1:1 YEAR 3 MATHS INTERVENTION PLAN FOR SEN STUDENTS

OBJECTIVE:

This intervention plan is tailored help children with ADHD and ASC to achieve the Year 3 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 the concept in a particular session when assessed, then the session should be repeated in later weeks for consolidation. This plan could also be adjusted for a small group of students if needed.

KEY MATHS SKILLS BASED ON YEAR 3 UK CURRICULUM:

1. Counting in steps of 4, 8, 50, and 100.
2. Recognise the place value of each digit in three-digit numbers.
3. Addition and subtraction up to 1000.
4. Recall and use multiplication and division facts for the 3, 4, and 8 times tables.
5. Fractions: finding and recognising fractions of objects and numbers.
6. Recognising and describing 2D and 3D shapes.
7. Measuring and calculating length, perimeter, and area.
8. Tell the time to the nearest minute, including Roman numerals.
9. Interpret and present data using bar charts, pictograms, and tables.

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.

WEEK 1-2: COUNTING IN STEPS OF 4, 8, 50, AND 100

Learning Objective:

- Count forwards and backwards in steps of 4, 8, 50, and 100 from any given number.

Activities:

- **Session 1**: Use number lines and counters to count in steps of 4. Start from 0, then from random numbers.
- **Session 2**: Practice counting in 8s while clapping or jumping to reinforce movement.
- **Session 3**: Play a game where the child picks a number card and counts in 50s and 100s from that number using counters.

Materials:

- Number lines
- Counters or small toys
- Number cards (10-99) – if unavailable, staff can print numbers off and laminate them.

ADHD/ASC Strategies:

- Use movement (e.g., jumping while counting) to integrate physical activity.
- Provide visual aids such as number lines to reinforce the concept.
- Keep tasks short and varied, with frequent breaks to avoid frustration.

WEEK 3-4: PLACE VALUE (THREE-DIGIT NUMBERS)

Learning Objective:

- Recognise the place value of each digit in three-digit numbers (hundreds, tens, and ones).

Activities:

- **Session 1**: Use place value blocks or bead strings to build three-digit numbers. Break down the number by hundreds, tens, and ones.
- **Session 2**: Play a number card sorting game where the child matches three-digit numbers with their correct place value representations.
- **Session 3**: Solve place value puzzles, where the child builds and breaks apart three-digit numbers.

Materials:

- Place value blocks or bead strings
- Number cards (100-999)
- Whiteboard for drawing place value columns

ADHD/ASC Strategies:

- Use hands-on materials to make abstract concepts more concrete.
- Allow the child to move around the room while completing place value activities.
- Break tasks into small steps and use rewards after each task.

WEEK 5-6: ADDITION AND SUBTRACTION (UP TO 1000)

Learning Objective:

- Solve addition and subtraction problems involving numbers up to 1000.

Activities:

- **Session 1**: Use a number line to add and subtract two-digit numbers from three-digit numbers (e.g., 345 - 76). Physically move along the number line while solving.
- **Session 2**: Use place value blocks to solve larger addition problems by breaking numbers into hundreds, tens, and ones.
- **Session 3**: Play a word problem game using addition and subtraction problems, and solve them using cubes and blocks.

Materials:

- Number line
- Place value blocks
- Word problem cards – if unavailable, staff can print numbers off and laminate them.

ADHD/ASC Strategies:

- Break tasks into smaller steps and use visual aids like number lines and blocks.
- Provide choice in activities (e.g., word problems or direct sums).
- Offer frequent breaks and rewards for completed tasks.

WEEK 7-8: MULTIPLICATION AND DIVISION (3, 4, AND 8 TIMES TABLES)

Learning Objective:

- Recall and use multiplication and division facts for the 3, 4, and 8 times tables.

Activities:

- **Session 1**: Use arrays of objects (e.g., groups of counters) to demonstrate the 3 and 4 times tables.
- **Session 2**: Practice division by grouping objects into equal sets, demonstrating the 3 and 4 times tables.
- **Session 3**: Play a multiplication and division card game where the child matches problems (e.g., 8 × 3) with their solutions.

Materials:

- Counters or buttons
- Multiplication flashcards
- Whiteboard for drawing arrays

ADHD/ASC Strategies:

- Keep activities tactile and visual by using objects and arrays.
- Use rewards and breaks between times tables challenges.
- Offer a choice of activities to keep motivation high.

WEEK 9-10: FRACTIONS (FINDING AND RECOGNISING FRACTIONS)

Learning Objective:

- Find and recognise fractions of objects and numbers.

Activities:

- **Session 1**: Use playdough or paper shapes to divide into halves, thirds, and quarters.
- **Session 2**: Use fraction flashcards to match pictures of fractions with their numerical representations (e.g., ½, ¼).
- **Session 3**: Play a fraction sorting game where the child sorts objects into groups based on fractions (e.g., one-half of 8 objects).

