## Glasgow Counts: Learning at Home:




Early Level Glasgow Counts: Learning at Home

- Welcome to Glasgow Counts: Learning at Home. This resource has been created to support the learning and teaching of numeracy within the home and is comprised of suggested experiences and interactions linked to the numeracy organisers, in line with the CfE Experiences and Outcomes.
- This resource has been designed to be used alongside the Glasgow Counts Framework. Each box has one suggested home experience. There is a practitioner page for reference and a "Take Home Page" to be sent home either with the child or digitally. As with all Glasgow Counts materials, please note that guidance on experiences, interactions and resources are not exhaustive. Practitioners should adapt and develop the learning experiences to best support the learners within their setting. This resource currently includes experiences for page 1 of Early Level Tracker 1, page 2 will be launched at a later date.
- All children will follow a unique pathway in attaining concepts, therefore, when planning in advance, or in the moment, it is important to ensure each individual child's prior learning and next steps are catered for through effective questioning, extension of resources etc.
- This resource includes a parents leaflet which can be adapted and shared with parents. This can be found here.
- Practitioners should consider the potential barriers to learning including access to resources, levels of parental engagement and differentiation and adapt the resource as required.

We would like to acknowledge contributions from the Leaders of Early Learning and Lead Practitioners of Attainment working across the city.
Inspiration and guidance has also been taken from Education Scotland, NRich and Messy Maths.

Children experience maths in all aspects of their lives at nursery and at home. At (INSERT NURSERY NAME) Nursery, we encourage children to develop their numeracy skills through daily routines and play.
Our Learning at Home cards will help you support your child's learning in numeracy at home. They are fun experiences you can try using everyday objects and things you do every day. They are easy to understand and will help you to support your child's early mathematical development.

Children are born with an innate mathematical ability and research has shown that parents have a considerable effect on how this develops.
Even if you feel you aren't good at maths, there are things you can do with your child now that will make a big difference:


## Confidence

Children need to feel confident about giving maths a go. Praising your child for their effort, not their ability, will increase their confidence and make them want to learn more.

## Be Positive

Children who succeed at maths are usually the ones who enjoy it most. Even if you had a bad experience of maths at school, it is important to not pass on a fear or dislike of maths to our children.

## Do maths together every day...

This might sound a bit boring but you will already be "doing" a lot of maths without realising it. Maths is everywhere - helping your child get dressed, baking together, going to the shops, reading stories, singing counting songs, building with blocks practically every activity we do with our children involves maths.


Having everyday conversations about maths really helps children make connections between learning and the world they live in.

Navigate to home
Glasgow＇s Improvement Challenge－Leaders of Early Learning
Glasgow Counts．Learning at Home－Numeracy Early Tracker 1



## Early Level Tracker 1

| Estimation a Rounding |  | Knows they can check estimates by counting within 0－10 E1 |  |  |  | Can apply subitising skills to estimate the number of items in a set E2 |  |  |  |  | Uses the language of estimation，including more than，less than，fewer than and the same E3 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ${ }_{6}^{\circ}$ | Say short forward and backward number word sequences within 0－10 No1 |  |  |  | Uses ordinal numbers in real life contexts e．g．I am first／second／third in the line＇ No2 |  |  |  |  | Recalls the number sequence forwards and backwards within 0－10 No3 |  |  |
|  | 先 | Recognise numerals e．g． points to the number from 0－10 N1 |  | Identify（name）numerals e．g．can respond to question＇what is that number？＇from 0－10 <br> N2 |  |  | lains zero presented as 0 N3 | Orders numerals forwards and backwards within 0－10 <br> N4 |  |  | Identifies number before，after and missing numbers in a sequence within 0－10；beginning to use the language before，after and in－between N5 |  |  |
|  | 咅 | Identifies＇how many？＇in regular dot patterns e．g．dot arrangement／on fingers／five frames／10 frames／dice without counting up to 6$\underline{\underline{\mathbf{S}}}$ |  |  |  | Identifies＇how many？＇in irregular dot patterns e．g． dot arrangement／on fingers／five frames／10 frames／dice without counting up to 6$\underline{\$ 2}$ |  |  |  |  | Represents amounts in different arrangements e．g．dot arrangement／on fingers／five frames／ 10 frames／dice without counting up to 6 \＄3 |  |  |
|  | 比 | When counting objects understands the order in which we say the numbers is always the same（stable order） C1．1－3 |  | Touch counts one item when each number word is said（1－to－ 1 correspondence） C2 |  | When counting objects understands that the number name of the last object counted is the name given to the total number of objects in a set（cardinal principle） C3 |  |  | When counting objects understands that the number of objects is not affected by position （order irrelevance） C4 |  | Counts objects in a set recognising that the appearance of the objects has no effect on the overall total within 0－10 （conservation） C5 |  | Counts anything e．g． objects at a distance／in a book／sounds／claps within 0－10 <br> （abstract principle） C6 |
|  |  | Explains that zero means there is none of a particular quantityPV1 |  |  |  |  |  |  | Partitions quantities to 10 into 2 or more parts and recognises that this does not affect the total e．g． 6 as 3 and $3 / 2$ and 2 and 2PV2 |  |  |  |  |
| Addition and Subtraction |  | Sorts \＆classifies objects using quantity as an attribute <br> e．g．sets of 1,2 within 0－10 AS1 | Compares 2 sets to decide which has the fewest／most within 0－10 AS2 |  | Finds the total when 1,2 or 3 is added to an existing amount e．g．a number line or height chart（augmentation） AS3 |  | Finds the total when 2 sets are added together within 0－10（aggregation） AS4 |  |  | Finds out how many are left when 1 or 2 are taken away within 0－10 AS5 |  | Compares to find the difference between sets as a quantity within $\begin{aligned} & 0-10 \\ & \text { AS6 } \\ & \hline \end{aligned}$ | Beginning to count on and back in ones to add and subtract with objects or number line within 0－10 AS7 |
|  | cation | Shares out a group of items into 2 equal sets within 0－10． Groups objects into matching or natural sets of 2 e．g．shoes within 0－10 M\＆D1 |  |  |  |  |  |  | Begin to identify ha res and doubles using concrete materials within 0－10M\&D2 |  |  |  |  |
|  | sans， | Identifies wholes and halves in a social context and uses appropriate language e．g．＇I have eaten half of my banana＇FD\%1.1-3 |  |  |  | Splits a whole into smaller parts and expla is that equal parts are the same＇FD\%2.1-2 |  |  |  |  | Understands that a whole can be shared equally and unequally FD\％3．1－2 |  |  |

$\underbrace{c}_{i=1 / c c i n g}$

Main focus of experience is highlighted in yellow

Task Aim highlighting
any mathematica
I terms

Task
Descriptor explains the main elements of the
experience highlighting any language or key concepts for the adult to emphasise

Practitioner Page highlighted


Task Aim:
This task gives children the opportunity to develop their understanding of the terms "half", "equal" and apply it to parts of a "whole".

## Task Descriptor

When preparing a sandwich with their child the adult will ask them to cut the sandwich in half.

- The adult will compare the two parts of the sandwich. It is unlikely that the two parts will be equal so this creates an opportunity to discuss what this means.
- The adult will demonstrate to child the difference between the two by placing the two parts on top of each other.
- The adult will then cut another sandwich in half equally and place the two halves on top of each other to show that they are the same size.
- The adult will emphasise the word "equal" and explain that this means 'the same'


## Differentiation :

This could be differentiated by cutting a sandwich into quarters.

