				Espalier Heritage School Annual Planner 2025-26				
Grade: 6		**Subject: Maths**					**Created By: Gouri Dixit, Trupti Borse**	
Sr No	**Lesson Name**	**Points To Cover**	**Lesson Flow**	**Learning objectives**	**Methodology**	**Pedagogical process**	**Learning outcomes**	**Teaching Aid**	**Class Activities /Diagrams / Map work**
1	**Patterns in Mathematics**	Patterns in maths: Number sequence and shape sequence	Set induction to check the previous knowledge of student about numbers. Introduction through daily-life patterns → exploration of number and shape sequences → guided practice → activity → recap.	Students will explore the number and different shape sequences. Students will identify, extend, and create number and shape patterns using logical reasoning.	Discussion, pattern observation, teacher demonstration, and student hands-on exploration.	The learner may be provided opportunities in pairs/groups/ individually.	Learners will correctly recognize and generate number and shape sequences and explain the rule behind them.	Number cards, shape cut-outs, pattern strips, grid paper, and a simple PPT/chart showing growing patterns.	Activity: Students complete a pattern gallery walk by extending given number sequences and drawing the next shapes in visual patterns.
		Visualising number sequence in pictorial form	Recall number sequences → introduce pictorial representation → observe and interpret visuals → practice → recap.	Students will represent and interpret number sequences using pictures and diagrams.	Demonstration using pictorial models, guided observation, questioning, and student practice.	The learner may be provided opportunities in pairs/groups/ individually.	Learners will visually explain number patterns and predict the next term using pictures.	Dot grids, counters/beans, square paper, chart or PPT showing pictorial number patterns.	Students draw dot or block pictures to show a given number sequence and extend it by one step.
		Relation among number sequences	Review known number sequences → compare two or more sequences → identify relationships → practice → recap.	Students will identify and explain relationships among different number sequences.	Guided discussion, comparison tables, questioning, and example-based learning.	The learner may be provided opportunities in pairs/groups/ individually.	Learners will relate number sequences using common rules like addition, multiplication, or position.	Number charts, sequence cards, comparison charts, and board/PPT examples.	Students match paired sequences (e.g., 2,4,6… and 1,2,3…) and explain the relationship between them.
		Types of patterns in shape	Introduction through real-life shape patterns → exploration of different shape patterns → guided practice → class activity → recap and reflection.	Students will identify, observe, and classify different types of patterns formed using shapes.	Interactive discussion, observation, demonstration, and activity-based learning.	Engage students with visual patterns → explore shape sequences → explain pattern rules → apply understanding through activities → assess learning through questioning.	Students will be able to recognize, extend, and create shape patterns and explain the rule behind them.	Blackboard, chart papers, shape cut-outs, textbook (Ganit Prakash), and smart board (if available).	Students create and extend shape patterns using paper cut-outs or draw their own patterns and describe the rule.
		Shape sequence related to number sequence	Recall of number sequences → introduction of shapes linked with numbers → observation of shape sequences → guided practice → activity and recap.	Students will understand the relationship between number sequences and corresponding shape sequences.	Discussion-based learning, visual demonstration, and hands-on activities.	Engage students with number patterns → explore how shapes represent numbers → explain the sequence rule → apply learning through activities → assess through oral questioning.	Students will be able to identify, extend, and create shape sequences based on given number sequences.	Textbook (Ganit Prakash), number cards, shape cut-outs, chart paper, blackboard/smart board.	Students match given number sequences with shape sequences or design their own shape sequence for a given number pattern.

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2	Lines and Angles	Introduction to basic geometrical ideas.	Observation of objects around us → introduction of basic geometrical terms → explanation with examples → guided practice → activity and recap.	Students will understand and identify basic geometrical ideas like point, line, line segment, ray, and plane.	Observation, demonstration, discussion, and activity-based learning.	Engage with real-life objects → explore geometrical ideas → explain definitions and examples → apply through drawing and identification → assess understanding.	Students will be able to recognize, name, and represent basic geometrical ideas correctly.	Textbook (Ganit Prakash), geometry kit, charts, blackboard/smart board.	Students identify and draw basic geometrical figures from objects in the classroom.
