

Essential foundations for counting



Comparison

The HfL Primary Mathematics and Early Years teams would like to thank the following settings for their support in the production of these materials:

Four Seasons Pre-school, Stevenage
Roebuck Primary School, Stevenage
Watton-at-Stone Primary School and Nursery
Little Tulips Day Nursery, Welwyn Garden City
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Coates Way Juniors Mixed, Infants and Nursery School, Watford
Fingerprints Preschool, Watford
Oakwood Primary School, St Albans

This document is designed to work alongside the Early Years Foundation Stage statutory framework and guidance from the DfE, to build a sense of number and quantity across the EYFS. It provides practical suggestions to achieve firmly embedded pre-counting skills and enrich further learning opportunities. The scaffolding of high-quality language, for use by adults and children, is a key ingredient of the resource and is informed by the **HfL Working mathematically** document.

Each of the skills – **comparison**, **classification**, **pattern** and **group recognition (subitising)** – is organised in a progression of four steps, in which children notice, **copy**, **extend** and **create**. Guidance for “What adults could do” and “What adults could provide”, as well as the “Behaviours a child could demonstrate to show understanding” for each of these, is included.

Skill	What adults could do	What adults could provide	Behaviours a child could demonstrate to show understanding
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Introduction

Have you ever thought about what comes before counting? Advisers from the HfL Early Years and Mathematics teams have been working together with practitioners from schools and settings to answer this question. Sometimes the results were surprising. Adapting practice and provision in the very early stages of learning is vital in underpinning the essential foundations for counting.

"This has been a valuable project for us as staff and ultimately in extending and developing the learning of our children. Thank you :)"
EYFS Leader, Watton-at-Stone Primary School

"We didn't realise how much comes before counting and numbers and have already been implementing some of the ideas and activities with our children."
Manager, Four Seasons Pre-School

From the action research, as part of the development of these materials, the powerful learning that we saw did not include any numerals at all but instead focused on children's language, thinking and understanding. This formed the basis of the four pre-counting skills, which you will find in the accompanying booklets, along with lots of ideas for how to make this happen for your children. A range of research has shown that many children have been missing out on these pre-counting skills, which form the foundation of all mathematical understanding.

Comparison

Classification

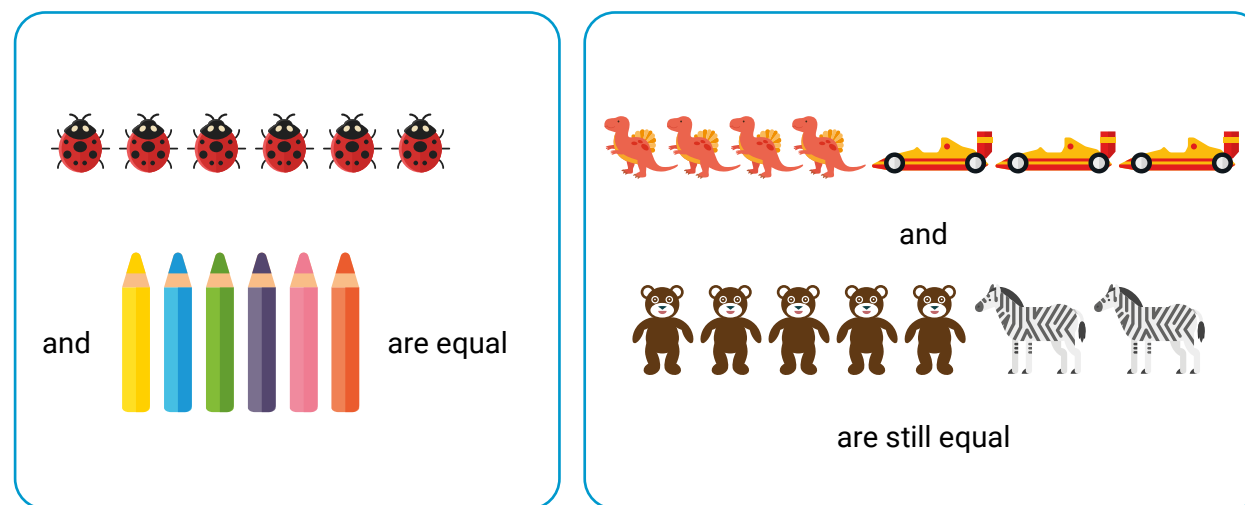
Pattern

Group recognition (Subitising)

Often practitioners tell us that it is difficult to find enough evidence for mathematical development through their observations. These materials will support you and your team in providing more opportunities during child-initiated play, and in developing staff skills and high-quality language for mathematical learning.

