Straight and Curved Lines

Straight Lines:

- A line that goes directly from one point to another.
- It does not bend or curve.

Example: the side of your book, pencil, or ruler.

Curved Lines:

- A line that bends smoothly.
- It is not straight.

Example: the edge of a ball, a smiley face, or a rainbow.

Examples with Solutions:

1. Identify the Straight Line:

(Pencil)

Answer: Straight line, because the pencil is long and straight.

- 2. Identify the Curved Line:
 - 🜙 (Moon)

Answer: Curved line, because the moon is shaped like a curve.

3. Circle the Straight Lines:

🕪 Ball

Answer: Breadstick (straight line).

4. Circle the Curved Lines:

📏 Ruler

Answer: Egg (curved line).

5. Find Both Lines:

鴙 Banana, 🛄 Book

Answer: Banana (curved line), Book (straight line).

- Straight lines do not bend.
- Curved lines bend smoothly.
- Everyday objects help identify these lines.
- Understanding lines helps recognize shapes and patterns.





Curved Road

Types of Straight Lines

Explanation:

- Straight lines go from one point to another without bending.
- We have three main types of straight lines:
 - **Horizontal lines:** They go from left to right (sleeping lines).
 - Vertical lines: They go up and down (standing lines).
 - **Slanting lines:** They are tilted or leaning.

Horizontal	Vertical	Slant

Examples with Solutions:

1. Identify the Horizontal Line:

Example: Line like —

Solution: Horizontal line (sleeping line).

2. Identify the Vertical Line:

Example: Line like |

Solution: Vertical line (standing line).

3. Identify the Slanting Line:

Example: Line like / or \

Solution: Slanting line (leaning line).

4. Find Horizontal Lines in Letters:

Example: Letter "E"

Solution: E has three horizontal lines (sleeping lines).

5. Find Vertical Lines in Objects:

Example: A flagpole

Solution: Flagpole has a vertical line (standing line).

- Straight lines can be horizontal (sleeping), vertical (standing), or slanting (leaning).
- We see these lines everywhere around us, like in letters, numbers, and objects.
- Recognizing these lines helps us draw shapes and patterns easily.

Figures

Explanation:

- Figures are shapes we see every day around us.
- Figures can have straight lines, curved lines, or both.
- Common figures are circle, square, triangle, rectangle, and oval.



Examples with Solutions:

- **1. Identify a Circle:**
 - **Example:** (a coin)

Solution: It's round and has a curved line.

2. Identify a Square:

Example: (a slice of bread)

Solution: Four equal straight lines.

3. Identify a Triangle:

Example: (a piece of pizza)

Solution: Three straight lines joined together.

4. Identify a Rectangle:

Example: (a ruler)

Solution: Opposite sides are equal, four straight lines.

5. Identify an Oval:

Example: (an egg)

Solution: It is like a circle but longer.

- Figures are different shapes we see in daily life.
- Shapes can have straight lines, curved lines, or both.
 - Recognizing figures helps us understand patterns and drawings better.

Solid Figures Around Us

Explanation:

- Solid figures are shapes we can hold and touch.
- They have length, breadth, and height.
- Examples of solid figures around us are:
 - Cube (dice, ice cube)
 - Cuboid (book, brick)
 - Sphere (ball, orange)
 - o Cylinder (pencil, can)
 - Cone (ice cream cone, birthday hat)

Examples with Solutions:

1. Cube

Example: 🤢 (dice)

Solution: It has 6 square faces.

2. Cuboid

Example: (shoebox)

Solution: It has 6 rectangular faces.

3. Sphere

Example: (football)

Solution: It is round and has no corners.

4. Cylinder

Example: (tin can)

Solution: It has 2 circular flat faces and one curved face.

5. Cone

Example: \bigcirc (ice cream cone)

Solution: It has one circular flat face and one curved face ending in a point.

- Solid figures are shapes that we see, touch, and use daily.
- They have different shapes like cubes, cuboids, spheres, cylinders, and cones.
- Recognizing solid figures helps us identify objects around us clearly.

Different Solid Shapes

Explanation:

- Solid shapes are 3D shapes we can hold in our hands.
- Solid shapes have length, breadth, and height.
- Examples are cube, sphere, cylinder, cone, and cuboid.