		Comparing angles	Recall of angles in daily life → introduction to comparing angles → demonstration with models → guided practice → activity and recap.	Students will learn to compare angles using observation and simple tools.	Demonstration, discussion, hands-on practice, and activity-based learning.	Engage with real-life examples → explore angle opening → explain methods of comparison → apply learning through activities → assess understanding.	Students will be able to identify, compare, and classify angles as smaller, larger, or equal.	Geometry kit, angle cut-outs, textbook (Ganit Prakash), blackboard/smart board.	Students compare given angles using paper folding or angle cut-outs and state which is bigger or smaller.
		Types of angles	Recall of angle concept → introduction of different types of angles → demonstration with examples → guided practice → activity and recap.	Students will identify and classify angles based on their measures.	Demonstration, discussion, questioning, and activity-based learning.	Engage with real-life angles → explore angle measures → explain classification → apply learning through activities → assess understanding.	Students will be able to recognize and name different types of angles correctly.	Geometry kit, angle charts, textbook (Ganit Prakash), blackboard/smart board.	Students identify types of angles in classroom objects or draw examples for each type.
		Measuring angles using protractor	Recall of types of angles → introduction to the protractor → demonstration of steps → guided practice → activity and recap.	Students will learn to measure angles accurately using a protractor.	Demonstration, hands-on practice, questioning, and activity-based learning.	Engage with angle revision → explore parts of a protractor → explain measuring steps → apply through practice → assess understanding.	Students will be able to measure and record angles correctly using a protractor.	Protractor, geometry box, angle charts, textbook (Ganit Prakash), blackboard/smart board.	Students measure angles drawn on paper using a protractor and note their measures.

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		Drawing angles using protractor.	Recall of angle measurement → introduction to drawing angles → demonstration with a protractor → guided practice → activity and recap.	Students will learn to draw angles of given measures accurately using a protractor.	Demonstration, hands-on practice, discussion, and activity-based learning.	Engage with angle revision → explore protractor parts → explain steps to draw angles → apply learning through drawing → assess understanding.	Students will be able to draw angles of specified measures correctly using a protractor.	Protractor, geometry box, graph paper, textbook (Ganit Prakash), blackboard/smart board.	Students draw angles of 30°, 45°, 60°, and 90° using a protractor and verify with peers.
		Types of angles and their measures.	Recall angle concept → introduction of different types of angles with measures → demonstration → guided practice → activity and recap.	Students will identify, classify, and measure angles according to their types.	Demonstration, discussion, hands-on practice, and activity-based learning.	Engage with real-life examples → explain angle types and their ranges → show measurement with protractor → apply learning through practice → assess understanding.	Students will be able to name types of angles, state their measures, and measure them accurately.	Protractor, geometry box, angle charts, textbook (Ganit Prakash), blackboard/smart board.	Students measure given angles using a protractor and classify them as acute, right, obtuse, straight, reflex, or full rotation.
3	**Number Play**	Numbers can tell us things	Discussion on real-life use of numbers → introduction of the concept → examples from daily life → guided practice → activity and recap.	Students will understand how numbers convey information in real-life situations.	Discussion, real-life examples, observation, and activity-based learning.	Engage with daily-life contexts → explore meaning of numbers → explain interpretation → apply understanding through activities → assess through questioning.	Students will be able to interpret numbers used in daily life and explain the information they convey.	Textbook (Ganit Prakash), real-life pictures, charts, blackboard/smart board.	Class Activity: explain what information each number gives.
		Supercells	Introduction to the idea of grouping → explanation of supercells → examples from the textbook → guided practice → activity and recap.	Students will understand the concept of supercells and how they help in organizing and representing numbers efficiently.	Explanation, demonstration, questioning, and activity-based learning.	Engage with grouping ideas → explore formation of supercells → explain their use → apply concept through examples → assess understanding.	Students will be able to form supercells and use them to represent numbers clearly and systematically.	Textbook (Ganit Prakash), chart paper, number cards, blackboard/smart board.	Students create supercells using number cards or draw supercell representations for given numbers.

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		Patterns of numbers on number line	Recall of number line concept → demonstration of number patterns → observation and discussion → guided practice → activity and recap.	Students will identify and understand number patterns using a number line.	Demonstration, questioning, discussion, and activity-based learning.	Engage with number line → represent, identify, and explain pattern rules → apply learning → assess through oral questions.	Students will be able to represent, identify, and extend number patterns on a number line.	Number line chart, textbook (Ganit Prakash), number cards, blackboard/smart board.	Students show number patterns by making equal jumps on a number line and explain the rule.
