

# CLASS 6

Name: \_\_\_\_\_

Class: \_\_\_\_\_

Division: \_\_\_\_\_



# EXPERT BOOK

## PART 1

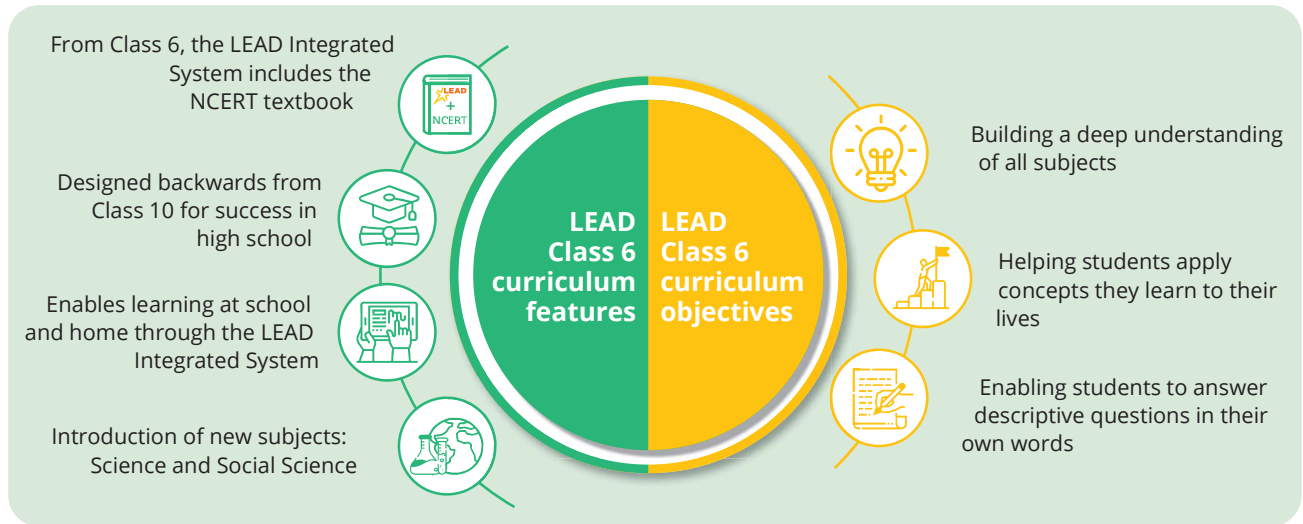


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## NOTE TO PARENTS



At LEAD, we design our curriculum with the aim to help children get over the fear of maths and build deep conceptual clarity of the subject.

At the core of our maths curriculum is the world renowned teaching and learning approach called Concrete Pictorial Abstract (CPA) Method. The CPA approach makes maths easy to teach and learn, which is why it is used by some of the most well regarded school systems of the world.

Traditionally, maths is taught using symbols for numbers and operations. This makes it abstract and difficult to understand. The CPA method on the other hand is a sequential process that begins with students using physical objects (concrete) to understand quantities and operations. They then move to representing these quantities and operations with pictures (pictorial). Only when a solid understanding is built do they move to using symbols (abstract). This way, they build a robust understanding of math concepts.

In classes 6 to 8, as concepts become more abstract, our curriculum adapts the CPA method focusing more on using pictorial representations to help students visualize abstract ideas. This approach ensures that students truly understand maths and do not need to memorise concepts.



### Pictorial

Pictures in the carefully created videos and books by LEAD help them visualise concepts take the intermediate step from concrete to abstract.


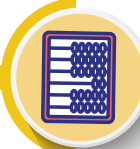







### Abstract


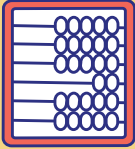
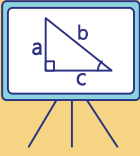
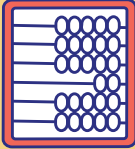
Use symbols to represent the pictures and learn the language of math helping them perform operations without rote-learning.

$$5 + 5x = 5.5$$


# ANNUAL LEARNING PLAN

PART 1	Unit Name	Content Strand	NCERT Chapter
	<p><b>Number System 1</b></p> <p>Students will apply large numbers in real-life situations, learn and use factors and multiples</p>	<p>Number System</p>	<p>1, 2, 3</p>
	<p><b>Number System 2</b></p> <p>Students will real-life problems involving HCF and LCM, and get introduced to negative numbers</p>	<p>Number System</p>	<p>3, 6</p>
	<p><b>Geometry</b></p> <p>Students will get introduced to angles and polygons and learn about their properties</p>	<p>Geometry</p>	<p>4, 5, 13</p>
	<p><b>Fractions and Decimals</b></p> <p>Students will apply fractions and decimals in problems involving money, length and weight</p>	<p>Number System</p>	<p>7, 8</p>
PART 2	Unit Name	Content Strand	NCERT Chapter
	<p><b>Algebra</b></p> <p>Students will learn algebra by representing patterns using variables and solving equations</p>	<p>Algebra and Proportions</p>	<p>11</p>
	<p><b>Ratio and Proportion</b></p> <p>Students will learn about ratios to compare quantities and use unitary method to solve problems</p>	<p>Algebra and Proportions</p>	<p>12</p>
	<p><b>Money and Data Handling</b></p> <p>Students will analyse bar graphs, calculate area and perimeter of shapes, and construct angles</p>	<p>Geometry and Data Handling</p>	<p>9, 10, 14</p>

# MATHS — PART 1

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This **EXPERT BOOK** should be used in addition to the NCERT textbook. It is designed to achieve the following three objectives:

1. To help students learn the concepts of the NCERT textbook by presenting them in an easy-to-understand form.
2. To provide students with additional information to aid conceptual understanding.
3. To ensure students get adequate practice through additional questions and enhance their learning through Higher Order questions. The  icon is used to indicate the Higher Order Thinking Skills (HOTS) questions.

The **EXPERT BOOK** must be used as advised by the teacher in class or for home practice.

Whenever students find the NCERT textbook difficult to understand, they can refer to the **EXPERT BOOK**. Students should also refer to it while preparing for assessments.