

# **Curriculum for the Middle School**

## **Introduction**

The essentiality of enriching individuals with education for the progress of humankind has been well recognized. More recently, communities have been convinced that education is powerful and valuable enough to spare and reserve considerable effort and resources to provide the same to all of its younger generation. Education refers to any act or experience that has a formative effect on the personality of an individual which include all of life's experiences. Education also refers to the processes by which the society, through its different institutions, deliberately transmits its cultural heritage-its accumulated values, knowledge and skills to the newer generation. The formal education is therefore has to be well structured. The vast knowledge and experiences accrued in the past need to be sieved, selected and condensed and standardized to ensure that the 'essentials' are taught to maximize the learning within the limited time one can afford to spare in their life time for the purpose.

The overall objective of school education that spans fourteen long years, including the pre primary stage, is to provide the basic foundation for literacy in all its dimensions to begin with and some reasonable level of general knowledge about the world and worldly matters as the process continues. At the primary school level therefore the emphasis is on building a foundation for text-based literacy through one or more languages and on an introduction to the basic elements of numeracy. A new start has also to be made now to lay the foundation for the computer literacy as well because of its growing importance as a tool for learning and communication. When the literacy level increases and expands into cognitive realms as the students mature and move on to the middle school, subject specific knowledge elements are introduced gradually so that students can learn and relate them with ease through their enhanced competence in both text based and computer literacy. The subtle shift from a predominantly literacy-centered primary school curriculum to increasing levels of subject-based knowledge is the main feature of the middle school education. The formal teaching of the literacy-both text based and the computational- are continued in the middle school stage for further strengthening the competence in literacy as it is the basic infra structure of learning.

## **Student Profile-Characteristics of middle school age group**

The students who enter the middle school are 11 years old and continue for three years before moving on to the secondary stage. The age group between 11 and 13 years,

undergoes several physical changes and it is a period of biological transition from childhood to adolescence. Physically, they grow fast with the consequent increase in weight and heights along with certain level of clumsiness in handling and manipulative activities. At this stage, the growth and development of the girls will be more pronounced as compared to the boys. After the initial phase of clumsiness they quickly get adjusted to develop manual dexterity and endurance. At the cognitive level, they are gradually able to think logically in terms of all the hypothetical situations related to a particular problem. They essentially enter the 'age of reason' as logical thought replaces intuitive thinking. They also endeavor to establish an identity of their own. The process of identity formation requires taking into account one's own view as well as the views of others and of the society, which makes the peer group interactions very important. It is where major cognitive growth takes place and they are ready for learning and retaining all that they have learned. Their faculty of memory is vast and strong. At this stage both fine and gross motor skills develop incredibly leading to marked improvement on their listening skill, a trait that is very crucial for the formal learning. Other characteristic attributes of this age group are, strong memory, perception and correlative thinking. Behavior side, they develop ability to form close friendship with the peers using their newly acquired abilities to compromise and co-operate. They are also quick to adjust to discipline and easily conform to ground rules. They are ready to respond to rewards in all forms like recognition, appreciation, grades, prizes and medals.

These and many other characteristics of the age group, if translated to the learning context, it is the appropriate stage for learning to work with the peers, be independent, acquire basic academic skills including the abstractions of mathematics. With their acquired competence in literacy and entraining to the routines and rigors of formal schooling during the stage of primary education, they are well primed to plunge into the exploration and acquisition of knowledge along with the academic and many other transferable skills and abilities. This is also the right phase in their development to get exposed to certain values and to develop independent perceptions about the world and worldly matters around them.

### **Goals and Objectives**

As a part of the entire school education, the goals and objectives of the middle school is not substantially different from those of the school education as a whole. The curricular materials for the middle school are chosen and structured to continue to acquire higher levels of all that are set as the target goals than what was initiated at Pre-primary and

Primary stages of education. The following are the set goals and objectives of the overall school education and details of what would be the specific contribution in terms of levels and quantity of the middle school:

**Literacy:** Further training in textual literacy through language studies and computational literacy with formal courses. Enhancing the competence in both text based and computational literacy of what has been achieved at the primary stage will be the focus.

**Numeracy:** through additional mathematical concepts

**Knowledge:** relating to the world and worldly matters through the introduction of selected discipline based course works.

**Skills and Competencies:**

*Intellectual:* Critical thinking, Understanding/applying concepts, adaptability, Problem solving, Analysis and Interpretation and Integration of knowledge (synthesis)

*Practical:* Practical skills related to the field, community or employment and also for the situations at home. Information processing skills

*Personal and Social:* Communication skills, Self-reliance, Self-motivation, Planning and organization skills. Learning Skills and appropriate levels of Enter prize & resourcefulness, Team work including Leadership.

**Values**

At this stage of schooling, while some of the specific values of interest may be taught formally, most of them can be achieved with judicious integration with all the class works, field activities and through corporate ambience consciously built.

The following ‘values’ are some examples indicated for guidance but it is left to the faculty and schools to decide and ensure that they are inculcated.

