

# NEP 2020

## FUNDAMENTAL STAGE

### Mathematical Communication.

Mathematical communication refers to a process by which information is exchanged between individuals through mathematical symbols, signs, diagrams, graphs. It encompasses both listening and reading (comprehension) and both speaking and writing (expressions)

### Understanding Mathematical Communication.

Language plays a crucial role in the construction of knowledge and in the learning of mathematics as well. Every discipline has a specialized language. Mathematics also borrows words from everyday language but gives them special meanings. When the children begin solving simple problems presented through words in the mathematics class, they begin working with mathematics language. ‘How many?’ ‘How many altogether?’ ‘How many are left?’ - all these are examples of the use of mathematics language. Children mix such mathematical language with their ordinary, everyday language while discussing a mathematical problem. Children learn by constructing their knowledge through interaction with their environment. A critical part of constructing knowledge is the communicating of ideas with peers and others. Initially such communication takes place in and through child’s home language. While sharing, new thoughts and ideas are generated. While doing any activity, the child tries to understand her/his own or others’ actions and this happens when children communicate with each other. This communication is possible only through a language that the children are comfortable in. For example, while exploring a spherical object, the child may relate it with *laddoo* and calls it ‘laddoo jaisa’, instead of ‘gol shakel’. Notice that when the children use the phrase, ‘laddoo jaisa’, for a spherical object, they are making correct categories.

The following approaches may be followed by teachers to enhance mathematical communication:

- Use simple, friendly, and clear language that relates with home language.
- While giving oral and written instructions use **board** and ask questions or shapes a discussion.

- While introducing mathematical ideas, symbols and signs a connection is required to develop with child's own language.

- If teachers make a conscious effort to analyse the language that they use to communicate with children and use language wisely, a big change can be seen in the teaching-learning process.

- Appropriate opportunities need to be provided to all children to communicate their ideas through newer terminology in a stress free and friendly environment. Initially children should attempt to use mathematical language without any fear of being wrong. Gradually they will improve their mathematical communication with time and concerted opportunities.