MEETING THE FUNDAMENTAL NEEDS OF SIX AND SEVEN YEAR OLDS THROUGH SCIENCE EXPERIENCES

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The development of skills and attitudes for scientific investigation and the acquisition of scientific concepts and generalizations are primary goals of science education. These goals of science education must be pursued through avenues that are applicable to the maturity of the children involved.

Too often, adults expect children to react in a manner which is far beyond or below the child's level of maturity. Chapter I discusses the characteristics and needs which are common to most six and seven year olds so that the teacher will have general standards against which to compare each student's development.

The six and seven year old's growth of rate, sexual development, fatigue problems, basal metabolism, and sense development are discussed in the section on physical development. The intellectual characteristics discussed include mental age, vocabulary, number concepts, curiosity, creativity, and response to stories and reading. The section on emotional and social development involves descriptions of emotional balance, relationship with mother, fears, moods, social behavior, possessiveness, use of language, and attitude toward others.

The need for acceptance, success, affection, socialization, creativity, food, toileting, physical

activity, and rest are also discussed in order to provide a basis for the choice of science experiences.

Chapter II deals with the classroom atmosphere and physical environment. It is the teacher who must plan to achieve the long range goals and purposes of science while working toward the immediate goals of academic concepts. Developing an atmosphere of trust and respect, providing opportunities for developing skills, helping children find ways of working, promoting self-confidence, providing areas in the room to accommodate varied activities and movement, and making available equipment and materials which are suitable for the child's maturity are discussed as important parts of the teacher's role in the classroom.

Chapter III deals with science experiences for sixes and sevens. The first section of this chapter includes a description of the concepts of readiness and unreadiness, mental age range, maturity, individual needs, advanced concepts, and criteria for evaluating physical, mental, emotional and social readiness. The second section includes the specific science skills of observing, questioning, manipulating, recording, evaluating, and classifying. In the fourth section, there is a brief discussion of the use of pre-planned science activities verses the use of incidental experiences. Specific science experiences suitable for six and seven year olds are arranged in groups

according to their ability to meet physical, intellectual, emotional and social needs.

When the teacher is aware of the characteristics and needs of the child, encourages a classroom atmosphere that produces harmonious relationships, and uses science experiences that meet the needs of six and seven year olds, the goals of science will be achieved.