		Pretty Palindromic patterns	Recall of palindrome concept → introduction to palindromic patterns → observation of examples → guided practice → activity and recap.	Students will understand and identify palindromic patterns in numbers and shapes.	Discussion, demonstration, pattern observation, and activity-based learning.	Pedagogical Process: explain formation rules → apply learning through activities → assess understanding.	Learning Outcomes: create, and explain palindromic patterns confidently.	Textbook (Ganit Prakash), number cards, pattern charts, blackboard/smart board.	Students create their own palindromic number or shape patterns and explain the rule.
		The magic number of Kaprekar	Introduction to Kaprekar's idea → demonstration of the steps → student practice → activity → recap and reflection.	Students will understand the Kaprekar process and discover the magic number through repeated steps.	Demonstration, guided practice, discussion, and activity-based learning.	Engage with a number puzzle → explore rearranging digits → explain the Kaprekar steps → apply through examples → assess learning.	Students will be able to perform the Kaprekar operation and identify the magic number correctly.	Teaching Aids: Prakash), number cards, chart showing steps, blackboard/smart board.	Students apply the Kaprekar process to different numbers and verify the magic number.
		Clock and Calender numbers	Discussion on daily use of clock and calendar → introduction of number patterns → examples and explanation → guided practice → activity and recap.	Students will understand how numbers are used in clocks and calendars to show time and dates.	Discussion, demonstration, real-life examples, and activity-based learning.	Engage with daily-life context → explore clock and calendar layouts → explain number patterns → apply learning through activities → assess understanding.	Students will be able to read, interpret, and identify number patterns in clocks and calendars.	Clock model, calendar chart, textbook (Ganit Prakash), blackboard/smart board.	Students identify number patterns on a clock or calendar and explain their observations.

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		Mental math	Warm-up with quick questions → introduction of mental strategies → guided practice → class activity → recap and reflection.	Students will develop speed and accuracy in solving mathematical problems mentally.	Oral questioning, demonstration of tricks, practice, and activity-based learning.	Engage with quick calculations → explore mental strategies → explain shortcuts → apply through practice → assess orally.	Students will be able to perform basic calculations mentally with confidence and accuracy.	Blackboard, flash cards, number charts, textbook (Ganit Prakash).	Rapid-fire mental math quiz or pair-based challenge using everyday numbers.
		Playing with number patterns	Introduction through number games → observation of patterns → discussion of rules → guided practice → activity and recap.	Students will explore, identify, and create number patterns using logical thinking.	Game-based learning, discussion, demonstration, and activity-based learning.	Engage with number games → explore pattern formation → explain pattern rules → apply learning creatively → assess understanding.	Students will be able to recognize, extend, and form number patterns confidently.	Textbook (Ganit Prakash), number cards, pattern charts, blackboard/smart board.	Students play pattern games or create their own number patterns and explain the rule.
		The Collatz Conjecture	Introduction through a number puzzle → explanation of Collatz rules → student practice → observation of results → recap and discussion.	Students will understand the Collatz rules and explore patterns formed by repeated operations on numbers.	Demonstration, guided practice, discussion, and exploratory learning.	Engage with a number challenge → explore even–odd rules → explain the conjecture steps → apply through examples → assess learning through discussion.	Students will be able to apply the Collatz rules and observe the resulting number patterns.	Textbook (Ganit Prakash), number cards, flow chart of steps, blackboard/smart board.	Students choose a number, apply the Collatz steps, and record how it reaches 1.
		Games and Winning strategies	Introduction through a simple game → discussion on strategies → explanation of winning ideas → guided practice → gameplay and recap.	Students will understand how mathematical thinking helps in forming winning strategies in games.	Game-based learning, discussion, demonstration, and activity-based learning.	Engage through gameplay → explore possible moves → explain strategy and reasoning → apply during games → assess through reflection.	Students will be able to use logical reasoning to develop and explain winning strategies.	Textbook (Ganit Prakash), game boards/cards, chart paper, blackboard/smart board.	Students play a simple math-based game and identify the winning strategy used.

