

# Overview of skills development

	Applying and problem-solving	Communicating and expressing	Integrating and connecting	Reasoning	Implementing	Understanding and recalling
<b>Infant classes</b>	<ul style="list-style-type: none"> <li>• select appropriate materials and processes for mathematical tasks</li> <li>• select and apply appropriate strategies to complete tasks or solve problems</li> <li>• recognise solutions to problems</li> </ul>	<ul style="list-style-type: none"> <li>• discuss and explain mathematical activities</li> <li>• record results using diagrams, pictures and numbers</li> <li>• discuss problems presented pictorially or orally</li> </ul>	<ul style="list-style-type: none"> <li>• connect informally acquired mathematical ideas with formal mathematical ideas</li> <li>• recognise mathematics in the environment</li> <li>• recognise the relationship between concrete, verbal, pictorial and symbolic modes of representing numbers</li> <li>• carry out mathematical activities which involve other areas of the curriculum</li> </ul>	<ul style="list-style-type: none"> <li>• classify objects into logical categories</li> <li>• recognise and create sensory patterns</li> <li>• justify the processes/results of activities</li> </ul>	<ul style="list-style-type: none"> <li>• devise and use mental strategies/ procedures for carrying out mathematical tasks</li> <li>• use appropriate manipulatives to carry out tasks and procedures</li> </ul>	<ul style="list-style-type: none"> <li>• understand and recall terminology</li> </ul>
<b>First and second classes</b>	<ul style="list-style-type: none"> <li>• select appropriate materials and processes for mathematical tasks/applications</li> <li>• apply concepts and processes in a variety of contexts</li> </ul>	<ul style="list-style-type: none"> <li>• listen to and discuss other children's descriptions/ explanations</li> <li>• discuss and record using diagrams, pictures and symbols</li> </ul>	<ul style="list-style-type: none"> <li>• understand the mathematical ideas behind the procedures he/she uses</li> </ul>	<ul style="list-style-type: none"> <li>• make guesses and carry out experiments to test them</li> <li>• recognise and create mathematical patterns and relationships</li> </ul>	<ul style="list-style-type: none"> <li>• execute procedures efficiently</li> </ul>	<ul style="list-style-type: none"> <li>• understand and recall terminology and facts</li> </ul>

	Applying and problem-solving	Communicating and expressing	Integrating and connecting	Reasoning	Implementing	Understanding and recalling
<b>Third and fourth classes</b>	<ul style="list-style-type: none"> <li>select appropriate materials and processes for mathematical tasks and applications</li> <li>analyse problems and plan an approach to solving them</li> <li>select and apply a variety of strategies to complete tasks/projects or solve problems</li> <li>evaluate solutions to problems</li> </ul>	<ul style="list-style-type: none"> <li>discuss and explain the processes used or results of mathematical activities/projects/problems</li> <li>discuss and record processes and results using a variety of methods</li> <li>discuss problems presented orally, pictorially or diagrammatically; carry out analyses</li> </ul>	<ul style="list-style-type: none"> <li>connect informally acquired mathematical ideas and processes with formal mathematical ideas and processes</li> <li>understand the connections between mathematical procedures and concepts</li> <li>represent mathematical ideas and processes in different modes: verbal, pictorial, diagrammatic, symbolic</li> <li>recognise and apply mathematical ideas and processes in other areas of the curriculum</li> </ul>	<ul style="list-style-type: none"> <li>make hypotheses and carry out experiments to test them</li> <li>make informal deductions involving a small number of steps</li> <li>explore and investigate mathematical patterns and relationships</li> <li>reason systematically in a mathematical context</li> </ul>	<ul style="list-style-type: none"> <li>execute standard procedures efficiently with a variety of tools</li> </ul>	<ul style="list-style-type: none"> <li>understand and recall terminology, facts and definitions</li> </ul>
<b>Fifth and sixth classes</b>	<ul style="list-style-type: none"> <li>reflect upon and evaluate solutions to problems</li> </ul>	<ul style="list-style-type: none"> <li>discuss and explain processes and results in an organised way</li> <li>discuss problems and carry out analyses</li> </ul>		<ul style="list-style-type: none"> <li>search for and investigate mathematical patterns and relationships</li> </ul>		<ul style="list-style-type: none"> <li>understand and recall facts, definitions and formulae</li> </ul>