## Resources:

- Take home page FDP3.1
- 2 sandwiches (toast, rolls, cakes etc. will also work)
- a knife that a child is able to use safely
$\square$


Screen shot of Take Home page for ease of organisation

Suggestions of how to provide support or challenge are highlighted

## Glasgow's Improvement Challenge - Leaders of Early Learning

Glasgow Counts. Learning at Home - Numeracy Early Tracker 1 Information explaining why this concept/skill is important in early mathematical development is presented in an easy to understand



Resources clearly labelled

Photographs illustrate the experience

## Glasgow Counts: Learning at Home Early Level



Money \& Measure Overview
Experiences and Interactions Coming soon...

| Abstraction Principle | It does not matter what you count, the way you count stays the same. Any set of objects can be counted as a set, regardless of whether they are the same colour, shape, size, etc. This can also include non-tangible things such as sounds, actions, and objects at a distance. | Concrete (materials) | Using everyday objects and learning materials such as counters, blocks, beads, to develop an understanding of numerical and mathematical concepts. |
| :---: | :---: | :---: | :---: |
| Addition | The process of calculating the total of two or more numbers or amounts | Consecutive numbers | Numbers that are next to one another in numerical order. |
| Aggregation | Addition as bringing together or combining two numbers and sets. | Conservation (of number) | Recognition that, no matter what order, or how displayed, a given set has the same number of items in it. |
| Array | A rectangular arrangement of objects used to represent a number in a way that illustrates multiplication and division. Objects are arranged in rows and columns. E.g. egg boxes and 10 frames. | CPA - The acronym for Concrete, Pictorial, Abstract, | A system of learning that uses physical and visual aids to build a child's understanding of concepts. It is important to realise that these are not stages gone through once, but a continuum. There will be occasions when a child will use concrete, pictorial and abstract representations all in one activity. |
| Augmentation | Finding the total when 1,2 or 3 is added to an existing amount e.g. a number line or height chart. | Division | Division is sharing or grouping a number into equal parts. |
| Bar Graph | A graph using bars to donate quantity or numbers. | Empty number line | A number line which can have any starting number. It can be used to add or subtract in steps that the learner finds comfortable. |
| Cardinality | The number given to the total amount of items in a set where the items are counted in order. The last count word in the counting sequence represents the total number of items in the collection. | Grouping | In the context of division, grouping is splitting a quantity into groups of a given size e.g. splitting 12 counters into groups of 3 (there are 4 groups). |
| Conceptual understanding | Knowing more than just isolated facts and procedures. It is hoped that if learners have a deep understanding of concepts, they will find it easier to transfer this knowledge into new or unknown situations and apply it to new contexts. | Multiplication | A mathematical operation where a number is added to itself several times. |

Glasgow's Improvement Challenge - Leaders of Early Learning
Glasgow Counts. Learning at Home - Numeracy Early Tracker 1
Glossary of terms (2)

| Number/ <br> Numeral <br> identification | When shown a number, say which number it is e.g. <br> what number is this? | Place value | The relative value of different digits within a number. <br> It is the position of a digit within a number that <br> determines what value that digit represents. The use <br> of zero as an empty place value holder is important. |
| :--- | :--- | :--- | :--- |
| Number/ <br> Numeral <br> recognition | In a group of numbers, find the requested <br> number e.g. where is the 3? | Partitioning | To split a number into its component parts. This is <br> useful when performing mental calculations. It is <br> important to partition numbers in a variety of ways, <br> not simply into tens and ones |
| 1-1 <br> correspondence | When counting, each object must be counted only <br> once and as the number name is identified. | Sharing | In the context of division, sharing is splitting a quantity <br> into a number of equal/unequal shares. |
| Ordinal | Subtraction <br> numbers | To take one quantity away from another. <br> These describe a position in an ordered set e.g. first, | Sum |

Adapted from Education Scotland, Numeracy and Mathematics Glossary, 2016
https://education.gov.scot/media/rallfbmy/plr-glossarynumeracy.pdf

| Estimation and Rounding |  | Knows they can check estimates by counting within 0-10 Can apply subitising skills to estimate the number of items in a set |  | Uses the language of estimation, including more than, less than, fewer than and the same |  | Checks estimates by counting | Demonstrates skills of estimation in the context of number |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Awareness of Number - Counting, Quantities \& Number Structure |  | Say short forward and backward number word sequences within 0-10 | Uses ordinal numbers in real life contexts e.g. I am first/second/ third in the line' |  | Recalls the number sequence forwards and backwards within 0-10 | Recalls the Number sequence forwards and backwards, from zero to at least 20, from any given number. <br> Orders numbers forwards \& backwards to at least 20. Identifies the number before, after and missing numbers in a sequence |  |  |
|  |  | Recognises and identifies numerals within 0-10 <br> Explains that zero is represented by the numeral ' 0 ' <br> Orders numerals forwards and backwards within 0-10 <br> Identifies number before, after and missing numbers in a sequence within 0-10; beginning to use the language before, after and in-between |  |  |  | Recognises number names and numerals to at least 20. <br> Orders numbers forwards \& backwards within the range 0-20. <br> Identifies the number before, after and missing numbers in a sequence. |  |  |
|  | $\cdots$ | Identifies and represents regular and irregular dot patterns in different arrangements e.g.dot arrangement/on fingers/five frames/ 10 frames/dice without counting up to 6 |  |  |  | Identifies 'how many?' in regular \& irregular dot patterns, arrays, five frames, ten frames and dice without having to count - SUBITISING. |  |  |
|  |  | Counts objects in a set recognising that the appearance of the objects has no effect on the overall total within 0-10 (conservation) |  |  |  | Uses 1-to-1 correspondence to count a given number of objects to at least 20. Uses ordinal numbers in real life contexts. | Counts in jumps (skip counts) in $2 \mathrm{~s}, 5 \mathrm{~s}$ and 10 s and begins to use this as a useful strategy to find how many in a larger group. |  |
|  |  | Partitions quantities to 10 into 2 or more parts and recognises that this does not affect the total e.g. 6 as 3 and $3 / 2$ and 2 and 2 |  |  |  | Partitions single digit numbers into two or more parts and recognises that this does not affect the total. | Demonstrates understanding of all possible partitions of numbers to at least 10. |  |
| Addition and Subtraction |  | Compares 2 sets to decide which has the fewest/most within 0-10 Sorts, classifies partitions, orders and compares sets that have the same and differing quantities <br> Beginning to count on and back in ones to add and subtract with objects or number line within 0-10 |  |  |  |  |  |  |
|  | plication Division | Shares out a group of items into 2 equal sets within 0-10 Groups objects into matching or natural sets of 2 e.g. shoes within 0-10 Begin to identify halves and doubles using concrete materials within 0-10 |  |  |  | Shares out a group of items equally into smaller groups |  | Doubles numbers to a total of at least 20. |
| Fractions, Decimals and \% |  | Identifies wholes and halves in a social context and uses appropriate language e.g. 'I have eaten half of my banana' |  | Splits a whole into smaller parts and explains that equal parts are the same size <br> Understands that a whole can be shared equally and unequally |  | Splits a whole into smaller and explains that 'equal parts' are the same size. Uses appropriate vocabulary to describe each part, to at least halves and quarters. |  |  |