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4	**Data Handling and Presentation**	Collecting and organizing data	Introduction through real-life examples → discussion on types of data → demonstration of data collection → guided practice → activity and recap.	Students will learn to collect, record, and organize data systematically.	Discussion, demonstration, observation, and activity-based learning.	Engage with real-life situations → explore ways to collect data → explain tabulation and organization → apply learning through practice → assess understanding.	Students will be able to collect data from surveys or experiments and organize it using tables or charts.	Textbook (Ganit Prakash), chart paper, rulers, worksheets, blackboard/smart board.	Students conduct a small survey in the classroom and organize the collected data in a table.
		Pictographs	Recall of data collection → introduction to pictographs → demonstration using examples → guided practice → activity and recap.	Students will learn to represent data visually using pictographs.	Discussion, demonstration, hands-on drawing, and activity-based learning.	Engage with collected data → explore pictorial representation → explain symbols and scales → apply learning through drawing → assess understanding.	Students will be able to create and interpret pictographs accurately.	Textbook (Ganit Prakash), chart paper, symbols/cards, rulers, blackboard/smart board.	Students draw a pictograph representing data collected from the classroom (e.g., favorite fruits or sports).
		Drawing bar graphs	Recall of organized data → introduction to bar graphs → demonstration of drawing steps → guided practice → activity and recap.	Students will learn to represent data using bar graphs accurately.	Demonstration, discussion, hands-on drawing, and activity-based learning.	Students will be able to construct bar graphs from given data and interpret them correctly.	Engage with collected/tabulated data → explain axes, scale, and bars → demonstrate drawing → apply learning through practice → assess understanding.	Textbook (Ganit Prakash), graph paper, rulers, colored pencils, blackboard/smart board.	Students draw a bar graph representing classroom data (e.g., number of students with different hobbies or favorite fruits) and explain their graph.
		Artistic and Aesthetic Considerations	Introduction through examples in real-life and art → discussion on beauty and design → demonstration of aesthetic principles → guided practice → activity and recap.	Students will understand how to incorporate artistic and aesthetic elements in designs, shapes, and patterns.	Discussion, demonstration, observation, and hands-on creative activity.	Engage with real-life art/design → explore balance, symmetry, and proportion → explain aesthetic principles → apply through creation → assess understanding through peer review.	Students will be able to create visually appealing designs considering symmetry, balance, and proportion.	Textbook (Ganit Prakash), chart paper, drawing tools, examples of patterns/designs, blackboard/smart board.	Students design a simple pattern, poster, or shape arrangement applying aesthetic considerations and present it to the class.

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5	Prime Time	Common multiples and common factors	Recall of multiples and factors → introduction to common multiples and factors → demonstration with examples → guided practice → activity and recap.	Students will identify common multiples and factors of given numbers.	Discussion, demonstration, problem-solving, and activity-based learning.	Engage with familiar numbers → explore lists of multiples and factors → explain methods to find common ones → apply learning through examples → assess understanding.	Students will be able to find common multiples, common factors, and explain their significance.	Textbook (Ganit Prakash), number cards, chart paper, blackboard/smart board.	Students list multiples and factors of given numbers and identify common ones through pair or group work.
		Prime and composite numbers	Recall of factors → introduction to prime and composite numbers → demonstration with examples → guided practice → activity and recap.	Students will identify and classify numbers as prime or composite.	Discussion, demonstration, questioning, and activity-based learning.	Engage with familiar numbers → explore definitions and examples → explain rules for classification → apply learning through practice → assess understanding.	Students will be able to distinguish between prime and composite numbers and list them within a given range.	Textbook (Ganit Prakash), number cards, charts, blackboard/smart board.	Students identify prime and composite numbers from 1–100 and create a visual chart or table.
		Co-prime numbers	Recall of factors and prime numbers → introduction to co-prime numbers → demonstration with examples → guided practice → activity and recap.	Students will understand the concept of co-prime numbers and identify pairs of co-primes.	Discussion, demonstration, problem-solving, and activity-based learning.	Engage with familiar numbers → explore definition of co-primes → explain using examples → apply learning through practice → assess understanding.	Students will be able to identify co-prime numbers and explain why a pair of numbers is co-prime.	number cards, chart paper, blackboard/smart board.	Students list numbers from 1–50 and identify pairs of co-prime numbers in small groups.
