

Reception Maths Workshop

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Today's Overview



- Our Maths Rationale
- An Introduction to White Rose
- Numberblocks
- Our Key Areas
 - Numbers
 - Number Patterns
- Termly Overview
- Useful Resources/ How you can help at home 😊

Our Maths Rationale

We want all children to develop the necessary building blocks to excel mathematically. Children should be able to **count confidently, develop a deep understanding of the numbers to 10**, the relationships between them and the patterns within those numbers.

In reception we will aim to provide children with a **secure base of knowledge and vocabulary** from which a mastery of mathematics can be built.

Our goal is for children to develop **positive attitudes and interests in mathematics**, encourage all children to **'have a go'**, talk to adults and peers about **what they notice**, and most importantly, **not be afraid to make mistakes!**

White Rose Maths

“Adopting a White Rose Math's approach to teaching means making sure all children have the same opportunities to learn and the support they need to fully grasp concepts.” White Rose



Influenced, inspired and informed by the work of leading maths researchers and practitioners across the world, White Rose Maths brings together a team of highly experienced and passionate maths teaching experts to train, guide, help and support all those who want to make change happen in their schools.

White Rose helps us to build a culture of deep understanding, confidence and competence in maths – a culture that produces strong, secure learning and real progress. No matter what their starting points, we help learners everywhere to achieve excellence.

EVERYONE CAN DO MATHS:

EVERYONE CAN!

Numberblocks



Alongside White Rose, we also use a variety of resources. One of our favourites is Numberblocks!

Numberblocks first broadcast in January 2017. It is a preschool BBC television series aimed at introducing children to early number.

Snappy animation and loveable characters combine with an engaging storyline to gently introduce concepts of number to support early mathematical understanding.

What are the key areas?

The teaching of Mathematics in the Early Years Foundation Stage (EYFS) is classed as a specific area of learning and development.

It is made up of two main areas:

- Number
- Number Patterns

Numbers: Recognition of Numbers

Children need to engage with numbers and to see how to use them in their everyday environment for labelling, quantifying and calculating: we want to help them to develop a better understanding of the world in which they live.



Numbers: Counting

I

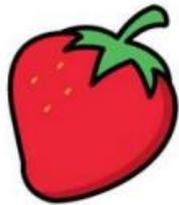
The one-one principle. This involves children assigning one number name to each object that is being counted. Children need to ensure that they count each object only once ensuring they have counted every object.



1



2



3



4



5

Numbers: Counting



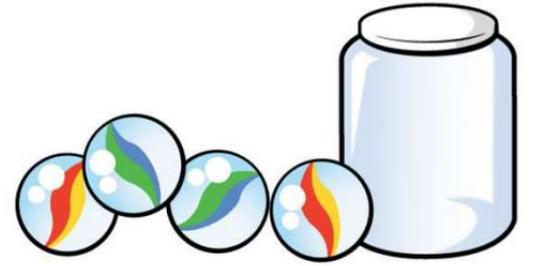
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The stable-order principle. Children understand when counting, the numbers have to be said in a certain order.

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The cardinal principle. Children understand that the number name assigned to the final object in a group is the total number of objects in that group.

