Reception Guidance

#MathsEveryoneCan

© White Rose Maths

The Counting Principles

Following research from Gelman and Gallistel in 1978, it is vital that teachers understand the five counting principles.
(Gelman, R. & Gallistel, C. (1978) The Child's Understanding of Number. Cambridge, MA. Harvard University Press.)

1

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.

Children will sometimes count objects more than once or miss an object out that needs to be counted. Encourage children to line up objects and touch each one as they count saying one number name per object. This will also help to avoid children counting more quickly than they touch the objects which again shows they have not grasped one-one correspondence.

© White Rose Maths

The Counting Principles

2

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

Children need to know all the number names for the amount in the group they are counting. Teachers can therefore encourage children to count aloud to larger numbers without expecting them to count that number of objects immediately.

3

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.

In order to grasp this principle, children need to understand the one-one and stable-order principle. From a larger group, children select a given number and count them out. When asked 'how many?', children should be able to recall the final number they said. Children who have not grasped this principle will recount the whole group again.

© White Rose Maths

The Counting Principles

4

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.

When starting to count, many children rely on touching the objects in order to count accurately. Teachers can encourage abstraction on a daily basis by counting claps or clicks. They can also count imaginary objects in their head to encourage counting on, this involves the children visualising objects.

5

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.

Encourage children to count objects, left to right, right to left, top to bottom and bottom to top. Once children have counted a group, move the objects and ask children how many there are, if they count them all again they have not fully grasped this principle.

© White Rose Maths

Key Language for teachers

Cardinal - The number that indicates how many there are in a set.

Classification – The identification of an object by specific attributes, such as colour, texture, shape or size.

Conservation (of number) – The recognition that the number stays the same if none have been added or taken away.

Numeral - The written symbol for a number; e.g. 3, 2, 1

Ordinal - A number denoting the position in a sequence e.g. 1st, 2nd, 3rd, etc or page 1, page 2, page 3...

Partition - Separate a set into two or more subsets e.g. Partition a set of socks into plain and patterned.

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

Number - Number can be:

- a count of a collection of items e.g. three boxes,
- a measure e.g. of length or weight, or
- a label e.g. the number 17 bus

Quantity - The amount you have of something e.g. a cup of flour, three boxes, half an hour.

© White Rose Maths

Important links and websites

The NCETM Early Years area

The aim of this section is to help teachers and practitioners in Early Years settings have a clearer understanding of how children build early number sense, and to provide tips on how best to support that learning.

https://www.ncetm.org.uk/resources/51439

Number Blocks

Numberblocks, first broadcast in January 2017, is a pre-school BBC television series aimed at introducing children to early number.

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

https://www.bbc.co.uk/cbeebies/shows/numberblocks

NRICH

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

https://nrich.maths.org/early-years

Learning Trajectories

$[LT]^2$ is a web-based tool for early childhood educators to learn about how children think and learn about mathematics and how to teach mathematics to young children (birth to age 8).

https://www.learningtrajectories.org/

Early Math Collaborative

The Erikson Institute Early Math Collaborative is transforming the understanding, teaching and learning of early mathematics from the ground up.

https://earlymath.erikson.edu/

© White Rose Maths

Autumn Progression

Number and Place Value	Numbers to 5	One, two, three
		Four
		Five
Addition and Subtraction	Sorting	Sorting into groups
Number and Place Value	Comparing groups	Comparing quantities of identical objects
		Comparing quantities of non-identical objects
Addition and Subtraction	Change within 5	One more
		One less
Measurement	Time	My day

© White Rose Maths

Spring Progression

Addition and Subtraction	Numbers to 5	→ Number bonds to 5
Number and Place Value	Numbers to 10	→ Counting to 6, 7 and 8
		→ Counting to 9 and 10
		→ Comparing groups up to 10
Addition and Subtraction	Addition to 10	→ Combining two groups to find the whole
		→ Number bonds to 10 – ten frame
		→ Number bonds to 10 – part-whole model
Geometry	Shape and space	→ Spatial awareness
		3-D shapes
		2-D shapes

