# CURRICULUM

Subject overview

## Maths
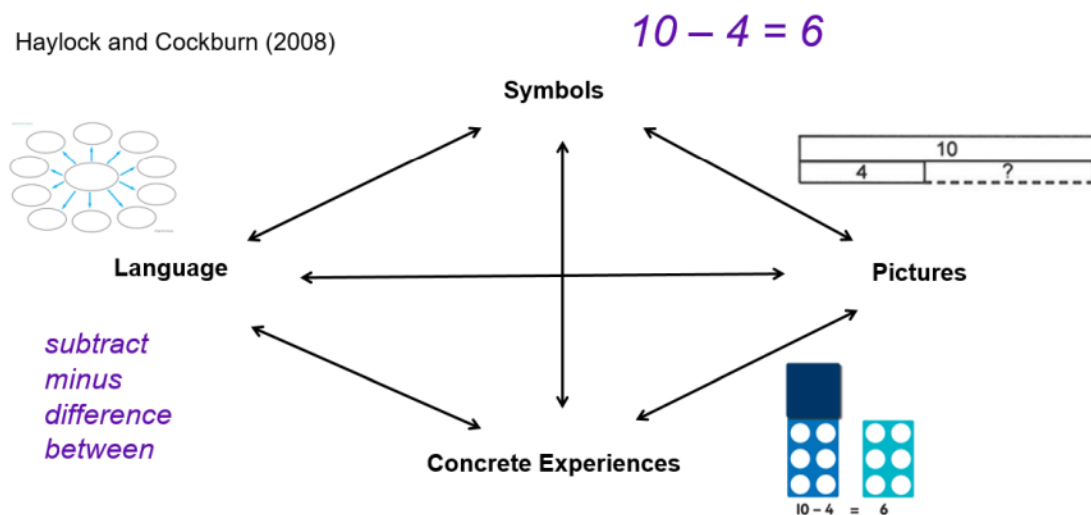
**Wise Owl Trust: Planning & Teaching Mathematics**

At Seymour Road Academy, the teaching of Mathematics has been developed in order to meet the needs of the pupils. Our aim is for our children to develop Mathematical fluency and a deep understanding of number, providing the children with a secure foundation to build on, rather than a reliance of rote memorisation of rules. Newstead's (1995 & 1998) research found that 'teaching methods that promoted understanding rather than just memorisation and rehearsal of procedures and recipes significantly increases confidence and reduces mathematical anxiety'. A deeper understanding of Mathematical concepts increases a child's confidence when faced with problems that are unfamiliar and in varied contexts. Mastery: Helen Drury, 2018 defines mastery as 'A mathematical concept or skill that has been mastered when, through exploration, clarification, practice and application over time, a person can represent it in multiple ways, has the mathematical language to be able to communicate related ideas, and think mathematically with the concepts so that they can independently apply it to a totally new problem in an unfamiliar situation.'



**Making Connections**

Haylock and Cockburn (2008)

$10 - 4 = 6$

Symbols

Language

subtract
minus
difference
between

Pictures

Concrete Experiences

$10 - 4 = 6$

**Deepening understanding: 3 key dimensions;**

• Deepening Conceptual Understanding through using and making connections between concepts, and between physical, diagrammatic and symbolic representations.

• Encouraging students to think like mathematicians, through giving them opportunities to seek patterns and rules, and to ask and answer open questions.

• Developing students' communication, through explicitly teaching them to discuss mathematics in grammatically correct full sentences with accurate terminology.

# Nursery– Yearly Overview

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 | Week 13 | Week 14 | Week 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Autumn** | **Geometry:** Colours Matching Sorting Patterns | | | | | | **Measurement:** Language of size | | **Number and Place Value:** The counting principle Compare amounts of objects. More than/fewer than | | | | | Retrieval | Retrieval |
| **Spring** | **Number and Place Value:** Understand number 1, 2,3, 4 & 5 Know and recognise circles, triangles, squares/rectangles & pentagons (whilst teaching numbers) Use mathematical symbols to represent numbers | | | | | **Geometry:** 2-D Shapes | **Geometry: Retrieval** Recognise colours. Matching colours | **Number and Place Value:** Know and understand number 5. Know and recognise a pentagon. | **Geometry:** Retrieval Know how to sort items by different attributes. | **Geometry:** Sort items Make and connect AB patterns | **Number and place value:** Retrieval compare amount of objects 1-5 and begin to recognise when they are equal. | **Measure:** Retrieval Know how to use the language of size. | **Consolidation** | | |
| **Summer** | **Shape and Space** Retrieval Know the shapes: circle, triangle, square, rectangle and pentagon. | **Number and place value:** Retrieval Know and understand number 5. Recite numbers past 5. | **Measure:** Know and order the events of the day. | **Measure:** Know the vocabulary of length and recognise different lengths. | **Number and place value:** Retrieval Know and understand number 5. Recite numbers past 5. | **Measure:** Know heavy and light comparison | **Measure:** Know how to describe capacity. | **Number and place value** Retrieval Know and understand number 5. Recite numbers past 5. | **Shape and Space:** Retrieval Know the shapes: circle, triangle, square, rectangle and pentagon. | **Shape and Space:** Know how to describe position. Describe a route. | **Geometry** Know how to make and continue AB patterns. Talk about patterns in the environment. | **Number and place value** Retrieval Know and understand number 5. Recite numbers past 5. | **Consolidation** | | |

