

MATHEMATICS

CLASS 6

LESSON PLAN

CHAPTER 1: PATTERNS IN MATHEMATICS

Topic - Patterns in Mathematics

P.K. Testing

Students identify patterns seen in daily life such as floor tiles, rangoli, wallpapers, and nature.

Oral questions on number sequences and shape patterns.

Specific Learning Outcomes

Students will be able to:

Identify and extend number and shape patterns.

Create their own mathematical patterns.

Understand the role of patterns in problem-solving.

Develop logical reasoning skills.

Experiential Learning

Observe patterns in the school campus and surroundings.

Create patterns using beads, sticks, and coloured papers.

Group activity on identifying patterns in nature.

Art Integration

Design colourful rangoli and border patterns.

Create pattern-based greeting cards and posters.

Infusion of Life Skills

Critical thinking

Observation skills

Creativity

Teamwork

Resources Used

Textbook, worksheets, flashcards, smart board, coloured papers, beads, charts.

Sustainable Development Goals

SDG 4: Quality Education Promotes logical thinking, creativity, and lifelong learning skills.

Assessment

Worksheet on completing patterns.

Oral questioning.

Group activity and presentation.

Exit ticket activity.

Feedback and Remedial Teaching

Additional examples for struggling learners.

Peer tutoring and guided practice.

Individual worksheets for reinforcement.

Inclusive Practices and Participation

Mixed-ability groups.

Visual and tactile learning materials.

Equal participation opportunities for all learners.

CHAPTER 2: LINES AND ANGLES

Topic

Lines and Angles

P.K. Testing

Discussion on objects having straight lines and angles.

Recall of basic geometric shapes.

Specific Learning Outcomes

Students will be able to:

Identify different types of lines and angles.

Measure angles accurately using a protractor.

Compare and classify angles.

Draw lines and angles correctly.

Experiential Learning

Measure angles found in classroom objects.

Explore parallel and intersecting lines in the school environment.

Hands-on activity using matchsticks.

Art Integration

Create geometric designs using various angles.

Draw angle-based patterns and artwork.

Infusion of Life Skills

Precision

Observation

Problem-solving

Decision-making

Resources Used

Ruler, protractor, charts, smart board, textbook.

Sustainable Development Goals

SDG 4: Quality Education

Assessment

Practical measurement activity.

Worksheet and notebook work.

Quiz on types of angles.

Feedback and Remedial Teaching

Re-teaching through demonstrations.

Individual practice with geometry tools.

Inclusive Practices and Participation

Pair work and peer support.

Visual aids and manipulatives.

CHAPTER 3: NUMBER PLAY

Topic

Number Play

P.K. Testing

Recall number properties and arithmetic operations.

Mental math questions.

Specific Learning Outcomes

Students will:

Explore interesting number patterns.

Apply number properties in problem-solving.

Develop logical and analytical thinking.

Solve puzzles involving numbers.

Experiential Learning

Number games and mathematical puzzles.

Group competitions and brain teasers.

Art Integration

Number mosaics and creative charts.

Decorative number posters.

Infusion of Life Skills

Critical thinking

Analytical skills

Collaboration

Resources Used

Worksheets, number cards, textbook, smart board.

Sustainable Development Goals

SDG 4: Quality Education

Assessment

Puzzle-solving activities.

Class participation.

Written exercises.

Feedback and Remedial Teaching

Simplified examples.

Additional practice worksheets.

Inclusive Practices and Participation

Activity-based learning.

Flexible grouping of students.

CHAPTER 4: DATA HANDLING AND PRESENTATION

Topic

Data Handling and Presentation

P.K. Testing

Discuss examples of information collected daily.

Ask students about favourite fruits, games, etc.

Specific Learning Outcomes

Students will:

Collect and organize data.

Represent data using pictographs and bar graphs.

Interpret graphical information.

Draw conclusions from data.

Experiential Learning

Conduct a classroom survey.

Record and analyze collected data.

Art Integration

Create colourful pictographs and graphs.

Poster making using collected data.

Infusion of Life Skills

Communication

Teamwork

Decision-making

Resources Used

Graph paper, charts, coloured pencils, textbook.

Sustainable Development Goals

SDG 4: Quality Education SDG 17: Partnerships for Goals

Assessment

Survey activity.

Graph preparation.

Oral interpretation questions.

Feedback and Remedial Teaching

Additional practice in graph reading.

Guided graph construction.

Inclusive Practices and Participation

Group activities.

Individual support where required.

CHAPTER 5: PRIME TIME

Topic

Prime Time

P.K. Testing

Recall factors and multiples.

Oral questions on divisibility.

Specific Learning Outcomes

Students will:

Identify prime and composite numbers.

Find factors and multiples.

Apply divisibility rules.

Use factor trees effectively.

Experiential Learning

Prime number hunt.

Factor tree activities.

Number card games.

Art Integration

Prime number colouring charts.

