

Autumn Scheme of Learning

# Reception

#MathsEveryoneCan

2020-21



# Overview 2020/21

	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	On the Move			Superhero to 20 and Beyond			First then Now			Find my Pattern			Consolidation	

- We have divided the Reception Year into 10 Phases. Each phase roughly lasts 3 weeks long, allowing time for flexibility and consolidation.
- Each phase has a number focus and suggested links to measure, shape and spatial thinking.

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		

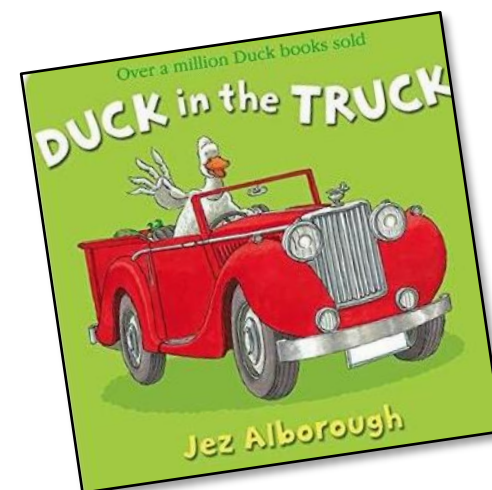
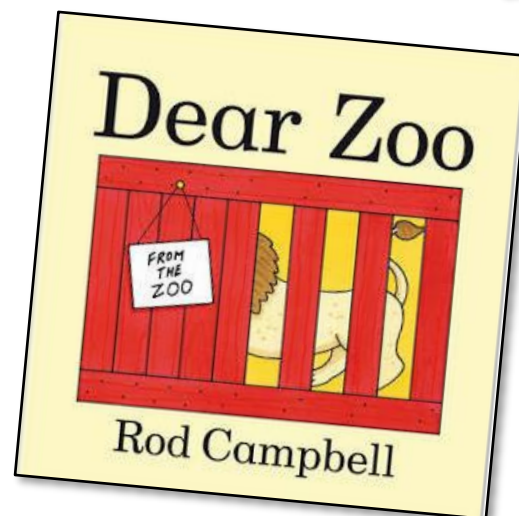
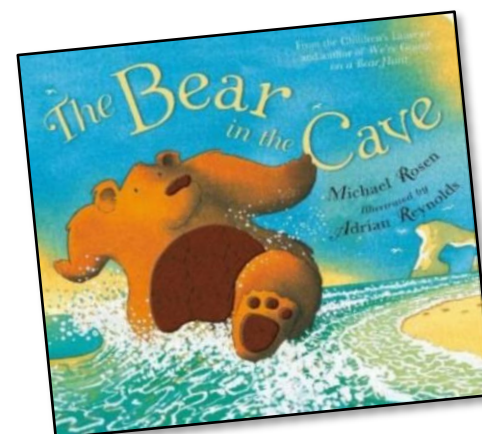
# Phase 1 – Just Like Me

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# Phase 1 – Book list

Where's My Teddy/It's The Bear - Jez Alborough
The Bear In The Cave - Michael Rosen
Peace At Last - Jill Murphy
Seaweed Soup - Stuart J Murphy
Clean Up Everybody - Stacey Sparks
Beep Beep Vroom Vroom - Stuart J Murphy
The Button Box - Margarette S Reid.
Duck In the Truck - Jez Alborough
Dear Zoo - Rod Campbell
Mr Big - Ed Vere
Naughty Bus - Jan Oke
Crash Boom - Robbie R Harris
A New House For Mouse - Petr Horacek
The Right Place for Albert - Daphne Skinner

Reading to children is an essential part of their development. Any of these books would be useful during the phase 'Just like me'



# Match

## Guidance

Provide opportunities for the children to find and match objects which are the same.

Ask: Can you find one exactly like mine?

How do you know it is the same?

Can you find one that is different to mine?

Why is this one not like mine?

