

Aims & Objectives of Teaching Mathematics



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- **Meaning of Aims:** The term aims of teaching mathematics stands for the goals, targets or broader purposes that may be fulfilled by the teaching of mathematics in the general scheme of education. Aims are like ideals. Their attainment needs a long-term planning. Their realization is not easy task. Therefore, they are divided into some definite, functional and workable units named as objectives.

Meaning of Objectives: The objective are those short-term, immediate goals or purposes that may be achieved within the specified classroom situations. The aims are broken into specified objectives to provide definite learning experiences for bringing about desirable behavioral changes.

Aims

- 1. To enable the students to solve mathematical problems of daily life. We have to select the content and methods of teaching so that the students are able to make use of their learning of mathematics in daily life.
- 2. To enable the students to understand the contribution of mathematics to the development of culture and civilization.
- 3. To develop thinking and reasoning power of the students.
- 4. To prepare a sound foundation needed for various vocations. Mathematics is needed in various professions such as those of engineers, bankers, scientists, accountants, statisticians etc.
- 5. To prepare the child for further learning in mathematics and the related fields. School mathematics should also aim at preparing him for higher learning in mathematics.

- 6. To develop in the child desirable habits and attitudes like habit of hard work, self-reliance, concentration and discovery.
- 7. To give the child an insight into the relationship of different topics and branches of the subject.
- 8. To enable the child to understand popular literature. He should be so prepared that he finds no handicap in understanding mathematical terms and concepts used in various journals, magazines, newspapers etc.
- 9. To teach the child the art of economic and creative living.
- 10. To develop in the child rational and scientific attitude towards life.

Objectives of teaching mathematics

- A. Knowledge and understanding objectives
- 1. Develops the knowledge and understanding of mathematical concepts like number, units of measurement, size, shape, direction, distance, grouping sub-grouping and fractions.
- 2. Develops the knowledge and understanding of mathematical facts and processes like place value of numbers, meaning and significance of zero, four fundamental operations, percentage, unitary method, menstruation, etc.
- 3. Develops the knowledge and understanding of mathematical terms and symbols like digits, fractions, percentage, etc.
- 4. Develops the knowledge and understanding of fundamental mathematical relationships.

B. Skills objectives The students develops the following skills :

1. Ability in counting, reading and writing of numbers.
2. Skill in four fundamental operations dealing with integral numbers and fractions.
3. A reasonable speed, accuracy and neatness in oral and written computational work.
4. Technique of solving problems which involve elementary mathematical processes and simple calculations.
5. Skill in the use of mathematical tables.
6. Proficiency in making quantitative estimate of size and distance.

C Application objectives

1. He is able to solve both oral and written mathematical problems independently.
2. He applies elementary mathematical concepts and processes in every day life.

D Attitude objectives

1. Develops self-confidence for solving elementary mathematical problems.
2. While solving mathematical problems, he tries to read it carefully, analyses it, collects all the known evidences and then draw proper inferences.
3. Develops the habits of neatness, regularity, honesty and truthfulness.
4. Develops the habits of logical thinking and objective reasoning.

E Appreciation and interest objectives

1. Develops interest in the learning of mathematics.
2. Appreciate the contribution of mathematicians and gets inspiration from their work.
3. Appreciates the power of computational skills.
4. Appreciates and takes interest in using his knowledge of mathematics in solving problems of daily life.
5. Appreciates the recreational value of mathematics and learns to utilize his leisure time properly.

What is the need for establishing general objectives of teaching mathematics

- ✓ develop a positive attitude towards learning Mathematics
- ✓ perform mathematical operations and manipulations with confidence, speed and accuracy
- ✓ think and reason precisely, logically and critically in any given situation
- ✓ develop investigative skills in Mathematics
- ✓ identify, concretise, symbolise and use mathematical relationships in everyday life
- ✓ comprehend, analyse, synthesise, evaluate, and make generalizations so as to solve mathematical problems
- ✓ Collect, organize, represent, analyse, interpret data and make conclusions and predictions from its results
- ✓ apply mathematical knowledge and skills to familiar and unfamiliar situations
- ✓ appreciate the role, value and use of Mathematics in society
- ✓ develop willingness to work collaboratively
- ✓ acquire knowledge and skills for further education and training
- ✓ communicate mathematical ideas

Thank you!

