by children will be studied and displayed on science table or Show and Tell corner.

"Animals," the Primary Concept Charts, will be used to introduce new understandings and strengthen concepts. The study plans accompanying the set will be utilized in planning. Charts will be posted on the bulletin boards for children.

Class members will be encouraged to cut pictures of animals from old magazines in the room. Zig-Zag scrapbooks will be made individually by children.

Let's Go Outdoors will encourage outdoor observations. Bufo, The Story of a Toad, Spike, The Story of a Whitetail Deer, and Stripe, the Story of a Chipmunk will be used to encourage study of other animals around the children as they visit Mt. Rainier or the Kiddy Fish Pond at Fort Lewis.

Animals Do the Strangest Things, I Like Butterflies and Feathered Friends will be read to the class.

RESOURCE MATERIAL

Books

Aulaire, Ingri, and Edgar d', Animals Everywhere. New York: Doubleday and Company, 1954.

Blough, Glenn O., An Aquarium. Evanston, Illinois: Row, Peterson and Company, 1953.

Conklin, Gladys, I Like Butterflies. New York: Holiday House, 1960.

_____, I Like Caterpillars. New York: Holiday House, 1960.

_____, I Like Insects, New York: Holiday House, 1960.

Flack, Marjorie, Tim Tadpole and the Great Bullfrog. New York: Doubleday and Company, Inc., 1934.

Gay, Zhenya, What's Your Name? New York: The Viking Press, 1955.

_____, Who Is It? New York: The Viking Press, 1957.

Hogan, Inez, _____. New York: E. P. Dutton and Company. (The thirteen books in the "Twin" series are listed in Annotated Listing of Resource Material.)

Hornblow, Leonora and Arthur, Animals Do the Strangest Things. New York: Random House, 1964.

Huntington, Harriet, E., Let's Go Outdoors. New York: Doubleday and Company, Inc., 1939.

McClung, Robert M., Bufo, The Story of a Toad. New York: William Morrow and Company, 1952.

_____, Spike, The Story of a Whitetail Deer. New York: William Morrow and Company, 1952.

McClung, Robert W., Stripe, The Story of a Chipmunk. New York: William Morrow and Company, 1951.

Parrish, Jean J., Forest Babies. Chicago: Children's Press, 1955.

Tresselt, Alvin, Wake Up, Farm! New York: Lothrop, Lee and Shepard Company, Inc., 1955.

Watson, Jane Werner, Plants and Animals. New York: Simon Schuster, 1958.

Watts, Mable, Feathered Friends. Chicago: Rand McNally and Company, 1957.

Charts

Nasca, Donald, "Animals," The Instructor Primary Science Concept Charts.

Flannel Board Stories

Frost, Marie, Winkie Bear Stories. Elgin, Illinois: David C. Cook, Publishing Company, 1965.

Song Books

Crowinshield, Ethel, Songs and Stories About Animals. Boston: The Boston Music Company, 1947.

Story Boards

"The Butterfly," "The Frog," "The Robins," "The Squirrel," by Judy, Sequence Story Board, The Judy Company, Minnesota.

Wildlife Federation

National Wildlife Federation, Ranger Rick's Nature Magazine.

FUNDAMENTAL LEARNING

SUGGESTED ACTIVITIES

We learn how animals grow.

1. Some animals are hatched from eggs we can see.

Introduce unit by using the animal portion of All About Eggs so that the children may better visualize that frogs, bees, turtles, birds and chickens are hatched from eggs they can see. What's Inside? will

2. Some animals are born alive. These animals come from eggs in the mother. be used to strengthen the concept that certain animals are hatched from eggs.
3. A rooster must fertilize the eggs of the hen so that chickens will hatch. Fertilized eggs will be incubated. Twenty-one days required for hatching will be charted on a calendar. Arrangements will be made for the care of the chickens at a nearby farm after ten days of observation in the classroom. Grown chickens will be brought in for short periods.
4. Chicken eggs must be kept warm to hatch. View film, "Human and Animal Beginnings" and colored slides #11 to #25 of "How Babies Are Made." The film-strip "Finding Out How Animals Grow" will be used. The film "Fertilization and Birth" will be used when feasible.
5. Changes take place in the egg during the 21 days.
6. Some animals grow in their mothers for a long time before they are ready to be born. In the spring, children will go on walks to observe birds building nests or eggs in the nests. The Kiddy Pond will yield frog eggs or tadpoles. Fish eggs will be preserved in alcohol when discovered in newly-caught fish. Clear plastic containers will be available for caterpillars, insects and worms brought for the science display.
7. For a baby animal to begin to grow there must be a mother and father.
8. Sometimes we can tell when our pets are going to have babies. Visits to the school science room will be made to study the 21-day record of the chick embryo, or the many species of sea life preserved in alcohol.
9. We must help baby animals to grow.

RESOURCE MATERIALS

Books

- Flack, Marjorie, Tim Tadpole and the Great Bullfrog. New York: Doubleday and Company, Inc., 1934.
- Fritz, Jean, Growing Up. Chicago: Rand McNally and Company, 1956.

Garelick, May, What's Inside? New York: Scholastic Book Services, 1968.

Geisel, Theodore, Horton Hatches the Egg. New York: Random House, 1940.

Krauss, Ruth, The Growing Story. New York: Harper and Brothers, 1947.

McClung, Robert M., Bufo, The Story of a Toad. New York: William Morrow and Company, 1954.

_____, Spike, The Story of a Whitetail Deer. New York: William Morrow and Company, 1952.

_____, Stripe, The Story of a Chipmunk. New York: William Morrow and Company, 1951.

Parker, Bertha Morris, The Wonders of the Seasons. New York: Golden Press, 1966.

Selsam, Millicent, All About Eggs. New York: William R. Scott, 1952.

Films

"Fertilization and Birth," E. C. Brown Trust Foundation.

"Finding Out How Animal Babies Grow," SVE Film Service.

"Human and Animal Beginnings," E. C. Brown Trust Foundation.

Slides

"How Babies Are Made," Creative Scope, Inc.

FUNDAMENTAL LEARNING

SUGGESTED ACTIVITIES

We learn animals have families.

Show film "Mother Hen's Family".
Review meaning of "hatched" and "born alive."

1. There are father, mother and baby animals. These are families too.

Discuss the facts learned from films, books and observations that like begets like: dogs have puppies, cats have kittens, horses have

2. Baby animals look like their parents. colts, and hens lay eggs that will produce chickens if certain conditions are present, such as an egg fertilized by a rooster, and warmth during the 21-day period of incubation.
3. Baby animals change as they grow and look more like their parents. Animal Friends will help children learn correct terminology for the father, mother and baby animals.
4. Baby animals learn from their parents. Use a projector to show enlarged pictures of animals, page 35, in Parents' Responsibility. Children may identify animals that bear the young alive and those laying eggs to be hatched.
5. Mother animals may carry baby animals in their body until they are ready to be born. Children will use old magazines to cut and collect pictures of animal families, or of baby animals with a mother or father like itself. These may be mounted individually or in a zig zag book.
6. Some mother animals may lay eggs we can see. Baby animals may come from these eggs. Baby animals need the protection and care of their parents, but for a shorter period, than do children. Observe litters of puppies and kittens with their mothers in contrast to chickens hatched in incubator without mother hen.
7. Animal babies must have a father to be born or hatched.
8. Just as plants produce more plants, we need animals to produce more animals.
9. Animal babies are dependent upon their parents.

RESOURCE MATERIAL

Books

Adam, Barbara, The Big Big Box. New York: Doubleday and Company, 1960.

Blough, Glenn O., Animals and Their Young. Evanston, Illinois: Row, Peterson and Company, 1953.

Parrish, Jean J., Forest Babies. Chicago: Rand McNally and Company, 1959.

Podendorf, Illa, Animal Babies. Chicago: Children's Press, 1955.

Ratzenberger, Anna, Animal Mothers and Babies. Chicago: Rand McNally and Company, 1956.

Selsam, Millicent, All About Eggs. New York: William R. Scott, 1952.

Weil, Ann, Animal Friends. Chicago: Children's Press, 1956.

Charts

"Animals," The Instructor Primary Science Concept Charts.

Films

"Mother Hen's Family," Coronet Films.

Flannel Board Stories

Frost, Marie, Winkie Bear Stories. Elgin, Illinois: David C. Cook Publishing Company, 1965.

Pamphlets

Lerrigo, Marion and Helen Southard, Parents' Responsibility. Chicago: American Medical Association, 1962.

Slides

"How Babies Are Made," Creative Scope, Inc.

FUNDAMENTAL LEARNING

SUGGESTED ACTIVITIES

We learn what animals need to help them grow.

1. Baby animals need parents to care for them.

Continue observations of newly-hatched chickens, litters of mammals with mothers and the animals in the classroom to confirm reasons for regular feeding, watering, cleaning and care of animals.

- | | |
|---|--|
| 2. If baby animals do not live with their mothers and fathers, children can help care for them. | Visit the animal clinic at Fort Lewis. Note cleanliness of area. Ask for information on feeding and the kinds of food given to animals at the clinic. |
| 3. There are animal doctors to help take care of sick animals. | Ask the veterinarians to show how they help animals stay well. Ask about care given sick animals. Discover how the class can help when they discover sick or lost animals and of precautions they should take around animals. |
| 4. Animals need food, water, good care and a place to live. | Schedule trips to Point Defiance Zoo and Baby Animal Farm at Olympia to observe animals in natural-type settings. Note whether animals eat meat or plants and whether all baby animals drink milk. |
| 5. Animals in the classroom or home need good care. | |
| 6. Animals on the farm need good care. | A bulletin board display will feature the pictures "We All Like Milk." |
| 7. Animals in the zoo or park need care. | Cooperate with the teacher and third grade class sponsoring a Mini Farm at school. For one day a mare and colt, ewe and lamb, doe and bunnies, hen and chickens, cat and kittens, dog and puppies, fish and birds will be exhibited for children to feed, pet and observe. |
| 8. Many animals have no people to feed them. They care for themselves. | |
| 9. Different animals eat different kinds of food. | Draw "Thank you" pictures to send people helping us learn to care for animals. |

RESOURCE MATERIAL

Books

- Adelson, Leone, All Ready for Winter. New York: David McKay Company, Inc., 1952.
- Aulaire, Ingri, and Edgar d', Animals Everywhere. New York: Doubleday and Company, 1954.
- Bedford, Annie North, The Jolly Barnyard. New York: Golden Press, 1950.