## Other Resources



Noah's Ark



Monkey Puzzle – Julia Donaldson

Snap card games and jigsaws

Number shapes or Pattern Block base-boards

## Prompts for Learning

You will need a collection of objects made up of identical pairs. These could be socks, wellington boots, Noah's ark animals etc. Muddle up the items so that the pairs are not together and ask the children to match the objects into pairs.



Paint a collection of pebbles or wooden discs to resemble creatures such as ladybirds, bees or fish in matching pairs. Secretly hide one of the creatures and spread the rest out for the children to see. Ask the children to match the remaining creatures and work out whose partner is missing.



Picture cards in pairs are a great resource for matching, sorting and comparing and can be used in many ways. One group activity is to give each child a card and ask them to find someone who has a matching card. Once they find their partner they sit down together. This activity could also be done with number shapes or compare bears before the provision tasks on the next page.

# Match

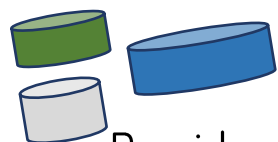


## Outside

Give each child a different compare bear. Have matching compare bears placed around the outside area. Ask the children to find a bear that matches theirs. How do they know it matches? Are their bears big or small?



**Enhancements to  
areas of learning**



## Loose parts

Provide a selection of different sized lids. Have a large sheet of paper with outlines of the lids drawn on. Ask the children to match each lid to the correct outline on the paper.



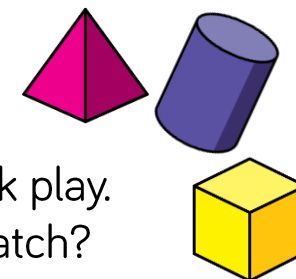
## Maths area

Put out a selection of number shapes in matching pairs. Choose a shape and ask the children to find the shape that matches yours. Alternatively hide one of the shapes and ask the children to match the rest to find which shape is missing.



## Construction

Join the children in their block play. Can we build towers that match? Challenge them to build towers of a matching height. Do they look the same? Do the towers always need exactly the same blocks?



# Sort

## Guidance

Children learn that collections of objects can be sorted into sets based on attributes such as colour, size or shape. Sorting enables the children to consider what is the same about all the objects in one set and how they are different to the other sets.

They begin to understand that the same collection of objects can be sorted in different ways and should be encouraged to come up with their own criteria for sorting objects into sets. Lining up time is a great way to begin: If you like carrots line up, if you have a sister line up.

## Other Resources



The Button Box , M Reid

Frog and Toad – A lost Button , Arnold Lobel

Which one doesn't belong: <https://wodb.ca/>

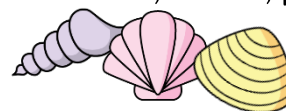
## Prompts for Learning

Ask the children to bring in Autumnal seeds and leaves to create a seasonal collection. Encourage the children to explore different ways that these can be sorted. Start by sorting using one criteria to create 2 sets. For example leaves and not leaves, round and not round, red and not red.



Children can then progress onto sorting into more sets considering different criteria, for example red, yellow and orange leaves, smooth seeds, rough seeds.

Buttons, shells, pebbles etc. also provide many varied sorting opportunities.



Tidy-up time is a fantastic opportunity for discussing which items belong together and sorting objects as the children put things away where they belong.

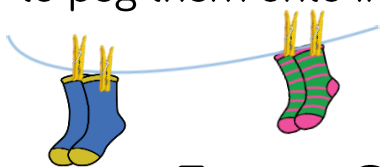
Labelling the sets of resources provides an opportunity to introduce key mathematical language such as long bricks and short bricks, thick brushes and thin brushes.



# Sort

## Home Corner

This offers many opportunities for children to sort. Can they sort the plates, bowls, cups and cutlery by colour? Can they sort them by type? How could they sort the food? Can they find more than one way? Add a variety of socks for the children to sort and a washing line to peg them onto in sets.



## Finger Gym

Provide a large collection of beads in different colours, shapes, sizes etc and several small pots. Encourage the children to sort the beads into the pots and explain how they have sorted them.



## Enhancements to areas of learning

## Loose parts

Provide a collection of loose parts – buttons are ideal and encourage the children to sort these in different ways. For example they could sort by material, shape, colour, texture. The Button Box by Margarett S Reid is an excellent starting point.