By working closely with practitioners, we have developed a progression in pre-counting skills. We have decided to call the steps **notice**, **copy**, **extend** and **create**. There is an interconnectivity between the skills, when children are presented with rich mathematical learning opportunities and environmental provision.

The crucial principle of **conservation** (i.e. where children understand that a quantity will not change even when the objects compared appear to be different in size or move their position) permeates throughout the four pre-counting skills and will benefit from lots of practice.



Comparison

Classification

Pattern

Group recognition (Subitising)

Conservation

We need to ensure that children experience and explore the idea that a quantity does not change just because we are counting objects of different types and sizes, moving objects, or creating different arrangements of objects. Children will continue to secure their understanding well into Key Stage 1.

Comparison

What is it?

Comparison of quantities is an important part of learning to count and is essential in developing number awareness. When making comparisons, students must be able to discriminate between important and irrelevant attributes.

They need to become familiar with descriptions of relationships such as **more than**, **less (fewer) than**, and **as many as**. As the ideas of order and succession grow, children begin to develop the relationships between the comparisons. These skills can be transferred to numbers, e.g. four is the number between five and three, as well as one more than three and one less than five. Understanding of such relationships can evolve naturally as comparisons are made and discussed during purposeful play. When comparisons are made between several different things, ordering is involved. As more things are ordered, the process becomes more complicated. Most children need some guidance to be able to order things efficiently.

What it leads to

Comparing is an essential part of gaining a sense of number in the real world. When a child is secure in the skill of comparison, they will:

- demonstrate an understanding of number magnitude (where numbers sit on the number line)
- be able to estimate quantities and values with a degree of accuracy

Vocabulary



What does it look like in EYFS?

When **engaging in the world around them**, children's natural **curiosity** invites comparison. They will begin to notice similarities and differences by using their senses. This starts when they look closely at similarities, differences, patterns and change. When experiences are sufficiently regular and broad, they will begin to recognise attributes such as more and less or fewer. They learn to **reason and explain** by comparing different amounts. Through rich and varied experiences, children **use talk to make links and notice patterns in their experiences**. They will begin to organise and eventually order objects of decreasing or increasing amounts. At this point, they have begun to discriminate between important attributes, and the number of objects becomes a recognisable similarity or difference. They **comment and ask questions about aspects of their familiar world** as they begin to **recognise similarities and differences**.

Statutory mathematics educational programme

Developing a strong grounding in number is essential so that all children 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. By providing frequent and varied opportunities to build and apply this understanding - such as using manipulatives, including small pebbles and tens frames for organising counting - children will develop a secure base of knowledge and vocabulary from which mastery of mathematics is built. In addition, it is important that the curriculum includes rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures. It is important that children develop positive attitudes and interests in mathematics, look for patterns and relationships, spot connections, 'have a go', talk to adults and peers about what they notice and not be afraid to make mistakes.

Statutory framework for the early years foundation stage

Setting the standards for learning, development and care for children from birth to five – published March 2021.

In planning and guiding what children learn, practitioners must reflect on the different rates at which children are developing and adjust their practice appropriately. Three characteristics of effective teaching and learning are:

Characteristics of effective learning		
Playing and exploring children investigate and experience things, and 'have a go'	Active learning children concentrate and keep on trying if they encounter difficulties, and enjoy achievements	Creating and thinking critically children have and develop their own ideas, make links between ideas, and develop strategies for doing things

For further detail, refer to non-statutory guidance

Working mathematically

By linking the **Characteristics of effective learning** to the **HfL Working mathematically** document, as illustrated below, it is possible to see how children's reasoning and problem-solving skills can be developed in all learning, deepening the application of their mathematical understanding. It is crucial that adults focus on language development. This enables children to engage in rich mathematical talk and demonstrate their understanding.