Blough, Glenn O., Animals and Their Young. Evanston, Illinois: Row, Peterson and Company, 1952.

Greene, Carla, I Want to be an Animal Doctor. Chicago: Children's Press, 1956.

Parrish, Jean J., Forest Babies. Chicago: Rand McNally and Company, 1959.

Podendorf, Illa, Animal Babies. Chicago: Children's Press, 1955.

Ratzenberger, Anna, Animal Mothers and Babies. Chicago: Rand McNally and Company, 1956.

Pictures

"We All Like Milk," National Dairy Council.

Song Books

Dalton, Alene, Myriell Ashton, and Erla Young, My Picture Book of Songs. Chicago: M. A. Donohue and Company, 1947. (pages 15, 51, 57.)

IV. HOW DO CHILDREN GROW

The teacher concerned with developing an understanding of animal and human reproductions will find varied opportunities for emphasizing the naturalness of the process of reproduction. The teacher should be able to help the children acquire a healthy attitude of acceptance of the process in all its forms.

The home and family relationship is of much importance to the young child. Love and care on the part of the parents is emphasized at this age. Since the child has much faith in the teacher it is possible for the teacher to use some influence to build up the importance of the father, mother, brothers and sisters.

The areas to be presented elicit questions and the answers will bring the basic information the child wants and can understand.

QUESTIONS FOR STUDY

INTRODUCTORY LEARNING SITUATIONS

How do children begin?

Strengthen children's knowledge of human reproduction and answer any questions that arise--even to the extent of letting planned activities remain uncompleted. Reinforce previous learning situations from study of plant and animal reproduction so that the children assimilate similarity. Encourage questions.

Children are human beings, born by their mothers, who also go through a life cycle. Exposure to films, books and pictures as well as the associations developed from plant and animal growth will be used.

Why do children belong to families?

The importance of all family members will be stressed as will the roles each person in the family must assume. Father's employment must be recognized as essential to the welfare of the family. Parents are mothers and fathers of children born to them.

What do children need in order to grow?

Children need certain conditions to grow--milk and food, water, shelter or homes, oxygen or air, exercise, clothing and care. Investigations will be encouraged to learn importance of good diet, proper clothing and shelter and necessity for cleanliness. The importance of love will be continually stressed.

Washington State Guide for Health Education, K-6 (47:1) will be used as a guide for suggested activities.

FUNDAMENTAL LEARNING

SUGGESTED ACTIVITIES

We learn children are born alive by their mothers.

1. All life begins from an egg (or egg cell.) In mother's ovary are the egg cells.
2. Babies begin to grow when an egg cell inside the mother is joined by sperm (or sperm cell) from the father's body.
3. The uterus in the mother's body is the place where the egg will change into a baby.
4. Babies grow inside the mother for nine months. They are born alive.
5. Babies come out through the vagina.
6. Babies must have a mother and father. The sperm cell from the father enters the body of the mother when father places his penis in the mother during mating.
7. Fertilization is the time when the egg of the mother is entered by father's sperm.

Review All About Eggs to build or strengthen concept of children being "born alive" and that the mother carries the baby in a special place in her body until the baby is ready to be born. Review Growing Up.

If children have asked no questions as to how babies are born, or where they come from, the teacher will say, "Jimmy told me he has a new baby brother. Are any of you expecting a new baby in your home?"

Ask children if they are babies now and when the answer is negative the teacher will add, "No, you are five years old--let's sing a song about being five." Sing "I Am Five," My Picture Book of Songs, page 11.

Read The Story of You or sections needed to answer questions.

Show selected slides from "How Babies Are Made" and use as review of plants, animals and children's beginnings. Continually stress correct terminology and vocabulary.

Allow sufficient time to answer all questions. To answer the question, "Where did I come from?" use story example in New Ways in Sex Education, page 227. What Shall I Tell My Child, pages 89-91 and 91-96, suggests stories to be told children concerning their birth and the birth of new babies in the family. New Ways in Sex Education offers additional resource material, pages 233, 241 and 243.

Much use will be made of the twelve charts that make up Beginning The Human Story: A New Baby in the Family throughout the unit. The first six charts will be used with this fundamental learning, that of babies being born alive.

8. Mothers and fathers
love each other very
much and that is why
they want to have
babies.

"Five Years Old"

When I was one year old,
I was very, very small.
(children kneel low)

Now I'm five years old
And I've grown up big and tall.
Author Unknown.

The films "Human and Animal Begin-
nings" and "Fertilization and Birth"
will be repeated as needed.

New Brother--New Sister, The Wonder-
ful Story of You, All About Babies,
Where Do Babies Come From? A Baby
Is Born, and A Doctor Talks to 5-to-
8-Year-Olds will be used as supple-
mentary material throughout the
development of the birth concept.

RESOURCE MATERIAL

Books

Anglund, Joan Walsh, Love Is a Special Way of Feeling.
New York: Harcourt, Brace and World, Inc., 1960.

Baruch, Dorothy, New Ways in Sex Education. New York:
McGraw-Hill Book Company, 1959.

Cockefair, E. A. and Ada M., The Story of You. Madison,
Wisconsin: Milam Publications, 1955.

Fielder, Jean, New Brother, New Sister. New York: Golden
Press, 1966.

Fritz, Jean, Growing Up. Chicago: Rand McNally and Com-
pany, 1966.

Gruenberg, Sidonie M., The Wonderful World of How You Were
Born. Doubleday and Company, Inc., 1959.

Johnson, Dorothy G., All About Babies. Grand Rapids,
Michigan: Zondervan Publishing House, 1962.

Kaufman, Dorothy B., Where Do Babies Come From? Detroit,
Michigan: Harlo Press, 1965.

Levine, Milton, and Jean Seligmann, A Baby Is Born. New York: Golden Press, 1965.

Meilach, Dona, A Doctor Talks to 5-to-8-Year-Olds. Chicago: Budlong Press Company, 1966.

Charts

Fricke, Irma, Beginning the Human Story: A New Baby in the Family. Glenview, Illinois: Scott, Foresman and Company, 1967.

Films

"Fertilization and Birth," E. C. Brown Trust Foundation.

"Human and Animal Beginnings," E. C. Brown Trust Foundation.

FUNDAMENTAL LEARNING

SUGGESTED ACTIVITIES

We learn why children need families.

1. When a baby is born it becomes a member of a family.
2. Sometimes there is only a man and a woman in the family.
3. When a baby is born the man and woman become father and mother to the child.
4. Some families have many children.
5. Sometimes others live with a family, such as grandmothers, grandfathers, aunts, uncles or cousins.
6. Families live in houses, apartments, boats, tents and house trailers.

Read Papa Small and Let's Play House.

What is a family?

Name members of a family: Father and mother, brother, sister, grandmother, grandfather, uncles, aunts, cousins.

Draw and paint picture stories of family members. Tell where they live and what they do.

Use old magazines and cut pictures of homes, people and families to arrange in booklets.

Stress importance of living in a family and responsibility each member must assume. Children need families to take care of them. Babies cannot take care of themselves. Children cannot take care of themselves for any length of time. Read Just Like Mommy, Just Like Daddy, I Am a Boy, I Am a Girl, Grandfather and I, Grandmother and I.

7. There are families all over the world. Continue using charts Beginning the Human Story, number 6 through 12.
8. Each member of the family has a job to do. Father must work to earn money for the family. "The Family Begins the Day" is a filmstrip to be used at this time. Wherever children live, they need families. Read Come Over to My House to illustrate that children all over the world live in different homes and practice different customs, yet they belong to a family.
9. Some mothers work outside the home to earn money. Daddies, What They Do All Day will stress importance of father's role in the family when read to class. Fathers work to earn money to buy food and clothing and a place to live for the families. Fathers play with their children too. Sing "Fun With Daddy," page 14, Sing a Song.
10. Mother must also work at home and children have duties at home. Children sometimes need help to understand that mothers actually work at home and do not need employment outside the home to "work." Read What Do Mothers Do? Listen to the record "Let's Help Mommy."
11. Some children do not live with their real daddy and mother. You may have step-parents who love you. The matter of adopted children belonging to a family may develop or be introduced with the Chosen Baby. Just as children need families and a home, some families want a baby to love and adopt a child. Use of kindergarten playhouse for dramatization and role playing will be encouraged with many clothes for dress-up time. Boys will be needed as fathers or community helpers.
12. Some of you may live with step-parents and visit your real mother or father. The difference between boys and girls will be introduced by pacing if questions do not arise. If fact arises that boys have a penis and girls do not, children will be told boys have
13. Girls like to pretend they are mothers. Boys may play that they are daddies. Daddies take care of the children in the kindergarten playhouse.
14. Girls are important. They may grow up to be mothers.
15. Boys are important. They may grow up to be fathers.

a penis and girls have a vagina for special reasons that are equal in importance. New Ways in Sex Education, page 230, gives an easily told explanation, "What's the Difference Between Men and Women and Boys and Girls?"