## Blocks

Children can use a number of characteristics and attributes to sort blocks in the construction area. Using words such as: stack, roll, shape, large, small etc will prepare them for their future learning on 3D shapes too.



# Digging deeper

## Guess my rule

Begin with a large pile of items such as buttons.

Tell children you have a sorting rule but they need to guess what it is.



One at a time you can place buttons into your set. (For example buttons with 2 holes.) Continue to add different buttons to your set and encourage the children to identify your rule.

When a child thinks they know the rule they can choose a button that they think will belong to your collection. You can tell them if they are correct or incorrect.

In this activity, the children will need to ignore any differences between the items in your set and focus on the one criteria that they have in common.

## Key questions

What is the same about all the items in my set?

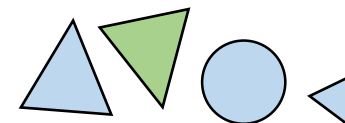
Can you find a button which belongs in my set?

Can you find one which doesn't belong?

Why doesn't it belong?

Can you think of a different sorting rule for me to guess?

## Odd one out



Create a set of up to 4 objects each having one criteria which makes it different to the others. For example in the shapes above, the circle could be the one that doesn't belong because it is a different shape to the rest. The green triangle is a different colour and the small triangle is a different size.

Encourage the children to explain their reasoning. This time, they will need to ignore the similarities and find the one attribute that makes each object different.

# Compare amounts

## Guidance

Once children can confidently sort collections into sets, they learn that these sets can be compared and ordered.

They understand that when making comparisons a set can have more items, fewer items or the same amount of items as another set.

It is easier for the children to make comparisons when the difference between the sets is greater. For example, start by asking the children to compare 5 and 2 rather than 5 and 6

## Other Resources

A Squash and a Squeeze – Julia Donaldson

Seaweed Soup – Stuart J Murphy

The Enormous Turnip



## Prompts for Learning

Once children have sorted objects into sets ask them which set has more or most items and which has fewer or fewest?

Do they have any groups which are equal?

How can they check?

Encourage the children to line up the items using 1-1 correspondence. 5 frames can support with this.



Provide opportunities to compare smaller quantities of large items with larger quantities of small items to help children make the distinction between size and quantity. For example a set of 2 large balls and a set of 5 small balls.



Which set has more? Which set has fewer?

Read the story A Squash and a Squeeze. Ask children to re-enact the story using a hoop or box to represent the house. Ask them to describe how the 'house' feels as the story progresses.

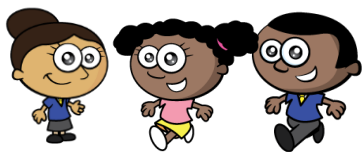
Why do they think the story is called A Squash and a Squeeze? How does the house feel at the end of the story?

# Compare amounts

## Dough area

Provide one large ball of dough  
Ask the children to share this equally to  
make sure everyone has the same size  
piece of dough.

What happens if someone else arrives?



**Enhancements to  
areas of learning**

## Role play and snack



How many children are having breakfast?  
Do we have a cup, a bowl and a spoon for  
everyone?

How can we make sure that everyone gets  
the same amount of cereal?

What if someone else joins the table?

## Loose parts

Work in pairs. Grab a handful  
of objects such as cubes, beads or conkers.

How many can you hold?

Can your partner hold more than you, fewer  
than you or the same amount?

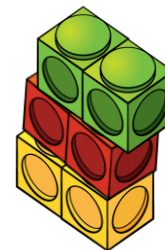
Provide 5 frames to help children to  
compare more easily.



## Outside

Build a tower using large outdoor  
blocks, cushions or crates.

Challenge the children to make a  
shorter tower, a taller tower. How  
many crates or blocks did they  
use? What is the tallest/shortest  
tower they can build?



# Compare size, mass & capacity

## Guidance

The children learn that objects can be compared and ordered according to their size.

Encourage the children to use language such as big and little, large and small to describe a range of objects in the classroom. More specific language such as tall, long and short could also be introduced.

