

## 1:1 YEAR 5 MATHS INTERVENTION PLAN FOR SEN STUDENTS

### OBJECTIVE:

This intervention plan is tailored to help children with ADHD and ASC achieve the Year 5 maths objectives in the UK curriculum while addressing behavioural needs. It is designed to cover the entire school year, with flexibility for adjustments based on individual progress. If a child struggles with a concept in a particular session when assessed, then the session should be repeated in later weeks for consolidation. This plan can also be adjusted for a small group of students if needed.

### KEY MATHS SKILLS BASED ON YEAR 5 UK CURRICULUM:

1. Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit.
2. Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000.
3. Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero.
4. Round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000, and 100,000.
5. Solve number problems and practical problems that involve all of the above.
6. Read Roman numerals to 1,000 (M) and recognise years written in Roman numerals.
7. Add and subtract whole numbers with more than 4 digits, including using formal written methods.
8. Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.
9. Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.
10. Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method.
11. Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000.
12. Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.
13. Compare and order fractions whose denominators are all multiples of the same number.
14. Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres.
15. Calculate and compare the area of rectangles (including squares), and including using standard units.
16. Use the properties of rectangles to deduce related facts and find missing lengths and angles.
17. Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.
18. Complete, read and interpret information in tables, including timetables.

### GENERAL SESSION STRUCTURE:

Each week will include three sessions, each lasting **30–45 minutes** depending on the child's attention span and engagement. Each session is structured as follows:

1. Warm-Up (5 minutes): Sensory or physical activity to help the child transition into learning.
  2. Main Activity (20-30 minutes): Focus on a key maths skill for the week, with breaks if needed.
  3. Sensory/Movement Break (2-5 minutes): A break to release energy or calm the child.
  4. Review and Reward (5-10 minutes): Recap learning and provide positive reinforcement.
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## WEEK 1-2: PLACE VALUE AND NUMBER SENSE

### Learning Objective:

- Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit.
- Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000.

### ACTIVITIES:

#### Session 1: Understanding Place Value in Numbers up to 1,000,000

##### ➤ Warm-Up (5 minutes):

- **Activity:** Place Value Jump
- **Description:** Hopscotch game where each square represents a place value (ones to millions). The child jumps to the called-out place value.

##### ➤ Main Activity (25 minutes):

- **Place Value Chart:**
  - Introduce a place value chart up to millions.
  - Use digit cards to build numbers, placing them in the correct columns.
- **Value Identification:**
  - Ask the child to identify the value of underlined digits in large numbers (e.g., In 3,456,789, what is the value of 5?).
- **Ordering Numbers:**
  - Provide sets of large numbers for the child to order from smallest to largest.

##### ➤ Sensory Break (5 minutes):

- **Activity:** Stress Ball Squeeze
- **Description:** Use a stress ball to squeeze in time with deep breaths.

##### ➤ Review and Reward (5 minutes):

- **Activity:** Quick Questions
- **Description:** Rapid-fire questions on place value.
- **Reward:** Sticker or token for participation.

#### Session 2: Counting in Powers of 10

##### ➤ Warm-Up (5 minutes):

- **Activity:** Counting Clap
- **Description:** Clap hands while counting forwards and backwards in tens, hundreds, thousands.

##### ➤ Main Activity (25 minutes):

- **Number Line Exploration:**
  - Use a large number line up to 1,000,000.
  - Practice counting forwards and backwards in steps of 10, 100, 1,000, 10,000, and 100,000.
- **Interactive Game:**
  - Play "Power Steps," where the child rolls a dice labelled with powers of 10 and moves that many steps on the number line.
- **Real-Life Context:**
  - Discuss examples such as population counts or distances to the moon to illustrate large numbers.

##### ➤ Sensory Break (5 minutes):

- **Activity:** Movement Dice
- **Description:** Roll a dice with different movements (e.g., jump, spin) and perform the action.

➤ **Review and Reward (5 minutes):**

- **Activity:** Count Challenge
- **Description:** Challenge the child to count from a given number in steps of a power of 10.
- **Reward:** Praise and a small prize.

**Session 3: Comparing and Ordering Large Numbers**

➤ **Warm-Up (5 minutes):**

- **Activity:** Number Comparison Cards
- **Description:** Show pairs of numbers; the child uses 'greater than' or 'less than' signs to compare.

➤ **Main Activity (25 minutes):**

- **Ordering Game:**
  - Provide a set of number cards up to 1,000,000.
  - The child arranges them in ascending or descending order.
- **Number Bingo::**
  - Play bingo using large numbers, reinforcing reading and recognition.
- **Value Determination:**
  - Use real-life data (e.g., distances, populations) for the child to compare and discuss.