Application	
Ideas, questions and lines of enquiry	• chooses and identifies ways of bringing mathematical thinking to everyday activities - <i>shows curiosity, is willing to have a go and begins to develop an approach, e.g. trial and error</i> - <i>makes connections and asks questions about aspects that are familiar</i> • selects appropriate resources and adapts work where necessary • asks appropriate questions relevant to the activity and finds new ways to do things
Represent and communicate	• uses talk to connect ideas and describe what is happening - <i>creates simple representations of the story of the problem</i> • captures experiences and responses in a range of ways - <i>constructs and/or makes marks with a purpose in mind</i> - <i>records, using marks that they can interpret and explain</i> • uses talk to organise their activities, taking account of one another's ideas, and checks how well it is going • in practical activities and discussion, begins to use the vocabulary involved in mathematical thinking
Plan an approach and implement it	• draws on their knowledge of their familiar world to make decisions about how to approach a task, solve a problem and reach a goal • initiates activities and seeks challenge, applying their knowledge of mathematical concepts and appropriate vocabulary, e.g. counting, comparing, pattern making • checks how well their activities are going, changes strategy as needed and reviews how well the approach worked
Computational complexity (within the range of number facts known)	• shows an interest in number problems • responds to instructions involving a two-part sequence

Reasoning	
Make connections	• uses talk to make links and notice patterns in their experiences • uses their experience to test their ideas and anticipate what might happen • comments and asks questions about aspects of their familiar world
Evaluate	• questions why things happened and gives explanations
Draw conclusions	• makes predictions and tests them, e.g. developing ideas of grouping, sequences, cause and effect • answers how and why questions about their experiences
Generalise	• recognises similarities between learning experiences and begins to use this understanding in new contexts - <i>realises not only objects but anything can be counted, including steps, claps or jumps</i> • builds up vocabulary that reflects the breadth of their experiences to describe patterns and characteristics of the world around them
Justify	• uses talk to clarify thinking • talks about why things happen and how things work

Problem solving
• chooses ways to do things • checks how well their activities are going • notices patterns in their experiences • uses a range of ways to capture experiences • looks closely at similarities, differences, patterns and change • makes decisions about how to approach a task



Criteria for planning and assessing comparison

Comparison	What adults could do	What adults could provide	Behaviours a child could demonstrate to show understanding
Notice	• use the environment (both natural and manmade) to encourage children to notice and compare features, e.g. colours and shapes of leaves on trees • when singing counting songs, encourage children to notice and compare quantities when things are added or taken away, e.g. frogs jumping off logs • when listening to or using instruments, ask children to notice the similarities and differences in the sounds made • compare names, noticing those that have the same and/or different numbers of syllables and/or letters • when looking at or reading a story, ask children to make comparisons within the story to other known stories • teach children to compare types of movement, through dance and exercises • when looking at a group of similar objects, point out and explore how they could be ordered by properties, e.g. by size • use vocabulary carefully, to help children to understand the thought processes behind the comparisons they are making	• opportunities for children to look at the world around them, both indoors and outdoors, including natural things, real objects, photographs, images, construction, art materials • props to invite children to compare the world around them, both indoors and outdoors • model the language of comparison: more, less, same, different, similar – in adult-led and independent learning • opportunities for children to compare a wide range of different stories, songs, musical instruments, movements and exercises • ask open-ended questions, to help children notice similarities and differences, to enable children to make comparisons	• children will notice when things have similar or different properties • children will use the language of comparison, identifying things that are the same and what is different • children will demonstrate that they can see similarities and differences, and make comparisons in the world around them • children will actively participate in activities, noticing when things are similar or different and making comparisons with previous experiences

Comparison	What adults could do	What adults could provide	Behaviours a child could demonstrate to show understanding
Copy	- ask children to listen to a range of instruments or music, and encourage them to find instruments or music that are the same or different - model comparing objects of similar properties, with reasons, and invite children to find something similar, giving reasons for their choices - model comparing the quantity of two groups, no matter what size, to find out whether they have the same amount, more or less, e.g. comparing groups of conkers and acorns - model how to compare and order objects by a property, e.g. heights of sunflowers, textures - model comparative language and encourage children to use this in their play	- resources and direct modelling, to help children make comparisons using different properties - opportunities for children to revisit one-to-one comparison of two groups of objects that have been modelled - opportunities to identify properties and order, by given criteria in meaningful contexts throughout continuous provision, e.g. weight in the role-play area	- children will select appropriate objects and materials that have similar properties, demonstrating that they can compare using an explanation - children will be able to order a set of objects, using a given criterion, which has been modelled - children will be able to compare two groups by matching one to one, saying whether the groups have the same, more or less