| Early Level Tracker 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Knows they can check estimates by counting within 0-10 <br> E1.1 |  |  |  | Can apply subitising skills to estimate the number of items in a set E2.1 |  |  |  |  | Uses the language of estimation, including more than, less than, fewer than and the same E3.1 |  |
|  | 잉 | Say short forward and backward number word sequences within 0-10 <br> No1.1 |  |  |  | Uses ordinal numbers in real life contexts e.g. I am first/second/third in the line' <br> No2.1 |  |  |  |  | Recalls the number sequence forwards and backwards within 0-10 <br> No3.1 |  |
|  |  | Recognise numerals e.g. points to the number from 0-10 <br> N1.1 |  | Identify (name) respond to que number? | numerals e.g. can stion 'what is that from 0-10 <br> N2.1 | Explains zero is represented as 0 <br> N3.1 |  | Orders numerals forwards and backwards within 0-10 <br> N4.1 |  |  | Identifies number before, after and missing numbers in a sequence within $0-10$; beginning to use the language before, after and in-between N5.1 |  |
|  |  | Identifies 'how many?' in regular dot patterns e.g. dot arrangement/on fingers/five frames/10 frames/dice without counting up to 6 <br> S1.1 |  |  |  | Identifies 'how many?' in irregular dot patterns e.g. dot arrangement/on fingers/five frames/10 frames/dice without counting up to 6$\mathbf{S 2 . 1}$ |  |  |  |  | Represents amounts in different arrangements e.g.dot arrangement/on fingers/five frames/ 10 frames/dice without counting up to 6 S3.1 |  |
|  |  | When counting objects understands the order in which we say the numbers is always the same (stable order) C1.1 |  | Touch counts one item when each number word is said (1-to1 correspondence) C2.1 |  | When counting objects understands that the number name of the last object counted is the name given to the total number of objects in a set (cardinal principle) C3.1 |  |  | When counting objects understands that the number of objects is not affected by position (order irrelevance) C4.1 |  | Counts objects in a set recognising that the appearance of the objects has no effect on the overall total within 0-10 (conservation) C5.1 | Counts anything e.g. objects at a distance/in a book/sounds/claps within 0-10 (abstract principle) C6.1 |
|  |  | Explains that zero means there is none of a particular quantityPV1.1 |  |  |  |  |  |  | Partitions quantities to 10 into 2 or more parts and recognises that this does not affect the total e.g. 6 as 3 and $3 / 2$ and 2 and 2 <br> PV2. 1 |  |  |  |
| Addition and Subtraction |  | Sorts \& classifies objects using quantity as an attribute e.g. sets of 1, 2 within 0-10 AS1. 1 | Compares 2 sets to decide which has the fewest/most within 0-10 AS2.1 |  | Finds the total when 1,2 or 3 is added to an existing amount e.g. a number line or height chart (augmentation) AS3.1 |  | Finds the total when 2 sets are added together within 0-10 (aggregation) AS4.1 |  |  | Finds out how many are left when 1 or 2 are taken away within 0-10 AS5.1 | Compares to find the difference between sets as a quantity within 0-10 <br> AS6.1 | Beginning to count on and back in ones to add and subtract with objects or number line within 0-10 AS7.1 |
|  | lication ivision | Shares out a group of items into 2 equal sets within 0-10. Groups objects into matching or natural sets of 2 e.g. shoes within 0-10 <br> M\&D1.1 |  |  |  |  |  |  | Begin to identify halves and doubles using concrete materials within 0-10 <br> M\&D2.1 |  |  |  |
|  | ons, Is and | Identifies wholes and halves in a social context and uses appropriate language e.g. 'I have eaten half of my banana' <br> FDP1.1 |  |  |  | Splits a whole into smaller parts and explains that equal parts are the same' <br> FDP2.1 |  |  |  |  | Understands that a whole can be shared equally and unequally FDP3.1 |  |

## Numeracy: E1.1

| $\frac{\text { Estimation \& }}{\text { Rounding }}$ | Knows they can check <br> estimates by counting within 0-10 | Can apply subitising skills to estimate <br> the number of items in a set | Uses the language of estimation, <br> including more than, less than, <br> fewer than and the same |
| :---: | :---: | :---: | :---: |

## Task Aim:

To estimate how many objects are in a jar.

## Task Descriptor :

- Children will guess how many things are in the jar.
- Children will verbally tell the adult the guess.
- The children will then count to check their estimate.
- Children will discuss which estimates were the closest with the adult.


## Differentiation

Choose the size of object to provide number range the child is at:

- For challenge: use smaller objects and the child can record the number.
- For support: use larger objects and the child can point to the number on a number line.


## Resources:

- Take home page E1.1
- Clear plastic jar
- Pasta, sweets, small toys, natural objects - change daily
- Post it notes
- Number line


Glasgow's Improvement Challenge - Leaders of Early Learning
Glasgow Counts. Learning at Home - Numeracy Early Tracker 1

## Estimation Station <br> Estid

Aim: Your child will be encouraged to estimate (guess) how many things are in a jar.
Children enjoy guessing 'how many' and then counting to see if they are right. Doing the activity below regularly using different sized items will help support your child with estimation. This is an important skill that builds children's understanding of number and will help them with number processes such as addition and subtraction.

## What to do:

Provide a clear jar with a number of objects in it.
Start by filling the jar with up to 10 things that interest your child. Filling a big jar with really small things will give the children the experience of what large numbers look like.

## Experience:

1. Ask your child to guess the number of things in the jar. You and other people in the house could guess too.
2. Record the estimate on a post-it (let your child do it if they want to), point to the number on a number line or you could write it down for them.
3. Count the items and check the exact number.
4. Discuss who had the closest estimate/guess.

## You will need:

- A clear jar
- A variety of objects e.g. buttons, coins, beads, pinecones, small toys
- Post it notes or
- Number washing line



## Numeracy: E2.1

| Estimation \& Rounding | Knows they can check estimates by counting within 0-10 | Can apply subitising skills to estimate the number of items in a set | Uses the language of estimation, including more than, less than, fewer than and the same |
| :---: | :---: | :---: | :---: |

## Task Aim:

To embed children's subitising skills and apply them to estimations.

## Task Descriptor.

The adult will place a small number of blocks into a box and ask the child to estimate the amount. It should be explained that an estimate is a good guess.
The adult should hold up the number of fingers the child has estimated and repeat the number.
The adult will ask the child to show them the number with their fingers.
The adult can then support the child to count the objects by removing them one by one.

## Differentiation

Children could be supported to work out the difference between their estimate and their calculation.

## Resources:

- Take home page E2.1
- Wooden blocks (or any other small, easily counted objects)
- A box


Other incidental opportunities:
Point out the 'difference' between the estimate and the actual amount
Is it more or less than their estimate?

## Estimation box

Aim: To encourage your child to use their subitising skills to estimate 'how many?'
Estimating (guessing) is an important skill for children to develop. By combining it with subitising (counting with their eyes) it will help to develop a deep understanding of number.

Choose some small objects such as wooden blocks.

Place them into a small box and ask your child to have a quick look before estimating the amount. (Explain that estimating is having a really good guess.)

Ask your child to confirm their estimate by showing the number with their fingers.

Count the numbers of objects with your child. Remember to celebrate their estimate even when it's not the right amount.


How many blocks do you see?

## You will need:

- A selection of countable objects such as blocks. (buttons or seashells would also work)
- A small box or plastic tub.



## Other incidental opportunities:

Point out the 'difference' between the estimate and the actual amount.
Is it more or less than their estimate?

## Numeracy: E3.1



| $\frac{\text { Estimation \& }}{\text { Rounding }}$ | Knows they can check <br> estimates by counting within 0-10 | Can apply subitising skills to estimate <br> the number of items in a set | Uses the language of estimation, <br> including more than, less than, <br> fewer than and the same |
| :---: | :---: | :---: | :---: |

## Task aim:

To develop children's estimating skills.