		Prime Factorisation	Recall of prime numbers → introduction to factorisation → demonstration of prime factorisation using trees/division method → guided practice → activity and recap.	Students will learn to express numbers as a product of prime factors.	Demonstration, step-by-step explanation, problem-solving, and activity-based learning.	Engage with familiar numbers → explain methods of prime factorisation → show examples → apply learning through exercises → assess understanding.	Students will be able to find prime factors of numbers using factor trees or division method accurately.	chart paper, number cards, blackboard/smart board.	Students create factor trees or use division method to find prime factors of given numbers in pairs or small groups.

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		Divisibility tests	Recall of factors and multiples → introduction to divisibility tests → demonstration of rules for 2, 3, 4, 5, 9, and 10 → guided practice → activity and recap.	Students will learn and apply rules to check divisibility of numbers quickly.	Discussion, demonstration, step-by-step explanation, and activity-based learning.	Engage with familiar numbers → explain divisibility rules → show examples → apply learning through exercises → assess understanding.	Students will be able to determine whether a number is divisible by 2, 3, 4, 5, 9, or 10 using divisibility rules.	Textbook (Ganit Prakash), number cards, chart paper, blackboard/smart board.	Students check divisibility of given numbers using the rules and explain their reasoning in pairs or groups.
6	**Perimeter and Area**	Perimeter of regular shape, square and rectangle ; Word problems	Recall of basic shapes → introduction of perimeter → demonstration of formulas → guided CBQs → activity and recap.	Students will calculate the perimeter of squares, rectangles, and regular shapes and solve CBQs demonstrating understanding.	Discussion, step-by-step demonstration, CBQ practice, and activity-based learning.	Engage with real-life examples → explain perimeter formulas → solve CBQs → apply learning to classroom objects → assess understanding.	Students will be able to calculate perimeters correctly and solve CBQs with reasoning.	Textbook (Ganit Prakash), geometry kit, rulers, chart paper, blackboard/smart board.	Class Activity (CBQ Focus): Students solve competency questions like: "Find the perimeter of a square whose side is 10 cm." "A rectangle has length 15 m and breadth 7 m. Find its perimeter." "A regular hexagon has each side 8 cm. Find its perimeter."
		Areas of squares and rectangles: Word problems	Recall of perimeter and basic shapes → introduction of area → demonstration of formulas for square and rectangle → guided CBQs → activity and recap.	Students will calculate areas of squares and rectangles and solve CBQs to demonstrate understanding and reasoning.	Demonstration, discussion, step-by-step problem-solving, and CBQ-based practice.	Engage with real-life examples → explain area formulas → solve CBQs → apply reasoning to word problems → assess understanding through competency questions.	Students will be able to calculate area of squares and rectangles accurately and solve CBQs with logical reasoning.	Textbook (Ganit Prakash), geometry kit, chart paper, rulers, blackboard/smart board.	Class Activity (CBQ Focus): Students solve CBQs like: "Find the area of a square whose side is 12 cm." "A rectangle has length 15 m and breadth 8 m. Find its area." "If a square field has an area of 49 m², find the length of its side."

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7	Fractions	Fractional Units and Equal shares	Set induction using daily-life sharing examples → explanation of fractional units → demonstration with objects → guided practice → activity → recap	Students will understand fractional units and identify equal shares of a whole.	Discussion, demonstration, hands-on activity	Learners will work individually and in groups to explore equal sharing using concrete materials.	Learners will correctly identify and represent fractions as equal parts of a whole.	Paper strips, fraction circles, charts, real-life objects	Activity: Students divide paper shapes into equal parts and label the fractions.
		Measuring using Fractional units	Introduction through measuring objects → demonstration using rulers and strips → guided practice → activity → recap	Students will learn to measure using fractional units.	Demonstration, discussion, practical activity	Learners will measure objects individually and in pairs using fractional units.	Learners will accurately measure and record lengths using fractions.	Rulers, paper strips, measuring cups, charts	Activity: Measure classroom objects and record measurements using fractional units.
		Mixed Fractions	Set induction using visual examples → explanation of mixed fractions → demonstration → guided practice → recap	Students will understand and represent mixed fractions.	Explanation, visual demonstration	Learners will correctly identify and represent mixed fractions.		Fraction strips, charts	Activity: Represent given mixed fractions using fraction strips or drawings.