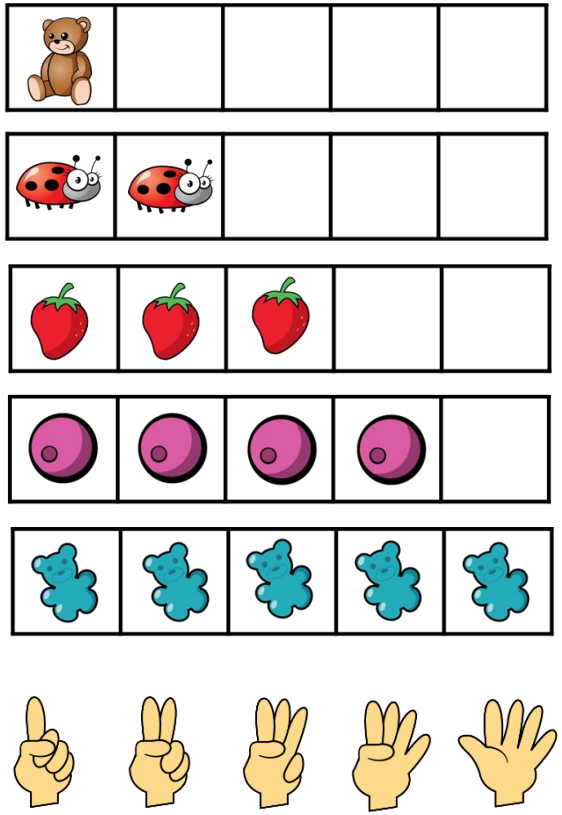
© White Rose Maths

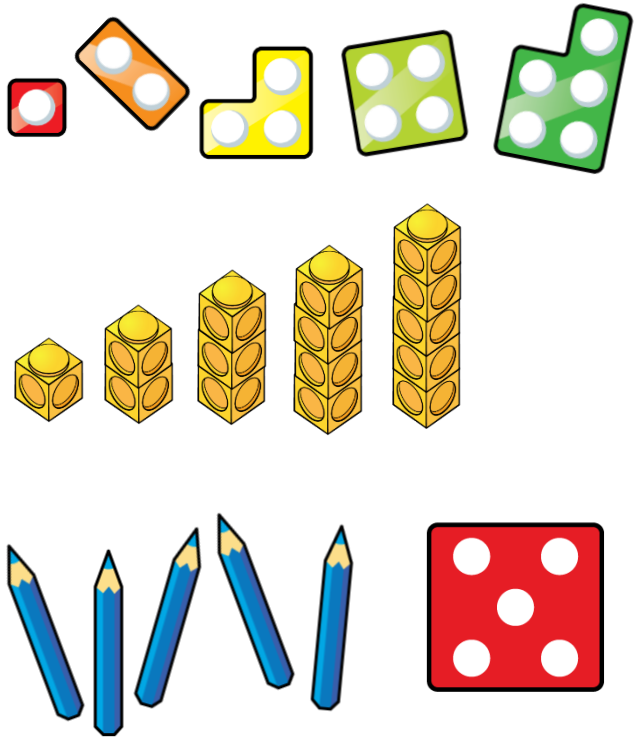
Summer Progression

Geometry	Exploring patterns	→ Making simple patterns
		→ Exploring more complex patterns
Addition and Subtraction	Count on and back	→ Adding by counting on
		→ Taking away by counting back
Number and Place Value	Numbers to 20	→ Counting to 20
Multiplication and Division	Numerical patterns	→ Doubling
		→ Halving and sharing
		→ Odds and evens
Measurement	Measure	→ Length, height and distance
		→ Weight
		→ Capacity

© White Rose Maths

Key Representations





1 2 3 4 5

Notes and guidance

When teaching counting to 5, consider the counting principles at all times.
At this early stage, ensure that children are counting real-life objects. They could start by counting objects that are identical before moving on to counting objects that have slight differences e.g. different colours, different sizes. Make sure that the objects are of the same type e.g. apples, cubes, books.

Encourage children to put objects into a line when counting so they have a clear start and end point.
The five frame can be used to support children in lining up objects to count. It will also support children to subitise numbers within 5

Numerals may be introduced to children but they are not expected to write them at this stage. They could use informal jottings and/or drawing to record their thinking.

© White Rose Maths

One, two, three!

Guidance

Children are taught to count forwards and backwards to three.

They count up to three objects in different arrangements by touching each object as they count, saying the names in a stable order. Children can say the total number in the group, understanding that the final number they have said is the total in the group. They are starting to subitise numbers up to three and can also count out three objects from a larger set.

Other Resources

The Three Bears

The Three Billy Goats Gruff

The Three Little Pigs

Three Blind Mice

Prompts for Learning

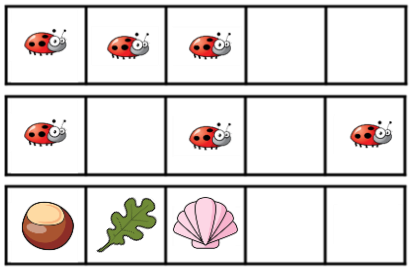
Ask children to count up to three identical objects.

Can you count the objects?
Can you line the objects up? Can you touch each object as you count? How many objects are there altogether?
Can you put the objects on the five frame? Can you put one object in each box?

Ask children to count out up to three items from a larger group.

Can you get me two pencils? I think there's two left in the pot. Am I correct? Can you check? Do you know how many pencils there are without counting? Does it matter if the pencils are different colours?

Which pictures show 3?



© White Rose Maths

One, two, three!

Dough

Making playdough - work with a small group of children to make playdough. Use a recipe that involves measuring in cups. Ask children to measure out the ingredients and count the cups.

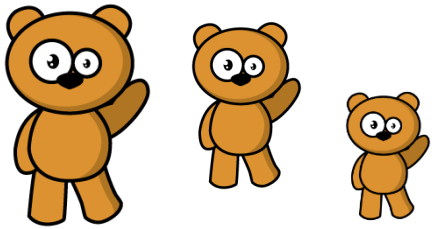
Junk Modelling

Making rockets - to encourage counting forwards and backwards to 3, provide pictures and photos of rockets. Once children have made them, you can count 3, 2, 1, blast off!

Enhancements to areas of learning

Home Corner

Read children the story of the 3 bears and explain that we need to set the table in the home corner ready for breakfast. Children can count out 3 of each item they choose.



