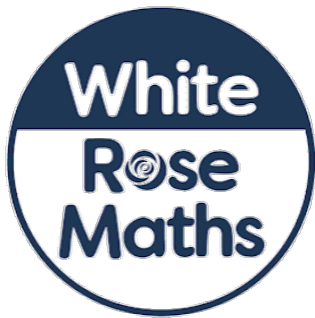


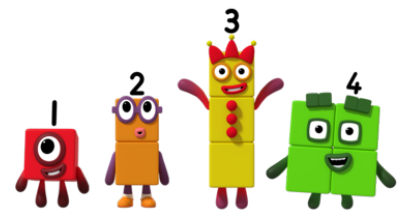


Somerdale

Educate Together



Mathematics in Pre-School



A guide for parents

Learn Together to Live Together

This guide is designed to inform families of how Maths is taught and how to support at home. It has been created using guides from White Rose Mathematics to support.



This Booklet

The aim of this booklet is to give you, as parents, a better understanding of the key concepts your child will be learning and how they are taught. It provides ideas and resources so you can support your child at home. This booklet is available to download from the curriculum section of our website, with elements hyperlinked so you can easily access the resources.



What is teaching for Mastery?

At Somerdale Educate Together we see teaching for mastery in maths as allowing children to gain a deep understanding of maths, allowing them to acquire a secure and long-term understanding of maths that allows them to make continual progress to move onto more complex topics.

We believe that everyone can do maths and there's no such thing as being a 'good' or 'bad' mathematician. Maths is a subject that everyone can and should be able to perform confidently and competently.

We teach by breaking down maths objectives into the smallest steps, so that every child is secure in every new concept before moving on. We focus upon teaching for fluency, reasoning and problem solving.

What will my child learn in mathematics this year?

At Somerdale Educate Together, we use a scheme called White Rose Maths. In Pre-School, we learn Maths throughout the day in our play and through play-based activities.

Overleaf is an overview of the maths that your child will learn during their time in pre-school. You can check the year group medium term planner on the class page for further information on what the current focus is.

<p>Comparison 1</p> <hr/> <p>More than, fewer than, same</p> <p>VIEW</p>	<p>Shape, space and measure 1</p> <hr/> <p>Explore and build with shapes and objects</p> <p>VIEW</p>	<p>Pattern 1</p> <hr/> <p>Explore repeats</p> <p>VIEW</p>	<p>Counting 1</p> <hr/> <p>Hear and say number names</p> <p>VIEW</p>	<p>Counting 2</p> <hr/> <p>Begin to order number names</p> <p>VIEW</p>	<p>Subitising 1</p> <hr/> <p>I see 1, 2, 3</p> <p>VIEW</p>
<p>Pattern 2</p> <hr/> <p>Join in with repeats</p> <p>VIEW</p>	<p>Shape, space and measure 2</p> <hr/> <p>Explore position and space</p> <p>VIEW</p>	<p>Subitising 2</p> <hr/> <p>Show me 1, 2, 3</p> <p>VIEW</p>	<p>Counting 3</p> <hr/> <p>Move and label 1, 2, 3</p> <p>VIEW</p>	<p>Shape, space and measure 3</p> <hr/> <p>Explore position and routes</p> <p>VIEW</p>	<p>Pattern 3</p> <hr/> <p>Explore patterns</p> <p>VIEW</p>
<p>Counting 4</p> <hr/> <p>Take and give 1, 2, 3</p> <p>VIEW</p>	<p>Shape, space and measure 4</p> <hr/> <p>Match, talk, push and pull</p> <p>VIEW</p>	<p>Subitising 3</p> <hr/> <p>Talk about dots</p> <p>VIEW</p>	<p>Comparison 2</p> <hr/> <p>Compare and sort collections</p> <p>VIEW</p>	<p>Pattern 4</p> <hr/> <p>Lead on own repeats</p> <p>VIEW</p>	<p>Shape, space and measure 5</p> <hr/> <p>Start to puzzle</p> <p>VIEW</p>
<p>Pattern 5</p> <hr/> <p>Making patterns together</p> <p>VIEW</p>	<p>Subitising 4</p> <hr/> <p>Make games and actions</p> <p>VIEW</p>	<p>Counting 5</p> <hr/> <p>Show me 5</p> <p>VIEW</p>	<p>Pattern 6</p> <hr/> <p>My own pattern</p> <p>VIEW</p>	<p>Counting 6</p> <hr/> <p>Stop at 1, 2, 3, 4, 5</p> <p>VIEW</p>	<p>Comparison 3</p> <hr/> <p>Match, sort, compare</p> <p>VIEW</p>

Click the image above to link to the White Rose website. This will give you more information on the small steps that are taught in each of these blocks.