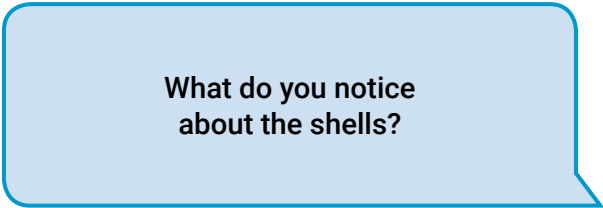
Comparison	What adults could do	What adults could provide	Behaviours a child could demonstrate to show understanding
Extend	• introduce new mathematical language and rephrase the child's voice, to further develop their understanding of comparison, e.g. more, less, equal, taller, shorter • use effective questions to challenge children's thinking about what they know and understand about comparison: properties, quantities and order • ask children to share their reasoning for comparisons, using language linked to properties or order • listen and respond carefully to what the child is saying about comparisons, to extend thinking by encouraging comparison using different criteria, e.g. the child orders vehicles by size, and the adult suggests ordering by the number of wheels • talk with children to compare more than two groups of objects. Encourage the use of one-to-one matching to enable comparison of quantities in different groups, and extend to ordering groups by their amounts	• a range of objects – natural and manmade, shapes, characters, number representations, images – for children to compare by properties or quantities • challenge through the use of open-ended questions, for children to extend their use of comparison in independent learning • opportunities in play and meaningful contexts, for children to compare and order	• children will make decisions about the order of a set of objects, using given attributes • children will give reasons and describe the attributes of an object or value when making a comparison • children will respond appropriately to questions, with accurate detail to explain their reasoning • children will independently find things to compare and order, using criteria that they have experienced before • children will be able to identify attributes by which a group of given objects could be compared or ordered • children will know that, when comparing quantities, the size is unimportant (each object only counts as one)

Comparison	What adults could do	What adults could provide	Behaviours a child could demonstrate to show understanding
Create	• plan ways that invite children to use comparison for a purpose, e.g. how many teddies will sit on the bench • work alongside the children when they are comparing and ordering, and talk about their reasons • challenge children to order or classify, using their own groupings, e.g. legs on mini-beasts • encourage children to create groups to compare and identify whether the groups are more, less or equal to each other	• sufficient resources in continuous provision to compare, group and order • opportunities for children to explain the strategies used to create their comparisons, rephrasing and extending the children's thoughts with correct vocabulary • time for children to become absorbed and immersed in creating groups and comparing, using appropriate vocabulary	• children will show sustained engagement in comparing and ordering the same group of objects in multiple ways • children will independently find more things to compare and order, using criteria that they have created themselves • children will reason the choices they have made and explain their thinking in the comparisons and orderings they have made

The following pages provide exemplification of **some** of the criteria, to illustrate how they could be achieved across provision.

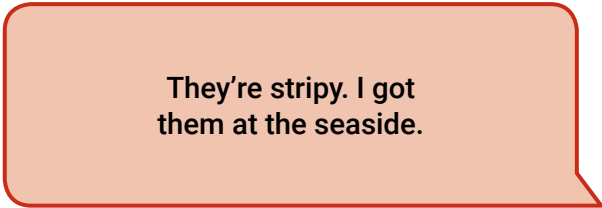
In the illustrations you will see the following:

Blue speech bubbles indicate key questions and teaching points for adults

A blue speech bubble with a tail pointing to the bottom right.

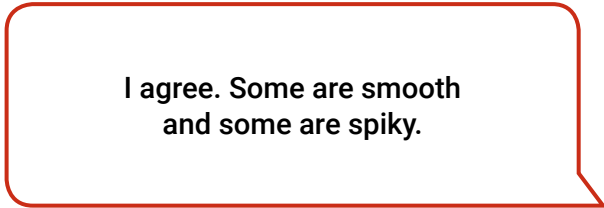
What do you notice about the shells?