**Strategies**

These generalized overall objectives of the entire school education will be achieved in stages incrementally and cumulatively through the curricular transactions that will include formal teaching through designed courses, assignments, projects and a number academic, co-curricular and social activities. The Educational and training goals of the

middle school is to promote and demonstrate the specific qualities, skills and capabilities that come under the above five major general categories but commensurate to the learning potential and maturity level of the age group of students at this stage of school education. The details are indicated in all the structured course contents (syllabi) indicating as to what is to be learnt at course or activity as 'Expected outcome'. Many of these are not the sole responsibility of the specific teacher who teaches specific courses and are integrated in all the formal units of learning. For example, the most important skill, viz., 'Communication Skill' will not be left alone to the language teachers. It is now integrated with all the subjects based courses with adequate time and resource allotment. The same will be true for many of the skills and attributes grouped under 'Personal and Social' category.

In order to realize the goals and objectives outlined earlier for this stage, the curricular areas already in vogue are adopted with modifications. They now include the following broad subject units for formal teaching during the three years at this stage.

1. Mother tongue/Regional language
2. English
3. Scientific Tamil
4. Computer based computational literacy
5. Mathematics
6. Science subjects (Physics, Chemistry and Biology plus Technology)
7. Social Studies (History, Civics and Geography)
8. Health & Physical Education
9. Art education and Work experience

Of these, the first four of the above subject areas are meant to develop the Literacy element, the 5<sup>th</sup> one for the Numeracy related skills. The sixth and the seventh groups of subject areas are being introduced to the students for the first time and they are chosen to provide basic knowledge about the world worldly matters and social settings. Items 8 and 9 are meant for toning up the physical and aesthetic sides of the students. The time allotment for teaching the above courses in a week (periods per week) will be as follows:

Literacy-both text and computer based	.....	17
Numeracy- Mathematics.	.....	7
Knowledge based courses (Science and Technology		

& Social Sciences)	....	12
General Skills and attributes.(LOE & Phy.Edu)	.....	4

However, these are indicated figures and the schools are welcome to re-allocate without loosing sight of the expected outcomes at the end of three years at this stage.

### **Evaluation as a feed back and as measure of students' achievement:**

Periodic and continuous evaluation through a variety of ways is suggested for eliciting the feed back and for corrective responses from the teacher. Mid term annual examinations are suggested as a sort of feed back to the students and parents both for information and for corrective action on their part. Common examinations for a set of contiguous schools within the geographical limits like a district or region or among the consortia of like-minded schools are suggested for grading as well as promotion of the students to the next standard at the end of each year. A more broad based common examination at the end of the each school stage like primary, middle and secondary is strongly suggested for comparability and compatibility with other systems of schools and with the schools in other parts of the state. Relevant technical details regarding the types and modes of evaluation can be had from many sources and hence not elaborated.

As an alternative, one can use a modified form of external evaluation from a panel of state or regional specially trained examiners as outlined in the Annexure-1. This can also be used as a common academic audit system for enhancing the quality of education besides providing comparability of the quality of teaching standards among the schools of the state or region. Incidentally it can also replace the now defunct inspection system in vogue.

### **Time Period For Middle Classes per Week**

Class	English	Tamil / Reg. Lang.	Maths	Sci. & Tech	Social Sci.	Scientific Tamil	Comp. Edu	L.O.E	Phy. & Health Education	Total
VI & VIII Stds	6	7	7	7	5	2	2	2	2	40

### **Expected Outcomes**

The following are the minimal outcomes expected after the successful completion of the middle school with a few illustrative samples of micro details:

*Literacy-textual:*

Ability to listen and grasp, read and comprehend and write to communicate in all the communication modes effectively and correctly in simple languages.

Analyze and synthesize information gained

Ability to participate in debates, discussions and role playing confidently and intelligently

*Literacy-computational:*

Clear understanding of the basic principle and structure of computers and their functions, including some basics of computer languages.

*Numeracy:*

Consolidation of the prior learning related to the operations like addition, subtraction, multiplication and Division.

Competence to read mathematical problems and the abstract the idea of Algebraic notations like number systems and Polynomials etc.,

Familiar with real mathematics including measurements, geometry, statistical estimations and practical geometry, mathematical diagrams, graphs and figures.

Ability to use calculators to solve simple mathematical problems

Appreciation of the fact that mathematics as language (symbols) supplement

*Knowledge related to the world and the worldly matters:*

A solid foundation for general knowledge base for the discipline based subject areas introduced

Enlightenment about the world and Universe and their movements, their perspectives and reality etc.,

Understanding of the key concepts of Physics, Chemistry, Botany, Zoology, History, civics and geography.

And further strengthening of the 'Communication skills' related to these specific knowledge sectors.

*Skills and other attributes:*

Improved communication skills over what was gained during the Primary stage

Some level of ability to use information technology

Improved cognitive skills related to all the core outcomes like critical thinking, relating concepts to newer contexts, Problem solving, analysis of information and synthesis of new ones with what is already known etc.,

Certain levels of leadership and ability to work in a team plus a whole range of incidental abilities to deal with the practical problems that are common in the house and in the society at large.

*Values:*

Consolidation of the values emphasized during their study at the Primary School and some additional ones related to Global, National, Social and Personal levels.