Creative factor tree posters.

Infusion of Life Skills

Logical reasoning

Analytical thinking

Accuracy

Resources Used

Number charts, flashcards, worksheets, textbook.

Sustainable Development Goals

SDG 4: Quality Education

Assessment

Prime number identification.

Factor tree exercises.

Worksheet evaluation.

Feedback and Remedial Teaching

Repeated guided practice.

Peer-assisted learning.

Inclusive Practices and Participation

Cooperative learning groups.

Differentiated worksheets.

CHAPTER 6: PERIMETER AND AREA

Topic

Perimeter and Area

P.K. Testing

Discussion on fencing a garden and tiling a floor.

Specific Learning Outcomes

Students will:

Calculate perimeter and area.

Differentiate between perimeter and area.

Solve real-life problems related to measurement.

Experiential Learning

Measure classroom objects.

Find perimeter of desks and area of floor tiles.

Art Integration

Design room layouts on graph paper.

Create floor plans.

Infusion of Life Skills

Practical application

Planning skills

Problem-solving

Resources Used

Measuring tape, graph paper, ruler, textbook.

Sustainable Development Goals

SDG 11: Sustainable Cities and Communities

Assessment

Practical measurement tasks.

Worksheet and oral questioning.

Feedback and Remedial Teaching

Step-by-step demonstrations.

Additional practice questions.

Inclusive Practices and Participation

Hands-on activities for all learners.

Peer collaboration.

CHAPTER 7: FRACTIONS

Topic

Fractions

P.K. Testing

Discussion on sharing pizza, chocolate, and fruits.

Specific Learning Outcomes

Students will:

Represent fractions.

Compare and simplify fractions.

Perform operations on fractions.

Apply fractions in real-life situations.

Experiential Learning

Paper folding activities.

Fraction strips and models.

Art Integration

Fraction colouring activities.

Fraction wheel creation.

Infusion of Life Skills

Sharing and cooperation

Logical thinking

Resources Used

Fraction strips, charts, worksheets, textbook.

Sustainable Development Goals

SDG 4: Quality Education

Assessment

Practical demonstrations.

Worksheets and oral questions.

Feedback and Remedial Teaching

Use visual models.

Extra practice with fraction strips.

Inclusive Practices and Participation

Multi-sensory teaching methods.

Group activities.

CHAPTER 8: PLAYING WITH CONSTRUCTIONS

Topic

Playing with Constructions

P.K. Testing

Identify geometric instruments and shapes.

Specific Learning Outcomes

Students will:

Use geometry tools correctly.

Construct angles and figures.

Develop accuracy in drawing.

Experiential Learning

Hands-on construction activities.

Geometric drawing exercises.

Art Integration

Mandala and geometric art designs.

Infusion of Life Skills

Patience

Precision

Concentration

Resources Used

Compass, ruler, protractor, textbook.

Sustainable Development Goals

SDG 4: Quality Education

Assessment

Practical construction work.

Observation and notebook checking.

Feedback and Remedial Teaching

Teacher demonstration.

Guided practice sessions.

Inclusive Practices and Participation

Individual assistance.

Peer mentoring.

CHAPTER 9: SYMMETRY

Topic

Symmetry

P.K. Testing

Identify symmetrical objects in the classroom.

Specific Learning Outcomes

Students will:

Understand line symmetry.

Draw symmetrical figures.

Recognize symmetry in nature and art.

Experiential Learning

Paper folding and mirror activities.

Symmetry hunt around school.

Art Integration

Rangoli, butterfly, and flower designs.

Infusion of Life Skills

Observation

Creativity

Appreciation of beauty

Resources Used

Mirrors, worksheets, coloured papers, textbook.

Sustainable Development Goals

SDG 4: Quality Education

Assessment

Drawing activities.

Practical symmetry tasks.

Feedback and Remedial Teaching

More hands-on practice.

Visual demonstrations.

Inclusive Practices and Participation

Group activities.

Visual learning support.

CHAPTER 10: THE OTHER SIDE OF ZERO

Topic

The Other Side of Zero

P.K. Testing

Recall whole numbers and number lines.

Specific Learning Outcomes

Students will:

Understand integers.

Represent integers on a number line.

Compare positive and negative numbers.

Solve real-life problems involving integers.

Experiential Learning

Human number line activity.

Temperature and elevation examples.

Art Integration

Creative number line charts and posters.

Infusion of Life Skills

Logical reasoning

Problem-solving

Decision-making

Resources Used

Number line charts, flashcards, smart board, textbook.

Sustainable Development Goals

SDG 4: Quality Education

Assessment

Worksheet and oral questions.

Number line activities.

Feedback and Remedial Teaching

Use real-life examples.

Repeated practice on number line representation.

Inclusive Practices and Participation

Activity-based learning.

Peer support and teacher guidance.

These lesson plans are suitable for CBSE Class 6 Ganit Prakash and can be directly entered into school lesson-plan registers