Red speech bubbles indicate things children may say

A red speech bubble with a tail pointing to the bottom right.

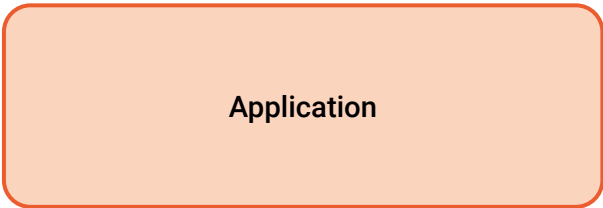
They're stripy. I got them at the seaside.

White speech bubbles with a red outline indicate how the child's talk could be remodelled by an adult

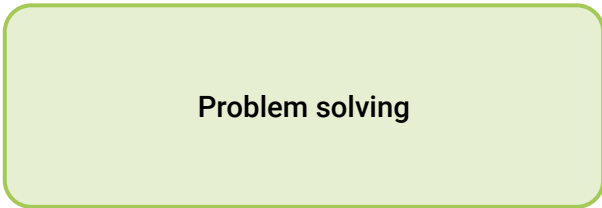
A white speech bubble with a red outline and a tail pointing to the bottom right.

I agree. Some are smooth and some are spiky.

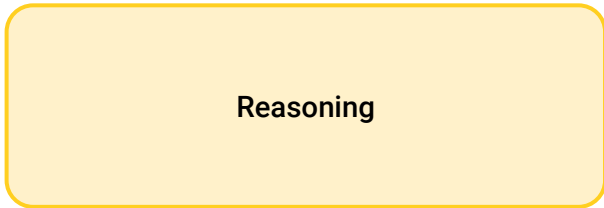
Rectangular boxes indicate **Working mathematically** criteria, as follows:

An orange rectangular box with rounded corners and a thin orange border.

Application

A green rectangular box with rounded corners and a thin green border.

Problem solving

A yellow rectangular box with rounded corners and a thin yellow border.

Reasoning

Comparison – NOTICE: What adults could do

- use the environment (both natural and manmade) to encourage children to notice and compare features, e.g. colours and shapes of leaves on trees



What do you notice about all these shells?

Smooth and spikey.

I agree some are smooth and some are spikey.

Represent and communicate
Uses talk to connect ideas and describe what is happening

- when looking at or reading a story, ask children to make comparisons within the story to other known stories



Do you know any other stories about animals?

I know a story about a tiger who ate all the food.

Yes – the tiger – that story is different because the tiger is greedy.

Make connections
Uses talk to make links and notice patterns in their experiences

Comparison – NOTICE: What adults could do

- when looking at a group of similar objects, point out and explore with them how they could be ordered by properties, e.g. by size



What has he done with the different buttons?

Big one – Daddy bear.
Middle one – Mummy bear.
Small one – Baby bear.

That's right – he has put all the big ones together, the middle-sized ones together and the small ones together, like the sizes of the three bears.

Justify

Uses talk to clarify thinking

- use vocabulary carefully, to help children to understand the thought processes behind the comparisons they are making



I can see that you have made ice creams of the same flavour.

One ice cream is all strawberry flavour and the other is all chocolate.

Generalise

Builds up vocabulary that reflects the breadth of their experiences



I can see that you have lots of different tools in your wheelbarrow.

I notice that they are all different but will be helpful when you start building.

Review and evaluate

Behaviours a child could demonstrate to show understanding:

- children will notice when things have similar or different properties
- children will use the language of comparison, identifying things that are the same and what is different
- children will demonstrate that they can see similarities and differences, and make comparisons in the world around them
- children will actively participate in activities, noticing when things are similar or different and making comparisons with previous experiences

Observation:

Zahra was playing different instruments and noticed that some made a sound when they were hit and some made a sound when shaken.

Evaluation:

Zahra has demonstrated that she can hear similarities and differences by comparing the sounds musical instruments make.