Numbers: Counting



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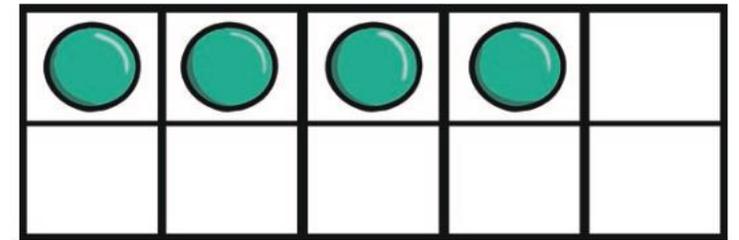
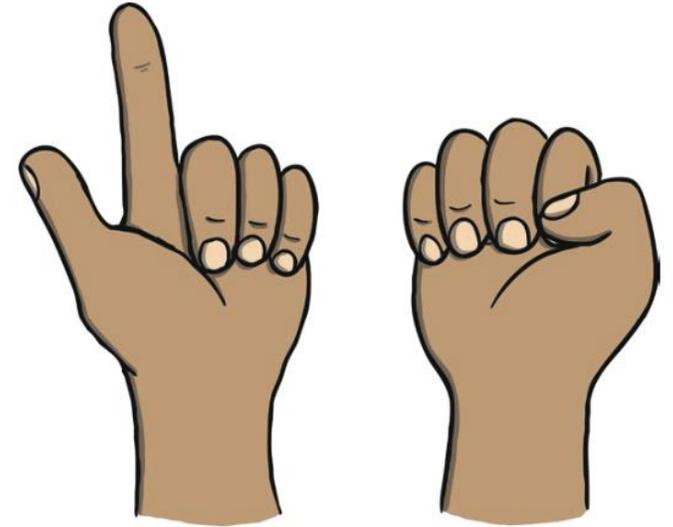
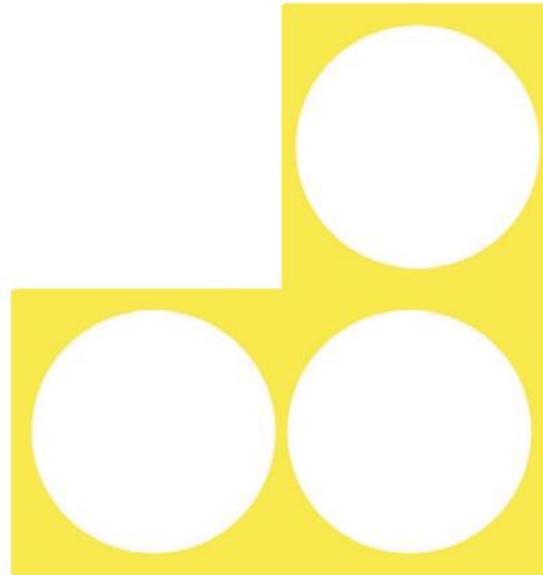
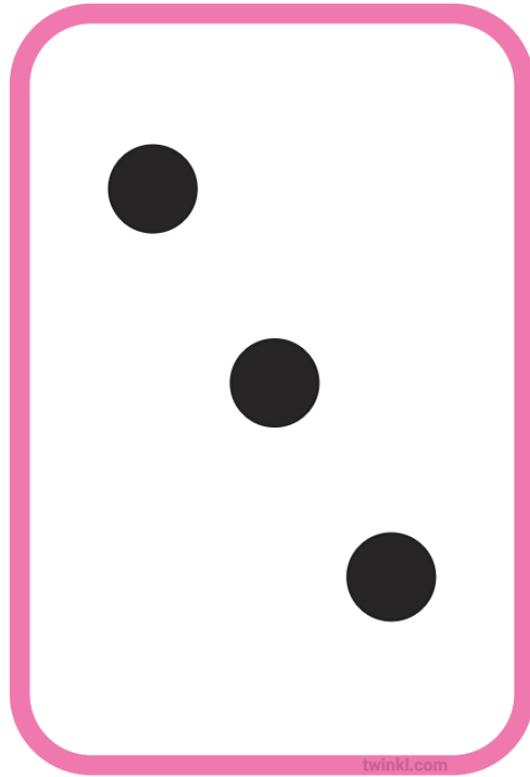
The abstraction principle. This involves children understanding that anything can be counted including things that cannot be touched including sounds and movements e.g. jumps.

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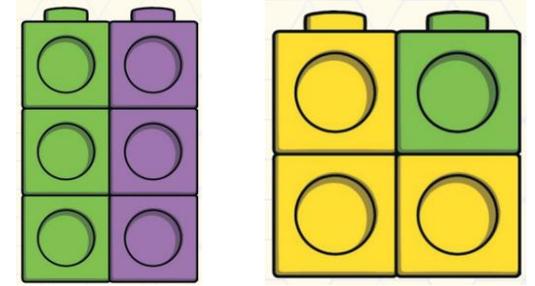
The order-irrelevance principle. This involves children understanding that the order we count a group of objects is irrelevant. There will still be the same number.

Numbers: Subitising

Instantly recognise a small quantity, without having to count how many there are.



Numbers: Composition



What Is Composition?

Understanding that one number can be made up from (composed from) two or more smaller numbers.