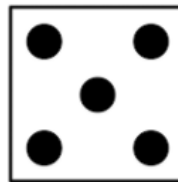
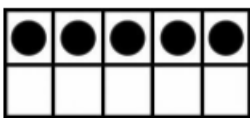
How do we teach for fluency in Pre-School?

In Reception, we aim to teach so that children have a deep understanding of number.

Representing Numbers

We want to develop children's number sense so that they really understand the number rather than just recognising the numeral. It is good to know that seeing '5' means five, but we want to dig deeper so that children really get to know the 'five-ness' of five.

Children need to understand that numbers can be represented in many ways, not just as a written numeral. We use many different objects and pictures to show that numbers can be represented in lots of ways.



Children sometimes need lots of practise to recognise numbers in different forms. We play matching games and encourage children to recognise and make different amounts in our indoor and outdoor areas.

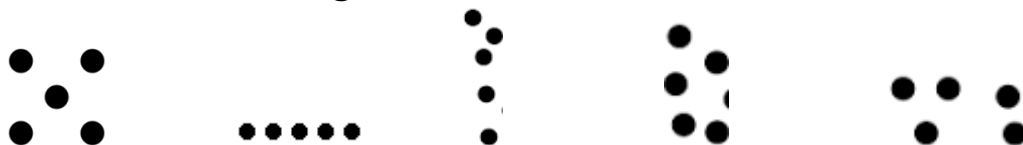
Counting

When counting, children need to understand that

- That we need to say one number for each object counted (touch counting).
- The final number we say is how many altogether. Some children continue to count after they have reached the final object as they don't connect the numbers they are saying to the objects in front of them.
- That we can count objects in any order and the total stays the same.

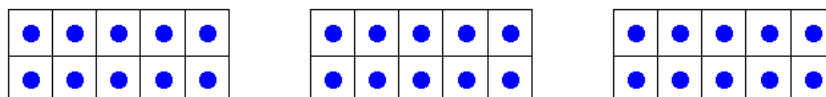
Recognising amounts

Another skill that is very important is recognising small amounts without the need to count them. Initially this should be by using concrete objects such as those shown on the previous page but as children progress, allowing them to see groups of dots in different arrangements helps them to mentally 'see' how many objects are there without needing to count. This is a very important skill when children begin to add and subtract. Using dice is a good way to practise this skill before moving onto objects in different arrangements.



Understanding that the total stays the same even when the objects move

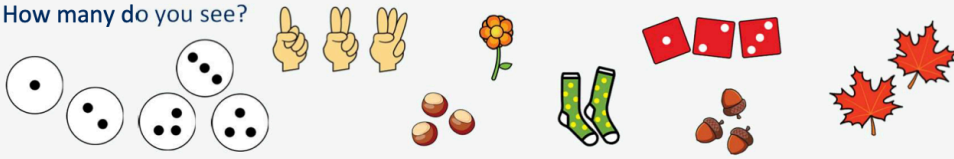

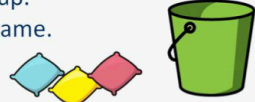




When children first start to use numbers, they often do not understand that if we move objects into another arrangement the total stays the same. We practise this with many different types of objects but a useful tool is using a tens frame to be able to move counters around.



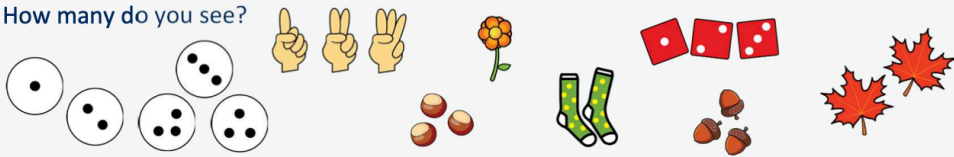






Progression of Skills

White Rose is a very carefully planned scheme of work. Over the next few pages, you can see an overview of how key skills are taught.

Addition

<p>Nursery</p>	<ul style="list-style-type: none"> • Begin to have an understanding of numbers to 5 • We recommend focusing on noticing and representing small quantities, perceptual subitising and counting. 	
<p>Progression of skills</p>	<p>Key representations</p>	
<p>Subitise to 3</p> <p>Instantly see how many.</p>	<p>How many do you see?</p> 	
<p>Count how many</p> <p>Begin to count objects using 1-1 correspondence.</p>	<p>How many are there?</p> <p>1 2 3 4 5</p> 	<p>Count out ... from a larger group. E.g. Collect 3 beanbags for a game.</p> 
<p>Make numbers to 5</p> <p>Start by showing 1, 2 and 3 using fingers.</p>	<p>Show me...</p>  	<p>Begin to link numerals to quantities.</p> 
<p>Add 1 more</p> <p>Through stories, songs and rhymes.</p>	<p>How many do I have now?</p> 	