Small World

Linking to the story of the three bears, encourage children to make the doll's house into the house for the three bears. They can count out three of each item that they need for the house.

© White Rose Maths

Four

Guidance

Four is a special number for many reception children as at this time of the year, many of them are four years old. This helps to make 4 more relevant. Children continue to apply the counting principles when counting to four (forwards and backwards). They can represent four in different ways and can count out four objects from a larger group.

Other Resources

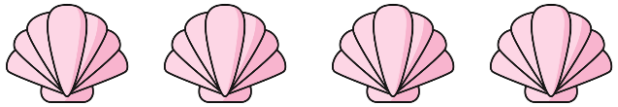
Washing Line - Jez Alborough
(Four animals take their items of clothing off a washing line in this lift the flap book)

Anno's Counting Book - Mitsumasa Anno
(With no words, this book shows the differences between the numbers by adding one more. Each number has its own page to count the items.

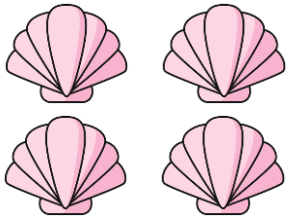
Prompts for Learning

Note: All the prompts for counting to three can be applied to counting to four, plus these extra ideas.

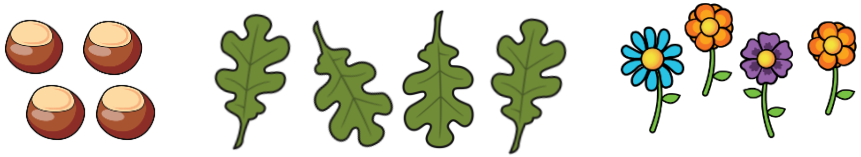
Have four baskets of different items e.g. shells, counters, cubes, marbles. Take four items out of one of the baskets and arrange them on a whiteboard.



How many are there altogether?
Can you make the same as me?
Hide the whiteboard from the children and rearrange the items.



How many are there now? Can you make the same as me? Do you need to get any more items from the baskets? Children can then make a number and ask others to match.
What other items from outside can you use to show me 4?



© White Rose Maths

Reception - Number and Place Value - Numbers to 5

Four

Washing line

Hanging clothes - linking to the book suggested, provide children with items to hang on the washing line. Can they count as they hang the items? How many items do they have altogether? Can we count them back into the basket?

Small world

In the small world area, create two areas (barns, fields) with signs that say 'two legs' and 'four legs'. Can children sort the animals into the correct areas by counting their legs?

Enhancements to areas of learning

Outdoor

In the parking bays, place signs for 2 wheels, 3 wheels and 4 wheels. When children park their bikes or toy cars, can they match the vehicle to the correct bay?

All areas

Create signs for each area to show how many children can play there. Work with the children to make the signs and get the equipment you need e.g. Four people can paint, how many aprons do we need?

© White Rose Maths

Five

Guidance

Children are introduced to the number five. This is a good opportunity to link to birthdays as children will soon be five. Five is also the focus of many number songs, making it much more common.
Children continue to learn to count forwards, and backwards, accurately using the counting principles. They represent up to five objects on a five frame and understand that if the frame is full then there are five.

Other Resources

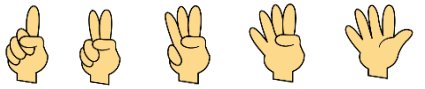
Five little speckled frogs
Five little ducks
Five currant buns
Many of these songs are also available in book form.

Five Little Men in a Flying Saucer - Dan Crisp

Prompts for Learning

Note: All the prompts for counting to three and four can be applied to counting to five, plus these extra ideas.

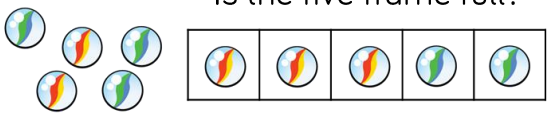
Can we count to five on our fingers? Can we count back from 5?
Use puppets on each finger to count to five on one hand.
Can children look at your hand and subitise
how many puppets there are?

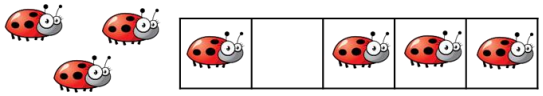


Show children a 5th birthday card.
What number does it have on the front?

Let's put the correct amount of candles on the cake.
Can we count them one by one?
How many are there altogether?
What else could we count out for the birthday party?

Use a five frame to count out five objects from a larger group.
How do we know there are five?
Is the five frame full?





© White Rose Maths

Reception - Number and Place Value - Numbers to 5

Five

Home Corner

Provide children with party hats, plates, cups etc. to set the home corner ready for a birthday party. How many guests can come to the party? What number shall we put on the banner?

Writing Area

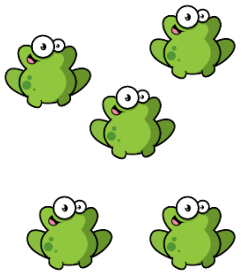
Provide children with card to make birthday cards for the birthday party. Can they copy the numeral 5 on to the front of the card? What else could we draw to show 5?