		Equivalent Fractions	Introduction through shaded diagrams → demonstration → guided practice → activity → recap	Students will understand and identify equivalent fractions.	Discussion, demonstration	Learners will explore equivalent fractions in pairs through visual models.	Learners will correctly identify and generate equivalent fractions.	Fraction circles, charts, cards	Activity: Matching equivalent fraction cards using visual models.
		Simplest form of a Fraction	Set induction with simple examples → explanation → step-by-step demonstration → guided practice → recap	Students will learn to simplify fractions to their lowest form.	Explanation, guided practice	Learners will simplify fractions individually and discuss steps.	Learners will correctly reduce fractions to simplest form.	Charts, worksheets	Activity: Simplify given fractions and explain the steps followed.

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		Compairing Fraction	Introduction using visual comparison → explanation of methods → guided practice → activity → recap	Students will learn to compare fractions.	Discussion, demonstration Learners will compare fractions in pairs using models and symbols. Learners will correctly compare fractions using >, <, =. Fraction strips, charts Activity: Fraction comparison game using cards.	Learners will compare fractions in pairs using models and symbols.	Learners will correctly compare fractions using >, <, =.	Fraction strips, charts	Activity: Fraction comparison game using cards.
		Addition and Subtraction of Fractions	Review of equivalent fractions → explanation → demonstration → guided practice → activity → recap	Students will learn to add and subtract fractions correctly.	Explanation, demonstration, practice Learners will solve problems individually and in pairs. Learners will correctly add and subtract fractions and solve simple word problems. Fraction strips, worksheets, charts Activity: Solve fraction word problems in pairs and explain the solution.	Learners will solve problems individually and in pairs.	Learners will correctly add and subtract fractions and solve simple word problems.	Fraction strips, worksheets, charts	Activity: Solve fraction word problems in pairs and explain the solution.

Grade: 6		Subject: Maths					Created By: Gouri Dixit, Trupti Borse		
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1	**Patterns in Mathematics**	Patterns in maths: Number sequence and shape sequence	Set induction to check the previous knowledge of student about numbers. Introduction through daily-life patterns → exploration of number and shape sequences → guided practice → activity → recap.	Students will explore the number and different shape sequences. Students will identify, extend, and create number and shape patterns using logical reasoning.	Discussion, pattern observation, teacher demonstration, and student hands-on exploration.	The learner may be provided opportunities in pairs/groups/ individually.	Learners will correctly recognize and generate number and shape sequences and explain the rule behind them.	Number cards, shape cut-outs, pattern strips, grid paper, and a simple PPT/chart showing growing patterns.	Activity: Students complete a pattern gallery walk by extending given number sequences and drawing the next shapes in visual patterns.
8	**Playing with Constructions**	Art work	• Use of squares and rectangles in art • Patterns and designs • Creativity with geometric shapes	Students will: • Identify squares and rectangles in artworks • Create designs using geometric shapes • Appreciate the link between art and geometry	Observation, discussion, demonstration, creative activity	1. Set Induction: Observe patterns in classroom objects 2. Introduction: Show artworks using shapes 3. Explanation: Discuss use of squares and rectangles 4. Guided Practice: Identify shapes in designs 5. Activity: Create geometric artwork 6. Recap: Reflect on learning	Learners will be able to: • Use geometric shapes creatively • Recognize geometry in art	Colour paper, crayons, rulers, charts/PPT	Activity: Students create a collage or design using only squares and rectangles
		Squares and Rectangles	• Sides and angles • Similarities and differences	Students will: • Identify squares and rectangles • Describe their properties • Compare both shapes	Discussion, demonstration, observation	1. Set Induction: Recall basic shapes 2. Introduction: Show square and rectangle models 3. Explanation: Discuss properties 4. Guided Practice: Identify shapes 5. Activity: Sorting shapes 6. Recap: Summarize properties	Learners will be able to: • Identify and compare squares and rectangles	Shape cut-outs, charts, board drawings	Activity: Students sort objects into squares and rectangles