## Task Descriptor:

- The adult and child take turns to pick out some Lego from a tub and place it in front of each player.
- The aim is to estimate the number of pieces that have been grabbed using only their eyes. Remember: no counting!
- By modelling language such as "more than", "about" and "fewer than" the adult will develop the child's understanding of quantities.


## Differentiation

For challenge the child could take two handfuls of Lego and estimate the total.

## Resources:

- Take home page E3.1
- A selection of Lego pieces.



## Lego grab game

Aim: To encourage your child to use the language 'more than', 'fewer than' or 'the same as'
This game will help develop your child's skills in estimating. Estimating the amount of objects can help your child not only understand numbers within 10 and beyond, but may support them in beginning to understand early addition, subtraction, multiplication and division skills.

## How to play:

- Each player takes a turn to grab a handful of Lego from a tub or bag.
- Each player places the Lego pieces in front of them and they have to guess (estimate) how many pieces of Lego there are without counting them.


If your child is ready for a challenge you could grab two handfuls and guess/estimate the total in both hands

## You will need:

- Some pieces of Lego
- A small tub or bag



## Numeracy: No1.1



Uses ordinal numbers in real life contexts
e.g. I am first/second/third in the line'

Recalls the number sequence forwards and backwards within 0-10

## Task Aim:

To practice short forwards and backwards number sequences within 0-10.

## Task Descriptor:

The child will:

- count within the range of 0-10.
- count forward from a given number.
- count backwards from a given number.
- say which number comes before or after a given number


## Differentiation:

For support start with plenty of practice forwards and backwards 0-5
For challenge listen for missing numbers forwards and backwards.

## Resources:

- Take home page No1.1
- A homemade rocket e.g. a plastic bottle, some paper and some tape.



## Blast off

Aim: To support and encourage your child to count forwards and backwards from 0-10.
It is important for children to be able to count both forwards and backwards as they will need this skill for addition and subtraction.

Children often associate rockets with countdowns and will almost always count backwards when pretending they are a rocket or when playing with rockets.

With your child:

- Count forwards from 0-5 (or 0-10) as the rocket moves to the "launchpad".
- Count backwards from 5-0 (or 10-0) as the rocket prepares for blast off remembering to say zero then blast off.
Repeat, but try starting at a different number and counting forwards/backwards from that number.



## You will need:

- A rocket (can be made using a plastic bottle or a cardboard tube from kitchen roll
- Tape or glue
- Alternatively go outdoors and your child can pretend to be a rocket.



## Other Incidental Opportunities:

- Jumping in puddles
- Playing hide and seek


## Numeracy: No2.1

후 « $\quad$ Say short forward
and backward number
Uses ordinal numbers in real life contexts
Recalls the number sequence forwards
e.g. I am first/second/third in the line' and backwards within 0-10

## Task Aim:

To help children understand ordinal numbers in a real life context

## Task Descriptor:

The child will:

- Engage in everyday conversations using ordinal numbers.
- Be encouraged to use ordinal numbers in everyday life as adults will draw children's attention to them by asking appropriate questions.
- Answer questions using ordinal numbers.
- Be supported to use the correct mathematical language of First, Second or Third.
- Be supported to develop the link between the ordinal number and the numeral it represents by adults using finger patterns.


## Differentiation:

For challenge, adults could start using higher ordinal numbers such as fourth, fifth, sixth etc

## Resources:

- Take Home Page No 2.1
 three for third. This will really help your child to remember what they mean.

An Ordinal Number is a number that tells you position or order in relation to other numbers: first, second, third and so on. These can be very tricky for young children to understand so here are lots of ideas about how you can include ordinal numbers in everyday conversations!

Simply talking about consistent daily routines helps children to understand ordinal numbers.

## Getting dressed



## Mealtimes

M Mia was the first to finish her dinner. I wonder who will be second?

## Cooking/baking

Before we bake what is the first thing that we do?

Jack was the first person to finish his fish but third to finish his chips.

Craig finished his apple first, who was second?

Use your fingers to show the number that links to the words... one finger for first, two for second and three for third. This will really help your child to remember what they mean.

## Numeracy: No3.1

Uses ordinal numbers in real life contexts
Recalls the number sequence forwards
Say short forward
and backward number word sequences within 0-10

## Task Aim:

To recall the number sequence backwards from 10-0.

## Task descriptor:

Mini hide and seek.
This game can be played with any small toy and does not require lots of space. It could be done at home, in a car or a restaurant.
The child:

- closes their eyes and counts from 10-0 with support.
- waits till they hear "zero" before they open their eyes.
When the countdown is complete the child hunts for the hidden toy.

The adult and child can take turns counting and seeking.

## Differentiation:

The child could be timed while looking for the toy and then try to beat their score.

## Resources:

- Take home page No 3.1
- Any small toy such as a Lego character or action figure.



## Mini Hide and Seek

Aim: to encourage your child to count down from 10-0 whilst playing a fun game.
Being able to count forwards and backwards will help your child learn the order of numbers which is important to (eventually) help them with addition and subtraction.

You will need:

- Any small toy such as Lego
figures. figures. bag or under a tablecloth
Ask your child to count down from 10-0. When they reach zero your child can open their eyes and hunt for their toy
- Take turns beginning your count from a different number

$$
\begin{gathered}
10,9,8,7,6,5, \\
4,3,2,1 \ldots 0! \\
\text { Ready or not go }
\end{gathered}
$$ and seek!



Other incidental opportunities:
You could also time how long your child takes to find their toy and then try to beat their score.


## Mini Hide and Seek

Aim: to encourage your child to count down from 10-0 whilst playing a fun game..
Being able to count forwards and backwards will help your child learn the order of numbers which is important to (eventually) help them with addition and subtraction.

## How to Play

- Choose a small toy and ask your child to close and cover their eyes.
- Hide the toy somewhere nearby. This could be in a pocket, your bag or under a tablecloth.
- Ask your child to count down from 10-0. When they reach zero your child can open their eyes and hunt for their toy.
- Take turns beginning your count from a different number.


Other incidental opportunities:
You could also time how long your child takes to find their toy and then try to beat their score.

## You will need:

- Any small toy such as Lego figures.

|  | Recognise numerals e.g. points to the number from 0-10 | Identify (name) numerals e.g. can respond to question 'what is that number?' from 0-10 | Explains zero is represented as 0 | Orders numerals forwards and backwards within 0-10 | Identifies number before, after and missing numbers in a sequence within 0-10; beginning to use the language before, after and in-between |
| :---: | :---: | :---: | :---: | :---: | :---: |

## Task Aim:

To identify numerals within the environment.

## Task Descriptor:

Children will:

- Focus on a different number each day
- "Hunt" for that number in their environment.
- Children can look in their home, when out for a walk, when in the supermarket.
- Children will be encouraged to repeat the number and do an action to reinforce the cardinality of that number- jump, hop, show on fingers etc
- Children could record where they have found the number by taking photos or drawing pictures.


## Differentiation:

For support match the numerals together and jump, hop, or clap together.
For challenge the child could copy the numbers or make their own written representation of the numbers.

## Resources:

- Take home page N1.1
- A paper and pen


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## Number of the Day Hunt

Aim: To practise identifying numbers and the quantities they represent.
A numeral is a symbol or name that stands for a number. Helping your children recognise numerals will help them when they start to write them at school and use them in sums.