Subtraction

<p>Nursery</p>	<ul style="list-style-type: none"> • Begin to have an understanding of numbers to 5 • We recommend focusing on noticing and representing small quantities, perceptual subitising and counting. 	
<p>Progression of skills</p>	<p>Key representations</p>	
<p>Subitise to 3</p> <p>Instantly see how many.</p>	<p>How many do you see?</p> 	
<p>Count how many</p> <p>Begin to count objects using 1-1 correspondence.</p>	<p>How many are there?</p> <p>1 2 3 4 5</p> 	<p>Count out ... from a larger group. E.g. Collect a cup for everyone at the table.</p> 
<p>Make numbers to 5</p> <p>Start by showing 1, 2 and 3 using fingers.</p>	<p>Show me...</p>  	<p>Begin to link numerals to quantities.</p> 
<p>Take 1 away</p> <p>Through stories, songs and rhymes.</p>	<p>How many do we have now?</p> 	

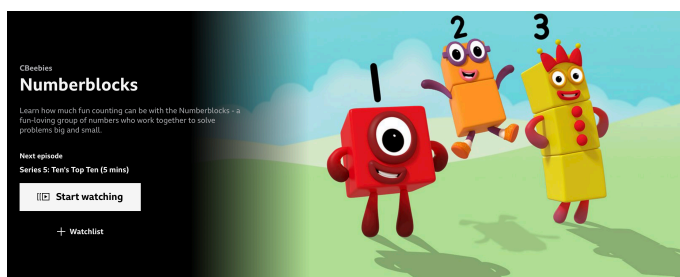
How to Support your child

There are a wide range of materials and resources available to support your child with their maths at home.

The medium term planner on the class page will support you with the current focus. Below are some ideas to support, as well as other resources that can be used if your child is finding an aspect of maths tricky. Pictures below are hyperlinked for ease.

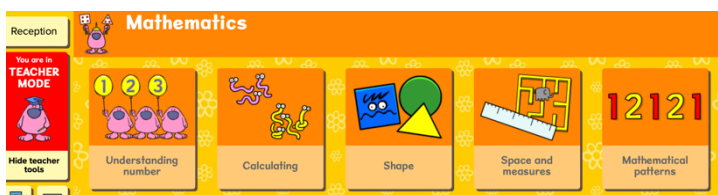
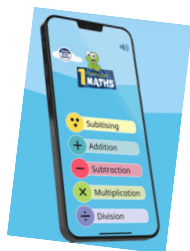
Numberblocks

Numberblocks is a fantastic programme available on BBC iPlayer. It really supports children's early knowledge of number.



White Rose One-Minute App

This app is great for short one-minute daily practice on adding, subtraction and subitising skills. It is free to download on iOS, amazon and android devices.



Busy Things

As a school, we subscribe to Busy Things, an online resource which supports multiple areas of the curriculum. It has many games to support mathematics. If you need a reminder of the log-in details, please speak to your child's class teacher.

Other ideas

We have listed some concepts that are taught throughout the Pre-School with ideas of activities to support.

Example Statements	Ideas of Activities
Add 1 more/1 less	Counting a number of sweets, eating one and saying 1 fewer/1 less. Counting objects – what if I had one more? -Simple games such as incy wincy spider with a dice, where you go up or down the spout one spot at a time.
Understanding of numbers to 5	Finger buddies – Show a number of fingers, and your partner finds the others that make 5. Use printout of numicon shapes to explore different ways of making numbers Busy Things: Number Jump/ Hungry Chicks/ Rocker Shocker/Playground Adding different types of materials or toys together. Board games: roll two dice and add the total Show different amounts of fingers on hands and add together
I can count objects, actions and sounds	-Playing copy my rhythm games with clapping hands, tapping toes etc. -Counting coins dropped into a tin. Counting cars, sticks, tins of beans, puddles etc. -Board games (counting number of spaces)
I can subitise up to 5 objects.	Board Games – dots on dice Find the number – flashcards with different representations of 5 (e.g. dice, numicon, objects) Busy Things: Sit Down/ Balloon Tree/Number Jump/ Fun two, three, four

This booklet is available on our Maths page, under the curriculum tab.

Images are hyperlinked to help you get direct to the resources mentioned in this guide.

The screenshot shows the Somerdale Educate Together website. At the top, there are navigation tabs for CURRICULUM, OUR CLASSES, PRE-SCHOOL, and SCHOOL IN. Below this is a list of subjects: Art, Computing, English, Geography, History, Learn Together, Maths, Music, and Mental Health. The 'Maths' tab is highlighted. To the right of the subject list, there are links for PE, RSHE, Rights Respecting Schools Award, Value of the Month, Growth Mindset, Languages, Science, and Design & Technology. At the bottom, there is a logo for 'Maths' and a footer that reads: 'At Somerdale Educate Together our approach to teaching Mathematics fosters and promotes our ethos and beliefs that all children can achieve and succeed.'