Enhancements to areas of learning

Outdoor

Provide children with a tray that has a range of natural items in - leaves, conkers etc. Set out buckets that have the numbers 1 – 5 on the front. Can we put the right number of items in each bucket? Can we take a bucket and go and find up to 5 items?

Water



Act out the different songs we have been singing this week. Provide children with 5 ducks or 5 frogs. Can the children sing the song and act out the movements to count backwards from 5?

© White Rose Maths

Digging Deeper

Build and count

Provide children with 5 separate connecting blocks. Encourage them to build a tower and then to explore other shapes they could build with 5 blocks. How many different ways can they find?

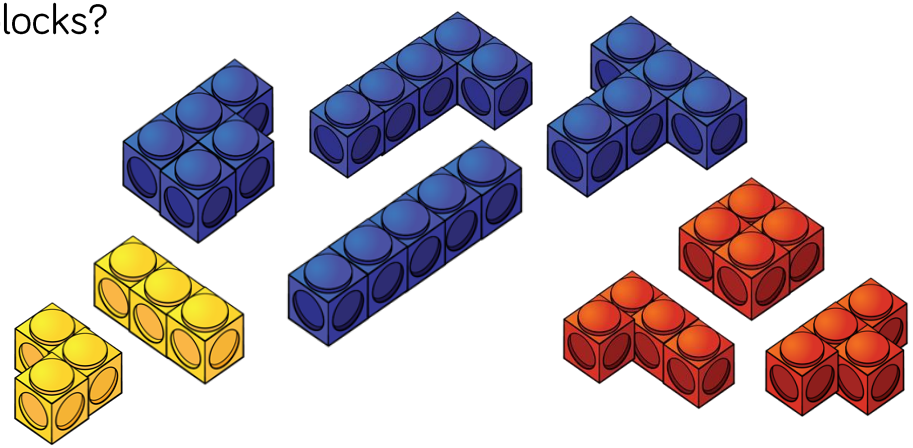
This task will reinforce the counting principles and allow you to assess the children's confidence in stable order, one-to-one, cardinality, and especially order irrelevance. The children may build the same shape in different orientations so encourage them to turn their shapes around to check that they are not the same as another shape.

Ask the children to explore different shapes they could build using 2, 3 and 4 blocks.

There is just one way with 2 blocks, 2 ways with 3 blocks, a few with 4 blocks and many with 5 blocks.

Key questions

How many blocks are there?
Can you build a tower with the blocks?
Can you build them in a different way?
Can you find another shape like yours?
Can you make a shape different to all the others?
How many ways can you find with 3 blocks?
Are there more ways with 4 blocks or 5 blocks?
How many ways do you think there will be with 6 blocks?



Put a selection of the shapes into a feely bag. Can the children find a 4 shape without looking? How did they know it was 4?

© White Rose Maths

Sorting into groups

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 have black hair line up, if your shoes have laces, line up etc.

Other Resources

Frog and Toad – A lost Button , Arnold Lobel

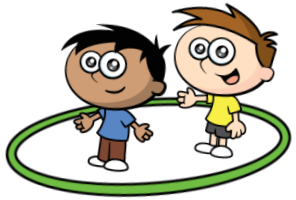
The Button Box , M Reid

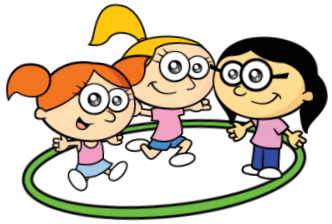
Which one doesn't belong: https://wodb.ca/

Prompts for Learning

Ask a group of children to come to the front and use 2 large hoops to sort them into sets. Can the children see what each set has in common and why it is different to the other set? Ask the children to suggest different ways you could sort the same children.

Start with two sets initially (boy/girl, glasses/not glasses, jumper/no jumper) but this may naturally evolve into needing more hoops as the children make suggestions such as hair colour.





Provide a range of real objects for the children to sort such as toy vehicles, building bricks, shapes, flowers, leaves, shells, pebbles etc.

The interactive whiteboard is also a useful sorting tool.

Can you see how I have sorted the items?
Where would _____ go?
Can you sort these another way?

© White Rose Maths

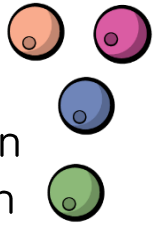
Sorting into groups

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.



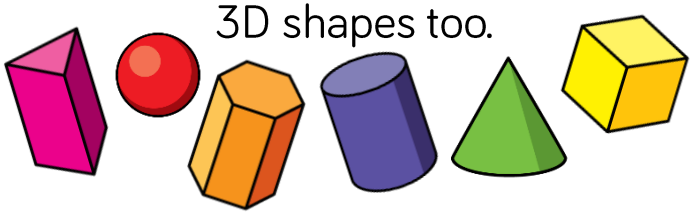
Enhancements to areas of learning

Outdoor

Provide children with an opportunity to explore outside and choose items to sort such as stones, sticks, leaves, conkers, and items in the sand box etc. Flowers are great to sort by colour or number of petals

Blocks

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



© White Rose Maths

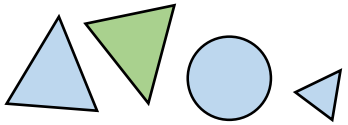
Digging Deeper

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 piles i.e. buttons with 2 holes and buttons that have fewer or more than 2 holes. When a child thinks they know the rule they can choose a button and place it in the correct pile. You can tell them if they are correct or incorrect. Continue the activity until you think most of the children know the rule.