RESOURCE MATERIAL

Books

Baruch, Dorothy, New Ways in Sex Education. New York: McGraw-Hill Book Company, 1959.

Buckley, Helen E., Grandfather and I. New York: Lothrop, Lee and Shepard Company, Inc., 1959.

_____, Grandmother and I. New York: Lothrop, Lee and Shepard Company, Inc., 1959.

Higgins, Don, I Am a Boy. New York: Golden Press, 1966.

_____, I Am a Girl. New York: Golden Press, 1966.

Knoche, Norma, A Story About Me. Racine, Wisconsin: Whitman Publishing Company, 1966.

_____, What Do Mothers Do? Racine, Wisconsin: Whitman Publishing Company, 1966.

Lenski, Lois, Let's Play House. New York: Oxford University Press, 1944.

_____, Papa Small. New York: Oxford Press, 1951.

Le Sieg, Theodore, Come Over to My House. New York: Random House, 1966.

Puner, Helen Walker, Daddies, What They Do All Day. New York: Lothrop, Lee and Shepard Company, 1946.

Simon, Patty, Just Like Mommy, Just Like Daddy. New York: Grosset and Dunlap, 1952.

Wasson, Valentine, The Chosen Baby. New York: J. B. Lippincott, 1950.

Filmstrips

"The Family Begins the Day," Handy.

Records

"Let's Help Mommy," Children's Record Guild.

FUNDAMENTAL LEARNING

SUGGESTED ACTIVITIES

We learn what children need to help them grow.

1. After children are born they need food, places to live and clothes to wear.
2. Children must have someone to take good care of them when they are growing up. Children need love too.
3. Children do not grow as fast as plants and animals.
4. Plants and animals help us grow. We get food from them.
5. Many other things we need come from plants and animals; trees for wood, cotton for cloth, hides for leather.
6. Good food is needed for growth.
7. Many people help us grow and take care of us. We learn about our many community helpers.

After children are born, they need certain conditions to grow. Listen to "The Carrot Seed" record or book for better realization that plants need certain things to grow, and that they may grow slowly. Some children grow rapidly. Read The Growing Story, The Very Little Girl, The Very Little Boy and Patrick Will Grow.

The Little Boy and the Birthdays shows significance of birthdays in marking the growing-up period and to celebrate the day children were born.

As children grow, they must prepare for different seasons, just as the plants and animals do. Read All Ready for Winter, The Wonders of the Seasons, How Do You Travel? and Autumn Harvest to stress dependency of plants, animals and children upon each other.

We learned children need families to care for them until they are grown. Families provide food, homes, clothing and care so that children can grow. That is the reason daddy works at his job and mother works at home.

A nutrition unit will be incorporated to develop understanding of kinds of food children need to grow and the sources of the food, again stressing the dependency of humans upon plants and animals.

8. We must also help in our homes by doing our duties as we do at school.

Love and care may be provided by people other than family. Doctor, dentist, nurse, teacher, minister, baby sitter and friends are needed.

9. When we help our parents we can do many things. We can learn to do things just like our parents.

The New Sitter, The Magic-Friend Maker, I Want To Be a Doctor, I Want To Be a Nurse, I Want To Be a Teacher are books to be read.

When we grow up we will know how to do our work and be good mothers and fathers.

Bigger and Bigger is a story about the first six years of twins and how they grew, to be used when discussing multiple births and in conjunction with the "Twin" series by Hogan. The Most Beautiful Tree in the World is a Christmas story that tells of the birth of a new baby in a family made happy by giving something they loved to someone else.

Help children realize they are very important members of their family and they have responsibilities to assume. Let them visualize their ambitions for adulthood and provide unlimited opportunities for role-playing in the kindergarten.

Use National Dairy Council pictures of "What We Do Day By Day" and "We All Drink Milk" for display.

Children will need to understand that just as their parents provide food, shelter, clothing, care and love as they grow, they will provide the same for their children when they become parents. A Tiny Baby for You may help children anticipate a new baby in the home.

Winkie Bear stories will be used in discussing the growing-up period: "It's Fun to Grow Up" and "Winkie Is Glad for His Family," page 9.

Read When I Grow Up.

RESOURCE MATERIAL

Books

- Abel, Ruth, and Ray, The New Sitter. New York: Oxford University Press, 1950.
- Adelson, Leone, All Ready for Winter. New York: David McKay Company, Inc., 1952.
- Bond, Gladys Baker, The Magic Friend-Maker. Racine, Wisconsin: Whitman Publishing Company, 1966.
- _____, Patrick Will Grow. Racine, Wisconsin: Whitman Publishing Company, 1966.
- Buckley, Helen E., The Little Boy and the Birthdays. New York: Lothrop, Lee and Shepard Company, Inc., 1965.
- Friedman, Frieda, When I Grow Up. Kenosha, Wisconsin: Samuel Lowe Company, 1966.
- Greene, Carla, I Want To Be a Doctor. Chicago: Children's Press, 1960.
- _____, I Want To Be a Nurse. Chicago: Children's Press, 1959.
- _____, I Want To Be a Teacher. Chicago: Children's Press, 1960.
- Hogan, Inez, Bigger and Bigger. Boston: D. C. Heath and Company, 1955.
- Krasilovsky, Phyllis, The Very Little Boy. New York: Doubleday and Company, 1953.
- _____, The Very Little Girl. New York: Doubleday and Company, 1953.
- Krauss, Ruth, The Growing Story. New York: Harper and Brothers, 1947.
- Langstaff, Nancy and Suzanne Szasz, A Tiny Baby for You. New York: Harcourt, Brace and World, Inc., 1955.
- Parker, Bertha Morris, The Wonders of the Seasons. New York: Golden Press, 1966.

Schlein, Miriam, How Do You Travel? Nashville, Tennessee:
Abindgon Press, 1954.

Tresselt, Alvin, Autumn Harvest. New York: Lothrop, Lee
and Shepard Company, Inc., 1951.

Weisgard, Leonard, The Most Beautiful Tree in the World.
New York: Wonder Books, 1954.

Flannel Board Stories

Frost, Marie, Winkie Bear Stories. Elgin, Illinois:
David C. Cook Publishing Company, 1965.

Pictures

"We All Drink Milk," National Dairy Council.

"What We Do Day By Day," National Dairy Council.

Records

"The Carrot Seed," Children's Record Guild.

CHAPTER IV

EVALUATION OF CLASSROOM EXPERIMENT

Taking advantage of a formative year in a child's life to help him grow in responsibility for the future is a challenge. Rather than attempting to impart a large amount of information to children, it was the aim of the experiment to answer questions immediately and honestly and to use correct terminology for all functions and organs in the interest of developing good attitudes. This was deemed more important than just telling how babies are born. Children should receive sex instruction that will help them realize the importance of human sexuality and all that it offers, importance of character, the importance of being a boy or girl, man or woman. This is a challenge for any teacher inaugurating a program of sex instruction in a kindergarten.

I. FINDINGS OF THE STUDY

Procedure of Analysis

The weekly lesson plan of the kindergarten teacher was reviewed and approved each week by the school principal. Children's questions were recorded as a check on past teaching and a guide to future planning. Library books and most teaching materials used in class presentations were made available to the children and frequency of use was noted by the

teacher. A portable tape recorder was used in the class by the teacher as a check on the presentation method. The children listened to selected replays.

Individual personal history interviews were conducted by the classroom teacher as children entered school to accustom them to answering the questions of the teacher. This method provided an opportunity for personal contact which children appreciate and served as an introduction to the vocabulary tests of correct terminology used before and after each of the three units to test understanding. An example of the personal history form is included in the Appendix. Results of the vocabulary tests appear in the following section.

Three room mothers assigned to each session were asked to make frequent reports on parent and child reaction to the study. Frank and honest opinions were a valuable test guide even though all reactions were favorable.

An issue was made of introducing and using new or "big" words in all activities. Twin Dinosaurs by Inez Hogan was the book first used in the classroom to introduce the importance of new words. Correct terminology became more easily acceptable as "sets" and "numerals" were used in the number activities and "room responsibilities" were assumed as duties in the classroom. The speech therapist presented an educational television film naming "larynx" as another new word to designate an important helper in speech. The

preventive dentistry teaching of the Fort Lewis Dental Laboratory advocated using correct terminology and introduced new words for the children to use, such as "molar" and "cavity". The doctors in the small animal clinic used "male" or "female" when referring to the animals and referred to a "mare" and "filly" in the stables.

Much of the testing had to be subjective because of the frequent change in school population. The honest opinions and answers of the kindergarten children were essential in testing the presentations of the teacher in the classroom.

Results of the testing procedure. The three vocabulary tests used to test the children were administered individually at the convenience of the teacher and child. Before the initial presentation of each main topic of plant, animal and child growth, the children enrolled at that given period were checked, over a one-week period, on their understandings of words or terms listed in the Appendix. Four months after each initial presentation the children enrolled at that period were retested on the same material. Lack of plant terminology shown in the early testing was strengthened by repetition of much of the material in the spring unit on gardening and spring planting.

VOCABULARY TEST I -- PLANT GROWTH

MORNING KINDERGARTEN RESULTS

	September 18-22		*January 19-23	
	Right	Wrong	Right	Wrong
Egg	1	28	17	0
Ovary	0	29	13	4
Pistil	0	29	13	4
Pollen	4	25	15	2
Stamen	0	29	13	4
**	0	29	15	2

AFTERNOON KINDERGARTEN RESULTS

Egg	0	27	21	0
Ovary	0	27	19	2
Pistil	0	27	18	3
Pollen	1	26	21	0
Stamen	1	26	18	3
**	0	27	20	1

* Only those students enrolled in September, 1967, were individually tested in January, 1968.

