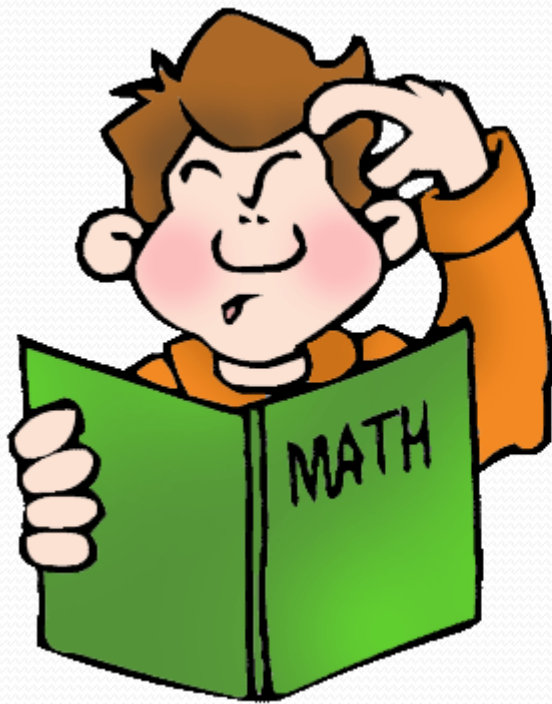


TEACHING PROBLEM SOLVING IN MATHEMATICS

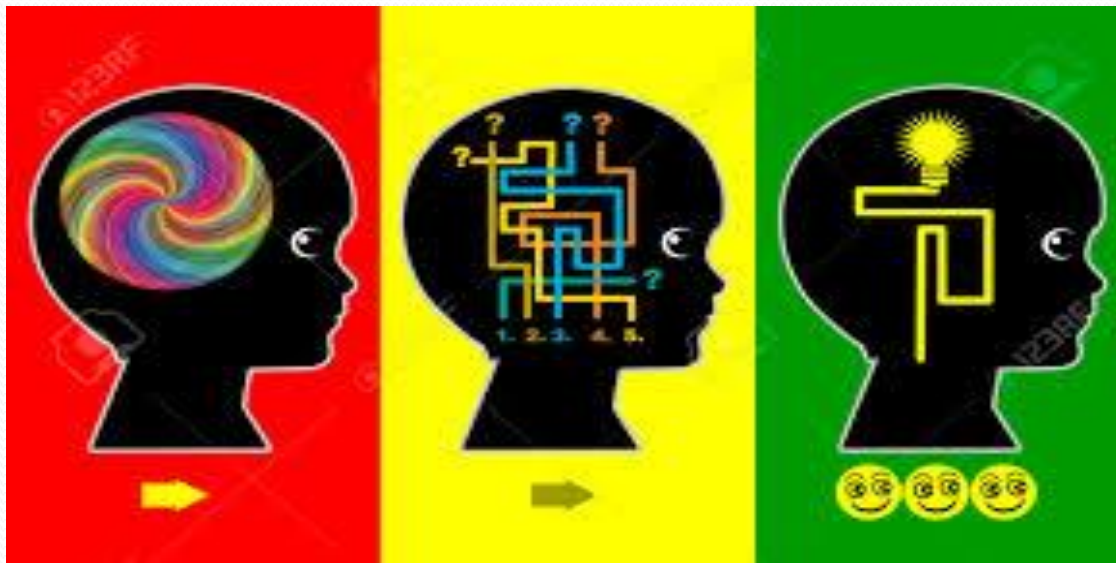
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Problem Solving

What is Problem Solving?

- The process in which a student is bound to be engaged for finding out answer or the solution of any confronted problems is named as Problem Solving.



Definition


- “Problem Solving is a set of events in which Human being was rules to achieve some goals”
 - ----*Gagne*

Characteristics of a Problem

- It should be meaningful, interesting and practical.
- It should be well defined.
- It should have some educational value.
- It should have correlation with other study subject .
- It should develop Mathematical skills.
- It should develop imagination and critical powers.

Steps in Problem Solving

- Selection and Formulation of Problem
- Presentation of the Problem
- Formulation of Hypothesis
- Collection of relevant data and information
- Analysis and organization of data
- Drawing conclusions
- Testing of conclusions

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- ***Selection and Formulation of Problem-*** The selection of the problem should be done by the teacher and the student both.
 - ***Presentation of the Problem-*** The teacher should present the problem well before the students and also should make it clear that how the problem can be solved.
 - ***Formulation of Hypothesis-***Preparation of a list of possible reasons of the occurrence of the problem.

- ***Collection of relevant data and information-*** The child should be stimulated to collect the data and information in a systematic way.
- ***Analysis and Organisation of data-*** The formulated hypothesis are tested and data are analysed & organised on the basis of the collected information.
- ***Drawing Conclusions-*** On the basis of the analysis conclusions are drawn.
- ***Testing of Conclusions-*** The correctness of the conclusions is proved by applying them in different situations.

Role of Teachers in Problem Solving

- To ensure an atmosphere of freedom in the class
- To create the problem situation
- To assist the students in accepting, defining and stating the problem
- To help the students in analyzing the problem and in breaking up into simple units
- To guide the students in finding relevant materials

Merits of Problem Solving

- Scientific and psychological in nature
- Develops reasoning power
- Helps to improve and apply knowledge and experiences
- Helps to learn how to act in new situation
- Develops the power of critical judgement
- Helpful in making the child self reliant and resourceful

Demerits of Problem Solving

- Not suitable for lower classes
- Lack of suitable books and references for children
- Not economical
- Wastage of time and energy
- Doubt of drawing wrong conclusions



THANK YOU