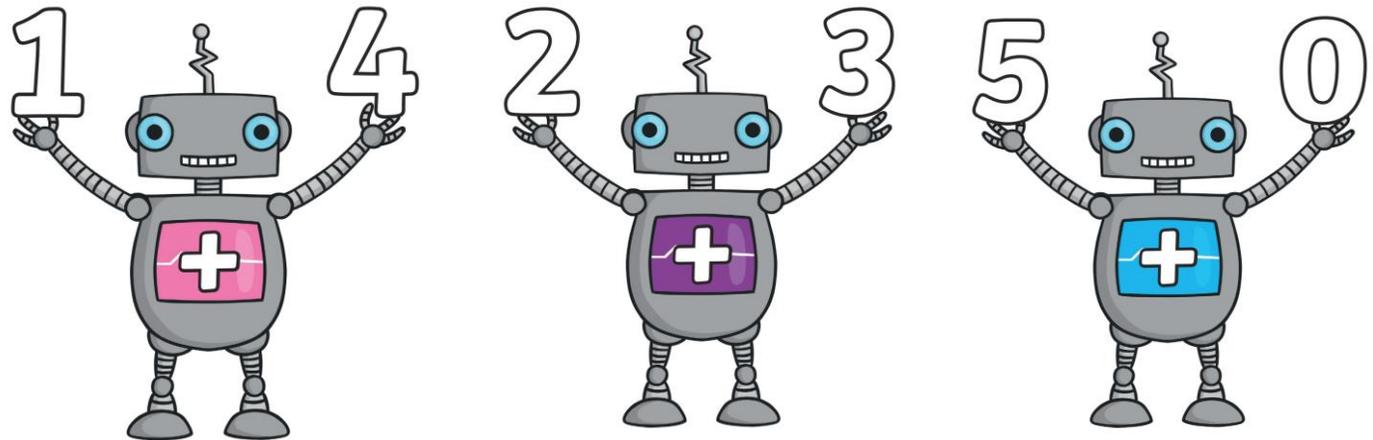
Knowing numbers are made up of two or more other smaller numbers involves 'part-whole' understanding. Learning to 'see' a whole number and its parts at the same time is a key development in children's number understanding.

Partitioning numbers into other numbers and putting them back together again underpins understanding of addition and subtraction as inverse operations.

Numbers: Number Bonds

Number bonds let children split numbers in useful ways. They show how numbers join together, and how they break down into component parts.

During the children's time in Reception we will be focusing on number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.

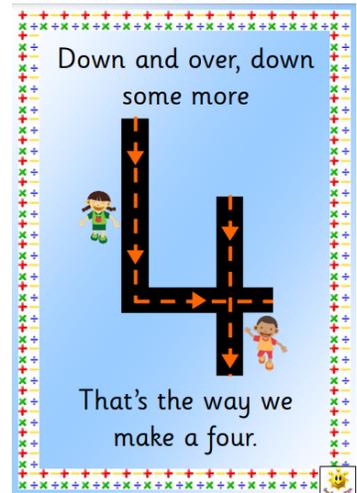
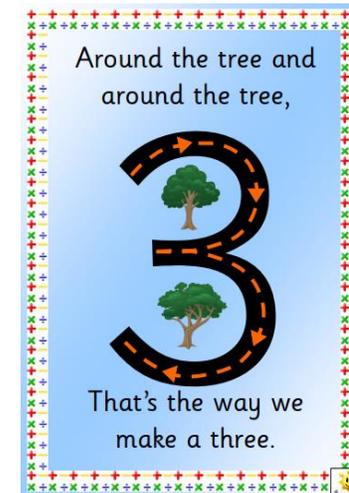
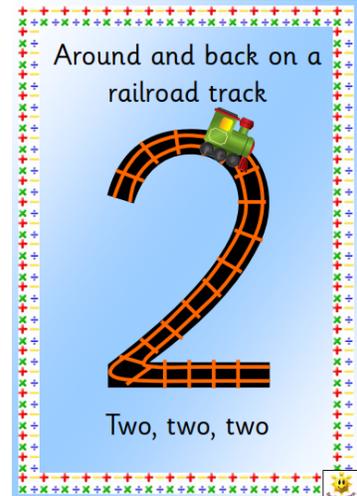
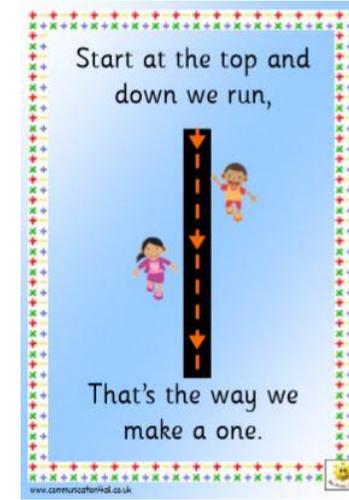


Numbers – ELG (Early Learning Goal)

- Have a deep understanding of numbers to 10, including the composition of each number.
- Subitise (recognise quantities without counting) up to 5.
- Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.