Observation:

Andrew came over to see what Freddie was doing with the buttons. He noticed that Freddie had organised the buttons by size – big, middle and small. Andrew said, **“That’s like Daddy bear, Mummy bear and Baby bear.”**

Evaluation:

Andrew made the link to the sizes of the bears in the story of Goldilocks and the Three Bears.

Observation:

Ellen was actively involved in role play in the ice-cream shop. She was making ice creams for her friends. She said, **“They have to be the same – chocolate, chocolate, chocolate. This one – strawberry, strawberry.”**

Evaluation:

Ellen could talk about the different ice creams, associating the colours with different flavours.

Observation:

Ali noticed that Ned, Amy and Zoe all had the same number of letters in their names as him when he was moving his photo for the register. As he put the photos in line with his, he counted the letters in each name.

Evaluation:

Ali has noticed the number of letters in the names and can tell when they are similar or different.

Comparison – COPY: What adults could do

- model comparing objects of similar properties with reasons and invite children to find something similar, giving reasons for their choices



Which bricks are you going to add next, to copy what you have already?

Those ones don't fit; those ones are too small. I need one the same.

Those bricks are different because they don't click together, and those ones are smaller. You need bricks that are the same size.

Plan an approach and implement it

Checks how well activities are going, changes strategy as needed and reviews how well the approach worked

- model comparing the quantity of two groups, no matter what size, to find out whether they have the same amount, more or less, e.g. comparing groups of conkers and acorns



Can you finish laying the table so that everyone has the same as this one?

One spoon.
One bowl.
One plate.

You need one spoon, one plate and one bowl for each person at the table.

Ideas, questions and lines of enquiry

Selects appropriate resources and adapts work where necessary

Comparison – COPY: What adults could do



- model comparative language and encourage children to use this in their play

Red, red; yellow, yellow;
blue, blue.

I can see that you have the
red box next to the red mat,
like we matched the same
coloured socks together.

The mats and boxes are
different, aren't they?

Flat and high.

The mat is flat and low
to the ground. The box is
taller, so higher up.

Plan an approach and implement it

Initiates activities and seeks challenge, applying their knowledge of mathematical concepts and appropriate vocabulary, e.g. comparing

- model how to compare and order objects by a property, e.g. heights of sunflowers, textures



I think I'm going to put
the big ones here. How
about you?

Me too. You can
have this one.

Look – you have decided
which are bigger and
which are smaller too.

Ideas, questions and lines of enquiry

Shows curiosity, is willing to have a go and begins to develop an approach, e.g. trial and error

Review and evaluate

Behaviours a child could demonstrate to show understanding:

- children will select appropriate objects and materials that have similar properties, demonstrating that they can compare using an explanation
- children will be able to order a set of objects using a given criterion, which has been modelled
- children can compare two groups by matching one to one, saying whether the groups have the same, more or less

Observation:

Ellen had noticed the different heights of the sunflowers growing in the nursery garden. When playing with the dough, she made sausages of different lengths then added flowers to the top. She ordered them from shortest to tallest. She said, "**Little, bigger, bigger, tall, tallest,**" pointing to the flowers as she said them.

Evaluation:

Ellen can order a set of objects using given criteria that have been modelled to her before.

Observation:

Andrew listened to Megan playing a range of instruments. He started to play other instruments. He said, "**This one goes with yours, it is the same – shake, shake.**"

Evaluation:

Andrew can select appropriate objects and materials that have similar properties, demonstrating that he can compare with an explanation.

Observation:

Zahra was helping Josh set the table for the three bears. Josh had done Daddy bear. Zahra copied his place setting, checking that each bear has one of everything. Once finished, she said, "**There! They all have one of everything; some spoons are big and some are small.**"

Evaluation:

Zahra can compare two groups by matching one to one, saying when the groups have the same.

Observation:

Whilst Marcus was building a tower with large studded bricks, he explained that he only wanted the same bricks in his tower so dismissed "building" bricks and smaller studded bricks.

Evaluation:

Marcus can select appropriate objects and materials that have similar properties.

Comparison – EXTEND: What adults could do

- introduce new mathematical language and rephrase the child's voice, to further develop their understanding of comparison, e.g. more, less, equal, taller, shorter
- use effective questions to challenge children's thinking about what they know and understand about comparison: properties, quantities and order



Why does that shape go in that group?