Odd one out



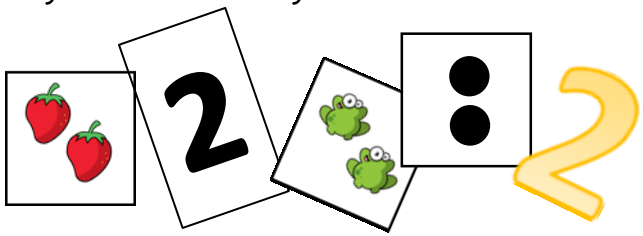
Make a set with one that doesn't belong. Ask the children to identify which that is and explain why. There may be more than one answer...

Key questions

What is the same about all the items in this set?
How is this different to the other sets?
Can you guess how I have sorted them?
Can you think of a different way to sort them?
Which one doesn't belong in this set? Why?

Sorting numbers

Provide a collection of numerals, pictures and dot patterns. Ask the children how they could be sorted. Can they find other ways?



The children could sort by making a set of 3 and not 3, by making sets of 1, 2, 3, 4, 5 or by grouping all of the dot patterns, all of the animals, all of the numerals etc.

© White Rose Maths

Compare identical objects

Guidance

When comparing two groups, children should be encouraged to line the items up to make direct comparisons. Using five frames can support them with this.

They should also be encouraged to count each set carefully which helps them to link names of numbers, their value and their position in the counting order.

Other Resources

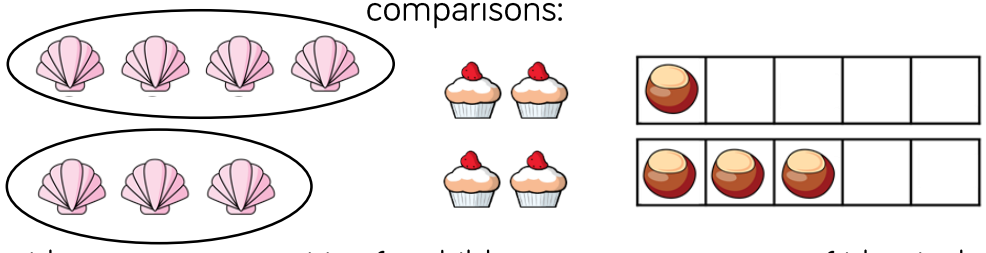
Dot paper plates or cards (see below)

Hold up 2 dot plates. Encourage children to count and compare the dots. Which plate has more dots? Fewer dots? Can they find 2 plates with the same amount of dots?

Prompts for Learning

Note: It is important to teach children the correct vocabulary for comparison: more than, fewer than, equal to, the same as. Remember that children are currently working with numbers to 5.

Encourage children to line up their groups to make direct comparisons:



Provide many opportunities for children to count two sets of identical objects and compare them.

How many _____ are there in this group?

How many _____ are there in this group?

Which group has more? Which group has fewer?

Are the groups equal?

How do you know?

Provide children with an amount and challenge them to find a quantity that is fewer than, more than or equal to the amount.

Here are ____.

Can you show me more than ____?

Can you show me fewer than ____?

Can you show me an amount equal to _____?

How do you know?

© White Rose Maths

Reception - Number and Place Value - Comparing Groups

Compare identical objects

Sand

Make towers of pebbles. Who can make the tallest tower. How many pebbles are in each tower?
Does your tower have more or less pebbles than your friend's tower? Can you each make a tower using the same number of pebbles?

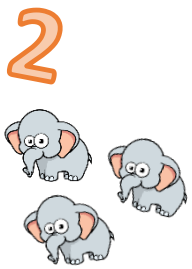
Enhancements to areas of learning

Maths area

Children use the number shapes, linking cubes, dot plates and numeral cards to match and compare.
Show the children a domino, ask them to compare the number of spots on each side of the domino. Are there the same, more or fewer dots?

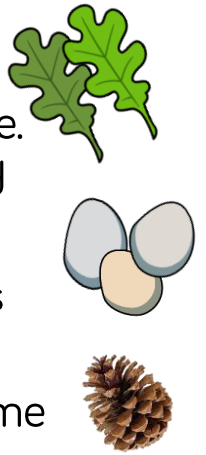
Small world

Provide children with the numbers 1 – 5 on cards and various small, similar items such as people, toy cars, plastic animals, etc.
Ask them to show you fewer, the same or more than the number they choose.



Outdoor

Ask them to find items outdoors (i.e. conkers, leaves, sticks, stones) and compare the amounts.
Provide children with the numbers 1 – 5 on laminated cards.
Ask them to show you fewer, the same or more than the number they choose.



© White Rose Maths

Compare non-identical objects

Guidance

Once children can confidently sort collections into sets, they learn that these sets can be compared and ordered. They compare non-identical objects by linking names of numbers, numerals, their value and their position in counting order.
They understand that when making comparisons a set can have more items, fewer items or the same number of items as another set.