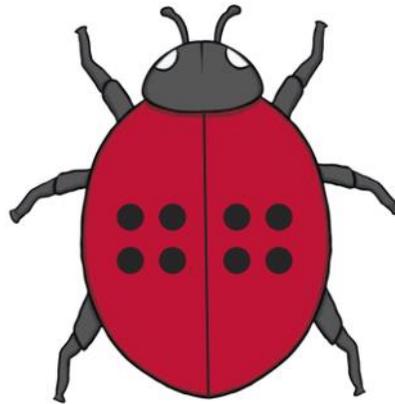
Writing Numbers

- Until children are working beyond the ELG there is NO requirement for them to write numbers.
- Most of our children begin to show an interest so therefore we show them how to write numerals correctly.
- www.Communication4all.com



Number Patterns

- Counting forwards and backwards
- Comparing quantities and sharing
- Even and odd numbers
- Doubling



Numbers Patterns: 2D and 3D Shapes

A focus in this stage is the development of children's knowledge and use of 2D and 3D shapes.

Children learn the difference between flat and solid shapes and the correct names as well as learning simple properties



Numbers Patterns: Length, Weight and Capacity

Another focus in this stage is the ability to make comparisons between objects relating to size, length, weight and capacity.



Number Patterns – ELG

- Verbally count beyond 20, recognising the pattern of the counting system.
- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.
- Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

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	Getting to Know You			Just Like Me!			It's Me 1 2 3!			Light and Dark			Consolidation	
Spring	Alive in 5!			Growing 6, 7, 8			Building 9 and 10			Consolidation				
Summer	To 20 and Beyond			First Then Now			Find My Pattern			On The Move				

Week 1	Week 2	Week 3		Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<p>Getting to Know You</p> <p>Opportunities for settling in, introducing the areas of provision and getting to know the children.</p> <p>Key times of day, class routines. Exploring the continuous provision inside and out. Where do things belong? Positional language.</p>			Phase	Just Like Me!			It's Me 1 2 3!			Light and Dark		
			Number	Match and Sort Compare Amounts			Representing 1, 2 & 3 Comparing 1, 2 & 3 Composition of 1, 2 & 3			Representing Numbers to 5. One More and Less.		
			Measure, Shape and Spatial Thinking	Compare Size, Mass & Capacity Exploring Pattern			Circles and Triangles Positional Language			Shapes with 4 Sides. Time		

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9
Phase	Alive in 5!			Growing 6, 7, 8			Building 9 & 10		
Number	Introducing zero Comparing numbers to 5 Composition of 4 & 5			6, 7 & 8 Combining 2 amounts Making pairs			Counting to 9 & 10 Comparing numbers to 10 Bonds to 10		
Measure, Shape and Spatial Thinking	Compare Mass (2) Compare Capacity (2)			Length & Height Time			3d-shapes Spatial Awareness Patterns		