** How are new flower seeds grown?

VOCABULARY TEST II -- ANIMAL GROWTH

MORNING KINDERGARTEN RESULTS

	October 16-20		*February 18-22	
	Right	Wrong	Right	Wrong
Dog _____	25	5	16	0
Cat _____	27	3	16	0
Horse _____	22	8	16	0
Sheep _____	18	12	16	0
Cow _____	18	12	16	0
Deer _____	1	29	16	0
Pig _____	21	9	16	0
Bear _____	1	29	15	1

AFTERNOON KINDERGARTEN RESULTS

Dog _____	28	2	23	0
Cat _____	29	1	23	0
Horse _____	25	5	23	0
Sheep _____	25	5	23	0
Cow _____	25	5	23	0
Deer _____	9	21	20	3
Pig _____	28	2	23	0
Bear _____	20	10	21	2

* Only those enrolled in October were individually retested.

VOCABULARY TEST III -- CHILD GROWTH

MORNING AND AFTERNOON KINDERGARTEN RESULTS*

	November 13-17				**March 18-22			
	Right		Wrong		Right		Wrong	
	AM	PM	AM	PM	AM	PM	AM	PM
Anus	0	3	33	24	15	20	3	1
Breasts	3	7	30	20	18	21	0	0
Egg Cell	12	14	21	13	18	21	0	0
Mating	13	17	20	10	18	21	0	0
Ovary	8	10	25	17	18	20	0	1
Penis	13	14	20	13	18	21	0	0
Sperm	13	13	20	14	17	19	1	2
Testicles	15	13	18	14	13	17	5	4
Urine	27	22	6	5	18	21	0	0
Uterus	17	18	16	9	17	18	1	3
Vagina	19	20	14	7	18	20	0	1

* The children associated vocabulary of human growth with that of animal growth to gain answers.

** Only those enrolled in November were individually retested in March.

Child reaction. The kindergarten children accepted new facts and information easily, with many questions being asked throughout the period of testing. They were slow to use correct bathroom terms because of the reluctance of the family at home to change terminology. Parents reported that experiences and learnings were related to younger and older siblings with a great deal of accuracy and enthusiasm. There were spontaneous requests to reread a certain book or to review films and slides. Some of the materials were used in the large play house during role-playing activities, with the "teachers" using the materials accurately.

A constant turnover in enrollment during the school year made it necessary for members of the class to inform new pupils of previous learnings and experiments, or to correct misinformation. The children beginning the school year together evidenced displeasure on several occasions when new students misinterpreted the meanings in the study or ridiculed correct terminology being used by the group. When one new boy laughed at the term "room duty" he was told by a boy that it did not mean anything but "responsibility." Those who asked permission to "pee," "make potty," or "go wee" were given the classroom terms of "urinate" or "use the lavatory" as substitutes. Flushing the toilets after a "bowel movement" became a big issue with the children. The reason for the urinal in the boys' bathroom was explained during the initial

"Get Acquainted" tour of the kindergarten area in the fall and as each new child entered school.

Material that had been previously presented and subsequently repeated in a different approach was assimilated more readily the second time. The students often related the similarity in learning. The fall unit pertaining to plants and seeds made the spring planting of seeds and the garden more meaningful and required less teacher guidance. Children were enthusiastic about using their learnings in the annual Spring Science Fair sponsored by the school. Many of the youngsters chose a form of planting for individual projects originated at home.

Repetition of the simple vocabulary tests presented at the conclusion of the three sections in the study showed good retention in the small percentage of children able to complete the entire year in the classroom. Children commencing later in the school year showed less understanding of terms used. No formerly enrolled five-year-olds were available for retesting. The boys and girls involved in the study were able to accept classroom observation by student teachers, parents and visitors easily and continued to present their findings with no obvious show of embarrassment.

Children have questions they want answered. If the homes and schools avoid the responsibility, children will go to their peers. This possibility became evident during

discussion periods when pooled information was often misinformation given by older brothers and sisters, especially concerning the birth and growth of children or that the dogs outside were "fighting" when mating.

Parent reaction. Parents were grateful and expressed appreciation for this program of sex education. They showed more cooperation than anticipated during parent-teacher conferences. There was sufficient interest in the study so that parents called to report incidents happening at home or to request aid in explanations and development of meanings in keeping with those being advocated in the classroom. The requests from parents for similar programs with older children were directed to school authorities. Mothers purchased some of the materials used in the program and recommended that such materials be made more easily accessible in the school. The few negative reports were received "second hand" and had originated from those parents not in attendance during the two meetings when the program was presented and explained and the teaching materials were demonstrated. The Administration reported no criticism of the project.

Many of the parents continued to express interest throughout the study. Siblings were brought to see displays of eggs hatching or a dog shark emerging from a placenta. Some parents reported they felt a necessity for caution when

uncertain of correct terminology, or that they had been corrected by the children.

Parents of lower economic status are often willing to purchase books for children but may be easily discouraged by the limited number available or the lengthy wait necessary for books not in stock. Enthusiasm for continuation of a school project is dimmed by this lack of material in the Fort Lewis library. Informal discussion sessions are being sought by some of the more interested parents as they better understand the goals of sex instruction in the kindergarten.

Parents are busy people involved in many community organizations and activities and work outside the home or army assignment. Yet, many of these same people are very interested in their children, the schools they attend, and the activities in which children engage. They showed the willingness to assume the responsibility for adequate sex instruction when advice and materials became available.

Administrative reaction. School authorities cooperated to the extent of recommending that the information in the program being tested be presented to a large parent-teacher organization at mid-year. The initial request for approval to present and test such a study in the kindergarten met with no disapproval, yet no assistance in funds or personnel was volunteered nor approved by the administration. Limited

released time was permitted for the teacher to attend regional meetings for professional improvement. There was no obvious supervision or observation of the study being presented in the classroom. Student teachers were informed of work being done and encouraged to visit the class to observe a variety of activities. There was no administrative comment at the termination of the project regarding future plans because of the uncertainty of the financial standing of the district. The school principal did comment favorably upon the teacher's work in sex education in a letter of recommendation written for official use.

Colleague reaction. Much interest was shown and admiration expressed by other teachers on the staff. None volunteered to assume the added responsibility for continuity of the program nor initiating such a program in other classrooms. Impetus was given to the project by the interest of the school psychologist, speech therapist, librarian and custodian. Teachers were considerate about offering or suggesting books and visual aids that would benefit the program. A colleague transported a mare and filly, doe and bunnies, dog and puppies, cat and kittens, bantaam and chickens to the play area of the school for observation. A third grade class originated the Mini-Farm to aid the two kindergarten sessions in their study of animals in the spring.

Funds were limited, yet the school librarian did allot available funds to secure materials for future use in sex education at all levels. The audio-visual department became more aware of the needs of the teachers in the area of sex education and of the available materials.

Community reaction. Community involvement is evidenced by the increasing number of communities backing programs of sex education in the schools. More community leaders are volunteering their services to be of use as resource people, or in reassuring the school administration of their sincerity in desiring a program of sex education for their respective areas. In the area under study there was interest shown by parents and teachers from other schools in the Du Pont district. Fellow-teachers reported on this specific study to administrators and teachers outside of the district and from them came requests for books being used in the project. The army chaplains and medical services were cooperative in offering their time and materials and making suggestions to strengthen the program to better meet the needs of the personnel at Fort Lewis, Washington. The Mental Hygiene Clinic provided the professional and personal services needed to provide the community cooperation.

General reaction. Many people express disbelief that there is a need for sex education in the kindergarten, or

amazement that such a project is being undertaken. A method of meeting the surprised reaction of some adults concerning such a project is the sincerity and belief of the teacher in the need for a program. Some people do react negatively to the complete frankness employed in this study. This has been met by showing the need for honesty in giving the children answers to their questions when they are asked. The need for using correct terminology easily and naturally is essential in creating an atmosphere of normal classroom procedures so that there is a general acceptance of a regular, well-balanced curriculum instead of something that is different and attention-getting. This specific project has offered much opportunity for adult education concerning the need for sex instruction with the younger children.

Whether the reaction of the public has been positive or negative, there is the assurance that the films, slides and pictures used are secured from reliable sources recommended by reputable organizations such as Sex Information and Educational Council of the United States, E. C. Brown Trust Foundation, or the National Council on Family Relations. The books are written by authors recognized as understanding the needs of children and meeting the school library requirements. There has been the assurance that materials are presented in an attractive kindergarten environment in the same manner and with the same enthusiasm as any of the other learning experiences in the curriculum.

Classroom teacher reaction. The writer may have gained the most from the study in the realization that sex instruction can be readily integrated with the learnings presented in the kindergarten. Adequate teaching aids provided sufficient reassurance to prevent a feeling of self-consciousness when presenting subject matter or terminology that was new to the children. The informality of the kindergarten procedure aided in fostering the spontaneity so important in this study.

CHAPTER V

SUMMARY AND RECOMMENDATIONS

I. SUMMARY

Sex education for the young child is now feeling the impact of professional scrutiny as educators are urged to recognize the need for honesty and immediacy in answering questions concerning reproduction. The importance of developing sound attitudes toward human sexuality being stressed by authorities needs fuller implementation by the classroom teacher. The lack of readily-available materials for the kindergarten child to use and the dearth of professional guidelines for the teacher prompted the project of developing a course of study for sex education in the kindergarten.