Examples with Solutions:

1. Cube

Example: A dice 🎲

Solution: Has 6 flat square faces and 8 corners.

2. Sphere

Example: A ball 🚱

Solution: Round shape, no corners, no edges.

3. Cylinder

Example: Pencil 🥖

Solution: Has 2 flat circle faces and 1 curved face.

4. Cone

Example: Birthday hat 🏂

Solution: Has 1 flat circle face and 1 pointed end.

5. Cuboid

Example: Brick

Solution: Has 6 rectangular faces and 8 corners.

- Solid shapes are shapes we can hold and feel.
- Common solid shapes are cube, sphere, cylinder, cone, and cuboid.
- Learning about solid shapes helps us recognize objects around us better.

Faces, Edges and Corners

Explanation:

- Face: Flat surface of a solid shape.
- Edge: Line where two faces meet.
- **Corner:** Point where edges meet.

Examples with Solutions:

1.	Cube 🎲		
	Faces: 6	Edges: 12	Corners: 8
2.	Cuboid โ		
	Faces: 6	Edges: 12	Corners: 8
3.	Cylinder		
	Faces: 2 flat, 1 curved	Edges: 2 circular edges	Corners: 0
4.	Cone		
	Faces: 1 flat, 1 curved	Corners:	1 (pointed tip)
	Edges: 1 circular edge		
5.	Sphere 😵		
	Faces: 1 curved	Edges: 0	Corners: 0
~			

- Faces are flat or curved surfaces.
- Edges are lines where two faces join.
- Corners are points where edges meet.
- Counting faces, edges, and corners helps understand solid shapes better.

Patterns

Explanation:

- Patterns are things or shapes arranged in a special order.
- They repeat again and again in the same way.
- Patterns help us guess what comes next.

Examples with Solutions:

- 1. Shape Pattern:
 - **Solution:** (Red circle repeats)
- 2. Number Pattern: 1, 2, 1, 2, __? Solution: 1 (Numbers repeat)
- Letter Pattern: A, B, A, B, __?
 Solution: A (Letters repeat)
- 4. Object Pattern: <a>b <a
- 5. Color Pattern:
 - **Solution:** (Red square repeats)

- Patterns are things that repeat.
- They help us know what comes next.
- Patterns can be shapes, colors, numbers, letters, or objects.
- Learning patterns helps us think and solve problems easily.

Geometric Patterns

Explanation:

- Geometric patterns are patterns made using shapes.
- Shapes like squares \square , triangles \blacktriangle , circles \bigcirc , and rectangles \square are used.
- These shapes repeat in the same order to make a pattern.

Examples with Solutions:

1. Pattern with Circles and Squares:



Solution: (Circle repeats)

2. Pattern with Triangles and Circles:

▲ **●** ▲ **●** _?

Solution: (Triangle repeats)

3. Pattern with Rectangles and Squares:



Solution:
(Rectangle repeats)

4. Pattern with Squares and Triangles:

□ ▲ □ ▲ __?

Solution: [] (Square repeats)

5. Pattern with Circles:

Solution: (Red circle repeats)

- Geometric patterns use repeating shapes.
- Patterns repeat in the same order.
- Knowing patterns helps us guess the next shape.
- Practicing geometric patterns helps in understanding shapes and sequences.

Number Patterns

Explanation:

- Number patterns are numbers that repeat in a special order.
- We can guess the next number by looking at the repeating pattern.
- Number patterns help us learn counting better.

Examples with Solutions:

- 1. Simple Counting:
 - 1, 2, 1, 2, __?

Solution: 1 (Numbers 1 and 2 repeat)

2. Counting by Twos:

2, 4, 6, 8, __?

Solution: 10 (Adding 2 each time)

3. Repeating Threes:

3, 3, 6, 6, __?

Solution: 3 (Pattern repeats after every two numbers)

4. Counting Backwards:

5, 4, 3, ___?

Solution: 2 (Counting down by 1)

5. Skip Counting by Fives:

5, 10, 15, __?

Solution: 20 (Adding 5 each time)

- Number patterns repeat numbers in a special way.
- Patterns help us find the next number easily.
- Practicing number patterns makes counting and math easier.