Other Resources

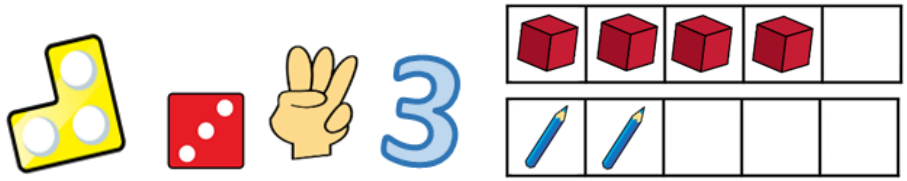
Stories such as:
The Gingerbread Man
The Enormous Turnip
Mr Gumpy's Outing

Select images from different points in the stories and ask children to compare the number of people involved in each picture.

Prompts for Learning

Note: Ensure that you continue to model and encourage the children to use the correct vocabulary: more than, fewer than, equal to, the same as.
Remember that children are currently working with numbers to 5.

Provide children with pictures of dots, fingers, objects on 5 frames, number shapes etc. Ask children to match and compare the amounts from the various visual images.



Provide lots of opportunities for children to count two sets of different objects and compare them using the correct vocabulary.

How many _____ are there in this group?
How many _____ are there in this group?
Which group has more? Which group has fewer?
Are the groups equal? How do you know?

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.
E.g. 2 bowls are larger than 5 spoons and take up more space.

© White Rose Maths

Reception - Number and Place Value - Comparing Groups

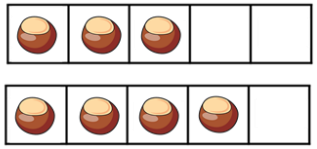
Compare non-identical objects

Teddy Bear Picnic

The 3 bears are invited to lunch!
Ask the children to provide chairs, plates, cups and spoons for each bear.
Do they have enough of everything?
What if another baby bear invites 2 of his friends?

Finger gym

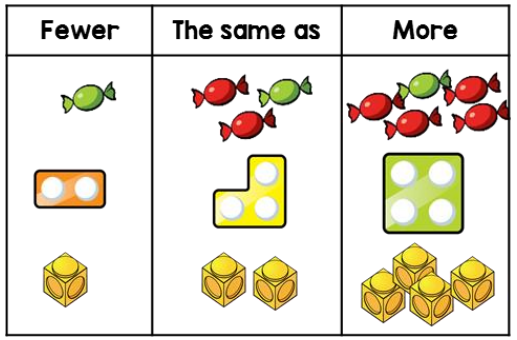
Work in pairs. Grab a handful of objects such as pebbles or conkers.
Does your partner have more than you, fewer than you or do you have an equal amount?
Providing children with 5 frames will help them compare more easily.



Enhancements to areas of learning

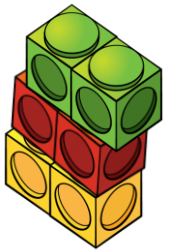
Maths Area

Provide children with a new number each day. Ask them to arrange or draw objects to show the same as, fewer than or more than this number.



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?

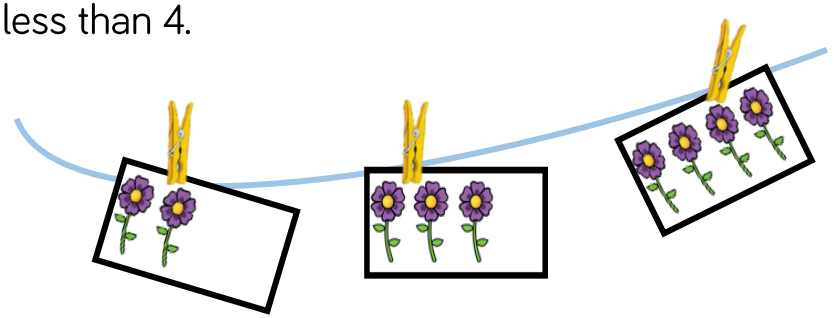


© White Rose Maths

Digging Deeper

Washing line

Provide children with pictures of objects to arrange on the washing line in order. Begin with 2 pictures and add more as the children gain confidence.
As the children work encourage them to use the language of more than and fewer than to compare and order the pictures.
Encourage them to adjust their placing of the pictures as they work for example they might initially place 4 next to 2 saying 4 is more but then need to move it along in order to put 3 into the correct place. They will see that 3 is more than 2 but less than 4.



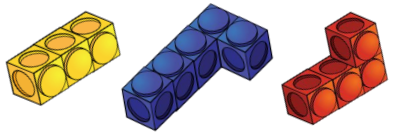
Key questions

Which is more?
Where will you place this on the washing line?
Can you find a picture with fewer than mine?
Can you find a picture with more than mine?
Are there any others?
Can you find a picture more than …. but less than ….?

Hidden shapes

Put a selection of shapes made with different amounts of linking cubes into a feely bag.
Ask a child to choose a shape.
Can they feel how many cubes there are before they look?
Ask your friend to feel in the bag to find a shape with fewer cubes, more cubes or the same amount as you.

Can you order the shapes from fewest cubes to most cubes?



© White Rose Maths

One more

Guidance

Children use their counting and comparing skills to find one more than numbers up to 5

Encourage children to use a five frame to represent numbers and then make one more. Children should see the link that one more than a number is the next number they say when they are counting.

