## Phase 8 - First Then Now

## \#MathsEveryoneCan

## Phase 8 - Book List

Reading to children is an essential part of their development. Any of these books would be useful during Phase 8

| Mouse Count - Ellen Stoll Walsh |
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| Mr Gumpy's Outing - John Burningham |
| Rosie's Zoo - Ailie Busby |
| One Ted Falls Out of Bed - Julia Donaldson |
| Quack and Count - Keith Baker |
| My Granny Went to Market - Stella Blackstone |
| Tad - Benji Davis |
| The Shopping Basket - John Burningham |
| Monster Math - Anne Miranda |
| Elevator Magic - Stuart J Murphy |
| Grandpa's Quilt - Betsy Franco |
| Jack and the Flumflum Tree - Julia Donaldson |
| Pezzettino - Neo Lionni |



## Consolidating Key Skills

## Composition

Continue to develop the children's understanding that all quantities are composed of smaller quantities.

## Sorting and Matching

Continue to encourage the children to notice similarities and differences as they match and sort objects in new contexts.
Ask: Can you find or build one the same as this? Can you find or build one which is different to this? Why is it different?
Can you see how I have sorted these items?
How else could we sort them?

## Comparing and Ordering

Build in regular opportunities for the children to continue comparing and ordering quantities and measures.
Prompt them to notice which set has more, which has fewer and when 2 sets have the same amount.

## Adding More

## Guidance

The children will use real objects to see that the quantity of a group can be changed by adding more. The first, then, now structure can be used to create mathematical stories in meaningful contexts.
At first, the children may need to re-count all of the items to see how many they have altogether.
E.g. 1, 2, 3, 4... 5, 6, 7 When they are ready, support them to count on E.g. 4... 5, 6, 7
Encourage the children to represent the number stories using 10 frames, number tracks and their fingers.

## Other Resources

Mouse Count - Ellen Stoll Walsh Mr Gumpy's Outing - John Burningham

Rosie's Zoo - Ailie Busby One Ted Falls Out of Bed - Julia Donaldson

Quack and Count - Keith Baker
My Granny Went to Market - Stella Blackstone

## Prompts for Learning

Show me 5 fingers. Now show me 2 more.
How many fingers now? How do you know there are 7? Did you count them all $1,2,3,4,5,6,7$ ?
Is there another way to count them? We know we have 5 on this hand? Can we count on? 6, 7?

Use first, then, now to tell simple maths stories to practise adding more in real life contexts.


First there were 2 people on the bus. Then 2 more people got on the bus. Now there are 4 people on the bus.

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Make links with familiar stories. E.g. First there were 3 mice in the jar. Then the snake added 2 more mice. How many mice are in the jar now?

## Adding More

## Outdoors

Share the story Mr Gumpy's Outing by John Burningham. Ask the children to build a boat and to create their own first, then, now stories as different groups of characters climb aboard. Encourage children to count how many altogether as more children join them.

## Construction

The children take turns to roll a 1-3 dice and collect 1,2 or 3 cubes to add to their tower. If they are ready, encourage them to count on as they add their cubes. How high can they build their towers before they topple?

## Enhancements to areas of learning

## Outdoors

Provide a trellis or tape a grid onto the playground. Each player has one column to fill. Children roll a dice and fill their column with the corresponding number of small items (beanbags, pebbles etc.)
The first to fill their column wins.


## Small World

Encourage the children to create their own first, then, now stories using the small world resources.
E.g. First there were 3 dinosaurs. Then 2 more dinosaurs came along. Now there are 5 dinosaurs altogether.

## Taking Away

## Guidance

The children use real objects to see that the quantity of a group can be changed by taking items away. The first, then, now structure can again be used to create mathematical stories in meaningful contexts. Encourage the children to count out all of the items at the start, take away the required amount practically, and then subitise or recount to see how many are left.

Continue to encourage the children to represent the number stories using 10 frames, number tracks and their fingers.

## Other Resources

Incey Wincey Spider game - Nrich Tad - Benji Davis
Mouse Count - Ellen Stoll Walsh
The Shopping Basket - John Burningham
Monster Math - Anne Miranda
Elevator Magic - Stuart J Murphy

## Prompts for Learning

Ask the children to show you 5 fingers and then to show you 4. Prompt them to notice that one less is the same as taking away one. Extend to taking away 2 fingers or 3 and noticing how many are left each time.

Practise taking away in different contexts which could link to familiar stories. Encourage the children to physically remove the items they are taking away and then count or subitise to see how many are left.
Use first, then, now to tell simple maths stories to practise taking away in familiar contexts.


## Taking Away

## Maths Area

Encourage the children to adapt and re-enact favourite rhymes such as 10 Green Bottles by making 1, 2, or 3 fall each time. Similarly, they could have 10 Currant Buns and choose to buy 1, 2, or 3 buns. Prompt the children
to say how many are left after each verse.