➤ **Sensory Break (5 minutes):**

- **Activity:** Yoga Stretches
- **Description:** Simple stretches to relax muscles.

➤ **Review and Reward (5 minutes):**

- **Activity:** Number Detective
- **Description:** Give clues about a number, and the child guesses what it is.
- **Reward:** Certificate of achievement.

**Materials:**

- Place value charts up to millions
- Digit cards (0-9)
- Large number lines
- Number cards up to 1,000,000
- Dice labelled with powers of 10
- Bingo cards
- Stress balls

**ADHD/ASC Strategies:**

- **Visual Aids:** Use charts and number lines to make abstract concepts concrete.
- **Movement Integration:** Incorporate physical activities like hopping or clapping to maintain engagement.
- **Short Tasks:** Keep activities brief and change them frequently to sustain attention.
- **Positive Reinforcement:** Use immediate praise and rewards to encourage participation.

## WEEK 3-4: NEGATIVE NUMBERS AND ROUNDING

### Learning Objective:

- Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero.
- Round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000, and 100,000.

### ACTIVITIES:

#### Session 1: Exploring Negative Numbers

##### ➤ Warm-Up (5 minutes):

- **Activity:** Temperature Talk
- **Description:** Discuss weather temperatures, including below zero.

##### ➤ Main Activity (25 minutes):

- **Number Line with Negatives:**
  - Use a vertical number line to simulate a thermometer.
  - Practice counting forwards and backwards through zero.
- **Real-Life Contexts:**
  - Discuss situations involving negative numbers (e.g., bank overdrafts, depths below sea level).
- **Interactive Game:**
  - Play "Integer Jump," where the child moves along a floor number line in response to positive or negative instructions.

##### ➤ Sensory Break (5 minutes):

- **Activity:** Balloon Breathing
- **Description:** Deep breathing while imagining inflating and deflating a balloon.

##### ➤ Review and Reward (5 minutes):

- **Activity:** Negative Number Quiz
- **Description:** Solve simple addition and subtraction problems involving negative numbers.
- **Reward:** Positive feedback and a sticker.

#### Session 2: Rounding Large Numbers

##### ➤ Warm-Up (5 minutes):

- **Activity:** Rounding Rhyme Recap
- **Description:** Recite a rhyme to remember rounding rules.

##### ➤ Main Activity (25 minutes):

- **Rounding Rules Review:**
  - Revisit the concept of rounding using number lines.
  - Discuss rounding to the nearest 10, 100, 1,000, 10,000, and 100,000.
- **Practical Application:**
  - Use real-life examples like estimating crowds at events or rounding distances.
- **Rounding Relay:**
  - Set up stations with different rounding tasks; the child moves between them completing challenges.

➤ **Sensory Break (5 minutes):**

- **Activity:** Stretch and Shake
- **Description:** Simple stretches and shakes to re-energise.

➤ **Review and Reward (5 minutes):**

- **Activity:** Rounding Challenge
- **Description:** Quick-fire rounding questions.
- **Reward:** Praise and a small prize.

**Session 3: Applying Negative Numbers and Rounding in Context**

➤ **Warm-Up (5 minutes):**

- **Activity:** Number Line Hop
- **Description:** Hop along a number line, including negative numbers, calling out each number.

➤ **Main Activity (25 minutes):**

- **Word Problems:**
  - Solve problems involving temperature changes, financial transactions, and elevations.
- **Rounding in Context:**
  - Round numbers in word problems to estimate answers.
- **Group Discussion:**
  - Talk through strategies for solving problems and the importance of rounding.

➤ **Sensory Break (5 minutes):**

- **Activity:** Sensory Bin Exploration
- **Description:** Time with a sensory bin (e.g., sand, rice) for tactile stimulation.

➤ **Review and Reward (5 minutes):**

- **Activity:** Create Your Own Problem
- **Description:** Have the child write their own word problem involving negative numbers or rounding.
- **Reward:** Certificate or extra choice time.

**Materials:**

- Vertical and horizontal number lines (including negatives)
- Rounding worksheets
- Word problem cards
- Sensory bin materials
- Place value charts

**ADHD/ASC Strategies:**

- **Real-Life Contexts:** Use practical examples to make learning relevant.
- **Interactive Activities:** Incorporate games and movement to maintain interest.
- **Sensory Integration:** Provide sensory breaks to help with regulation.
- **Positive Reinforcement:** Celebrate successes with praise and rewards.

## WEEK 5-6: ROMAN NUMERALS AND NUMBER PROBLEMS

### Learning Objective:

- Read Roman numerals to 1,000 (M) and recognise years written in Roman numerals.
- Solve number problems and practical problems that involve all of the above.

