



DATE:

ITL PUBLIC SCHOOL
MATHEMATICS
TOPIC : SHAPES AND PATTERNS

CLASS: V Sec:___

	SECTION – A
1	<p>Multiple choice questions:</p> <p>1. How many faces does an icosahedron have? a) 10 b) 12 c) 20 d) 30</p> <p>2. A shape with all sides equal but angles not equal to 90° is called? a) Square b) Rectangle c) Rhombus d) Pentagon</p> <p>3. An equilateral triangle has how many equal sides? a) 1 b) 2 c) 3 d) 4</p> <p>4. Opposite sides of a parallelogram are: a) Unequal b) Equal c) Curved d) Perpendicular</p> <p>5. A hexagon has how many sides? a) 5 b) 6 c) 7 d) 8</p> <p>6. A quadrilateral has how many sides? a) 3 b) 4 c) 5 d) 6</p> <p>7. A circle has how many corners? a) 1 b) 2 c) 0 d) 4</p> <p>8. Which shape has all angles 90°? a) Rhombus b) Square c) Pentagon d) Hexagon</p> <p>9. A pentagon has how many angles? a) 4 b) 5 c) 6 d) 7</p> <p>10. A trapezium has how many pairs of parallel sides? a) None b) One c) Two d) Three</p>
2	<p>Fill in the blanks:</p> <p>1. An icosahedron has _____ faces.</p> <p>2. A shape with all sides equal but angles unequal is called a _____.</p> <p>3. A hexagon has _____ sides.</p> <p>4. Opposite sides of a parallelogram are _____.</p> <p>5. A triangle has _____ sides.</p> <p>6. A square has _____ equal sides.</p> <p>7. A circle has _____ corners.</p>

	<p>8. A pentagon has _____ angles.</p> <p>9. A quadrilateral has _____ sides.</p> <p>10. A rhombus has _____ equal sides.</p>
3	Draw a pentagon, parallelogram. Write two properties of each shape.
4	<p>Classroom Wall Decoration</p> <p>A teacher wants to decorate a classroom wall using different shapes. She chooses squares, rectangles, circles, pentagons, and hexagons. She arranges tiles so that all shapes fit without leaving gaps.</p> <ol style="list-style-type: none"> Which shape from her selection has no sides and no corners? <ol style="list-style-type: none"> Pentagon Hexagon Circle Square Which shape has all 4 sides equal and all angles 90°? <ol style="list-style-type: none"> Square Rhombus Rectangle Parallelogram How many sides does a pentagon have? <ol style="list-style-type: none"> 4 5 6 8 Hexagons can form tessellations because they have: <ol style="list-style-type: none"> 5 equal sides 6 equal sides No sides Only 2 parallel sides Why do squares and hexagons fit well in tiling?
5	<p>Playground Design</p> <p>A playground designer uses shapes to create safe play areas. The sandpit is octagon-shaped, the merry-go-round platform is circular, and the hopscotch board is made of rectangles and squares.</p> <ol style="list-style-type: none"> How many sides does an octagon have? Which shape in the playground has 360° around and no corners? A square and rectangle are both: <ol style="list-style-type: none"> Triangles Quadrilaterals Pentagons Octagons

	<p>4. Which shape is best for a merry-go-round to rotate smoothly?</p> <p>5. Give one reason why an octagon may be used for the sandpit.</p>
6	<p>a) Draw and label a triangle and write its properties.</p> <p>b) State any two differences between a square and a rectangle.</p>
7	<p>Name these:</p> <p>a) A shape that has 3 sides and 3 angles → _____</p> <p>b) A shape that has 4 equal sides and all right angles → _____</p> <p>c) A shape with one pair of parallel sides → _____</p> <p>d) A shape with no sides and no corners → _____</p> <p>e) A shape that has 6 sides and 6 angles → _____</p> <p>f) A 3D shape that has 20 triangular faces → _____</p>
8	<p>Riya is designing a birthday card. She uses these shapes:</p> <ul style="list-style-type: none"> • A big octagon in the centre for decoration • Two kites on the top • Four circles in the corners • A trapezium at the bottom for writing the name <p>Answer the following:</p> <p>a) How many sides does the main centre shape have?</p> <p>b) Which shape has two pairs of equal adjacent sides?</p> <p>c) Which shape has one pair of parallel sides?</p>