Books where there is one more object on each page are particularly useful in supporting finding one more.

Other Resources

The Gingerbread Man- Traditional Tale

The Enormous Turnip- Traditional Tale

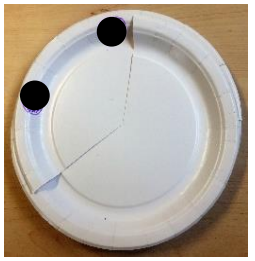
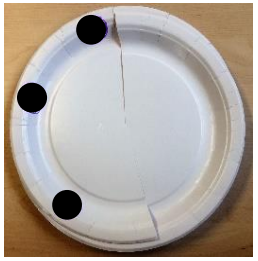
The Very Hungry Caterpillar- Eric Carle

Maisy goes Camping- Lucy Cousins – This book can also be used to look at one less and composition to 5, encourage children to use soft toys and a play tent to act out the story.

Prompts for Learning

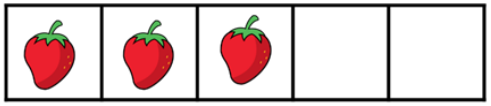
Take 2 paper plates and make a cut from the edge to the centre of each plate. On one plate, draw five dots or stick five stickers round the edge of the plate, evenly spaced.

Put the plain plate over the top of the dot plate by sliding them together.

Ask the children, can you show me two? Can you show me one more than two? Can you show me one more than four? Make a number, can your partner make one more?

Ask children to make a number on a five frame.



Can you show me one more?

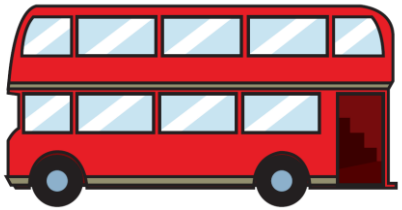
Use a number track underneath the five frame. Can you point to the number you made? Can you point to one more than the number?

© White Rose Maths

One more

Outdoor

Create a bus route around the outdoor area. Start with a driver on the bus and have different bus stops around the route. To start with, ask one child to stand at each stop. When the bus stops, one more child gets on the bus. Encourage them to say how many are on the bus altogether, noticing there is one more each time.

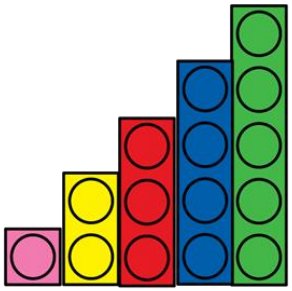


This activity can be extended as children explore one less when people get off the bus and further addition and subtraction as multiple people get on and leave the bus.

Role Play

Introduce children to the memory game 'My grandma went to market and she bought…..' Provide shopping bags and encourage children to act out the game by collecting the items from around the classroom. Count out how many there are each time, checking that there is one more item each time.

Enhancements to areas of learning



Construction

Provide children with images of staircases built with different materials e.g. lego, building blocks, bricks. Encourage them to build their own staircases looking at how many items they use for each step. Have they used one more each time?

© White Rose Maths

One less

Guidance

Children use their counting and comparing skills to find one less than numbers up to 5

Encourage children to use a five frame to represent numbers and then make one less. Children should see the link that one less than a number is the next number they say when they are counting backwards.

Other Resources

Five little speckled frogs

Five currant buns

(There are a number of songs that count back one each time highlighting the one less pattern)

Five little ducks- Denise Fleming

Five tiddly widdly tadpoles- Debbie Tarbett

Five little monkeys jumping on the bed- Eileen Christelow

Prompts for Learning

Note: The dot plates and five frames from one more can also be used for one less.

Use the songs and stories suggested to role play the story with the children e.g. Five currant buns.

How many buns are there altogether? Put the penny in the pot, how many pennies do we have? How many buns do we have now? Repeat the song and questions highlighting there is one less bun each time, but one more penny.

Play a game of musical chairs with a group of up to 5 children. Start with 5 chairs. What happens each time the music stops? How many chairs do we have now? Are there enough chairs for each person? Each time the music stops, ask the children to say how many chairs are left.

Clap four times, ask the children can you clap one less time? Repeat the activity with different actions e.g. hopping, jumping, tapping their head.

© White Rose Maths

One less

All areas

Create labels for each area indicating how many children can be there at each time. Use bands that children can wear in certain areas. Highlight when there are too many or too few children in each area e.g. 'There are 4 children in the sand, there are 5 bands, can one more child join?'

Enhancements to areas of learning

Snack area

Label the fruit bowl with the number of items inside. As children take an item, provide number cards so they can relabel the fruit bowl with how many are left. Start with 5 items and work backwards, once the fruit bowl is empty, ask children to refill it, counting the items one at a time. The number cards could be numerals or dots.

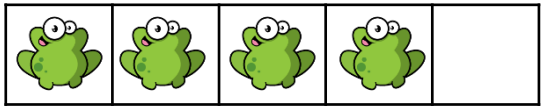
Maths Area

Provide children with a table showing one more and one less. Challenge children to use anything from the classroom to complete the table.

One less	My number	One more

Water

Provide 5 ducks, fish or frogs to encourage children to act out the songs you have been singing this week. Use five frames on shelves to encourage children to count the animals back on to the five frame and to be able to see if there are less animals than there should be.