Choose a "number of the day" and write it clearly on a piece of paper for your child to keep.

You will need:

- Paper
- A pen

Now, "hunt" for that number. You can look in your own house, on the doors of the houses in your street, on car registration plates, on buses, on road signs. Anywhere!

When your child finds the number talk about its name and ask them to show you that number using their fingers. Ask them to jump, hop or clap the amount. This will help them to remember what that numeral looks like.


|  | Recognise numerals e.g. points to the number from 0-10 | Identify (name) numerals e.g. can respond to question 'what is that number?' from 0-10 | Explains zero is represented as 0 | Orders numerals forwards and backwards within 0-10 | Identifies number before, after and missing numbers in a sequence within 0-10; beginning to use the language before, after and in-between |
| :---: | :---: | :---: | :---: | :---: | :---: |



## Task Aim:

To select the correct numeral when prompted by a number name.

## Task Descriptor:

The adult will label the cars (with sticky labels) with numbers from 0-10 and then arrange them at random.

The child will be asked to identify (name) the numbers on the cars. The adult can either hold up or describe the cars and ask what number they see.

## Differentiation:

Begin with a small number of cars and build up to having cars labelled from 0-10.
For challenge the child could be asked to 'park' the cars in the correct order.

## Resources:

- Take home page N2.1
- Toy cars
- Sticky labels

| Glasgow's Improvement Challenge - Leaders of Early Learning |
| :--- |
| Glasgow Counts. Learning at Home-Numeracy Early Tracker 1 |
| No2.2 Number-carsl |
| Aim: To select the correct numeral when given the number name. |



Number-cars!
Aim: To select the correct numeral when given the number name.
A numeral is the symbol or name that stands for a number. Look for playful ways to encourage your child to identify numerals 0 to 10 . This is a crucial skill for when children begin to use written numbers.

Write numbers 0-10 on some small post its or pieces of paper. Stick these on to your child's toy cars.

Place the cars in front of your child in random order.
With support encourage them to name the numerals by pointing to or describing the cars. You may want to begin with 0-5 and build up to 10 as their confidence grows.


## Other incidental learning opportunities

You could also encourage your child to move or 'park' the cars in the correct order starting with 0 .

|  | Recognise numerals e.g. points to the number from 0-10 | Identify (name) numerals e.g. can respond to question 'what is that number?' from 0-10 | Explains zero is represented as 0 | Orders numerals forwards and backwards within 0-10 | Identifies number before, after and missing numbers in a sequence within 0-10; beginning to use the language before, after and in-between |
| :---: | :---: | :---: | :---: | :---: | :---: |

## Task Aim:

To help children understand that zero is represented using " 0 "

## Task descriptor:

- Make number cards 0-10 including at least two that are marked ' 0 '
- Using small snacks place assorted quantities in several bowls and at least 2 plates should be left empty
- Encourage the child to count the quantity in each bowl and choose the correct number card
- Support the child to recognise the connection between an empty plate and the numeral ' 0 '


## Differentiation:

Go on a number walk to look for the number ' 0 ' on car registrations or door numbers

## Resources:

- Take home page N3.1
- Plates or bowls
- Number cards 0-10
- At least 2 number cards saying ' 0 '
- Small snacks


Encourage your child to make a clenched fist to represent zero. This will really help them remember what it means.

## Meaning of Zero

Aim: To help your child understand that zero means none of a quantity and is represented by " 0 ".
Knowing that the numeral " 0 " represents nothing is very important. This will help children to understand bigger numbers when they go to school.

## What to do:

- Write numbers 0-10 on small pieces of paper. Make at least 2 "zero" cards
- Place different numbers of snacks (1-10) in several bowls. Leave at least 1 bowl empty.
- Ask your child to count the snacks in each bowl and choose the correct number card and place it beside the bowl.
- Help your child to recognise "0" means nothing.
 are in the blue bowl? Can you find that card?

Let your child have a go at putting the snacks in the bowls. Make some deliberate mistakes and see if your child corrects you!

## You will need:

- Small snacks e.g. fruit, nuts or sweets
- Empty bowls or small plates
- Number cards including more than one "zero"


Encourage your child to make a clenched fist to represent zero. This will really help them remember what it means.

|  | Recognise numerals e.g. points to the number from 0-10 | Identify (name) numerals e.g. can respond to question 'what is that number?' from 0-10 | Explains zero is represented as 0 | Orders numerals forwards and backwards within 0-10 | Identifies number before, after and missing numbers in a sequence within 0-10; beginning to use the language before, after and in-between |
| :---: | :---: | :---: | :---: | :---: | :---: |

## Task aims:

To place toys numbered 0-10 in the correct order

## Task Descriptor:

- The adult will set the child the challenge of ordering the numbered toys starting from 0-10
- When they are confident with forward sequences, the child can try ordering the toys backwards from 10.
- If the child is confident and enjoys being challenged the adult can use a timer on a phone to add some excitement.


## Differentiation:

Starting from and finishing at numbers other than 0 and 10 will reinforce children's understanding of numerals and their meaning.

## Resources:

- Take home page N4.1
- Small toys with the numbers 0-10 attached to them on paper, post its or sticky labels.


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## Numbered Toy Challenge

Aim: To become confident in ordering numbers from 0-10
Ordering numbers to 10 helps children develop many number skills like recognising number symbols and understanding which one comes next. This will help them understand addition when they go to school.

- Collect 11 small toys and attach pieces of paper with numbers 0-10 to them. You can use blue tac, Sellotape, sticky labels or post it notes.
- Give your child the toys in a random order.
- Ask your child to place the toys into the correct order starting from zero finishing with 10.

Which number do we start with?

Let's count to check we have them in the right order

- When they are confident ordering forwards, challenge them to start from 10 and order backwards.



## You will need:

- 11 small toys
- Paper and blue tac, Sellotape, sticky tape or post it notes


Why not use a timer on your phone to see how quickly your child can put them into the correct order? Both take turns and see who is the fastest!

|  | Recognise numerals e.g. points to the number from 0-10 | Identify (name) numerals e.g. can respond to question 'what is that number?' from 0-10 | Explains zero is represented as 0 | Orders numerals forwards and backwards within 0-10 | Identifies number before, after and missing numbers in a sequence within 0-10; beginning to use the language before, after and in-between |
| :---: | :---: | :---: | :---: | :---: | :---: |

## Task Aim

To ensure children can identify all numbers before and after (and any missing) in a number line from 0-10.
Children should be beginning to use the words "before", "after" and "in between".

## Task Descriptor:

The adult will collect some socks or small pieces of clothing and create an indoor washing line for the child to access.

The items of "clothing" will have numeral cards attached to them 0-10.
The child can then peg the clothes in the correct order and can be asked to find the missing item!

## Differentiation.

Start with ordering from 0-5 before moving to 10.

## Resources:

- Take home page N5.1
- A washing line (string or ribbon)
- Pegs
- Socks or small pieces of clothing
- Tape or blue tack


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## Washing Line Numbers!

Aim: To help your child to become confident in arranging numbers from 0-10 in a playful way.
A numbered washing line can create lots of opportunities for children to play with numbers. It is


Washing Line Numbers!
Aim: To help your child to become confident in arranging numbers from 0-10 in a playful way.
A numbered washing line can create lots of opportunities for children to play with numbers. It is important that children have lots of opportunities to explore numerals in the correct order.

## What to do:

- Attach a small washing line at a height your child can use safely. You could use use string or ribbon.
- Write numbers 0-10 on small pieces of paper. Collect socks or small items of clothing and attach the number cards to the socks with tape or blue tack.
- Ask your child to help you hang out the washing in the right order.