### ACTIVITIES:

#### Session 1: Learning Roman Numerals

##### ➤ Warm-Up (5 minutes):

- **Activity:** Roman Numeral Matching
- **Description:** Match Roman numerals to their Arabic numeral equivalents up to 100.

##### ➤ Main Activity (25 minutes):

- **Introduction to Roman Numerals:**
  - Teach the symbols for I, V, X, L, C, D, and M.
  - Explain how numerals are combined to form numbers.
- **Interactive Games:**
  - Play "Roman Numeral Bingo" with numbers up to 1,000.
  - Use flashcards for quick recall practice.
- **Writing Years:**
  - Practice writing current and significant years (e.g., 2021) in Roman numerals.

##### ➤ Sensory Break (5 minutes):

- **Activity:** Roman Soldier March
- **Description:** March in place while counting in Roman numerals.

##### ➤ Review and Reward (5 minutes):

- **Activity:** Decode the Date
- **Description:** Provide dates in Roman numerals for the child to translate.
- **Reward:** Sticker or small token.

#### Session 2: Solving Number Problems

##### ➤ Warm-Up (5 minutes):

- **Activity:** Brain Teasers
- **Description:** Solve simple riddles to engage thinking.

##### ➤ Main Activity (25 minutes):

- **Problem-Solving Strategies:**
  - Review steps: Understand the problem, Plan, Solve, Check.
- **Mixed Problems:**
  - Provide a variety of problems involving place value, negative numbers, and rounding.
- **Group Work:**
  - Discuss different approaches to solving problems.
  - Encourage the child to explain their reasoning.

##### ➤ Sensory Break (5 minutes):

- **Activity:** Movement Break
- **Description:** Choose a favourite physical activity to reset.

➤ **Review and Reward (5 minutes):**

- **Activity:** Problem-Solving Reflection
- **Description:** Talk about which problems were easy or challenging.
- **Reward:** Positive feedback and a small treat.

**Session 3: Applying Roman Numerals and Problem-Solving**

➤ **Warm-Up (5 minutes):**

- **Activity:** Roman Numeral Hopscotch
- **Description:** Hopscotch grid with Roman numerals.

➤ **Main Activity (25 minutes):**

- **Real-Life Applications:**
  - Identify Roman numerals in clocks, books, or buildings.
- **Creative Activity:**
  - Create a Roman numeral clock face.
- **Complex Problems:**
  - Solve word problems that incorporate Roman numerals and other number concepts.

➤ **Sensory Break (5 minutes):**

- **Activity:** Deep Breathing Exercises
- **Description:** Practice calming breaths.

➤ **Review and Reward (5 minutes):**

- **Activity:** Show and Tell
- **Description:** Share the clock face or discuss what was learned.
- **Reward:** Certificate of achievement.

**Materials:**

- Roman numeral charts
- Flashcards
- Bingo cards
- Craft materials for clock face
- Word problem worksheets

**ADHD/ASC Strategies:**

- **Visual Supports:** Use charts and visuals to aid understanding.
- **Hands-On Activities:** Incorporate crafting and movement.
- **Clear Instructions:** Break tasks into manageable steps.
- **Positive Reinforcement:** Provide immediate praise.



## WEEK 7-8: ADDITION AND SUBTRACTION

### Learning Objective:

- Add and subtract whole numbers with more than 4 digits, including using formal written methods.

### ACTIVITIES:

#### Session 1: Formal Written Methods for Addition

##### ➤ Warm-Up (5 minutes):

- **Activity:** Addition Flashcards
- **Description:** Quick-fire addition problems to warm up.

##### ➤ Main Activity (25 minutes):

- **Column Addition:**
  - Review the steps for column addition.
  - Use colour-coding to highlight carrying over.
- **Practice Problems:**
  - Provide worksheets with addition problems of increasing complexity.
- **Real-Life Context:**
  - Solve problems involving large sums of money or quantities.

##### ➤ Sensory Break (5 minutes):

- **Activity:** Hand Exercises
- **Description:** Stretch fingers and hands to relax.

##### ➤ Review and Reward (5 minutes):

- **Activity:** Check Work
- **Description:** Go over answers, encouraging self-correction.
- **Reward:** Praise and a sticker.

#### Session 2: Formal Written Methods for Subtraction

##### ➤ Warm-Up (5 minutes):

- **Activity:** Subtraction Flashcards
- **Description:** Quick-fire subtraction problems.

##### ➤ Main Activity (25 minutes):

- **Column Subtraction:**
  - Review the steps for column subtraction, including borrowing.
- **Practice Problems:**
  - Work through subtraction problems, focusing on accuracy.
- **Error Analysis:**
  - Identify common mistakes and how to avoid them.