© White Rose Maths

Digging Deeper

Mystery Bag

Place three items in a feely bag.
Tell the children that you think there are four items in the bag.
Ask them to count the objects by feeling and tell you if you are right or wrong.
Count the items out onto a large five frame to check if there are four.
Use the language one more and one less to explain how many there are e.g. 'There are three. That's one less than four'

Ask the children to help you count 3 objects into a bag. Add one more to the bag or take one out.
Ask the children how many will be in the bag now?
Can they line them up on a 5 frame to check.

These tasks challenge the children to count unseen objects and to visualise one more and one less within 5. The children may use their fingers to help them predict what one more or one less will be. They could also be encouraged to use concrete resources, simple number tracks or drawings to work out their answers.

You could vary the task by dropping pebbles into a bucket or pennies into a cup.
Encourage the children to count the sounds.
Ask them to predict how many there will be if you take one out or add one more and then count together to check.

Key questions

How many objects can you feel in the bag?
How many pebbles did I put in?
If I add one more how many will there be?
If I take one out how many will there be?
How many are in the bag/bucket now?
How do you know? How can we check?

© White Rose Maths

My day

Guidance

Children order important times in their day and use positional language to describe when events happen e.g. now, before, later, soon, after and next.
They start to develop a sense of time and use the vocabulary 'yesterday', 'today' and 'tomorrow' to describe when relative events happen.
Children begin to measure time in simple ways e.g. the number of sleeps to an event or using timers to measure durations of events.

Other Resources

The Bad-Tempered Ladybird- Eric Carle
The Very Hungry Caterpillar- Eric Carle
A second is a hiccup- Hazel Hutchins
Peace at last- Jill Murphy
Alfie at Nursery School- Shirley Hughes

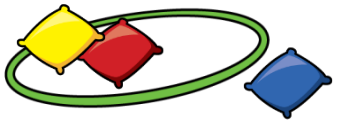
Prompts for Learning

Make a visual timetable of the important events in the school day. Order the events each day and talk about what we are doing 'now', 'next' and 'later'.
Refer back to the timetable throughout the day, asking the children questions relating to it.
What are we doing now? What are we going to do next? What are we doing after lunch?

Use a class calendar to introduce time durations and think about 'how many sleeps' there are to important events.

Use pictures to order familiar activities and stories using key language to describe the sequence e.g. making pancakes or cupcakes, getting ready for school, retelling fairy tales.

Provide a range of timers that measure different lengths of time. Children can choose a timer and then see what they can do in that period of time e.g. How many star jumps can you do in 10 seconds? How many bean bags can you throw into the hoop in one minute?



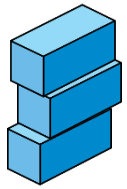
© White Rose Maths

My day

Home Corner

Put a calendar into the home corner. Can we put everyone's birthdays onto the calendar? Whose birthday is next? Can we put other important events on to the calendar? How many sleeps is it until the next important event?

Outdoor



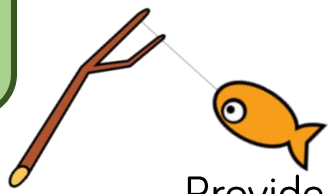
Set up a circuit around the outdoor area. Challenge the children to see how much of each activity they can do in one minute e.g. how many bean bags in the hoop, how many skittles knocked down, how many bricks in the tower? Use minute timers to measure the circuit.

Enhancements to areas of learning

Cooking Area

Make recipe pictures for each of the recipes we use. Use the pictures in a recipe book and order the pictures so that other children can use them to follow the recipe. Can children think of their own recipes and order the recipe cards? Can we make a recipe book for the home corner as well?

Water



Provide a fishing rod and magnetic fish in the water area. How many fish can the children catch in 30 seconds? Use a timer to measure the activity and then check the number by counting the fish out on to a five frame.

© White Rose Maths

Digging Deeper

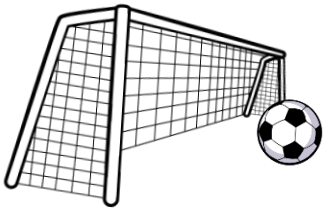
Obstacle Course

Make an obstacle course in the outdoor area.
What do we do first? What comes next? Can we make picture cards to explain the instructions to other children?

Use a timer to measure how long it takes each child to complete the obstacle course.
How will we know if we get faster at completing the course? Will the number of minutes go up or down?
How can we work out who comes first? Can we count aloud to measure how long it take us to complete the course?

Encourage the children to make their own obstacle courses that take a longer or a shorter time.

Goal!



Set up some mini goal posts. Ask the children to score as many goals as they can in 2 minutes.
Each time they score a goal they can collect one bean bag and take it back to their bucket.
At the end of the 2 minutes ask each child to count their bean bags. How many goals did they score?
Repeat the activity – if the children want to score more goals will they need to work more quickly or more slowly? Count up again – did they beat their score?

Key questions

What do we need to do first?
What do I do next/after that/then?
How many minutes did you take?
Who was the fastest? Did they take more minutes or less minutes than you?
How many goals did you score?
How could you score more goals this time?

© White Rose Maths