Summer

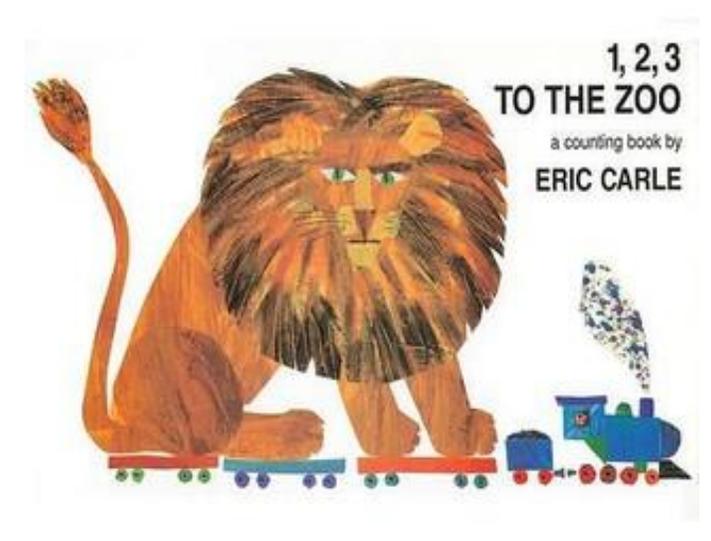
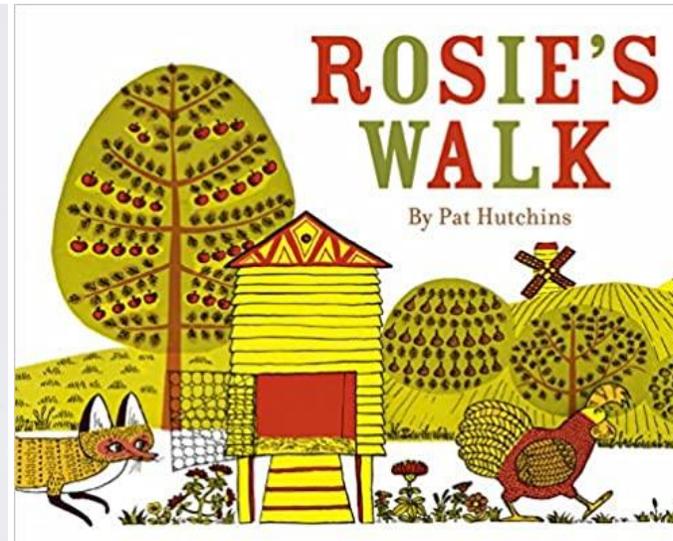
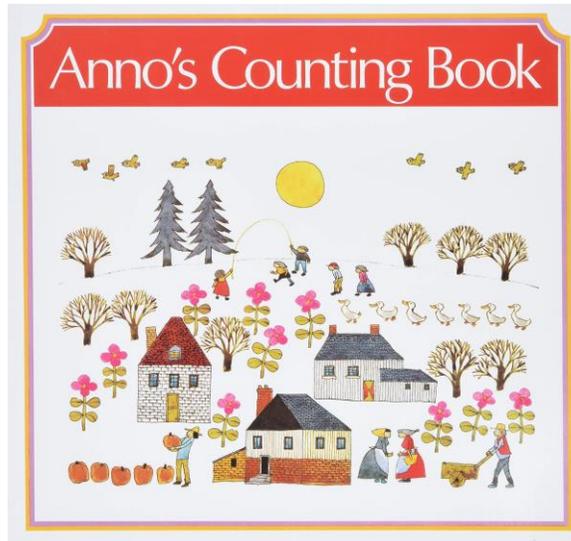
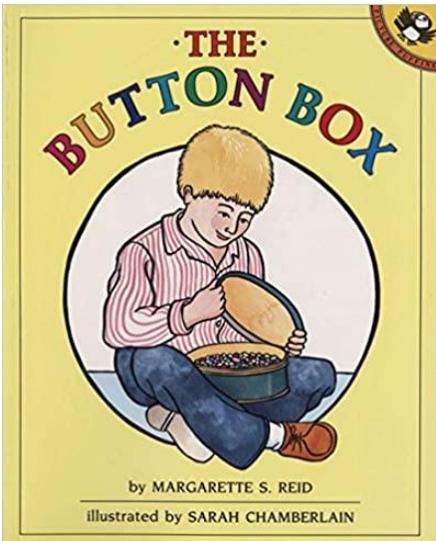


	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Phase	To 20 and Beyond			First Then Now			Find my Pattern			On the Move		
Number	Building Numbers Beyond 10 Counting Patterns Beyond 10			Adding More Taking Away			Doubling Sharing & Grouping Even & Odd			Deepening Understanding Patterns and Relationships		
Spatial Thinking	Spatial Reasoning (1) Match, Rotate, Manipulate			Spatial Reasoning (2) Compose and Decompose			Spatial Reasoning (3) Visualise and Build			Spatial Reasoning (4) Mapping		

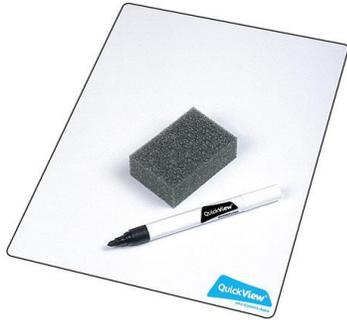
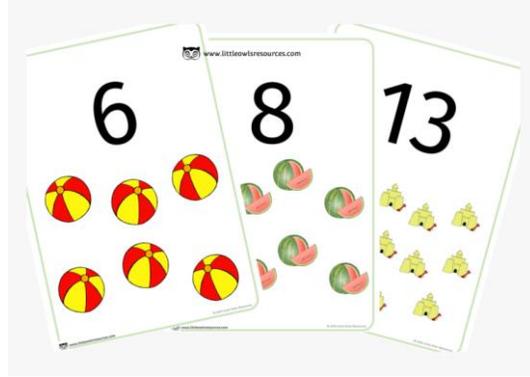
Nursery Rhymes/Stories