##### ➤ Sensory Break (5 minutes):

- **Activity:** Stretch and Move
- **Description:** Light stretching and movement to re-energise.

##### ➤ Review and Reward (5 minutes):

- **Activity:** Self-Assessment
- **Description:** Have the child rate their understanding.
- **Reward:** Positive feedback.

### **Session 3: Applying Addition and Subtraction**

➤ **Warm-Up (5 minutes):**

- **Activity:** Maths Maze
- **Description:** Navigate a maze by solving addition and subtraction problems.

➤ **Main Activity (25 minutes):**

- **Word Problems:**
  - Provide real-life scenarios requiring addition and subtraction (e.g., planning a party budget).
- **Problem-Solving Steps:**
  - Encourage the child to read carefully and identify key information.
- **Group Discussion:**
  - Discuss different strategies and check answers together.

➤ **Sensory Break (5 minutes):**

- **Activity:** Sensory Toy Time
- **Description:** Use sensory toys or fidget tools.

➤ **Review and Reward (5 minutes):**

- **Activity:** Reflect on Learning
- **Description:** Discuss successes and challenges.
- **Reward:** Certificate or extra choice time.

### **Materials:**

- Flashcards
- Worksheets
- Colourful pens or pencils
- Sensory toys
- Word problem cards

### **ADHD/ASC Strategies:**

- **Clear Instructions:** Provide step-by-step guidance.
- **Hands-On Learning:** Use manipulatives if needed.
- **Positive Reinforcement:** Celebrate correct answers and effort.
- **Sensory Breaks:** Use breaks to maintain focus.

### **REVIEW AND PROGRESS MONITORING:**

- **Weekly Assessments:** Use observations, quizzes, and discussions to gauge understanding.
- **Progress Charts:** Visual trackers to show skill mastery, rewarding milestones with stickers or small rewards.
- **Adjustments:** Modify sessions based on engagement and comprehension, extending focus on difficult concepts over multiple weeks if needed.

## WEEK 9-10: MULTIPLES, FACTORS, AND PRIME NUMBERS

### Learning Objective:

- Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.
- Know and use the vocabulary of prime numbers, prime factors, and composite (non-prime) numbers.

### ACTIVITIES:

#### Session 1: Exploring Multiples and Factors

##### ➤ Warm-Up (5 minutes):

- **Activity:** Multiples Stretch
- **Description:** Count in multiples of a chosen number (e.g., 3, 4, 6) while performing stretches.

##### ➤ Main Activity (25 minutes):

- **Introduction to Factors and Multiples:**
  - Define factors and multiples with examples.
- **Factor Pairs Activity:**
  - Use counters or cubes to create arrays representing factor pairs of a number.
  - Record factor pairs in a table.
- **Multiples Game:**
  - Play "Fizz Buzz" with multiples of selected numbers to reinforce the concept.

##### ➤ Sensory Break (5 minutes):

- **Activity:** Jumping Jacks
- **Description:** Perform a set number of jumping jacks to expend energy.

##### ➤ Review and Reward (5 minutes):

- **Activity:** Factor Challenge
- **Description:** Quick-fire questions to find factors of given numbers.
- **Reward:** Sticker or praise for participation.

#### Session 2: Understanding Prime and Composite Numbers

##### ➤ Warm-Up (5 minutes):

- **Activity:** Prime Number Song
- **Description:** Learn a song or rhyme about prime numbers to aid memory.

##### ➤ Main Activity (25 minutes):

- **Prime Number Investigation:**
  - Use a 100-square grid to identify prime numbers by the sieve of Eratosthenes.
- **Vocabulary Practice:**
  - Define and discuss prime, composite, and prime factors.
- **Prime Factor Trees:**
  - Break down composite numbers into their prime factors using factor trees.

##### ➤ Sensory Break (5 minutes):

- **Activity:** Relaxation Breathing
- **Description:** Deep breathing exercises to calm and focus.

##### ➤ Review and Reward (5 minutes):

- **Activity:** Prime or Composite Quiz
- **Description:** Determine if a number is prime or composite.
- **Reward:** Positive feedback and a small prize.

### **Session 3: Finding Common Factors**

➤ **Warm-Up (5 minutes):**

- **Activity:** Common Factors Warm-Up
- **Description:** List factors of two numbers and identify any common factors.

➤ **Main Activity (25 minutes):**

- **Venn Diagram Activity:**
  - Use Venn diagrams to visually represent the factors of two numbers and find common factors.
- **Word Problems:**
  - Solve problems involving common factors in real-life contexts (e.g., sharing items equally).
- **Group Discussion:**
  - Discuss strategies for finding factors and why common factors are important.

