



# CSpathshala: Regional Pilot Curriculum

## Standard 1

Std	Lesson	Area	Topic	Prerequisite	Lesson Plan	Slides/ Worksheet	Description
1	1	Problem Solving & Discrete Maths	Systematic Listing, Counting, Reasoning		<a href="#">01-LCR-01-LP</a>	<a href="#">01-LCR-01-PPT</a> , <a href="#">01-LCR-01-WS</a>	Basic counting and why do we need to count?
1	2	Problem Solving & Discrete Maths	Iterative Patterns and Processes		<a href="#">01-IPP-01-LP</a>	<a href="#">01-IPP-01-PPT</a> , <a href="#">01-IPP-01-WS</a>	Children discuss simple patterns in daily life occurring again and again
1	3	Problem Solving & Discrete Maths	Devising Algorithms		<a href="#">01-DA-01-LP</a>	<a href="#">01-DA-01-PPT</a> , <a href="#">01-DA-01-WS</a>	Students will learn how to break down an activity or task into simple instructions and write them down.
1	4	Algorithms	Happy Maps		<a href="#">01-PS-11-LP</a>	<a href="#">01-PS-11-PPT</a> , <a href="#">01-PS-11-WS</a>	Children learn that algorithm consists of breaking up a task into a series of small tasks
1	5	Algorithms	Happy Maps 2		<a href="#">01-PS-12-LP</a>	<a href="#">01-PS-12-PPT</a> , <a href="#">01-PS-12-WS</a>	Children learn that algorithm consists of breaking up a task into a series of small tasks
1	6	Algorithms	Simple Loops		<a href="#">01-PS-14-LP</a>	<a href="#">01-PS-14-PPT</a> , <a href="#">01-PS-14-WS</a>	Introducing children to simple loops



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### Standard 2

Std	Lesson	Area	Topic	Prerequisite	Lesson Plan	Slides/ Worksheet	Description
2	1	Problem Solving & Discrete Maths	Systematic Listing, Counting, Reasoning	01-LCR-01	<a href="#">01-LCR-02-LP</a>	<a href="#">01-LCR-02-PPT</a> , <a href="#">01-LCR-02-WS</a>	Students will learn to count methodically.
2	2	Logical Thinking	Tic-Tac-Toe		<a href="#">01-PS-06-LP</a>	<a href="#">01-PS-06-PPT</a> , <a href="#">01-PS-06-WS</a>	Children will develop problem solving and strategic thinking skills while playing a simple game.
2	3	Logical Thinking	Joining Dots		<a href="#">01-PS-24-LP</a>	<a href="#">01-PS-24-PPT</a> , <a href="#">01-PS-24-WS</a>	Students learn to think a few steps ahead - to develop their thinking abilities
2	4	Logical Thinking	Logic Puzzles		<a href="#">01-PS-33-LP</a>	<a href="#">01-PS-33-PPT</a> , <a href="#">01-PS-33-WS</a>	Children solve several logic puzzles to develop logical thinking skills
2	5	Problem Solving & Discrete Maths	Devising Algorithms		<a href="#">02-DA-01-LP</a>	<a href="#">02-DA-01-PPT</a> , <a href="#">02-DA-01-WS</a>	Children perform a set of instructions like going from one location to another on a map
2	6	Problem Solving & Discrete Maths	Iterative Patterns and Processes (02-IPP-01)		<a href="#">02-IPP-01-LP</a>	<a href="#">02-IPP-01-PPT</a> , <a href="#">02-IPP-01-WS</a>	Children make patterns on paper/floor