Compiling worthwhile publications and materials in sex education that children might use in a standard kindergarten classroom was an initial undertaking. Suggestions of specialists and professional organizations as to content and subject matter suitable for sex instructions for the five-year-old were used in gathering the teaching materials. Compilation was done under the assumption that parents would have access to the materials and findings to provide a home-school-child triangle of learning. Approval to test this course of study in a public school was granted by school

administration. The procedure was altered to meet the needs of a specific group of children, as advocated in the study.

As stated in the introduction, sex education for the young child is only as valuable as the manner in which it is conveyed. The review of literature confirmed this belief as the definition and philosophy of sex education were presented to include the feelings of authorities. Present trends point to a more general acceptance of sex education in the schools; yet more adult education is necessary to aid in more effective communication.

The program outlined in Chapter III was presented in only one kindergarten by one teacher. For fuller implementation the study should be used with children from another socio-economic standing or other areas of the country.

The importance of aiding in the development of sound attitudes, as stressed throughout the study, was evident from parent-teacher contacts. Foreign-born mothers were uncertain as to correct procedures to gain acceptance for themselves and their children. Often parents were aware of a lack of education and a stable home life during their own childhood. Many felt the lack of an adult model during their childhood, another factor this study emphasized. These conditions led to certain conclusions upon the completion of the study and are included in the following section as recommendations.

II. RECOMMENDATIONS

A course of study of sex education in the kindergarten has been developed and presented. Certain recommendations have materialized out of this program which may help to make any future similar attempts more meaningful for the children.

1. Sex education in the kindergarten. Schools must assume the responsibility for continuing the work of the home or beginning sex instruction and correcting the misinformation of children and parents.
2. Children's questions receive answers. Questions concerning reproduction, functions of the body, and respective roles in the present and future must be answered honestly and immediately by responsible adults.
3. Teaching and learning devices. Materials to be used with children as teaching and learning devices must be easily available and adaptable.
4. Teacher responsibility. Teachers must prepare themselves to be suitable adult models and to aid children in developing sound attitudes. To develop effective communication with children is obligatory.
5. Professional guidance. Specialists in the area of sex education should be available to give assistance to classroom teachers and interested

parents. Assistance should consist of guidance in learning activities, in more theories substantiated by research findings, and in providing a better understanding of the importance of effective communication with children. Constant updating of teaching materials and publications must be continued at a faster pace.

6. Released time for teachers. Released time should be provided for the classroom teacher involved in sex education to permit attendance at regional and national meetings to improve their training and to meet specialists in the field of sex education. The teacher working with community organizations must be given released time, with no pay deduction, to allow for sufficient preparation to work more effectively.
7. College responsibility. Colleges and universities responsible for training teachers must aid in preparing teachers to present sex instruction at all levels. The reference libraries must stock the new editions of books and teaching materials at date of publication to aid those people working in research. Sex education workshops for school administrators should be offered at this level.

8. School administrator responsibility. School administrators must take advantage of federal government allocations for promoting sex education studies in schools. Their capable teachers must be encouraged to pursue such studies and receive some form of compensation as do teachers in other areas of specialization.
9. Professional organization responsibility. There is a lack of audio-visual aids and resource materials produced at this higher level. Professional groups must meet the needs of the public school teacher in addition to publishing scientific and professional papers and findings.

Teachers who possess the ability to relate honestly to children should be encouraged to work with children and parents to instill responsibility in parent-child relationships, marriage relationships, friendships and courtships. This need for teachers to provide sex education in the schools is a challenge to education in general. Teachers, young and old, new or experienced, with the facility to comfortably impart information must be utilized to work with children, parents, colleagues and school administrators to present sex instruction in the schools today.

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APPENDICES

APPENDIX A

ANNOTATED LISTING OF RESOURCE MATERIAL

I. HOW PLANTS GROW

1. Books for Children

Blough, Glenn O., An Aquarium. Evanston, Illinois: Row, Peterson and Company, 1965.

Basic Science Education series for reference in starting and maintaining a balanced aquarium.

Foster, Doris Van Liew, A Pocketful of Seasons. New York: Lothrop, Lee and Shepard Company, Inc., 1961.

During the changes in seasons a boy puts a memento of each season in his pocket and gives them as a gift to the new baby in the family.

Foster, Willene, and Pearl Queres, Seeds Are Wonderful. New York: Melmont, 1963.

Facts about seeds are presented in simple language. Pictures are small, yet helpful in explaining text.

Hathaway, Polly, Backyard Flowers. New York: MacMillan Company, 1965.

Excellent educational illustrations and pictures to aid children in understanding of plant life.

Krauss, Ruth, The Carrot Seed. New York: Harper and Brothers, 1945.

A recording has also been made to accompany this book about the boy who planted a carrot seed. No one had faith in the growth of the carrot, except the young boy.

_____, The Growing Story. New York: Harper and Brothers, 1947.

A boy, a puppy and some chicks all grow, along with the grass and flowers, during the changes in seasons. The boy grows so much that he needs new clothes.

_____, The Happy Day. Eau Claire, Wisconsin: E. M. Hale and Company, 1949.

The animals were all happy when they awakened from a winter sleep to find a flower growing in the snow. They knew that spring had arrived.

Miner, Irene, The True Book of Plants We Know. Chicago: Children's Press, 1959.

Many facts about plants and seeds are given to add to the child's background of information. A worthwhile addition to the science library is this book.

Parker, Bertha Morris, The Wonders of the Seasons. New York: Golden Press, 1966.

What happens to plants, animals and children during each season? Colored pictures aid in depicting story.

Rey, H. A., Elizabete, Adventures of a Carnivorous Plant. New York: Harper and Row, 1942.

A fun book about a plant that eats flies and ants, and even tries to eat a man.

Selsam, Millicent, All About Eggs. New York: William R. Scott, Inc., 1952.

Valuable illustrations depicting the growth of animals and humans from an egg. Outstanding!

_____, Greg's Microscope. New York: Harper and Row, 1963

Mature illustrations and text of the importance of a microscope in studying plant and animal life. The children could become enthused with the suggested problems.

_____, Play With Plants. New York: William Morrow and Company, 1949.

Excellent reference material for teachers to use as experiments in kindergarten. Easily obtained vegetable tops and seeds are suggested for study.

_____, Seeds and More Seeds. New York: Harper and Brothers, 1959.

A story of how a seed grows, with many suggestions for experiments. Well done!

Tresselt, Alvin, Autumn Harvest. New York: Lothrop, Lee and Shepard Company, Inc., 1951.

Plants must be harvested and it is a rewarding time for families. Seasonal interests are mentioned in combining plants, animals and humans.

_____, Johnny Maple-Leaf. New York: Lothrop, Lee and Shepard Company, Inc., 1948.

In colorful illustrations, a maple leaf is followed from early spring to the end of fall. Animals are easily brought into the story.

Watson, Jane Werner, Plants and Animals. New York: Simon and Schuster, 1958.

Colored identification of plants and animals, combined with interesting facts for bettering concepts.

Webber, Irma E., Travelers All. Eau Claire, Wisconsin: E. M. Hale and Company, 1953.

Plants travel in many ways, just as animals travel. The illustrations are small, but meaningful.

_____, Up Above and Down Below. Eau Claire, Wisconsin: E. M. Hale and Company, 1953.

Plants grow up above and down below the earth. The story illustrates what is happening to seeds and bulbs.

Wood Dorothy, Plants With Seeds. Chicago: Follet Publishing Company, 1963.

Small, colored pictures of plants that grow all over the world. Plants are described as being alive, like animals, and as giving people and animals food.

2. Charts

Nasca, Donald, "Plants," The Instructor Primary Science Concept Charts, Dansville, New York: F. A. Owen Publishing Company, 1964.

A series of well-illustrated charts to aid in developing concepts.

3. Flannel Board Stories

Frost, Marie, "Benjie's Happy Surprise," Winkie Bear Stories, Dansville, New York: F. A. Owen Publishing Company, 1965.

Winkie is a flannel board puppet. Flannel board animals and properties accompany each story in series.

4. Records

"The Carrot Seed," Young Peoples Record Guild.

The sing-song repetition of the song delights the children as they learn about planting a carrot seed.

5. Slides

"How Babies Are Made," Creative Scope, Inc., 509 Fifth Avenue, New York, New York 10017.

A kit of thirty-four colored slides that tell the full story of reproduction for children.

6. Song Books

McLaughlin, Roberta, and Lucille Wood, Sing a Song. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1960.

A book of simple, fun songs to accompany kindergarten activities. Accompanying records are available.

7. Story Boards

"The Flower," by Judy, Sequence Story Board, The Judy Company, Minneapolis, Minnesota.

A puzzle board that requires pieces be placed in proper sequence to tell the story.

II. HOW ANIMALS GROW

1. Books for Children

Adelson, Leone, All Ready for Winter. New York: David McKay Company, Inc., 1952.

The story of animals and children preparing for winter.

Aulaire, Ingri, and Edgar d', Animals Everywhere. New York: Doubleday and Company, 1954.

Well-illustrated pictures of places animals live, the food they eat and what they do. Division of hot, cold and moderate climates is meaningful.

Adam, Barbara, The Big Big Box. New York: Doubleday and Company, 1960.

A perfect place for Patter, the cat, to have her five kittens is in the big box.

Bedford, Annie North, The Jolly Barnyard. New York: Golden Press, 1950.

Farmer Brown wants to feed the animals very well on his birthday. In return, they will give what they can, as the young make promises of what they will do when they are grown animals.

Blough, Glenn O., An Aquarium. Evanston, Illinois: Row, Peterson and Company, 1953.

Basic Science Education series for reference in starting and maintaining a balanced aquarium.

_____, Animals and Their Young. Evanston, Illinois: Row, Peterson and Company, 1952.

Descriptions of young animals, with small colored pictures. Good questions and observations are listed.