Encourage children to compare and order objects by size in the different areas of provision and to use the vocabulary to explain what they notice.



## Other Resources

Where's My Teddy - Jez Alborough

It's The Bear - Jez Alborough

Dear Zoo - Rod Campbell

A New House for Mouse - Petr Horacek

Mr Big - Ed Vere

My Cat Likes to Hide in Boxes – Eve Sutton



## Prompts for Learning

Start by showing the children a mystery box. This could be very small or very large or very tall and thin.

Ask the children to predict what could be inside.

Could they fit inside the box? Why not?

What else could or could not fit into the box?

Compare to a contrasting shaped/sized box.



Prepare a picnic basket for a teddy bear's picnic.

Include plates, cups, spoons, hats, napkins etc. of two different sizes. You will also need 2 bears - a big bear and a little bear. Unpack the basket and discuss which size item would be best for which size bear.



Hide a selection of large balls and small balls around the outside area. Ask the children to go on a ball hunt and collect all the balls they find. What do they notice?

Can they sort the balls into 2 buckets – large balls and small balls? Which balls are easier to catch and which are harder?



# Compare size, mass & capacity

## Modelling

Ask the children to create homes or containers for different sized soft toys or small world creatures. What size and shape will they need for an elephant? A giraffe? A mouse? Can their friends guess who is inside?



## Enhancements to areas of learning

## Sand and Water

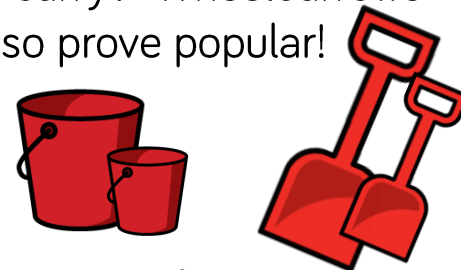
Provide equipment in 2 distinct sizes. For example, a big bucket and a little bucket, a tall jug and a short jug.

Encourage the children to compare the objects and to explore how many scoops each will hold. They could also count how many large scoops and how many small scoops a container will hold.



## Outside

Set up an area where the children can dig and provide large and small spades and garden trowels. You can also provide different sized containers for the children to fill and empty. Which containers are the easiest to carry? Wheelbarrows might also prove popular!



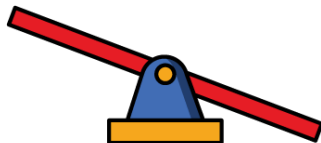
## Construction

Encourage the children to build using long and short blocks. Which type of blocks will they choose for their models? Is it easier to build a road using long or short blocks? Can they build a long road and a short road, a tall tower and a short tower. Which type of block will balance on its end most easily?



# Digging deeper

## Balance



Add a set of balance scales to the dough area.  
Encourage the children to compare the mass of different sized balls of dough.  
Can they use the balance scales to help them create equal balls of dough?  
How will they know when the balls are equal?

## Baking cupcakes

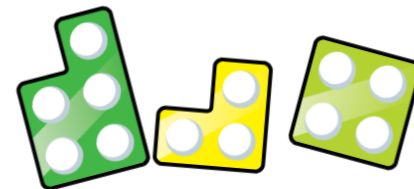


Ask the children to measure out the ingredients for making cupcakes using one egg to balance quantities of sugar, butter and flour in turn.  
Mix the ingredients together, add to bun cases and bake for 15 minutes.

## Key questions

Which ball has more dough?  
How do you know?  
Can you balance this ball of dough?  
What else weighs the same as your ball of dough?  
How many spoons of sugar balance the egg?  
How can we share the mixture fairly between the cases?

## Feely bag



Put a selection of number shapes into a feely bag.  
Show the children a number shape and challenge them to put their hand into the bag to find one that is larger than yours, smaller than yours or exactly the same as yours.  
Can you find more than one shape which is larger?  
Can you find more than one shape which is smaller?  
Ask the children to sort the shapes into larger than yours, the same as yours and smaller than yours.