➤ **Sensory Break (5 minutes):**

- **Activity:** Sensory Walk
- **Description:** Walk around the room focusing on different senses.

➤ **Review and Reward (5 minutes):**

- **Activity:** Create Your Own Problem
- **Description:** Have the child come up with a factor-related problem.
- **Reward:** Certificate or extra choice time.

### **Materials:**

- Counters or cubes
- 100-square grid sheets
- Venn diagram templates
- Worksheets with factor and multiple exercises
- Stickers and certificates for rewards

### **ADHD/ASC Strategies:**

- **Interactive Learning:** Use hands-on materials to maintain engagement.
- **Visual Aids:** Employ charts and diagrams to illustrate concepts.
- **Movement Integration:** Incorporate physical activities during learning.
- **Positive Reinforcement:** Provide immediate and specific praise.

## WEEK 11-12: MULTIPLICATION AND DIVISION METHODS

### Learning Objective:

- Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method.
- Multiply and divide whole numbers and those involving decimals by 10, 100, and 1,000.

### ACTIVITIES:

#### Session 1: Multiplying by a One-Digit Number

##### ➤ Warm-Up (5 minutes):

- **Activity:** Times Table Relay
- **Description:** Quick recall of multiplication facts up to  $12 \times 12$ .

##### ➤ Main Activity (25 minutes):

- **Formal Written Method:**
  - Demonstrate column multiplication step-by-step.
  - Use examples starting with no carrying over, then introduce more complex problems.
- **Guided Practice:**
  - Work through problems together, gradually increasing difficulty.
- **Colour-Coding Steps:**
  - Use different colours to highlight each step of the process.

##### ➤ Sensory Break (5 minutes):

- **Activity:** Hand Stretches
- **Description:** Stretch fingers and wrists to relax muscles.

##### ➤ Review and Reward (5 minutes):

- **Activity:** Multiplication Quiz
- **Description:** Solve a few problems independently.
- **Reward:** Praise and a sticker.

#### Session 2: Multiplying by a Two-Digit Number

##### ➤ Warm-Up (5 minutes):

- **Activity:** Multiplication Flashcards
- **Description:** Review key multiplication facts.

##### ➤ Main Activity (25 minutes):

- **Expanded Method Introduction:**
  - Teach the expanded method for multiplying by a two-digit number.
  - Break down each step with clear explanations.
- **Grid Method:**
  - Use the grid method as an alternative, placing values in a grid to simplify calculations.
- **Practice Problems:**
  - Provide worksheets with both methods for the child to try.

##### ➤ Sensory Break (5 minutes):

- **Activity:** Movement Game
- **Description:** Play a quick game involving movement, like "Simon Says."

##### ➤ Review and Reward (5 minutes):

- **Activity:** Self-Reflection
- **Description:** Discuss which method the child prefers and why.
- **Reward:** Positive feedback and a small prize.

### Session 3: Multiplying and Dividing by 10, 100, and 1,000

- **Warm-Up (5 minutes):**
  - **Activity:** Place Value Chart Review
  - **Description:** Revisit the place value chart up to millions.
- **Main Activity (25 minutes):**
  - **Understanding Place Value Shifts:**
    - Demonstrate how multiplying or dividing by 10, 100, and 1,000 moves digits left or right.
  - **Hands-On Activity:**
    - Use place value sliders or moveable charts to visualise the shifts.
  - **Practice with Decimals:**
    - Include examples with decimals to show the effect on numbers less than one.
  - **Real-Life Examples:**
    - Apply concepts to measurements (e.g., converting metres to centimetres).
- **Sensory Break (5 minutes):**
  - **Activity:** Deep Breathing
  - **Description:** Practice calming breaths to refocus.
- **Review and Reward (5 minutes):**
  - **Activity:** Quick Quiz
  - **Description:** Solve problems involving multiplication and division by 10, 100, and 1,000.
  - **Reward:** Praise and acknowledgement.

#### Materials:

- Place value charts and sliders
- Coloured pens or pencils
- Multiplication worksheets
- Flashcards
- Movement game props if needed

#### ADHD/ASC Strategies:

- **Visual and Kinesthetic Learning:** Use manipulatives and visuals.
- **Clear Instructions:** Break down complex tasks into manageable steps.
- **Positive Reinforcement:** Recognise effort and progress promptly.
- **Sensory Breaks:** Schedule regular breaks to maintain focus.

## WEEK 13-14: FRACTIONS AND DECIMALS

### Learning Objectives:

- Recognise and use thousandths and relate them to tenths, hundredths, and decimal equivalents.
- Compare and order fractions whose denominators are all multiples of the same number.