Caputo, Natha, The Animals Search for Summer. New York: Golden Press, 1966.

The discoveries the animals make as they go through the snow looking for summer is related in the story.

Conklin, Gladys, I Like Butterflies. New York: Holiday House, 1960.

Companion volume to I Like Caterpillars. Excellent reference for study of butterflies. Easily understood explanations of colored pictures.

Eastman, P. D., Are You My Mother? New York: Beginner's Books, Inc., 1960.

As a baby bird, lost from his nest, searches for his mother he meets many new animals.

Fritz, Jean, Growing Up. Chicago: Rand McNally and Company, 1956.

Beautifully illustrated examples of animals growing up. Conclusion presents the birth of a baby in the growing-up process.

Flack, Marjorie, Tim Tadpole and the Great Bullfrog. New York: Doubleday and Company, Inc., 1934.

Exciting surprise ending for the story of a tadpole who lived in a pond.

Foster, Doris Van Liew, A Pocketful of Seasons. New York: Lothrop, Lee and Shepard Company, Inc., 1961.

During the change of seasons, a boy puts in his pocket a memento of each season.

Gag, Wanda, Millions of Cats. Eau Claire, Wisconsin: E. M. Hale and Company, 1928.

A story about many pretty cats, told with the aid of wood-cut prints. The prettiest cat had once been an ugly little kitten.

Garelick, May, What's Inside? New York: Scholastic Book Services, 1968.

Photographs illustrate the hatching of an egg.

Gay, Zhenya, What's Your Name? New York: The Viking Press, 1955.

Questions about animals with pictures that answer the questions. Children are asked their names at the end.

_____, Who Is It? New York: The Viking Press, 1957.

Questions about animals and pictures of their footprints adds much interest to the story.

Geisel, Theodore, Horton Hatches the Egg. New York: Random House, 1940.

Horton, The Elephant, sits in a nest on an egg for lazy bird, Mayzie. After fifty-one weeks Horton hatches an Elephant-Bird. A fun book.

Greene, Carla, I Want To Be an Animal Doctor. Chicago: Children's Press, 1956.

The importance of doctors for animals, both well and sick, is pictured and explained.

Hogan, Inez, Bear Twins. New York: E. P. Dutton and Company, 1954.

A story in the "Twin Series" on how the two baby bear cubs live and learn to care for themselves.

_____, Dinosaur Twins. New York: E. P. Dutton and Company, 1963.

Prehistoric animals are presented with correct terminology that intrigues children.

_____, Giraffe Twins. New York: E. P. Dutton and Company, Inc., 1948.

Excellent comparison to other animals in the twin series.

_____, Mule Twins. New York: E. P. Dutton and Company, Inc., 1945.

Fun-loving mules and their circus life are shown.

_____, Twin Lambs, New York: E. P. Dutton and Company, Inc., 1951.

The lesson that all twin lambs must learn is told.

_____, Twin Otters. New York: E. P. Dutton and Company, Inc., 1962.

This is an informative accounting of twin otters born in a hole in the bank of a river.

Hornblow, Leonora, and Arthur, Animals Do the Strangest Things. New York: Random House, 1964.

Astonishing and little-known facts about well-known animals are told with the aid of fine illustrations.

Huntington, Harriet E., Let's Go Outdoors. New York: Doubleday and Company, Inc., 1939.

Excellent sepia-colored photographs of the living creatures to be found outdoors.

Krauss, Ruth, The Growing Story. New York: Harper and Brothers, 1947.

A boy, a puppy and some chicks all grow, along with the grass and flowers, during the changes in seasons.

_____, The Happy Day. Eau Claire, Wisconsin: E. M. Hale and Company, 1949.

The animals were all happy when they awakened to find a flower blooming in the snow--spring had arrived.

McClung, Robert M., Bufo, The Story of a Toad. New York: William Morrow and Company, 1954.

Egg-laying time in the pond is explained with fine black and white illustrations. Bufo is a toad tadpole who escaped the dangers of the pond and became a toad.

_____, Spike, the Story of a Whitetail Deer. New York: William Morrow and Company, 1952.

Spike, a four-pound fawn is just three hours old when the story commences. The story follows him through the first year of his life.

_____, Stripe, The Story of a Chipmunk. New York: William Morrow and Company, 1951.

A year in the life of a chipmunk--from the preparation his mother made for his birth until he has slept through a winter and spring arrives.

Parker, Bertha Morris, The Wonders of the Seasons. New York: Golden Press, 1966.

Large colored pictures tell what happens to plants, animals and children during each season.

Parrish, Jean J., Forest Babies. Chicago: Rand McNally and Company, 1959.

Beautifully illustrated pictures of the babies of the forest and the lessons they must learn.

Podendorf, Illa, Animal Babies. Chicago: Children's Press, 1955.

Factual story of how animal babies must be cared for, the changes they make in growth and that all animal babies come from big animals like themselves. Conclusion informs readers that nine months are required for baby brothers or sisters to be big enough to be born.

Ratzenberger, Anna, Animal Mothers and Babies. Chicago: Rand McNally and Company, 1956.

Pictures have been taken of live animals and compiled to show how mother animals care for young.

Schlein, Miriam, How Do You Travel? Nashville, Tennessee: Abingdon Press, 1954.

Animals and people travel in many different ways as noted in this story.

Selsam, Millicent, All About Eggs. New York: William R. Scott, 1952.

Valuable illustrations of animal and human growth.

_____, Greg's Microscope. New York: Harper and Row, 1963.

Mature illustrations depicting importance of the microscope in studying plant and animal life.

Tresselt, Alvin, Autumn Harvest. New York: Lothrop, Lee and Shepard Company, Inc., 1951.

Plants must be harvested and this is a rewarding time for families. Seasonal interests are noted in combining plant, animal and human habits.

_____, Johnny Maple-Leaf. New York: Lothrop, Lee and Shepard Company, Inc., 1948.

Following a maple leaf from early spring to the end of fall in colorful illustrations. Animals are easily introduced into the story.

_____, Wake Up, Farm! New York: Lothrop, Lee and Shepard Company, Inc., 1955.

How and where the animals live on the farm is told.

Watson, Jane Werner, Plants and Animals. New York: Simon and Schuster, 1958.

Good colored identification of plants and animals with many interesting facts for learning concepts.

Watts, Mable, Feathered Friends. Chicago: Rand McNally and Company, 1957.

Colorful paintings of birds familiar to children--good to include in an animal study.

Webber, Irma E., Travelers All. Eau Claire, Wisconsin: E. M. Hale and Company, 1953.

Plants travel in many ways, just as animals have different ways of traveling.

Weil, Ann, Animal Families. Chicago: Children's Press, 1956.

Outstanding pictures of entire family, illustrated with name terminology for father, mother and baby of twelve animal families. Excellent reference material.

2. Charts

Nasca, Donald, "Animals," The Instructor Primary Science Concept Charts, Dansville, New York: F. A. Owen Publishing Company, 1964.

A series of well-illustrated charts to aid in developing concepts. Accompanying manual is helpful.

3. Films

"Fertilization and Birth," E. C. Brown Trust Foundation, 3170 Southwest 87th Avenue, Portland, Oregon 97225.

A newer film to accompany "Human and Animal Beginnings" that is helpful for older children.

"Human and Animal Beginnings," E. C. Brown Trust Foundation, 3170 Southwest 87th Avenue, Portland, Oregon 97225.

Excellent colored film showing reproduction facts that are easily assimilated by children.

"Mother Hen's Family," Coronet Films, Coronet Building, Chicago, Illinois.

Easily adaptable to other kindergarten activities, as well as being beneficial visual aids material for hatching of eggs and caring for chickens.

"Tabby's Kittens," Arthur Barr Productions Inc., 1029 North Allen Avenue, Pasadena, California 91104.

The manner in which a mother cat cares for kittens interests the children as they learn good habits.

4. Filmstrips

"Finding Out How Animal Babies Grow," SVE film service.
Good to use to further explain care of animals.

5. Flannel Board Stories

Frost, Marie, Winkie Bear Stories. Elgin, Illinois: David C. Cook Publishing Company, 1965.

Winkie is a flannel board puppet. Flannel board animal and property cut-outs accompany each story.

6. Incubators

Childcraft Equipment Company (Two-egg incubator--\$3.00) 1155
East Twenty-third Street, New York, New York 10010.

Creative Playthings (Four-egg incubator--\$10.00) Princeton,
New Jersey 08540.

7. Pictures

"We All Like Milk," National Dairy Council, 111 North Canal
Street, Chicago, Illinois 60606.

Black and white photographs of many baby animals nursing
from their mothers or drinking milk in some way.

8. Slides

"How Babies Are Made," Creative Scope, Inc., 509 Fifth Avenue,
New York 10017.

Thirty-four colored slides that tell the story of re-
production for children from three to ten years old.

9. Song Books

Crowinshield, Ethel, Songs and Stories About Animals. Boston:
The Boston Music Company, 1947.

Drawings of children illustrate the simple songs.

Dalton, Alene, Myriell Ashton, and Erla Young, My Picture Book
of Songs. Chicago: M. A. Donohue and Company, 1947.

Large colored pictures accompany fun-to-sing songs.

Lloyd, Norman, The New Golden Song Book. New York: Simon and Schuster, 1955.

A large book filled with familiar songs and pictures.

McLaughlin, Roberta and Lucille Wood, Sing a Song. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1960.

Simple, fun songs to accompany kindergarten activities. Records to accompany most songs are available.

10. Wildlife Federation

National Wildlife Federation, Ranger Rick's Nature Magazine, 1412 Sixteenth Street, Northwest, Washington, D. C. 20036.

A magazine for children containing excellent colored photographs and nature stories.