# Make simple patterns

## Guidance

Children copy, continue and create their own simple repeating patterns. It is important to provide patterns with at least three full units of repeat. Encourage the children to say the pattern aloud as this helps them to identify the part which repeats and supports them to continue the pattern.

The children should be given opportunities to explore AB patterns in a range of contexts including shapes, colours, sizes, actions and sounds. Encourage them to build patterns both vertically and horizontally.

## Other Resources



In and Out the Dusty Bluebells circle game

Tongue twister patterns – Red lorry, yellow lorry

Clap your hands and wiggle your fingers song

## Prompts for Learning

Demonstrate simple AB action patterns such as:

Knees, clap, knees, clap, knees, clap

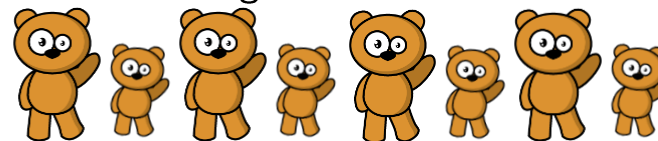
Head, shoulders, head, shoulders, head, shoulders

Hands up, hands down, up, down, up, down



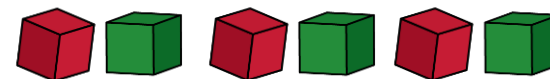
Say the pattern aloud and encourage the children to join in with you and to suggest new action patterns of their own.

Word or sound patterns can be chanted together, opposites are good for this.



**in, out, in, out, in, out**

Create simple patterns such as red brick, green brick, red brick, green brick, red brick, green brick for the children to copy and continue. Challenge them to create their own repeating patterns using the AB structure.





# Make simple patterns

## Snack

Provide a selection of fruit cut into small pieces. Encourage the children to make an edible repeating pattern before they eat their snack. They might even like to build a fruit kebab.



## Maths area

Use resources such as number shapes, dice, cubes, counters, peg boards etc. Ask the children to create their own repeating patterns. Can their friends copy and continue their patterns?



**Enhancements to  
areas of learning**

## Outside

Provide access to a range of natural materials or loose parts and ask the children to design their own patterns. Encourage them to consider shape and size as they build their patterns and to say their patterns aloud. E.g. Round leaf, pointy leaf, long stick, short stick,

round stone, flat stone

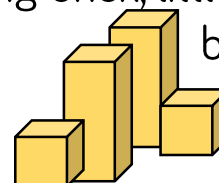


## Construction

Ask the children to build towers or enclosures using their own repeating patterns.

Can they say their pattern aloud?

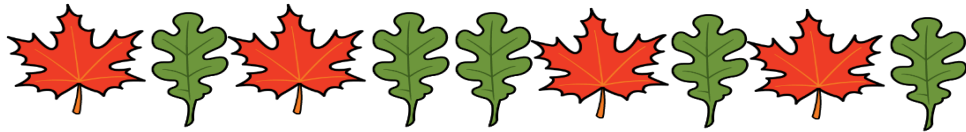
Encourage the children to use key vocabulary such as big brick, little brick, long brick, short brick, red brick blue brick etc.



# Digging deeper

## Spot my mistake

Show the children patterns which have a deliberate mistake. What do they notice?



Ask the children to suggest ways to sort out the problem. They might swap the items around which means they will need to continue amending the pattern until the end of the line.

## Bear Hunt 'Stumble trip, stumble trip'

Read **We're Going on a Bear Hunt** by Michael Rosen. Encourage the children to build their own bear hunt journeys using the outside equipment. Repeat the patterned language from the story as they travel through their journey. They might like to invent word patterns of their own. You can also reinforce the positional language of over, under and through.

## Key questions

Say the pattern. What do you notice?

Is this pattern correct?

How could we try to sort it out?

Does it work now?

Which instrument did you hear?

Can you make the same sound pattern?

Can you make a different sound pattern?

## What's my pattern?

Provide a range of different instruments such as drums, beaters, shakers and encourage the children to play and copy simple patterns.

This could be made into a game with one child playing a pattern whilst the rest face the other way and listen.

The listeners then try and work out which instrument was used and try to replicate the pattern.