It's the same.

But it looks different?

Yes, it's the only blue one, but it is still a triangle.

Oh yes – it is the same shape but looks different because of its colour.

Is there anything else that is different?

Yes – taller, shorter, fatter.

That's right – they are different sizes. Some are taller and some are wider.

Make connections

Uses talk to make links and notice patterns in their experience

- ask children to share their reasoning for comparisons, using language linked to properties or order



Why have you added that bun to the end of the row?

Big, middle, small, tiny.

It's at the end because it is tiny and the cakes are getting smaller.

Evaluate

Questions why things happened and gives explanations

Comparison – EXTEND: What adults could do

- talk with children to compare more than two groups of objects. Encourage the use of one-to-one matching, to enable comparison of quantities in different groups, and extend to ordering groups by their amounts



- listen and respond carefully to what the child is saying about comparisons, to extend thinking by encouraging comparison using different criteria, e.g. the child orders vehicles by size, and the adult suggests ordering by the number of wheels



Do you have enough pens and whiteboards for the children in your class?
How can you check?

One each.
One pen for you and you and you ... Then boards.

Good idea – give every child in your class one each to check.

Computational complexity
Responds to instructions involving a two-part sequence

Have you decided to put the bricks back differently?

Yes, because these are shorter.

I wonder if looking at the shapes can help you?

Ideas, questions and lines of enquiry
Chooses and identifies ways of bringing mathematical thinking to everyday activities

Review and evaluate

Behaviours a child could demonstrate to show understanding:

- children will make decisions about the order of a set of objects, using given attributes
- children will give reasons and describe the attributes of an object or value when making a comparison
- children will respond appropriately to questions, with accurate detail to explain their reasoning
- children will independently find things to compare and order, using criteria that they have experienced before
- children will be able to identify attributes by which a group of given objects could be compared or ordered
- children will know that, when comparing quantities, the size is unimportant (each object only counts as one)

Observation:

Ellen was estimating whether there were enough cars for each small-world person. The cars were much bigger than the people. She counted the cars and then the people. **"There are six cars and six people. There are the same number."**

Evaluation:

Ellen knew that, when comparing quantities, the size is unimportant as each object only counts as one.

Observation:

Andrew could see some building blocks needed to be put away. There were some bricks that didn't fit in the organised groups. He made a new group, stating, **"Squares go here."** He put all the cubes together on an empty shelf.

Evaluation:

Andrew gave reasons and described the attributes of the bricks when comparing them.

Observation:

Marcus was making trains with an engine and carriages. He made three trains and ordered them from shortest to longest. He added two more carriages to the middle train and said, **"Now this one is the longest."**

Evaluation:

Marcus decided the order of his trains, using given attributes.

Observation:

Zahra was organising the hospital role-play area. **"These bandages are all different – big, long, triangle – but they will all make you better."** She noticed that, even though the bandages all looked different, they all did the same job.

Evaluation:

Zahra found things to compare and order independently, using criteria she has experienced before.

Comparison – CREATE: What adults could do



I can see you are counting the pans of soil. Why are you counting?

- plan ways that invite children to use comparison for a purpose, e.g. how many teddies will sit on the bench
- work alongside the children when they are comparing and ordering, and talk about their reasons

The plant needs more. I need to choose a bowl or mug.

So you are counting how many pans of earth go in each pot, to decide which one is the right size for the plant. The plant needs to go in the one that holds the most earth.

Plan an approach and implement it

Draws on their knowledge of their familiar world to make decisions about how to approach a task, solve a problem and reach a goal

- challenge children to order or classify, using their own groupings, e.g. legs on mini-beasts
- encourage children to create groups to compare and identify whether the groups are more, less or equal to each other

How tall is your tower?

Five.

Oh yes – your tower is five blocks tall – one, two, three, four, five.

Can you make another tower the same height?

Not enough – this one needs to go. BANG! BANG! Now three and three.

You now have two towers, both with three blocks each. You didn't have enough to make two towers of five.