III. HOW CHILDREN GROW

1. Books for Children

Abel, Ruth, and Ray, The New Sitter. New York: Oxford University Press, 1950.

Baby-sitters are important in our life today and a good relationship is illustrated.

Adelson, Leone, All Ready for Winter. New York: David McKay Company, Inc., 1952.

A picture story of how animals and children prepare for winter.

Anglund, Joan Walsh, Love Is a Special Way of Feeling. New York: Harcourt, Brace and World, Inc., 1960.

A delightfully illustrated book to aid in developing the concept of the importance of love within a family.

Bond, Gladys Baker, The Magic Friend-Maker. Racine, Wisconsin: Whitman Publishing Company, 1966.

For new-comers in the neighborhood, or children who are lonely, a rock can be a way to make new friends.

_____, Patrick Will Grow. Racine, Wisconsin: Whitman Publishing Company, 1966.

Family life is illustrated in the growth of a boy. His dreams include the period when he will be a man.

Bradfield, Jean and Roger, Who Are You? Racine, Wisconsin: Whitman Publishing Company, 1966.

Colorfully illustrated poetry riddles about each child pictured--asking where they live and what they do.

Buckley, Helen E., Grandfather and I. New York: Lothrop, Lee and Shepard Company, Inc., 1959.

The importance of a grandfather who has time to do things slowly with a youngster is the theme.

_____, Grandmother and I. New York: Lothrop, Lee and Shepard Company, Inc., 1959.

Grandmothers are very important in a child's life and offer much security.

_____, The Little Boy and the Birthdays. New York: Lothrop, Lee and Shepard Company, Inc., 1965.

The importance of remembering birthdays is related.

Cockefair, E. A., and Ada M., The Story of You. Madison, Wisconsin: Milam Publications, 1955.

A story for children of how the love of a man and a woman carry over into loving the child they bring into the world. Birth process is explained with pictures.

Fielder, Jean, New Brother, New Sister. New York: Golden Press, 1966.

A little boy's waiting period for his new baby sister or brother is explained and illustrated by seasons.

Friedman, Frieda, When I Grow Up. Kenosha, Wisconsin: Samuel Lowe Company, 1966.

A fun book of what children will do when they are grown. Simple colored illustrations are attractive.

Fritz, Jean, Growing Up. Chicago: Rand McNally and Company, 1956.

Beautifully illustrated examples of animals growing up. The text concludes with the growth of a baby.

Greene, Carla, I Want To Be a Doctor. Chicago: Children's Press, 1960.

Doctors are necessary to help babies as they grow. Some boys will be doctors when they grow up. Some girls may also be doctors.

_____, I Want To Be a Nurse. Chicago: Children's Press, 1959.

Nurses assist doctors when babies are born and as children grow. Many girls will be nurses when they are grown.

Higgins, Don, I Am a Boy. New York: Golden Press, 1966.
Simple and colorful illustrations of the importance of being a little boy.

_____, I Am a Girl. New York: Golden Press, 1966.
Simple, yet colorful, illustrations of what it means to be a little girl.

Hogan, Inez, Bigger and Bigger. Boston: D. C. Heath and Company, 1955.
The story of twins from birth to their entrance into school and their sixth birthday party.

Johnson, Dorothy G., All About Babies. Grand Rapids, Michigan: Zondervan Publishing House, 1962.
Children will enjoy various portions at different times as the story tells them about babies.

Kaufman, Dorothy B., Where Do Babies Come From? Detroit, Michigan: Harlo Press, 1965.
Pictures are done in black and white and tell the story for young children and their parents.

Knoche, Norma, A Story about Me. Racine, Wisconsin: Whitman Publishing Company, 1966.
Who am I? What do I do? Where do I live? A fun book for children to enjoy.

_____, What Do Mothers Do? Racine, Wisconsin: Whitman Publishing Company, 1966.
A pictorial story of the many roles mothers play in caring for their families.

Krasilovsky, Phyllis, The Very Little Boy. New York: Doubleday and Company, 1953.
The boys who are very little do grow, sometimes very slowly.

_____, The Very Little Girl. New York: Doubleday and Company, 1953.
The very little girl finally receives a baby even smaller than she, and in turn, she discovers the growth she has made.

Krauss, Ruth, The Growing Story. New York: Harper and Brothers, 1947.
A boy, a puppy, and some chicks all grow with the grass and flowers, during the changes in seasons. The boy grows so much he needs new clothes.

Langstaff, Nancy, and Suzanne Szasz, A Tiny Baby for You. New York: Harcourt, Brace and World, Inc., 1955.

With simple text and excellent photographs the joyful family event of a new baby is pictured.

Lenski, Lois, Let's Play House. New York: Oxford University Press, 1944.

Children play house and imitate their parents while role-playing. A fun book by Lois Lenski.

_____, Papa Small. New York: Oxford Press, 1951

The family works together and the importance of the family is stressed, with each member having roles.

LeSieg, Theodore, Come Over to My House. New York: Random House, 1966.

All around the world children live in different homes and observe different customs, yet it is good to have a friend wherever you are.

Levine, Milton, and Jean Seligmann, A Baby Is Born. New York: Golden Press, 1965.

Written for children between the ages of six and ten years; however, pictures can be shown and text explained to the five-year-old child.

Meilach, Dona, A Doctor Talks to 5-to-8-Year-Olds. Chicago: Budlong Press Company, 1966.

A direct, tactful approach to the events of reproduction, using photographs of animals, children, and famous works of art.

Parish, Peggy, My Little Golden Book of Manners. New York: Golden Press, 1962.

Because animals are always so very well-behaved they are used as examples to boys and girls.

Parker, Bertha Morris, The Wonders of the Seasons. New York: Golden Press, 1966.

What happens to plants, animals, and children during each season? Large colored pictures give explanations.

Puner, Helen Walker, Daddies, What They Do All Day. New York: Lothrop, Lee and Shepard Company, 1946.

The importance of daddies who go to work and the story of where they work so that mothers and children may have what they need.

Schlein, Miriam, How Do You Travel? Nashville, Tennessee: Abindgon Press, 1954.

Animals and people travel in many different ways in this story.

_____, The Sun, The Wind, The Sea, and The Rain. New York: Abelard Schuman, 1960.

People, plants and animals depend upon these four elements. When the elements quarrel, many others suffer.

Selsam, Millicent E., All About Eggs. New York: William R. Scott, Inc., 1952.

Outstanding book to use with children because of the simple vocabulary and informative pictures.

Simon, Patty, Just Like Mommy, Just Like Daddy. New York: Grosset and Dunlap, 1952.

Children will grow to be like their parents because they learn what to do by working with them.

Tresselt, Alvin, Autumn Harvest. New York: Lothrop, Lee and Shepard Company, Inc., 1951.

The harvesting of plants is a rewarding time for families. Seasonal interests are used in combining plant, animal and human contributions.

_____, How Far Is Far? New York: Parents' Magazine Press, 1964.

Distance, time and space are illustrated with the conclusions that "big is as big as the little boy who will grow up to be a father."

Wasson, Valentine, The Chosen Baby. New York: J. B. Lippincott, 1950.

A story about adoption, as told by the author to her adopted son when he was five years old.

Weisgard, Leonard, The Most Beautiful Tree in the World. New York: Wonder Books, 1954.

A Christmas story that brings happiness to a family because of a new baby and a good deed.

Wright, Betty Ren, This Room Is Mine. Racine, Wisconsin: Whitman Publishing Company, 1966.

A fun story with a thought-provoking message for the children who must share a room.

2. Films

"Fertilization and Birth," E. C. Brown Trust Foundation, 3170 Southwest 87th Avenue, Portland, Oregon 97225.

"Human and Animal Beginnings," E. C. Brown Trust Foundation.
These two films coordinate classroom teachings in reproduction and are excellent to use with children.

3. Filmstrips

"The Family Begins the Day," Handy.
Good to use when stressing the importance of responsibility in the home.

4. Pictures

Fricke, Irma, Beginning the Human Story: A New Baby in the Family. Scott, Foresman, 1967.
Twelve colored photographs of experiences in the family welcoming a new baby in the home. Very fine!

"We All Drink Milk," National Dairy Council, Chicago.
Black and White photographs of many baby animals nursing or drinking milk. Good bulletin board material.

"What We Do Day By Day," National Dairy Council, 111 North Canal Street, Chicago, Illinois 60606.
A useful set of colored illustrations depicting the life of children and their experiences.

5. Records

"Let's Help Mommy," Children's Record Guild.
Good for role-playing and dramatic play activities.

"The Carrot Seed," Children's Record Guild.
The repetition of words adds enjoyment for the children as they listen to the story of a carrot seed.

6. Slides

"How Babies Are Made," Creative Scope, Inc., 509 Fifth Avenue, New York, New York 10017.
Thirty-four colored slides explaining reproduction of plants, animals and humans, with text children can comprehend.

7. Song Books

Crowinshield, Ethel, Stories That Sing. Boston: The Boston Music Company, 1945.

Illustrations by children are used with each song.

Dalton, Alene, Myriell Ashton, and Erla Young, My Picture Book of Songs. Chicago: M. A. Donohue and Company, 1947.

Large colored pictures accompany fun-to-sing songs.

Lloyd, Norman, The New Golden Song Book. New York: Simon and Schuster, 1955.

Many familiar nursery songs are compiled in this book and enjoyable for dramatic play.

McLaughlin, Roberta, and Lucille Wood, Sing A Song. Englewood Cliffs, New Jersey: Prentice-Hall, 1960.

Simple, fun songs to accompany kindergarten activities. Records to accompany most songs are available.

8. Stories for Flannel Board

Frost, Marie, Winkie Bear Stories. Elgin, Illinois: David C. Cook Publishing Company, 1965.