### ACTIVITIES:

#### Session 1: Understanding Thousandths

- **Warm-Up (5 minutes):**
  - **Activity:** Decimal Counting
  - **Description:** Count forwards and backwards in tenths and hundredths.
- **Main Activity (25 minutes):**
  - **Place Value Chart:**
    - Extend the place value chart to include thousandths.
  - **Visual Representation:**
    - Use grids and shading to represent tenths, hundredths, and thousandths.
  - **Converting Fractions to Decimals:**
    - Practice writing fractions like  $\frac{1}{1000}$  as decimals (0.001).
  - **Interactive Game:**
    - Play "Decimal Match," matching fractions to their decimal equivalents.
- **Sensory Break (5 minutes):**
  - **Activity:** Stretch Break
  - **Description:** Simple stretches to relax.
- **Review and Reward (5 minutes):**
  - **Activity:** Decimal Quiz
  - **Description:** Quick questions converting between fractions and decimals.
  - **Reward:** Sticker or token.

#### Session 2: Comparing and Ordering Fractions

- **Warm-Up (5 minutes):**
  - **Activity:** Fraction Flashcards
  - **Description:** Review equivalent fractions.
- **Main Activity (25 minutes):**
  - **Finding Common Denominators:**
    - Teach how to find common denominators for fractions with denominators that are multiples of the same number.
  - **Ordering Fractions:**
    - Provide sets of fractions to arrange in order from smallest to largest.
  - **Visual Aids:**
    - Use fraction strips or circles to compare sizes visually.
  - **Practice Problems:**
    - Work through examples together, then independently.
- **Sensory Break (5 minutes):**
  - **Activity:** Mindful Colouring
  - **Description:** Colour fraction worksheets to relax.
- **Review and Reward (5 minutes):**
  - **Activity:** Fraction Challenge
  - **Description:** Solve comparison problems.
  - **Reward:** Positive feedback.

### Session 3: Relating Fractions, Decimals, and Percentages

- **Warm-Up (5 minutes):**
  - **Activity:** Percentage Snap
  - **Description:** Match percentages to their fraction and decimal equivalents.
- **Main Activity (25 minutes):**
  - **Conversion Techniques:**
    - Teach how to convert between fractions, decimals, and percentages.
  - **Real-Life Contexts:**
    - Apply concepts to situations like shopping discounts or statistics.
  - **Interactive Activity:**
    - Create a conversion chart together for reference.
- **Sensory Break (5 minutes):**
  - **Activity:** Movement Song
  - **Description:** Sing a song with actions to reinforce learning.
- **Review and Reward (5 minutes):**
  - **Activity:** Create a Poster
  - **Description:** Design a poster showing the relationships between fractions, decimals, and percentages.
  - **Reward:** Display the poster proudly.

### Materials:

- Place value charts
- Fraction strips or circles
- Decimal and fraction flashcards
- Worksheets for practice
- Colouring materials

### ADHD/ASC Strategies:

- **Hands-On Learning:** Use physical materials to engage the child.
- **Visual Aids:** Employ charts and diagrams.
- **Positive Reinforcement:** Offer praise and tangible rewards.
- **Sensory Breaks:** Incorporate activities that help regulate sensory needs.



## WEEK 15-16: PERIMETER, AREA, AND PROPERTIES OF SHAPES

### Learning Objective:

- Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres.
- Calculate and compare the area of rectangles (including squares) using standard units.
- Use the properties of rectangles to deduce related facts and find missing lengths and angles.
- Distinguish between regular and irregular polygons on reasoning about equal sides and angles.

### ACTIVITIES:

#### Session 1: Calculating Perimeter

- **Warm-Up (5 minutes):**
  - **Activity:** Shape Hunt
  - **Description:** Find objects around the room that match given shapes.
- **Main Activity (25 minutes):**
  - **Perimeter Review:**
    - Define perimeter and how to calculate it.
  - **Measuring Activities:**
    - Use rulers or measuring tapes to measure sides of composite shapes.
  - **Problem-Solving:**
    - Calculate perimeters of given shapes, including those with missing lengths.
  - **Real-Life Application:**
    - Discuss scenarios like fencing a garden.
- **Sensory Break (5 minutes):**
  - **Activity:** Walk and Talk
  - **Description:** Take a short walk while discussing favourite activities.
- **Review and Reward (5 minutes):**
  - **Activity:** Perimeter Challenge
  - **Description:** Solve perimeter problems independently.
  - **Reward:** Praise and a small prize.