# Reception– Yearly Overview

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 | Week 13 | Week 14 | Week 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Autumn** | Getting to know you | | Match, Sort and Compare | | Talk about Measure and Patterns | | It's me 1, 2, 3 | | Circles & Triangles | | 1, 2, 3, 4 ,5 | | | Shapes with 4 sides shapes | Consolidation |
| **Spring** | Alive in 5 | | Mass & Capacity | Growing 6, 7, 8 | | Length, Height & Time | | Building 9 and 10 | | | Explore 3-D Shapes | | Retrieval | | |
| **Summer** | To 20 and Beyond | | How many now? | Manipulate, Compose & Decompose | | Sharing & Grouping | | Visualise, Build & Map | | | | Retrieval | Retrieval | | |

# Year 1 – Yearly Overview

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 | Week 13 | Week 14 | Week 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Autumn | Number: Number & Place Value (within 10) | | | | | Addition & Subtraction (within 10) | | | | | Geometry: Shape | | | Retrieval | Retrieval |
| Spring | Number: Number & Place Value (within 20) | | | Addition & Subtraction (within 20) | | | Number: Place Value (within 50) | | Measurement: Length and Height | | Measurement: Mass and Volume | | Retrieval | | |
| Summer | Number: Multiplication & Division | | | Number: Fractions | | Geometry: Position & Direction | Place Value (Within 100) | | Measurement: Money | | Measurement: Time | | Retrieval | | |

# Year 2 – Yearly Overview

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 | Week 13 | Week 14 | Week 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Autumn** | Number: Number & Place Value | | | | Number: Addition & Subtraction | | | | Geometry: Shape | | | Statistics | | Retrieval | Retrieval |
| **Spring** | Measurement: Money | | | Number: Multiplication & Division | | | | | Measurement: Length & Height | | Measurement: Capacity, Mass & Temperature | | | Retrieval | |
| **Summer** | Number: Fractions | | | Measurement: Time | | | Geometry: Position & Direction | | Number: Addition & Subtraction | | Number: Multiplication & Division | | Retrieval | | |

# Year 3 – Yearly Overview

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 | Week 13 | Week 14 | Week 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Autumn** | Number: Number & Place Value | | | | Number: Addition & Subtraction | | | | | Geometry: Shape | | | Retrieval | Retrieval | Retrieval |
| **Spring** | Number: Multiplication & Division | | | Measurement: Length & Perimeter | | | Number: Fractions | | | Measurement: Mass & Capacity | | | Retrieval | | |
| **Summer** | Number: Fractions | | Measurement: Money | | Measurement: Time | | | Geometry: Shape | | Statistics | | Retrieval | Retrieval | | |

# Year 4 – Yearly Overview

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 | Week 13 | Week 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Autumn** | Number: Number & Place Value | | | | Number: Addition and Subtraction | | | Measure: Area | Number: Multiplication & Division A | | | Retrieval | Retrieval | Retrieval |
| **Spring** | Number: Multiplication & Division B | | | Measure: Length and Perimeter | | Number: Fractions | | | | Number: Decimals A | | Retrieval | | |
| **Summer** | Number: Decimals B | | Measurement: Money | | Measure: Time | | Geometry: Shape Measure: Length & Perimeter | | | Statistics: Interpreting Graphs | | Geometry Position and Direction | | |

# Year 5 – Yearly Overview

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 | Week 13 | Week 14 | Week 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Autumn** | Number: Number & Place Value | | | Number: Addition and Subtraction | | Number: Multiplication & Division A | | | Number: Fractions A | | | | Measure: Time | Retrieval | |
| **Spring** | Number: Multiplication & Division B | | | Number: Fractions B | | Number: Decimals and Percentages | | | Measure: Perimeter and Area | | Statistics | | Measure: Time | | |
| **Summer** | Geometry: Shape | | | Geometry: Position & Direction | | Number: Decimals | | | Number: Negative Numbers | Number: Converting Units | | Measure: Volume | Retrieval | | |

# Year 6 – Yearly Overview

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 | Week 13 | Week 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number: Number & Place Value | | Number: Addition & Subtraction, Multiplication & Division Statistics | | | | | Number: Fractions | | Number: Fractions B | | Measure: Converting Units | Retrieval | |
| | Number: Ratio and Proportion | | Number: Algebra | | Number: Decimals | | Number: Decimals, Fractions and Percentages | | Geometry: Area, Perimeter and Volume | | Measure: Time | Statistics | Retrieval | |
| | Geometry: Shape | | | | Geometry: Position & Direction | Retrieval | Consolidation & Transition Projects | | | | | | | |