- Once your child is confident with arranging numbers to 10 you could start to take items away and ask them to work out what number is missing.

Your child may want to number other things such as wooden blocks, Lego pieces etc. Use the same words: "before", "after" and "in between" to help deepen their understanding.

## You will need:

- A washing line (string or ribbon)
- Pegs
- Socks or small pieces of clothing
- Tape or blue tack



| 気 | Identifies 'how many?' in regular dot patterns e.g. dot arrangement/on fingers/five frames/10 frames/dice without counting up to 6 |
| :---: | :---: |

Identifies 'how many?' in irregular dot patterns e.g. dot arrangement/on fingers/five frames/10 frames/dice without counting up to 6

Represents amounts in different arrangements e.g.dot arrangement/on fingers/five frames/ 10 frames/dice without counting up to 6

## Task Aim:

To be able to accurately subitise and point to the dot pattern that represents the answer to a question.

## Task Descriptor:

- Adults should reproduce the dot patterns supplied on paper or card
- Adult and child take turns asking each other questions which can be answered by pointing to one of the arrays.
- Questions can be anything but must have an answer between one and six


## Differentiation.

The child could be supported to think of their own questions that have answers from one to six.

- Take home page S1.1
- Paper or card
- Pen
- Scissors


Subitising is when someone is able to say how many they see without counting. It is an essential part of developing number sense and helps children to think about numbers as an actual group of objects.


The questions can be as silly as you like but remember the child should already know the answer and the answer should always be between one and six.


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## Subitising

Subitising is when someone is able to say how many they see without counting. It is an essential part of developing number sense and helps children to think about numbers as an actual group of objects.

- Copy the dot patterns on this sheet on to paper or card and cut out cards.
- Count each of the different patterns with your child.
- Take turns asking each other questions and seeing how quickly you can find and point to the card with the matching answer.


The questions can be as silly as you like but remember the child should already know the answer and the answer should always be between one and six.

## You will need :-

- Paper or card
- A pen



Identifies 'how many?' in regular dot patterns e.g. dot arrangement/on fingers/five frames/10 frames/dice without counting up to 6

Identifies 'how many?' in irregular dot patterns e.g. dot arrangement/on fingers/five frames/10 frames/dice without counting up to 6

Represents amounts in different arrangements e.g.dot arrangement/on fingers/five frames/ 10 frames/dice without counting up to 6

## Task Aim:

This task gives the children the opportunity to develop their skills in the identification of irregular dot patterns within 6.

## Task Descriptor:

- The adult will place 1 object on the ground and cover it with a bowl then place 2 objects on the ground and cover them with another bowl and finally place 3 objects on the ground and cover with a bowl in an irregular dot pattern.
- Ask the children to open their eyes and explain you have hidden jewels under each bowl and you are going to show /reveal to them what is under each bowl.
- Quickly lift and replace one bowl you tell me how many jewels were under the bowl?"
- Encourage the children to create the dice dot patterns themselves with the jewels, using the dice as a visual to support.


## Differentiation

For support practise matching the patterns by amount first, allowing the child to count to check if they want.
For challenge try to see how quickly the child can
recognise the-irregular pattern.

## Resources

- Take home page S2.1
- 3 bowls
- A selection of small items such as stones or coins that could be covered by the bowl.



## Hidden Jewels

Aim: To build skills in identifying irregular dot patterns.
Once your child is confident with regular dot patterns (the dots on dice) they can then start playing with irregular dot patterns (dots in random order). Irregular dot patterns will help to develop the skills needed to start adding and subtracting when they go to school.

## What to do:

- Ask children to cover their eyes while you set up.
- Place 1 object on the ground and cover it with a bowl, two objects with the other bowl and finally 3 objects with the third bowl.
- Ask the children to open their eyes and explain you have hidden jewels under each bowl, and you are going to show/reveal to them what is under each bowl.
- Quickly lift and replace one bowl.

 mix the bowls up, I wonder if you can still find 5?
- Ask your child to arrange the "jewels" in any order for you to guess.

When you are walking in the park, draw attention to small quantities of leaves or twigs and ask your child how many there are without counting. Can they "use their eyes to subitise"?

## You will need:

- 3 bowls
- A selection of small items such as stones or coins that could be covered by the bowl.


Identifies 'how many?' in regular dot patterns e.g. dot arrangement/on fingers/five frames/10 frames/dice without counting up to 6

Identifies 'how many?' in irregular dot patterns e.g. dot arrangement/on fingers/five frames/10 frames/dice without counting up to 6

Represents amounts in different arrangements e.g.dot arrangement/on fingers/five frames/ 10 frames/dice without counting up to 6

## Task aim:-

To identify and represent objects in different arrangements of objects within a 10 frame.

## Task Description:

The adult will create a frame that holds up to 10 objects. This can be an egg box, small sticks or just an outline on plain paper.
The adult will arrange pieces of Lego in the frame and ask their child to "count with your eyes (subitise)" how many there are.
The adult will rearrange the Lego pieces and encourage the child to talk about what they see:
"There are 3 on the top row and 3 on the bottom row."
"Use your subitising skills, what do you see?"
The adult will add more objects and explore different arrangements within the frame

## Differentiation

If appropriate this activity can be done with a 5 frame to begin with, moving on to a 10 frame as the child's confidence grows.

## Resources:

- Take home page S3.1
- A frame that holds 10 objects: e.g. an egg box
- Small objects such as Lego pieces.


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## Super Subitising

Aim: to identify the number of different arrangements within 10 without having to count the objects
Subitising is when someone is able to say how many objects they see without having to count. It is an essential part of developing number sense. Any frame that holds 10 objects is a good way to present different arrangements that will help develop this crucial skill.

Draw at a ten frame like the one in the picture with your child. Count how many spaces there are in the top row and in the bottom row.

Begin with 2 or 3 Lego pieces. Place them in the spaces and ask your child to tell you how many pieces they see. Encourage them to 'count with their eyes (subitise)' Move the Lego pieces around in the frame and ask:

Add more Lego pieces and explore different arrangements. Keep talking with your child about what they see.
 you see? top row and 3 on the

## You will need:

- A frame that holds 10 objects: this can be made from an egg box, twigs or simply drawn on a piece of A4 paper!
- Small objects such as Lego pieces.
 bottom. How many do we have?

If your child is not confident with numbers to 10 try making a 5 frame to begin with.


Gacsan Covats

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## Task Aim:

## To count aloud in order

## Task Description

The adult will draw a simple snake with at least 15 spaces.

The child will throw a dice or choose a number card.

The adult will support the child to count the dots on the dice and the number of spaces as they move.

The adult will make some deliberate mistakes and ask the child to correct them.

## Differentiation:

For support practise counting together.
For challenge make some deliberate mistakes and see if your child corrects you.

## Resources:

- Take home page C1.1
- A picture of a snake on a piece of paper or on the ground.
- A small object or toy that can be used as a counter.
- A dice ( or numbered cards)


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## Snake Game

> Aim: To support your child to understand that we always say numbers in the same order.

The words used for numbers are complicated as there is no recognisable pattern before 15. Count with your child every day to help them learn that the order of number words is important and always remains the same.


## Snake Game

Aim: To support your child to understand that we always say numbers in the same order
The words used for numbers are complicated as there is no recognisable pattern before 15. Count with your child every day to help them learn that the order of number words is important and always remains the same.