Materials:

- Playdough or paper for cutting shapes
- Fraction flashcards
- Fraction sorting game materials

ADHD/ASC Strategies:

- Use hands-on materials like playdough or paper to make fractions tangible.
- Break down tasks into simple steps, with frequent breaks.
- Use a reward system for correctly identifying and working with fractions.

WEEK 11-12: RECOGNISING AND DESCRIBING 2D AND 3D SHAPES

Learning Objective:

- Identify and describe properties of 2D and 3D shapes (e.g., sides, vertices, faces).

Activities:

- **Session 1**: Use 2D shape cutouts to identify and name shapes such as triangles, squares, and rectangles.
- **Session 2**: Use 3D models to explore faces, edges, and vertices of shapes like cubes, spheres, and pyramids.
- **Session 3**: Play a shape-hunting game around the room, finding examples of 2D and 3D shapes in real life.

Materials:

- 2D shape cutouts
- 3D shape models
- Shape posters

ADHD/ASC Strategies:

- Keep activities hands-on by using physical models and cutouts.
- Incorporate movement by having the child find shapes around the room.
- Use a visual tracker to reward task completion.

WEEK 13-14: MEASURING AND CALCULATING LENGTH, PERIMETER, AND AREA

Learning Objective:

- Measure and calculate length, perimeter, and area using standard units.

Activities:

- **Session 1**: Measure objects around the room using a ruler or tape measure, recording their lengths in centimetres.
- **Session 2**: Use grid paper to draw rectangles and calculate their perimeters by adding the side lengths.
- **Session 3**: Calculate the area of simple shapes by counting squares on a grid.

Materials:

- Ruler or tape measure
- Grid paper
- Objects to measure

ADHD/ASC Strategies:

- Make tasks interactive by measuring real objects and using physical tools.
- Provide frequent breaks, especially during longer measuring activities.
- Offer choice and rewards for completing measurements and calculations.

WEEK 15-16: TELLING THE TIME (NEAREST MINUTE, INCLUDING ROMAN NUMERALS)

Learning Objective:

- Tell the time to the nearest minute on an analogue clock and understand Roman numerals on a clock face.

Activities:

- **Session 1**: Use a toy clock to practise setting times to the nearest minute.
- **Session 2**: Introduce Roman numerals on a clock and practise reading times using a Roman numeral clock face.
- **Session 3**: Play a time-matching game, matching written times to analogue clock faces showing times to the nearest minute.

Materials:

- Toy clock with moveable hands
- Time flashcards
- Roman numeral clock face

ADHD/ASC Strategies:

- Keep activities hands-on with a toy clock and time-matching games.
- Use visual timers during the session to help the child manage time.
- Offer a reward system to encourage correct time-telling.

WEEK 17-18: INTERPRETING AND PRESENTING DATA USING BAR CHARTS, PICTOGRAMS, AND TABLES

Learning Objective:

- Interpret and present data using bar charts, pictograms, and tables.

Activities:

- **Session 1**: Introduce simple bar charts and have the child collect data (e.g., favourite colours) and plot it on a bar chart.
- **Session 2**: Use pictograms to represent data, where each picture represents a certain number of items.
- **Session 3**: Interpret tables by answering simple questions (e.g., "How many people chose red as their favourite colour?").

Materials:

- Bar chart templates
- Pictogram templates
- Tables for data interpretation

ADHD/ASC Strategies:

- Use real-life examples to make data collection relevant and engaging.
- Keep tasks visually structured with clear steps for interpreting data.
- Provide rewards for completing each data interpretation task.

REVIEW AND PROGRESS MONITORING:

Weekly Assessment:

- Each week, assess progress informally by asking the child to explain or demonstrate what they've learned. Use quick quizzes, verbal questions, or practical demonstrations.

Progress Tracker:

- Use a visual progress chart to track the student's ability of each skill, rewarding milestones with stickers or small rewards.

Adjustment Based on Behaviour:

- Adjust the session length or frequency of breaks depending on the student's engagement and behaviour. Extend focus on difficult concepts over multiple weeks if needed.

ADDITIONAL SUPPORT FOR ADHD AND ASC:

1. **Personalised Breaks**:
    - Provide sensory or movement breaks tailored to the child's needs. Make dure to use visual timers to help the child understand how long the break will last.
2. **Consistent Reinforcement**:
    - Implement a reward system (e.g., sticker charts, points) for task completion. Provide praise and tangible rewards to encourage positive behaviour and learning.
3. **Visual Timers and Schedules**:
    - Use visual schedules and timers to help the child manage time and anticipate transitions between activities.