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## Standard 3

Std	Lesson	Area	Topic	Prerequisite	Lesson Plan	Slides/ Worksheet	Description
3	1	Algorithms	Finding patterns in a grid		<a href="#">02-ALG-15-LP</a>	<a href="#">02-ALG-15-PPT</a> , <a href="#">02-ALG-15-WS</a>	Children will learn about searching for patterns with the help of this activity and finding commonly known words in the grid
3	2	Problem Solving & Discrete Maths	Iterative Patterns and Processes (02-IPP-02)	02-IPP-01	<a href="#">02-IPP-02-LP</a>	<a href="#">02-IPP-02-PPT</a> , <a href="#">02-IPP-02-WS</a>	Children observe patterns in art
3	3	Problem Solving & Discrete Maths	Systematic Listing, Counting, Reasoning	01-LCR-02	<a href="#">03-LCR-01-LP</a>	<a href="#">03-LCR-01-PPT</a> , <a href="#">03-LCR-01-WS</a>	Students will learn about different ways to list and count objects
3	4	Problem Solving & Discrete Maths	Iterative Patterns and Processes	01-IPP-01, 02-IPP-02	<a href="#">03-IPP-01-LP</a>	<a href="#">03-IPP-01-PPT</a> , <a href="#">03-IPP-01-WS</a>	Children understand what are patterns and the different patterns in numbers.
3	5	Problem Solving & Discrete Maths	Discrete Mathematical Modeling		<a href="#">03-DM-02-LP</a>	<a href="#">03-DM-02-PPT</a>	Students solve interesting puzzles using graphs. Example puzzles: Wolf-Sheep-Grass Puzzles (at most two can cross the river), The three cups problem.
3	6	Problem Solving & Discrete Maths	Devising Algorithms	01-DA-01, 01-PS-11, 01-PS-12, 01-PS-14	<a href="#">03-DA-01-LP</a>	<a href="#">03-DA-01-PPT</a> , <a href="#">03-DA-01-WS</a>	Children learn to split bigger tasks into smaller, known tasks (e.g. multiplying two four-digit numbers)



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## Standard 4

Std	Lesson	Area	Topic	Prerequisite	Lesson Plan	Slides/ Worksheet	Description
4	1	Problem Solving & Discrete Maths	Information Processing		<a href="#">03-IP-01-LP</a>	<a href="#">03-IP-01-PPT</a> , <a href="#">03-IP-01-WS</a>	Children learn simple ways of arranging and analyzing information.
4	2	Problem Solving & Discrete Maths	Devising Algorithms	03-DA-01	<a href="#">03-DA-02-LP</a>	<a href="#">03-DA-02-PPT</a> , <a href="#">03-DA-02-WS</a>	Children perform more examples of breaking bigger tasks into smaller tasks and listing down the steps.
4	3	Problem Solving & Discrete Maths	Systematic Listing, Counting, Reasoning	03-LCR-01	<a href="#">03-LCR-02-LP</a> , <a href="#">03-LCR-02-WS</a> , <a href="#">Answers</a>	<a href="#">03-LCR-02-PPT</a> , <a href="#">03-LCR-02-WS</a>	Students will learn more in detail about different ways to List and count objects
4	4	Problem Solving & Discrete Maths	Iterative Patterns and Processes	02-IPP-02	<a href="#">04-IPP-01-LP</a> , <a href="#">04-IPP-01-WS-SOLN</a>	<a href="#">04-IPP-01-PPT</a> , <a href="#">04-IPP-01-WS</a>	Children identify and create visual patterns
4	5	Problem Solving & Discrete Maths	Systematic Listing, Counting, Reasoning		<a href="#">04-LCR-01-LP</a> <a href="#">04-LCR-01-WS</a> - <a href="#">Solution</a>	<a href="#">04-LCR-01-PPT</a> , <a href="#">04-LCR-01-WS</a>	Children learn to solve a simple 4x4 Sudoku puzzles.
4	6	Problem Solving & Discrete Maths	Discrete Mathematical Modeling	02-DA-01	<a href="#">04-DM-01-LP</a>	<a href="#">04-DM-01-PPT</a>	Students learn about relations



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## Standard 5

Std	Lesson	Area	Topic	Prerequisite	Lesson Plan	Slides/ Worksheet	Description
5	1	Problem Solving & Discrete Maths	Information Processing		<a href="#">04-IP-01-LP</a>	<a href="#">04-IP-01-PPT</a> , <a href="#">04-IP-01-WS</a>	Children perform simple activities to motivate data compression.
5	2	Problem Solving & Discrete Maths	Discrete Mathematical Modeling	04-DM-01	<a href="#">04-DM-02-LP</a>	<a href="#">04-DM-02-PPT</a> , <a href="#">04-DM-02-WS</a>	Students learn about paths in a graph and cost of paths.
5	3	Logical Thinking	Logic Puzzle	04-LCR-01	<a href="#">02-PS-33-LP</a>	<a href="#">02-PS-33-WS</a>	Children asked to solve 4x4 and then 6 x 6 Sudoku puzzles based on learning from previous class
5	4	Problem Solving & Discrete Maths	Iterative Patterns and Processes	04-IPP-01	<a href="#">05-IPP-01-LP</a>	<a href="#">05-IPP-01-PPT</a> , <a href="#">05-IPP-01-WS</a>	Children observe different types of patterns in nature.
5	5	Problem Solving & Discrete Maths	Iterative Patterns and Processes	02-ALG-15, 03-IPP-01	<a href="#">05-IPP-02-LP</a>	<a href="#">05-IPP-02-PPT</a> , <a href="#">05-IPP-02-WS</a>	Children perform simple mathematical activities using patterns.
5	6	Algorithms	Algorithm Revision	03-DA-02	<a href="#">04-ALG-01-LP</a>	<a href="#">04-ALG-01-PPT</a> , <a href="#">04-ALG-01-WS</a>	Using activities, children will revise what an algorithm is and what loops are



