

CLASS 7

Name: _____

Class: _____

Division: _____



EXPERT BOOK

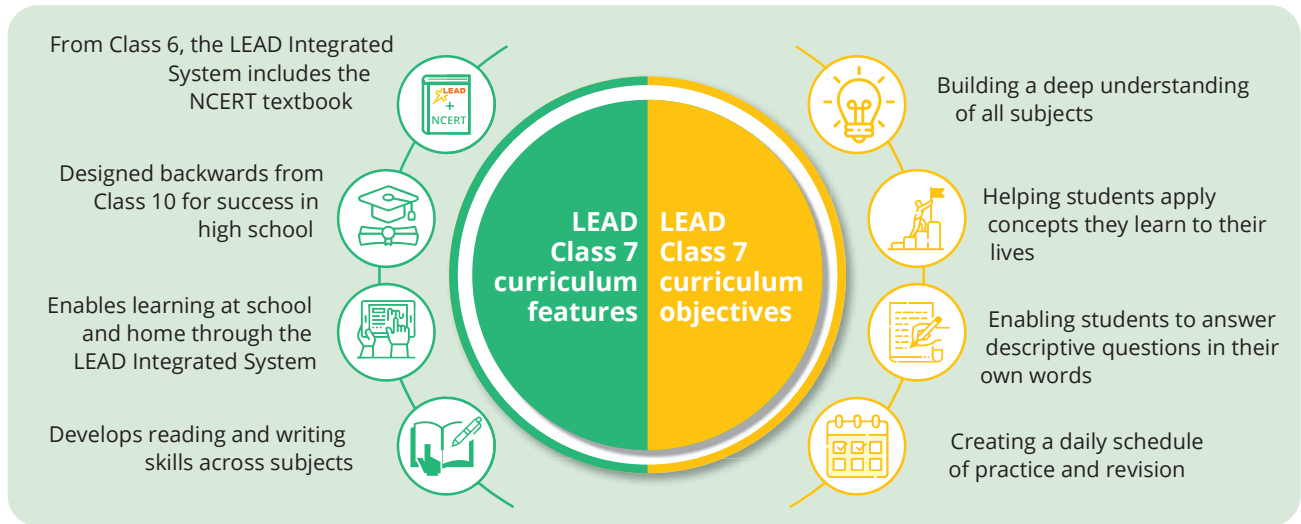
PART 1



Head Office

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Andheri East, Mumbai - 400093, India

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 build 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.






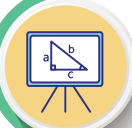



Abstract

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>Fractions, Decimals and Percentages</p> <p>Students will solve real-life problems using operations on decimals, fractions, ratio, and percentages</p>	<p>Number System</p>	<p>2, 8</p>
	<p>Integers and Rational Numbers</p> <p>Students will apply properties of integers and get introduced to rational numbers</p>	<p>Number System</p>	<p>1, 9</p>
	<p>Data Handling and Exponents</p> <p>Students will express numbers using exponents and solve problems using measures of central tendencies</p>	<p>Data Handling and Number Operations</p>	<p>3, 13</p>
	<p>Geometry 1</p> <p>Students will apply fractions and decimals in problems involving money, length and weight</p>	<p>Geometry</p>	<p>5, 6</p>
PART 2	Unit Name	Content Strand	NCERT Chapter
	<p>Algebra</p> <p>Students will learn algebra by representing patterns using variables and solving equations</p>	<p>Algebra</p>	<p>12, 4</p>
	<p>Geometry 2</p> <p>Students will study congruency and learn to construct parallel lines and simple triangles</p>	<p>Geometry</p>	<p>7, 10</p>
	<p>Mensuration and Symmetry</p> <p>Students will learn about symmetry, visualise nets of shapes, and calculate perimeter and area</p>	<p>Geometry and Mensuration</p>	<p>14, 15, 11</p>

MATHS — PART 1

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Annual Learning Plan

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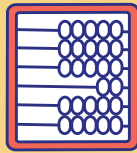
Unit 1



Number System

06

Unit 2



Number System

31

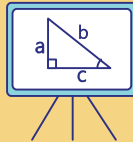
Unit 3



Geometry

55


Unit 4



Number System

78

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.