		Constructing squares and Rectangles	• Use of ruler and set square • Given measurements	Students will: • Construct squares and rectangles accurately • Use measuring tools correctly	Demonstration, guided practice, hands-on activity	1. Set Induction: Recall properties 2. Introduction: Introduce construction tools 3. Explanation: Step-by-step construction 4. Guided Practice: Teacher-guided drawing 5. Activity: Individual construction 6. Recap: Review steps	Learners will be able to: • Construct squares and rectangles correctly	Skill-based learning	Activity: Students construct a square and a rectangle of given dimensions
		An exploration of Rectangles	• Opposite sides equal • Right angles • Different rectangles	Students will: • Explore properties of rectangles • Identify rectangles of different sizes	Exploration, discussion, activity-based learning	1. Set Induction: Recall rectangle properties 2. Introduction: Present different rectangles 3. Exploration: Measure sides and angles 4. Discussion: Share observations 5. Activity: Create rectangles 6. Recap: Conclude findings	Learners will be able to: • Explain properties of rectangles through exploration	Paper strips, rulers, worksheets	Activity: Students measure and compare different rectangles

	Espalier Heritage School **Annual Planner 2025-26**								
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1	**Patterns in Mathematics**	Patterns in maths: Number sequence and shape sequence	Set induction to check the previous knowledge of student about numbers. Introduction through daily-life patterns → exploration of number and shape sequences → guided practice → activity → recap.	Students will explore the number and different shape sequences. Students will identify, extend, and create number and shape patterns using logical reasoning.	Discussion, pattern observation, teacher demonstration, and student hands-on exploration.	The learner may be provided opportunities in pairs/groups/ individually.	Learners will correctly recognize and generate number and shape sequences and explain the rule behind them.	Number cards, shape cut-outs, pattern strips, grid paper, and a simple PPT/chart showing growing patterns.	Activity: Students complete a pattern gallery walk by extending given number sequences and drawing the next shapes in visual patterns.
		Exploring Diagonals of Rectangles and Squares	• Length of diagonals • Intersection of diagonals	Students will: • Identify diagonals • Compare diagonals of squares and rectangles • Observe their properties	Demonstration, hands-on exploration	1. Set Induction: Recall shapes 2. Introduction: Draw diagonals 3. Exploration: Measure diagonals 4. Discussion: Observe results 5. Activity: Paper folding or drawing 6. Recap: Summarize observations	Learners will be able to: • Describe properties of diagonals	Ruler, paper cut-outs, charts	Activity: Students draw and compare diagonals in squares and rectangles
		Points equidistant from two given points	• Meaning of equidistant • Perpendicular bisector	Students will: • Understand equidistance • Identify points equidistant from two points	Demonstration, guided practice, exploration	1. Set Induction: Recall distance between points 2. Introduction: Explain equidistance 3. Explanation: Construct perpendicular bisector 4. Guided Practice: Identify points 5. Activity: Draw and verify 6. Recap: Key learning	Learners will be able to: • Identify and construct equidistant points	Compass, ruler, graph paper	Activity: Students draw points equidistant from two given points
9	**Symmetry**	Symmetry	• Meaning of line of symmetry • Vertical and horizontal lines of symmetry • Number of lines of symmetry in shapes	Students will: • Understand the concept of symmetry • Identify symmetrical objects around them • Differentiate between symmetrical and non-symmetrical figures	Discussion, observation, demonstration, and hands-on activities	1. Set Induction: Recall shapes learned earlier 2. Introduction: Show real-life examples (butterfly, leaf, mirror image) 3. Explanation: Introduce symmetry using folding and mirror method 4. Guided Practice: Identify symmetry in shapes 5. Activity: Paper folding and colouring 6. Recap: Discuss key points		Paper cut-outs, mirror strips, charts/PPT showing symmetrical figures	Activity: Students fold paper shapes to check whether both halves match

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		Punching game	• Folding and punching shapes • Observation of patterns • Relation to symmetry	Students will: • Observe symmetry through punching activities • Predict the final pattern after unfolding • Develop logical and spatial thinking	Demonstration, activity-based learning, observation	1. Set Induction: Review symmetry concept 2. Introduction: Demonstrate paper folding and punching 3. Exploration: Students predict the design 4. Activity: Punch folded paper and unfold 5. Discussion: Observe and explain the pattern 6. Recap: Link activity to symmetry	Learners will be able to: • Understand symmetry through punching activity • Predict and explain symmetrical patterns	Coloured papers, punch machine, charts showing folded designs	Activity: Students draw and colour lines of symmetry on given shapes