Five little monkeys
jumping on the bed



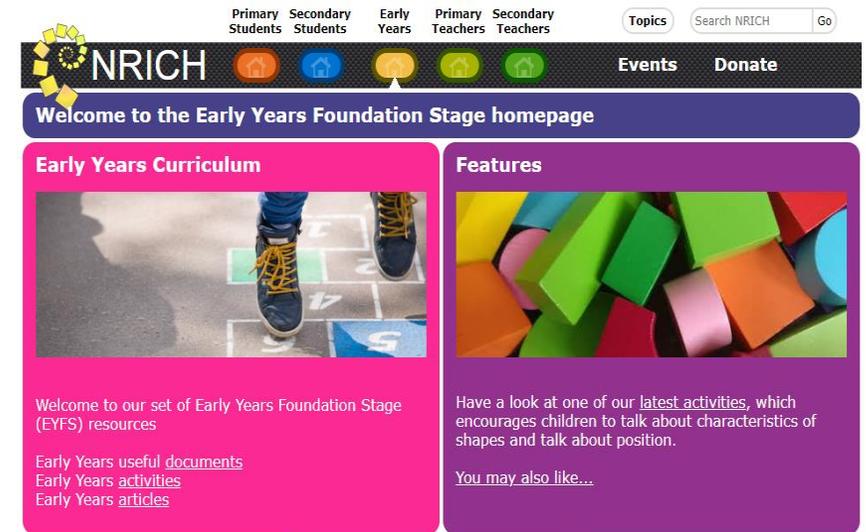
Physical Resources



How Can You Help at Home?

NRICH - <https://nrich.maths.org/early-years>

The NRICH Early Years resources aim to further develop young children's natural problem-solving abilities in the context of mathematics.

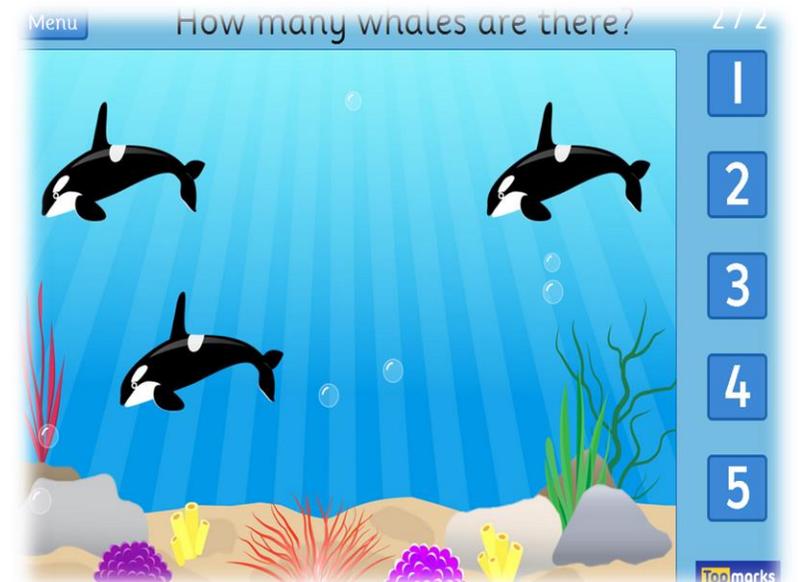
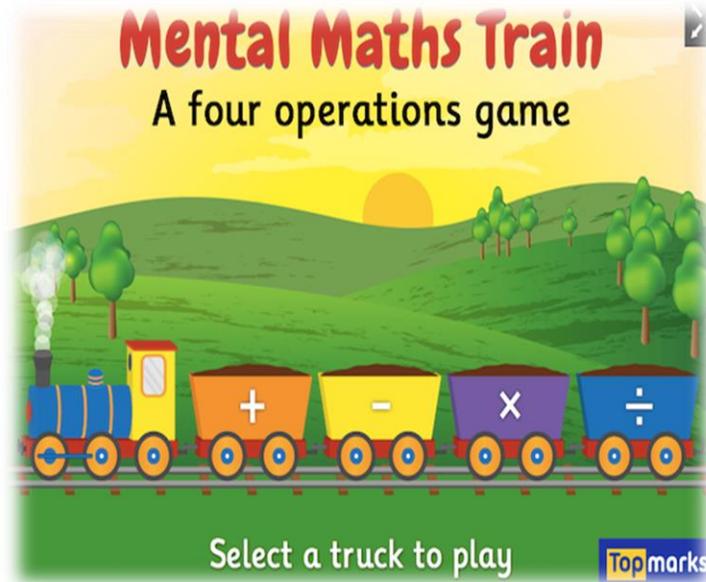
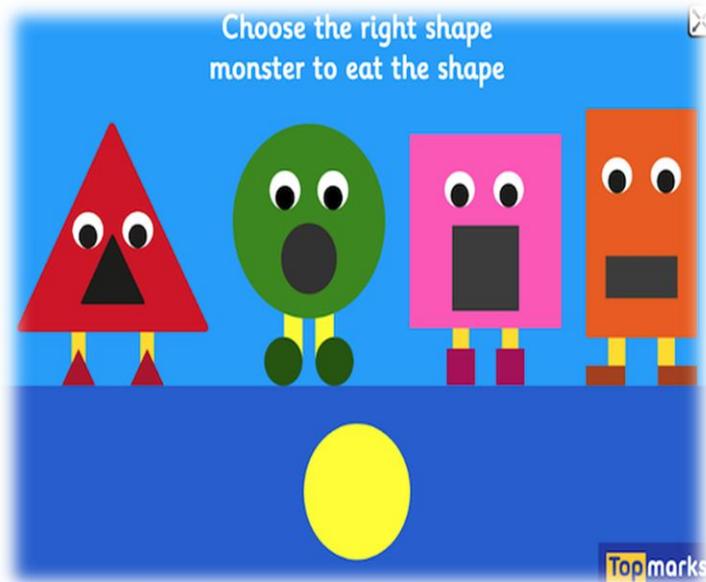