#### Session 2: Calculating Area

- **Warm-Up (5 minutes):**
  - **Activity:** Area Estimation
  - **Description:** Guess the area of classroom objects.
- **Main Activity (25 minutes):**
  - **Understanding Area:**
    - Explain area as the space inside a shape.
  - **Counting Squares:**
    - Use grid paper to calculate area by counting squares.
  - **Formula Application:**
    - Introduce the formula for the area of rectangles ( $\text{Area} = \text{length} \times \text{width}$ ).
  - **Practice Problems:**
    - Provide shapes with given measurements to calculate area.
- **Sensory Break (5 minutes):**
  - **Activity:** Sensory Toy Time
  - **Description:** Use sensory toys to relax.
- **Review and Reward (5 minutes):**
  - **Activity:** Area Quiz
  - **Description:** Quick questions to reinforce learning.
  - **Reward:** Sticker or token.

### Session 3: Properties of Shapes

- **Warm-Up (5 minutes):**
  - **Activity:** Shape Sorting
  - **Description:** Sort shapes into groups based on properties.
- **Main Activity (25 minutes):**
  - **Regular vs. Irregular Polygons:**
    - Define regular and irregular polygons.
  - **Exploring Angles and Sides:**
    - Use protractors to measure angles and rulers for sides.
  - **Classification Activity:**
    - Classify given shapes as regular or irregular.
  - **Problem-Solving:**
    - Find missing angles or sides using known properties.
- **Sensory Break (5 minutes):**
  - **Activity:** Yoga Poses
  - **Description:** Perform simple yoga poses to relax.
- **Review and Reward (5 minutes):**
  - **Activity:** Create a Shape Booklet
  - **Description:** Compile information about different polygons.
  - **Reward:** Display the booklet.

### Materials:

- Rulers and measuring tapes
- Grid paper
- Protractors
- Shape cut-outs
- Worksheets
- Sensory toys

### ADHD/ASC Strategies:

- **Hands-On Activities:** Engage with physical measuring and drawing.
- **Visual Supports:** Use diagrams and real objects.
- **Positive Reinforcement:** Acknowledge effort and success.
- **Movement Integration:** Incorporate physical breaks.

## WEEK 17-18: DATA INTERPRETATION AND TIMETABLES

### Learning Objective:

- Complete, read, and interpret information in tables, including timetables.

### ACTIVITIES:

#### Session 1: Reading Tables and Charts

- **Warm-Up (5 minutes):**
  - **Activity:** Data Matching
  - **Description:** Match data statements to corresponding charts.
- **Main Activity (25 minutes):**
  - **Interpreting Tables:**
    - Teach how to read different types of tables.
  - **Practice Activities:**
    - Provide various tables (e.g., sports scores, weather data) for interpretation.
  - **Question and Answer:**
    - Ask questions based on the data provided.
  - **Real-Life Contexts:**
    - Discuss how tables are used in everyday life.
- **Sensory Break (5 minutes):**
  - **Activity:** Movement Dice
  - **Description:** Roll a dice to perform different actions.
- **Review and Reward (5 minutes):**
  - **Activity:** Create a Table
  - **Description:** Collect simple data and organise it into a table.
  - **Reward:** Positive feedback.

#### Session 2: Understanding Timetables

- **Warm-Up (5 minutes):**
  - **Activity:** Time Talk
  - **Description:** Discuss daily routines and times.
- **Main Activity (25 minutes):**
  - **Reading Timetables:**
    - Introduce bus or train timetables.
  - **Interpreting Information:**
    - Practice finding information, such as departure and arrival times.
  - **Problem-Solving:**
    - Solve problems involving time intervals and scheduling.
  - **Role-Playing:**
    - Simulate planning a journey using a timetable.
- **Sensory Break (5 minutes):**
  - **Activity:** Relaxation Breathing
  - **Description:** Deep breaths to calm and focus.
- **Review and Reward (5 minutes):**
  - **Activity:** Timetable Quiz
  - **Description:** Answer questions based on a given timetable.
  - **Reward:** Sticker or small prize.

### **Session 3: Creating and Interpreting Graphs**

- **Warm-Up (5 minutes):**
  - **Activity:** Favourite Things Survey
  - **Description:** Collect data on favourite foods, colours, etc.
- **Main Activity (25 minutes):**
  - **Creating Graphs:**
    - Use collected data to create bar charts or line graphs.
  - **Interpreting Graphs:**
    - Practice reading graphs and extracting information.
  - **Discussion:**
    - Talk about the importance of accurate data representation.
- **Sensory Break (5 minutes):**
  - **Activity:** Dance Break
  - **Description:** Dance to a favourite song.
- **Review and Reward (5 minutes):**
  - **Activity:** Share and Reflect
  - **Description:** Present the graphs created.
  - **Reward:** Certificate of achievement.