## Outdoors

A game for 2 children. Ask the children to line up 10 pebbles or shells. The children take turns to choose whether they take 1, 2 or 3 pebbles. The winner is the player who avoids taking the last pebble.


## Enhancements to areas of learning

## Pass It On

Each child starts with 6 cubes. They roll a 1-3 dice and pass the corresponding number of cubes to the person on their left. The winner is the first person to give away all of their cubes. Encourage the children to count how many they
have left as they pass on their cubes.


Race To Zero

Each child collects 20 items which can be arranged to fill two 10 frames. They take turns to roll a dice and remove the corresponding number of items. They must reach exactly

zero to win the game.

## Digging Deeper

## How Many Did I Add?

Count out 5 cubes. Ask the children to check how many there are and ensure everyone knows that there are 5
Cover the cubes with a cloth. Then, add a hidden amount of cubes to the cubes under the cloth.


Show the children how many cubes there are now. Challenge them to work out how many cubes you added. Encourage them to represent the cubes with their fingers, counters or a picture.

This activity can also be used for subtraction. Ensure the children know how many cubes there are at the start. Cover them up and this time take some cubes out. Uncover the remaining cubes and ask them to work out how many cubes you removed.

## Key Questions

How many cubes did we have at the start? How many cubes do we have now?
Do we have more cubes or fewer cubes now?
How many cubes did I add/takeaway?
How did you work it out?
Can you represent what we did using the counters?
Can you draw a picture to show what we did?

## Pirate Treasure

Pick a number card and count out the corresponding number of gold coins. One player covers their eyes whilst the second 'steals' some of the coins, hiding them in their hand.
The first player then has to work out how many coins have been stolen.


## Spatial Reasoning (2)

## Prompts for Learning

## Guidance

Children understand that shapes can be combined and separated to make new shapes. Provide opportunities for the children to fit shapes together and break shapes apart and to notice the new shapes they have created.

Investigate how many different ways a given shape can be built using smaller shapes.
Encourage the children to explore the different shapes they can make by combining a set of given shapes in different ways.

## Other Resources

Grandpa's Quilt - Betsy Franco Jack and the Flumflum Tree - Julia Donaldson

Pezzettino - Neo Lionni
Shape puzzles \& Tangrams
Pattern blocks \& Cuisenaire rods

Show the children 2 identical right-angled triangles which have been made by cutting a rectangle in half diagonally. How many new shapes can they make by fitting the triangles together? Can they make shapes with 3 sides? With 4 sides? Can they make a rectangle again? A tall thin triangle? A short fat triangle? What if they had 4 right-angle triangles?


Using square tiles or pieces of card, how many different squares and rectangles can they build?
How many tiles do they need for the smallest possible rectangle? Can they build a long thin rectangle? A short wide rectangle?
How many tiles do they need to build a larger square?


## Spatial Reasoning (2)



## Grandpa's Quilt

## Maths Area

Provide a set of Cuisenaire rods. How many different ways can the children arrange the rods to build a square? Can they make another square the same size using different rods? How do they know they are square? What do they notice about the rods as they build?

## Maths Area

Provide some paper rectangles, squares and triangles. Encourage the children to predict which new shapes will be made if the shapes are folded or cut in different ways and then investigate to see.


Ask each of the children to design one square using different shapes. Put all of the individual squares together to make a new quilt for Grandpa. Can we arrange the squares to make a long thin rectangle, a short fat rectangle?

## Enhancements to areas of learning

## Carpet Area



Provide an outline of a 6 by 6 square for each child and some number shapes. Children take turns to roll a dice and select the corresponding number shape which they place in their square. The winner is the first player to fill their square exactly.

## Digging Deeper

## Triangles

Provide a set of pattern blocks
 or similar and challenge the children to build as many different triangles as they can. Who can build the largest triangle? The smallest?

How many different ways can they find to build the same sized triangle? (Cardboard templates with a cut out triangle for the children to fill will provide support)

## Stars

Provide a set of pattern blocks or similar and a cut out star template.
 Challenge the children to find different ways to build a star. Encourage them to talk about the shapes they choose and what they notice. How many ways can they build a star using the same shape? Using different shapes?

## Key Questions

Can you make a triangle using the blocks?
Can you make a different triangle? Why is it different?
Can you build a larger/smaller triangle than this one?
How many blocks did you use?
Can you make a triangle using 2 blocks?
3 blocks? 4 blocks?
Is there more than one way to do this?

What other shapes can you build?
Can you make them in more than one way?

## Tangrams



Encourage the children to explore the different arrangements and shapes they can build using a tangram.
Can they use some of the pieces to make a triangle? Can they join some of the pieces to build a square? Is there more than one way to do this?