Winkie is a flannel board puppet. Flannel board animals and properties accompany each story.

IV. TEACHER-PARENT REFERENCE

1. Books

Arnstein, Helene S., Your Growing Child and Sex. New York: Bobbs-Merrill Company, Inc., 1967.

A new publication that considers the sexual development, education, attitudes and behavior of the child.

Baruch, Dorothy, New Ways in Sex Education. New York: McGraw-Hill Book Company, 1959.

Excellent background information for parents and teachers. Recommended readings for children, parents and teachers, plus a manual for study group leaders and a valuable index.

Brown, Fred, and Rudolph Kempton, Sex Questions and Answers. New York: McGraw-Hill, 1950.

Information is easily found and is written for the older child and adults. Chapter XIV is informative.

Child Study Association of America, Parents' Guide to Facts of Life For Children. New York: Maco Magazine Corporation, 1965.

This paperback volume is easily assimilated and is adaptable to either the home or school situation.

_____, What To Tell Your Children About Sex. New York: Maco Publishing Company, 1958.

Outstanding book of common sense answers to give to the child asking questions about sex. Reference manual is simply written and covers each stage of child's development.

DeSchweinitz, Karl, Growing Up. New York: Macmillan Company, 1965.

Revised edition is much improved because of larger illustrations used in this reliable text.

Driver, Helen I., Sex Guidance for Your Child: A Parent Handbook. Madison, Wisconsin: Monoma Publications, 1960.

A textbook for parents that describes six stages of emotional development between birth and adolescence. Philosophy is acceptable to all religious faiths.

Eckert, Ralph G., Sex Attitudes in the Home. New York: Popular Library, 1963.

This informative paperback book should be in all home libraries.

Faegre, Marion, Your Own Story. Minneapolis, Minnesota: University of Minnesota Press, 1943.

Information is better told, than read, to children as book is lengthy and detailed.

Fraiberg, Selma, The Magic Years. New York: Scribners, 1959.

The "magic" years are those early childhood years when the child believes that his actions and thoughts can bring about events. Excellent chapter on sex education.

Gruenberg, Sidonie M., The Wonderful Story of How You Were Born. Doubleday and Company, Inc., 1959.

A story for children with background information for parents. Valuable resource material on book jacket.

Hector, Robert, What Shall I Tell My Child? New York: Crown Publications, Inc., 1966.

A presentation of the Norwegian and Swedish systems of teaching sex education to children.

Hymes, James L., The Child Under Six. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1966.

Chapter twenty-three pertaining to sex education, is exceptionally valuable, although the entire book presents much common-sense guidance.

Ilg, Frances, and Louise Ames. Parents Ask. New York: Dell Publishing Company, 1962.

Chapter five is very helpful in discussing topics that trouble parents. Much reassurance is given in methods of imparting information.

Kirkendall, Lester A., Sex Education as Human Relations. New York: Inor Publishing Company, 1950.

Despite the publication date, information is timely. An authority in sex education has presented a useful guide-book.

Manley, Helen, A Curriculum in Sex Education. St. Louis, Missouri: State Publishing Company, 1964.

A useful tool for those teachers planning such a curriculum in their respective schools.

Orenstein, Irving, Where Do Babies Come From? New York: Pyramid Publishing Company, 1962.

A pocketbook to accompany the Decca record of the same title. The book answers the title questions.

San Mateo County Board of Education, The K-8 Teachers' Resource Guide for Family Life Education. Redwood City, California: Office of the San Mateo County Superintendent of Schools, 1967-68.

One of the few available curriculum guides. The bibliographical information concerning sex education is helpful as is the consideration of mental health and other aspects of biological concern.

Schmieding, Alfred, Sex in Childhood and Youth. St. Louis, Missouri: Concordia Publishing House, 1953.

This book has been written as a guide for Christian parents, teachers and counselors from the viewpoint of the Lutheran church. Bibliography is dated but good.

Spock, Benjamin, Dr. Spock Talks With Mothers. Greenwich, Connecticut: Fawcett Publications, 1961.

Homespun philosophy that has reassured many parents is observed in the section of sex education for the young child.

Strain, Frances Bruce, Being Born. New York: Appleton-Century-Crofts, 1954.

Excellent black and white photographs to help answer questions puzzling children. Informative, yet only certain sections should be read to the young child.

_____, New Patterns in Sex Teaching. New York: Appleton-Century-Crofts, Inc., 1962.

Glossary provides simplified definitions for children. Recommended readings for children, parents and teachers are listed. A manual for study group leaders and a good index are beneficial.

Superintendent of Public Instruction, Washington State Guide for Health Education, K-6. Olympia, Washington: 1967.

A curriculum guide in health education activities.

2. Records

"How Babies Are Born," Christopher Recordings on Sex Instruction, accompanied by booklet, Let's Tell the Whole World About Sex. The Christophers, 12 East Forty-eighth Street, New York, New York 10017.

Teachings of the Catholic church in accordance with the American Social Hygiene Association.

"Mommy, Where Do Babies Come From?" Decca Records.

A paperback book, Mommy, Where Do Babies Come From? accompanies the record.

3. Resource Pamphlets and Publications

Gorham, Carl W., Sex: Who Should Tell Your Child? Dansville, New York: F. A. Owen Publishing Company, 1967.
Informative pamphlet for parents.

Guidance Associates, Sex Education U.S.A.: A Community Approach, New York: Harcourt, Brace and World, 1968. Excellent material presented under auspice of SIECUS.

Hymes, James L., How To Tell Your Child About Sex, New York: Public Affairs Committee, 1949.
Common Sense approach of a child specialist.

_____, Three to Six: Your Child Starts to School, New York: Public Affairs Committee, 1950.

An authority on child development advocates methods of better understanding problems of children.

Kirkendall, Lester A., Sex Education, New York: Sex Information and Education Council of the United States, 1968.
Up-to-date and informative material.

Lerrigo, Marion O., and Helen Southard, Facts Aren't Enough, Chicago: American Medical Association, 1962.
Beneficial advice for all parents and teachers.

_____, Parents' Responsibility, Chicago: American Medical Association, 1962.

The responsibility of parents is sex instruction.

"What Parents Should Know About Sex Education in the Schools," Washington, D. C.: National Education Association, 1967.
Excellent hand-out for Parent-Teacher organizations.

APPENDIX B

TESTS ADMINISTERED TO CHILDREN

VOCABULARY TEST I -- PLANT GROWTH

1. Egg (The seed from which a plant can grow.)
2. Ovary (The part of the flower in which the egg stays.)
3. Pistil (The part of the flower, just above the ovary, where pollen from other flowers is found.)
4. Pollen (The helper that flower eggs must have to grow into a flower seed. It looks like yellow powder on the stamen.)
5. Stamen (The part of the flower containing the pollen.)
6. How are new flower seeds grown? (To start a new flower seed there must be an egg from one flower and pollen from another flower. Flowers need eggs and pollen to grow, instead of mothers and fathers.)

VOCABULARY TEST II -- ANIMAL GROWTH

Mother animals have babies just like themselves. Can you name the baby animal to which each mother gives birth?

- | | | | |
|-------|------------------|------|------------------------|
| Dog | <u>(Puppies)</u> | Cow | <u>(Calf)</u> |
| Cat | <u>(Kittens)</u> | Deer | <u>(Fawn)</u> |
| Horse | <u>(Colt)</u> | Pig | <u>(Pig or piglet)</u> |
| Sheep | <u>(Lamb)</u> | Bear | <u>(Cub)</u> |

VOCABULARY REVIEW -- ANIMAL GROWTH

<u>Family</u>	<u>Father</u>	<u>Mother</u>	<u>Young</u>
Cat	Tomcat	Tabby-cat	Kitten
Cattle	Bull	Cow	Calf
Deer	Stag/Buck	Doe	Fawn
Dog	Dog	Dog/Bitch	Puppy
Duck	Drake	Duck	Duckling
Fowl	Rooster/Cock	Hen	Chick
Geese	Gander	Goose	Gosling
Goat	Billy-Goat	Nanny-goat	Kid
Horse	Stallion	Mare	Colt
Rabbit	Buck	Doe	Bunny
Sheep	Ram	Ewe	Lamb
Swine	Boar	Sow	Pig

(Frances Bruce Strain, Being Born, page 122.)

VOCABULARY TEST III -- CHILD GROWTH

Anus	(The opening through which the bowel movement takes place.)
Breasts	(Some mothers feed their baby milk from their breasts.)
Egg Cell	(All life begins from an egg cell.)
Mating	(The time at which the father puts his sperm into the mother. This is intercourse.)
Ovary	(A special place in a woman's body for growing egg cells.)
Penis	(The male sex organ through which urine or sperm leave the body.)
Sperm	(The cell from the father which helps the egg cells of the mother grow.)
Testicles	(The two glands which produce sperm cells.)
Urine	(Liquid waste of the body. We urinate in the lavatory.)
Uterus	(The place in a mother's body where the egg cell grows into a baby.)
Vagina	(The opening between a mother's legs where the baby is born. The canal to the uterus.)

"ALL ABOUT ME"

This biographical test is administered individually to each child and maintained as a part of the personal file. Parents may examine their child's folder at any time.

Name _____

Address _____

Phone Number _____

Age _____

Birthday _____

Father's Name _____

Where Does Your Father Work? _____

Mother's Name _____

Where Does Your Mother Work? _____

My Brothers _____

My Sisters _____

Favorite Color _____

Favorite Song _____

Favorite Pet _____

Favoriet Friend _____

Where Were You Born? _____

Where Do You Go To School? _____

Do You Like School? _____

Remarks _____