Ideas, questions and lines of enquiry

Selects appropriate resources and adapts work where necessary

Review and evaluate

Behaviours a child could demonstrate to show understanding:

- children will show sustained engagement in comparing and ordering the same group of objects in multiple ways
- children will independently find more things to compare and order, using criteria that they have created themselves
- children will reason the choices they have made and explain their thinking in the comparisons and orderings they have made

Observation:

Ellen was sorting the animals for the farm (small world) by type, e.g. cows together, pigs together. She had six groups – cows, pigs, chickens, ducks, sheep and horses. Then she noticed the farm only had three fields. She put the cows, horses and sheep together, the ducks and chickens together and the pigs on their own. When asked why she had regrouped them that way, she said:

“Grass, grass, grass” (pointing to the horse, sheep and cows)

“Peck, peck” (pointing to the ducks and chickens)

“Muddy and smelly” (pointing to the pigs). **“They have to go on their own because they are too smelly to share.”**

Evaluation:

Ellen is able to reason about choices and explain her thinking in the comparisons and orderings she has made.

Observation:

Marcus was in the role-play area (a garden centre) and was setting up a display. **“The tools are going there because the plants will be too big but will go nicely over there.”**

Evaluation:

Marcus showed sustained engagement in comparing and ordering the same group of objects in multiple ways.

Observation:

Zahra was sorting shells into twisty ones and rough ones, in two hoops. Then she noticed that some of the twisty ones were also rough. She overlapped the hoops, like she had seen when we were sorting shapes, and said, **“Rough and twisty goes here,”** pointing to the overlap.

Evaluation:

Zahra found more things to compare and order, using criteria that she had created herself.

Essential foundations for counting

Devised and created by the Herts for Learning mathematics and Early Years educational specialists responsible for **ESSENTIALmaths** and **Places to Play Every Day**, the highly acclaimed teaching resources also available from Herts for Learning.

Places to Play Every Day, for 3- to 5-year-olds

Creating learning spaces to inspire, challenge and motivate children in the Early Years.

Places to Play Every Day sets out clear guidance on developing each area of provision, including information on the adult's role, resource ideas and skills to be taught in a variety of contexts.

"The **Places to Play Every Day** guidance and audits book provide ideas for new and experienced practitioners to develop their learning environment. The photographs included give a helpful visual representation of high quality EYFS provision."
EYFS Leader, Knutsford Primary School

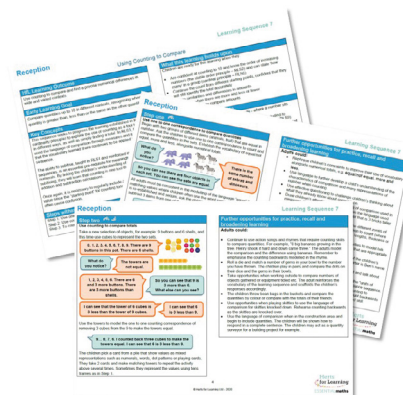


ESSENTIALmaths and Reception ESSENTIALmaths

The complete suite of Herts for Learning **ESSENTIALmaths** resources is an invaluable planning tool for teachers to find practical support and many resources, to improve the teaching of mathematics. The learning sequences are written to ensure pupils are able to master the learning and meet the challenges of an age-related curriculum.



"I know this has been said before but I can't stress how good **ESSENTIALmaths** for Reception has been for the strong grounding of number. We have seen a massive impact."
EYFS teacher, Aston St Mary's CofE Primary School



"The school's involvement in the Hertfordshire Essential Mathematics programme has supported the development of mathematics, by providing a clear teaching sequence to develop pupils' number fluency and reasoning at greater depth."
Ofsted Report, Field Manor JMI School, St. Albans (2018)

About Herts for Learning

Herts for Learning (HfL) is an award-winning provider of products and services to schools and educational settings within and outside Hertfordshire. We believe that every young person, through access to a great education, should be able to realise their potential, regardless of where they live or their circumstances. We focus on supporting the schools we work with to achieve successful long-term outcomes for their children. HfL is the UK's largest schools company, operates with a not-for-profit ethos and is majority owned by Hertfordshire schools. Since our inception in 2013, we have reinvested nearly £1million in activities that would not otherwise have attracted funding.

For further information:

Visit: hertsforlearning.co.uk

Email: info@hertsforlearning.co.uk

Telephone: 01438 544464



01438 544464
hertsforlearning.co.uk