		Lines of Symmetry	• Meaning of line of symmetry • Vertical and horizontal lines of symmetry • Number of lines of symmetry in shapes	Students will: • Identify lines of symmetry in shapes • Draw lines of symmetry accurately • Count the number of lines of symmetry	Explanation, demonstration, guided practice, hands-on activities	1. Set Induction: Recall symmetry concept 2. Introduction: Demonstrate using folding method 3. Explanation: Explain line of symmetry with examples 4. Guided Practice: Draw lines on shapes 5. Activity: Worksheet and shape folding 6. Recap: Summarize key ideas	Learners will be able to: • Identify and draw lines of symmetry • State the number of lines of symmetry in common shapes	Shape cut-outs, grid paper, mirrors, charts/PPT	Activity: Students draw and colour lines of symmetry on given shapes

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10	**The Other Side of Zero**	Bela's Building of fun	Understanding Integers through a Story Context "• Floors above and below ground • Positive and negative integers • Zero as reference point"	Students will: • Understand integers using real-life context • Identify positive, negative integers and zero • Relate floors to integer values	Storytelling, discussion, demonstration, visual representation	Learner-centred learning through guided questioning and interaction 1. Set Induction: Recall numbers and counting 2. Introduction: Narrate Bela's building story 3. Explanation: Explain floors using integers 4. Guided Practice: Identify floor numbers 5. Activity: Floor movement problems 6. Recap: Summarize concepts	Learners will be able to: • Represent real-life situations using integers	Building diagram, number cards, PPT/chart	Activity: Students mark different floors of Bela's building using integers
		Subtraction to find which button to press	• Meaning of subtraction • Movement up and down • Integer subtraction	Students will: • Use subtraction to find correct movement • Solve integer subtraction problems • Interpret subtraction in context	Demonstration, guided practice, discussion	1. Set Induction: Recall Bela's building 2. Introduction: Introduce button-press idea 3. Explanation: Demonstrate subtraction using floors 4. Guided Practice: Solve sample problems 5. Activity: Button-press challenges 6. Recap: Key takeaways	Learners will be able to: • Subtract integers correctly in real-life situations	Floor chart, number line, flash cards	Activity: Students decide which button to press to reach a given floor
		Back to number line	• Position of zero • Positive and negative numbers • Direction on number line	Students will: • Represent integers on a number line • Understand movement left and right • Compare integers	Demonstration, visual learning, guided practice	1. Set Induction: Recall integer concepts 2. Introduction: Introduce number line 3. Explanation: Plot integers 4. Guided Practice: Mark given integers 5. Activity: Human number line 6. Recap: Review	Learners will be able to: • Locate and represent integers accurately	Number line chart, floor tape line, cards	Activity: Students act as numbers on a large number line

<table>
<tr><td colspan="10" align="center">Espalier Heritage School
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		The token model	• Positive and negative tokens • Zero pairs • Integer operations	Students will: • Use tokens to represent integers • Understand addition and subtraction of integers • Form zero pairs	Hands-on learning, demonstration, discussion	1. Set Induction: Recall integers 2. Introduction: Introduce token model 3. Explanation: Show zero pairs 4. Guided Practice: Solve problems using tokens 5. Activity: Group token tasks 6. Recap: Key ideas	Learners will be able to: • Perform integer operations using models	Two-colour counters, charts, worksheets	Activity: Students solve integer sums using coloured tokens
		Integers in other places	• Temperature • Sea level • Profit and loss	Students will: • Identify integers in daily life • Interpret positive and negative values • Apply integers meaningfully	Discussion, real-life examples, visual aids	1. Set Induction: Recall integers 2. Introduction: Discuss real-life examples 3. Explanation: Interpret situations 4. Guided Practice: Solve examples 5. Activity: Situation cards 6. Recap: Review	Learners will be able to: • Use integers to describe real-life situations	Pictures, charts, situation cards	Activity: Students match situations with integers
		Exploration with Integers	• Addition and subtraction • Number line movement • Token model	Students will: • Explore integer concepts independently • Apply strategies to solve problems • Explain their reasoning	Activity-based learning, group work, discussion	1. Set Induction: Recall previous lessons 2. Introduction: Present challenge tasks 3. Exploration: Group problem-solving 4. Discussion: Share strategies 5. Activity: Integer stations 6. Recap: Reflect and conclude	Learners will be able to: • Confidently apply integer concepts across contexts	Worksheets, tokens, number lines, charts	Activity: Integer stations with mixed tasks (number line, tokens, word problems)