- Draw a snake shape with at least 15 spaces.
- Roll a dice or chose a number card to see how many moves to make. Start from the tail.
- Encourage your child to count aloud as they move their object.
- Take turns to roll the dice and move the correct number of spaces.
- Make a deliberate mistake e.g 1,2,5 and see if they correct you.


1,2,3,4,5....I'm not sure what number comes next!?

- The winner is the first to get safely beyond the smake shead. If you land on the snakes head the snake eats you!

Encourage your child to count as often as possible. Count the ducks in the pond, swings in the play park, people in a queue at the bus stop. Making deliberate mistakes makes it even more fun!

## You will need:

- Paper and pen
- A dice
- If you don't have a dice you could make number cards 1-6
- A small toy that can be used as a counter


| When counting objects understands |
| :---: | :---: | :---: |
| that the number of objects is not |
| affected by position |
| (order irrelevance) |$\quad$| Counts objects in a set recognising |
| :---: |
| that the appearance of the objects |
| has no effect on the overall total |
| within 0-10 |
| (conservation) | | Counts anything e.g. |
| :---: |
| objects at a distance/in a |
| book/sounds/claps |
| within 0-10 |
| (abstract principle) |

## Task Aim:

To count by touching or moving each individual object as they say the correct number word. This is often referred to as touch counting.

## Task Descriptor

The adult should place two containers or tubs in front of the child. One container should have up to 10 Lego pieces (or other small objects) in it.

The child should move the Lego pieces from one tub to another as they count them.

The adult must ensure that one number is attributed to every one object

## Differentiation:

Once the objects have been counted they can be put back into different container. The adult can ask: "how many are in here?" This helps reinforce cardinality and conservation of number.

## Resources:

- Take home page C2.1
- Two tubs or bowls.
- 10 Lego bricks (or any small object for counting)


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## 1:1 Lego

Aim: To help children understand that when counting objects each object must correspond to a number.
Touch counting or 1:1 correspondence is a crucial aspect of learning to count. Moving objects as they count them will help children to understand that every object must be counted once.


## 1:1 Lego

Aim: To help children understand that when counting objects each object must correspond to a number.
Touch counting or 1:1 correspondence is a crucial aspect of learning to count. Moving objects as they count them will help children to understand that every object must be counted once.

- Place up to 10 Lego blocks in a small container.
- Ask your child to count the Lego blocks by moving them one at a time into the other container saying the next number as they move them.
- Explain that every piece must be counted one time.

To start with children will count one more than one number for each piece. Help by placing your hand on top of theirs to move with them and count slowly.

Encourage your child to move other items as they count them. When they open a packet of sweets, ask them to count them as they eat them. Ask them to count and move their snacks to see how many

they have.

## You will need:

- Two small bowls or containers
- Lego pieces or other small objects that can be easily counted.

> When counting objects understands that the number name of the last object counted is the name given to the total number of objects in a set (cardinal principle)

## When counting objects understands that the number of objects is not affected by position

 (order irrelevance)Counts objects in a set recognising that the appearance of the objects has no effect on the overall total within 0-10 (conservation)

Counts anything e.g. objects at a distance/in a book/sounds/claps within 0-10 (abstract principle)

## Task Aim:

To help children understand that the last number counted is the total number of the set!

## Task descriptor:

- Adult makes cards with numbers 0-10 on them.
- Child choose a card and counts on fingers that amount.
- Child chooses what to represent that number in their "Museum" - dolls, cars etc
- Child collects said number of items and displays beside the numeral card.
- Adult asks child to count how many are there to check they have the right amount.


## Differentiation:

Count out pieces of snack during mealtimes and repeatedly ask 'How many?'

## Resources:

- Take home page C3.1
- Groups of small objects like small toys, pens, books, tins
- Number cards 0-5 or 0-10


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## The Number Museum

Aim: To help your child understand that the last number counted is the total number of the set. (Cardinality)
Knowing that the last number counted is the number of things in a group is very important skill for children to learn. Playing counting games with things you can touch and move helps children learn what numbers look and feel like.

## What to do

- Ask your child to choose a number card from the pile.
- Ask what the number is and help them count the number of fingers to match the card.
- Choose what you are going to use to represent that number in your "museum", e.g cars, blocks, dolls
- Ask your child to collect that number of chosen item.
- Ask your child to count them to make sure they have the correct number of items.
- Repeat with the other cards until you have a complete number museum.


Children love looking at pictures of things they have done. Take some photos of the number museum and look at them the following week or month and chat about it!

You will need:

- Groups of small objects like small toys, pens, books, tins
- Number cards 0-5 or 0-10



Counts anything e.g. objects at a distance/in a book/sounds/claps within 0-10 (abstract principle)

## Task Aim:

To further children's understanding in the knowledge that the order in which you count a group of objects has no effect on the overall total.

## Task Descriptor:

- Parents will draw grid patterns and with their child and try out and talk about different ways a set group of objects could be placed on the grid.
- The parent will encourage and support the child to count the objects starting with a different object each time and reinforce for the child that the total doesn't change unless you add to or take away from it.


## Differentiation:

If a child finds this straightforward the parent can begin to ask questions about what would happen to the total if 1,2,3 etc. Was added or taken away.

## Resources :-

- Take home page C4.1
- Paper and pen or chalk to draw a grid pattern;
- A small quantity of items to be placed on the grid (building blocks, Lego, cars, leaves stones etc.)


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## All ways the same

Aim: To help your child understand that the order in which you count objects does not change the number there are
Order irrelevance is an important skill for children to learn. It's when they understand that no matter where they start to count the amount will stay the same.


## All ways the same

Aim: To help your child understand that the order in which you count objects does not change the number there are.
Order irrelevance is an important skill for children to learn. It's when they understand that no matter where they start to count the amount will stay the same.

- Use small objects have fun with your child seeing how many ways you can lay them out.
- Start at a different object each time and count them to check the amount hasn't changed.
- You could draw a grid pattern on paper and see how many different designs you can make. Can you make a face? Can you make a tall tower?
- As you count them explain to your child that it doesn't matter where they start, the total(amount) will never change unless you add more or take some away.

How many stones are there in your pattern?

You can change the toys or the number of blocks and play this game for as long as your child is interested. Always making the point that the total number won't change unless you add some or take some away.

## You will need:-

- Small things to count like Lego blocks, building bricks, leaves or stones
- Pen and paper to draw a grid

Practitioner Page - DO NOT PRINT
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| :---: | :---: | :---: |
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| within 0-10 |
| (conservation) | | Counts anything e.g. |
| :---: |
| objects at a distance/in a |
| book/sounds/claps |
| within 0-10 |
| (abstract principle) |

## Task Aim:

Children need the opportunity to recognise sets of objects that are rearranged and to recognise that the total stays the same no matter how spread out or close together the objects are. This is known as conservation of number.

## Task Descriptor:

- The adult sets spoons into two rows.
- The adult and child count the spoons
- The adult then moves the spoons further apart and repeats the questions. The point is for the child to see that the total stays the same regardless of how they are presented. By seeing one row spreading out and comparing it to the row that has remained the same this will help their understanding to develop.


## Other learning opportunities:

Covering some of the spoons with a tea towel will reinforce the idea that the total does not change just because the appearance has.

## Resources:

- Take home page C5.1
- Some spoons

Glasgow's Improvement Challenge - Leaders of Early Learning Glasgow's Improvement Challenge - Leaders of Early Learning
Glasgow Counts. Learning at Home - Numeracy Early Tracker 1


Glacgav Canats


## Still the same?

Aim: To help children understand that a set of objects can be rearranged without the total changing.
Conservation is when children learn that the amount of something doesn't change if you move it about. The amount only changes when you add or take something away. This is a crucial step in learning number processes such as addition and subtraction.

