B.Ed. 107 Pedagogy of School Subject Mathematics

Topic :- Competencies of Mathematics Teacher

By : - Prof. Rashinkar Devdatta Ramchandra (Asst. Professor)
(SKPs, Shri Martand Bhairav Adhyapak Mahavidyalaya, Balewadi, Pune-45)
Competencies of Mathematics Teacher

• 1) Thorough and updated knowledge of the subject
• 2) Knowledge of various teaching methods
• 3) Skill to draw the figures or diagrams
• 4) Skill of using teaching aids
• 5) Skill of black board writing
• 6) Various personality traits
• 7) Skill of Preparing exercises
• 8) Skill of assessment / Evaluation
1) Thorough and up to date knowledge of the subject

- The teacher of Mathematics should have a degree in Mathematics.
- He should have a thorough knowledge of the subject.
- Teacher should not only read text books of mathematics but also read reference books and get latest knowledge of Mathematics through various media.
2) Knowledge of various teaching methods

- Teacher of Mathematics should have thorough knowledge of the child psychology.
- Children of different stages have their own psychological requirements. The knowledge of these requirements enables the teacher to know what method should be employed for the children of particular age.
- The teacher of Mathematics should have knowledge of various methods of teaching, teaching techniques and teaching aids for effective teaching of the subject.
3) Skill to draw figures or diagrams

- Teacher of Mathematics has to draw various Geometrical figures and diagrams like circle, triangles, quadrilaterals etc. and also ball, bat, flowers, pot, umbrella etc. while teaching the operations like addition, subtraction etc.
- Teacher should be familiar with the use of various geometrical apparatus. Teacher has to practice to draw various geometrical figures on board.
4) Skill of Preparing and using teaching aids

- Mathematics is an abstract subject. So it is difficult to understand various concepts in Mathematics by just oral explanation.
- Use of teaching aids like Charts, Models, pictures, real objects are very important.
- Teacher of Mathematics should have ability to prepare these teaching aids. Teacher should be trained to prepare and use teaching aids.
- Mathematics teacher should use proper teaching aids according to the topic and handle these teaching aids properly.
5) Skill of Black Board Writing

• Black board is called as true friend of a mathematics teacher.
• Without blackboard teaching of Mathematics is impossible.
• As soon as the teaching of this subject starts, the use of blackboard starts. So for teacher of Mathematics the knowledge of proper use of blackboard is a must.
• Mathematics teacher should be good at blackboard writing and drawing. He/She must develop the skill of blackboard work.
6) Various personality traits

- Teacher of mathematics should always eager to know latest happenings in various fields. He should convey to his students up to date and latest knowledge.
- Teacher should have special flair for the things like cleanliness, neatness and decency. Students will automatically imbibe them.
- Teachers actions, gestures, speech, smile, dress should be ideal to imitate for the students.
- Teacher should have patience, self-confidence, logical thinking etc.
7) Skill of preparing exercises

• Mathematics teacher should have skill of preparing Home work/ self study material for students.
• It is not possible to practice the learned portion in school in available time. So Home work and self study becomes necessary.
• All the students don’t have equal intellectual abilities. So to do the study at home independently enable them to develop their self confidence.
• For preparing exercises mathematics teacher needs qualities like complete knowledge of the subject, skill of preparing good questions , imagination power.
• Exercises questions should be various types like easy, moderate and difficult.
8) Skill of Assessment / Evaluation

At the end of teaching a topic or subunit teacher is also concerned with testing and evaluating the knowledge and development of students.

Evaluation gives a clue to the actual development of students.

Both the teacher and students are anxious to know the extent to which they have progressed and if they have not, to know why they have not done so and what can be done to achieve the desirable success.

The process of evaluation is a continuous process. It is necessary to assess the students after learning every unit, after a session and after annual session.