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## Standard 6

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6	1	Problem Solving & Discrete Maths	Information Processing (04-IP-02)	04-IP-01	<a href="#">04-IP-02-LP</a>	<a href="#">04-IP-02-PPT</a> , <a href="#">04-IP-02-WS</a>	Children learn about representing information and introducing codes
6	2	Problem Solving & Discrete Maths	Devising Algorithms	04-ALG-01	<a href="#">06-DA-01-LP</a>	<a href="#">06-DA-01-PPT</a> , <a href="#">06-DA-01-WS</a>	Children learn to use flowcharts to describe algorithms
6	3	Problem Solving & Discrete Maths	Systematic Listing, Counting, Reasoning	02-PS-33	<a href="#">06-LCR-02-LP</a>	<a href="#">06-LCR-02-PPT</a> , <a href="#">06-LCR-02-WS</a>	Children learn to solve more complex Sudoku : Sudoku (9x9)
6	4	Problem Solving & Discrete Maths	Discrete Mathematical Modeling	04-DM-02	<a href="#">06-DM-01-LP</a>	<a href="#">06-DM-01-PPT</a> , <a href="#">06-DM-01-WS</a>	Children solve more puzzles on graph related topics. Puzzles related to Eulerian tour. Planar graphs using several examples.



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### Standard 7

Std	Lesson	Area	Topic	Prerequisite	Lesson Plan	Slides/ Worksheet	Description
7	1	Problem Solving & Discrete Maths	Information Processing	04-IP-02	<a href="#">06-IP-03-LP</a>	<a href="#">06-IP-03-PPT</a> , <a href="#">06-IP-03-WS</a>	Children learn about error detection and correction.
7	2	Problem Solving & Discrete Maths	Devising Algorithms	06-DA-01	<a href="#">06-DA-02-LP</a>	<a href="#">06-DA-02-PPT</a> , <a href="#">06-DA-02-WS</a>	Children perform real-life tasks/examples using flowcharts.
7	3	Problem Solving & Discrete Maths	Iterative Patterns and Processes	04-ALG-01	<a href="#">07-IPP-01-LP</a>	<a href="#">07-IPP-01-PPT</a> , <a href="#">07-IPP-01-WS</a>	Children learn about Iterative loops and processes. Using repetitive process in tasks like sequential search.



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## Standard 8

Std	Lesson	Area	Topic	Prerequisite	Lesson Plan	Slides/ Worksheet	Description
8	1	Problem Solving & Discrete Maths	Devising Algorithms	04-ALG-01	<a href="#">07-DA-01-LP</a>	<a href="#">07-DA-01-PPT</a> , <a href="#">07-DA-01-WS</a>	Children learn about Optimization strategies.
8	2	Problem Solving & Discrete Maths	Information Processing	06-IP-03	<a href="#">08-IP-01-A-LP</a> , <a href="#">08-IP-01-A-WS-SOLN</a> , <a href="#">08-IP-01-B-LP</a> , <a href="#">08-IP-01-B-WS-SOLN</a>	<a href="#">08-IP-01-A-PPT</a> , <a href="#">08-IP-01-A-WS</a> , <a href="#">08-IP-01-B-PPT</a> , <a href="#">08-IP-01-B-WS</a>	Children learn basic cryptography using simple activities and exercises.
8	3	Problem Solving & Discrete Maths	Discrete Mathematical Modeling	06-DM-01	<a href="#">08-DM-01-A-LP</a> , <a href="#">08-DM-01-B-LP</a> , <a href="#">08-DM-01-A-WS-SOLN</a> , <a href="#">08-DM-01-B-WS-SOLN</a>	<a href="#">08-DM-01-A-PPT</a> , <a href="#">08-DM-01-A-WS</a> , <a href="#">08-DM-01-B-PPT</a> , <a href="#">08-DM-01-B-WS</a>	Children learn about graph coloring using examples.