#### **Materials:**

- Sample tables and timetables
- Graph paper
- Coloured pencils or markers
- Data collection sheets
- Movement dice

#### **ADHD/ASC Strategies:**

- **Real-Life Connections:** Use practical examples relevant to the child's experiences.
- **Interactive Activities:** Engage in role-play and hands-on creation.
- **Visual Supports:** Provide clear, structured materials.
- **Positive Reinforcement:** Encourage participation with praise and rewards.

## WEEK 19-20: REVIEW AND ASSESSMENT

### Learning Objective:

- Assess overall progress and reinforce learning objectives from the year.

### ACTIVITIES:

#### Session 1: Comprehensive Review

- **Warm-Up (5 minutes):**
  - **Activity:** Mind Mapping
  - **Description:** Create a mind map of topics learned.
- **Main Activity (25 minutes):**
  - **Skill Stations:**
    - Set up stations for different topics (e.g., fractions, multiplication).
    - The child rotates through stations, completing tasks.
  - **Games and Quizzes:**
    - Use educational games to review key concepts.
  - **Observation:**
    - Take notes on strengths and areas needing improvement.
- **Sensory Break (5 minutes):**
  - **Activity:** Choice Time
  - **Description:** Allow the child to choose a preferred activity.
- **Review and Reward (5 minutes):**
  - **Activity:** Feedback Session
  - **Description:** Discuss how the child feels about their progress.
  - **Reward:** Positive affirmation and a small reward.

#### Session 2: Personalised Assessment

- **Warm-Up (5 minutes):**
  - **Activity:** Confidence Chart
  - **Description:** Rate confidence in different topics.
- **Main Activity (25 minutes):**
  - **Assessment Tasks:**
    - Provide a tailored assessment covering key areas.
  - **Supportive Environment:**
    - Ensure the child feels comfortable and understands that it's okay not to know everything.
  - **Encouragement:**
    - Offer support and hints as needed.
- **Sensory Break (5 minutes):**
  - **Activity:** Relaxing Music
  - **Description:** Listen to calming music.
- **Review and Reward (5 minutes):**
  - **Activity:** Celebrate Effort
  - **Description:** Highlight hard work and perseverance.
  - **Reward:** Certificate or special treat.

### Session 3: Goal Setting and Celebration

- **Warm-Up (5 minutes):**
  - **Activity:** Favourite Memory Sharing
  - **Description:** Discuss favourite activities from the year.
- **Main Activity (25 minutes):**
  - **Setting Goals:**
    - Help the child set goals for the next academic year.
  - **Creating a Vision Board:**
    - Use pictures and words to represent aspirations.
  - **Celebration Activity:**
    - Have a small party or fun game to celebrate achievements.
- **Sensory Break (5 minutes):**
  - **Activity:** Free Play
  - **Description:** Allow time for unstructured play.
- **Review and Reward (5 minutes):**
  - **Activity:** Present Awards
  - **Description:** Give out certificates recognising various achievements.
  - **Reward:** Applause and acknowledgment.

### Materials:

- Mind mapping sheets
- Assessment papers
- Confidence charts
- Vision board materials (magazines, glue, scissors)
- Certificates and rewards

### ADHD/ASC Strategies:

- **Supportive Environment:** Ensure the child feels safe and encouraged.
- **Personalised Approach:** Tailor assessments to the child's needs.
- **Positive Reinforcement:** Focus on strengths and celebrate all progress.
- **Flexibility:** Be prepared to adjust activities based on the child's responses.

### REVIEW AND PROGRESS MONITORING:

- **Weekly Assessments:**
  - Use informal methods like quizzes, discussions, and observations.
  - Provide opportunities for the child to demonstrate understanding in various ways.
- **Progress Charts:**
  - Maintain visual records of achievements.
  - Involve the child in tracking their own progress.
- **Adjustments:**
  - Be flexible with plans based on the child's engagement and comprehension.
  - Revisit challenging topics as needed.

## ADDITIONAL SUPPORT FOR ADHD AND ASC:

- **Personalised Breaks:**
  - Adapt break activities to suit the child's preferences.
  - Use timers to provide structure.
- **Consistent Reinforcement:**
  - Establish clear expectations and consistent consequences.
  - Use positive reinforcement to encourage desired behaviours.
- **Visual Timers and Schedules:**
  - Provide a visual timetable for each session.
  - Use timers to help the child anticipate transitions.
- **Clear Communication:**
  - Use simple, direct language.
  - Check for understanding frequently.
- **Environment Management:**
  - Minimise sensory distractions.
  - Provide a comfortable and familiar setting.
- **Parental Involvement:**
  - Communicate regularly with caregivers.
  - Share strategies and progress to support learning at home.