The screenshot shows the NRICH website interface. At the top, there is a navigation bar with links for 'Primary Students', 'Secondary Students', 'Early Years', 'Primary Teachers', and 'Secondary Teachers'. A search bar labeled 'Search NRICH' and a 'Go' button are also present. The NRICH logo is prominently displayed. Below the navigation bar, a blue banner reads 'Welcome to the Early Years Foundation Stage homepage'. The main content area is divided into two columns. The left column, titled 'Early Years Curriculum', features a photograph of a child's feet on a hopscotch grid and lists links for 'Early Years useful documents', 'Early Years activities', and 'Early Years articles'. The right column, titled 'Features', includes a photograph of colorful geometric shapes and a paragraph about activities that encourage children to talk about shapes and position, followed by a link for 'You may also like...'. The 'Events' and 'Donate' buttons are visible in the top right corner of the page.

How Can You Help at Home?

Top Marks - <https://www.topmarks.co.uk/maths-games/5-7-years/counting>

- A range of mathematical online games covering a range of maths topics.



How Can You Help at Home?

Education City

- EducationCity can be used by teachers and children at home (personalised login needed).
- A range of online games covering a range of topics.

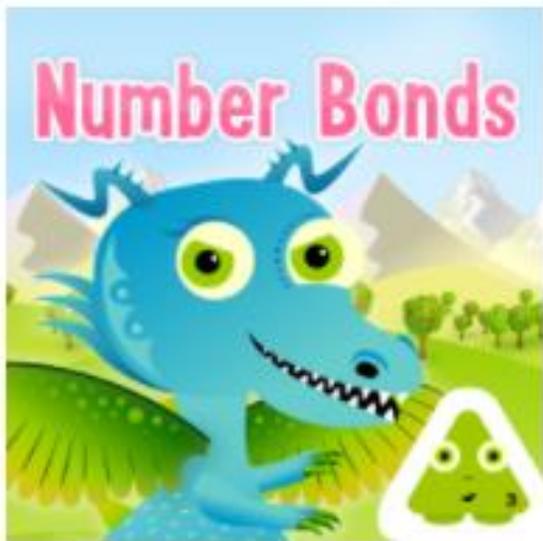


EducationCity
.com

How Can You Help at Home?

Educational Apps for Children - **Squeebles**

- Key Stage Fun create exciting, colourful, educational apps for children on the iPad, iPhone, iPod Touch, Mac and Android (including Amazon's Kindle Fire devices).





Thank you
Any questions?