- With your child set out the spoons in two rows (see the photo).
- Count the spoons and emphasise the total.
- Move or spread the spoons out so the rows look different.
- Count the spoons again.

- Have fun with your child changing the way the spoons are laid out and checking if the amount has changed. Draw their attention to the fact that the rows look different, but the total is still the same.

You could also cover up the spoons with a tea towel and ask: "How many spoons are under here?"

You will need:

- A selection of spoons

$$
\begin{aligned}
& \text { When counting objects understands } \\
& \text { that the number name of the last } \\
& \text { object counted is the name given to } \\
& \text { the total number of objects in a set } \\
& \text { (cardinal principle) }
\end{aligned}
$$

When counting objects understands
that the number of objects is not affected by position (order irrelevance)

Counts objects in a set recognising that the appearance of the objects has no effect on the overall total within 0-10 (conservation)

Counts anything e.g. bjects at a distance/in a book/sounds/claps (abstract principle)

## Task Aim:

To help children understand that anything can be counted.

## Task Descriptor:

The abstract principle means it does not matter what is being counted. We can count any objects regardless of size, colour or position. We can also count actions and things we can't touch such as aeroplanes or sounds. There are numerous opportunities to count actions, sounds or things that cannot be touched when out for a walk.
The adult should encourage the child to count passing cars, garden gates, steps or star jumps!

## Differentiation:

The adult can give the child a number and ask them to do a number of actions from a selection of jumps, claps and skips. e.g. can you do 4 star jumps?

## Resources:

- Take home page C6.1


[^0] and the world they live in

## Counting Walk

Aim: To count different objects, actions and things that cannot be touched (such as sounds or moving cars)
As they become more confident with their counting it is important that children get the opportunity to count as often as possible. This includes counting things they can't touch such as jumps, aeroplanes and sounds.

## What to do:

When out walking with your child look for opportunities to count things such as passing cars or aeroplanes


Support your child to count actions such as steps, jumps or claps. They might need reminded to slow the action down and say one number for every one action.


Having everyday conversations about maths really helps children make connections between learning and the world they live in.

Partitions quantities to 10 into 2 or more parts and recognises that this does not affect the total e.g. 6 as 3 and $3 / 2$ and 2 and 2

## Task Aim:

To help children understand that zero is represented as 0

## Task Descriptor:

- Adult makes cards with 0-10 or 0-5 depending on ability.
- Include at least 2 cards with " 0 " on them.
- Child chooses a card and chooses an action such as star jumps, pat knees, spin etc
- If a child chooses a zero card everyone has to shout "oh no! Zero!" and stands as still as a statue.
- The child could also hold up a clenched fist to represent zero fingers.


## Differentiation:

Ask the children if they can hold up zero fingers. The adult should look for opportunities to reinforce the concept that zero means there is nothing.

## Resources

- Take home page PV1.1
- Pen
- Paper





## Oh No! Zero!

Aim: To help children understand that zero means none of a particular quantity.
The idea that zero means none of a particular quantity can be tricky for children to understand as all other numbers can be represented by a quantity of things. Playing this fun game will help your child understand that zero means none.

## How to play:

- Your child chooses a card from the pack. Ask your child to choose an action, e.g. pat knees, jumping, spinning, hopping clapping.
- Everyone has to join in with the required number of actions
- If someone chooses the "O" card everyone shouts "Oh No, ZERO!" and stands as still as a statue.


## Other incidental opportunities:

At dinner time when your child has eaten all of their dinner ask them "How much dinner do you have left"? Zero!


## You will need:

- Cards with numbers 0-5 or 0-10 written on them depending on your child. Include at least 3 cards with "0" on them.


Partitions quantities to 10 into 2 or more parts and recognises that this does not affect the total e.g. 6 as 3 and $3 / 2$ and 2 and 2

## Task Aim:

This task aims to help children think about splitting a group of objects into smaller groups.

## Task Descriptor:

The adult is to ask children to help pack a group of objects into a bag.
The number of objects should not be more than 10 and the bag should have at least two sections (usually a main section and a pocket.)
The adult should count the number of objects with their child.
The adult should then ask their child to pack the bag by splitting the objects between the main section and the pocket.
The number of objects in each pocket should be counted. E.g. We have 8 things in this bag, 5 in the main part and then three in the pocket.

## Differentiation

If the bag has more sections adults could encourage their child to split the objects into 3 or 4 sub groups.

## Resources:

- Take home page PV2.1
- A group of toys or objects that fit into a bag.
- A bag with at least two sections. (If the child's school bag is appropriate it could be used as an example.)



## Pack-a-Bag

Aim: To split a group of objects into smaller groups
Children enjoy getting involved with packing and organising their toys. This activity can be done just for fun or can be part of everyday packing for Nursery or overnight visit.

This experience will help your child see a group of objects being split into two smaller groups. It helps build their understanding of addition.
Ask your child to help pack their bag.
Count out the objects that are going in the bag carefully.


Show your child the two different sections in the bag. Explain that all the objects need to be in the bag but some will go in the main section and some in the pocket.


Count how many objects are in the main section. Count how many in the pocket. Remind them of how many objects are in the bag "altogether".

Having everyday conversations about maths really helps children make connections between learning and the world they live in.

## You will need:

- A selection of objects such as toys, snacks or clothes.
- A bag that has at least two sections (usually a main section and a pocket)


## Other Incidental Opportunities:

Your child might also be interested in size and shape of the objects. What fits better where?

| Addition and Subtraction | Sorts \& classifies objects using quantity as an attribute e.g. sets of 1,2 within 0-10 | Compares 2 sets to decide which has the fewest/most within 0-10 | Finds the total when 1,2 or 3 is added to an existing amount e.g. a number line or height chart (augmentation) | Finds the total when 2 sets are added together within 0-10 (aggregation) | Finds out how many are left when 1 or 2 are taken away within 0-10 | Compares to find the difference between sets as a quantity within 0-10 | Beginning to count on and back in ones to add and subtract with objects or number line within 0-10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

$$
\begin{aligned}
& \text { Finds out how many } \\
& \text { are left when } 1 \text { or } 2 \\
& \text { are taken away } \\
& \text { within } 0-10
\end{aligned}
$$

$200_{1}^{101} 1$


## Task Aim

This task aims to help children sort objects using quantity as a label.

## Task Descriptor

The adult will need a selection of toys with 2 and 4 legs like dolls, Lego men, cats, dogs, horses etc
The adult will use paper to label two sets, " 2 legs" and " 4 legs"
The adult will describe the toy and count how many legs it has.

The child will choose which set it will go into.
The child can be supported to count out the correct number legs.

## Differentiation:

Include toys with no legs like cars and buses. Where would they go?

## Resources:

- Take home page AS1.1
- A selection of toys with 2 or 4 legs
- Paper and pen



## How many legs?

Aim: To sort toys according to how many legs they have
Sorting things with something in common into group can help children to develop a range of thinking skills and build the foundations for later problem-solving.

Have fun sorting with your child sorting their toys out into two different groups depending on whether they have 2 or 4 legs.


Having everyday conversations about maths really helps children make connections between learning and the world they live in.

## You will need:

- A selection of different toys with 2 or 4 legs
- Paper and a pen


Other Incidental Opportunities:
You can have fun sorting other things into sets. Toys could be sorted into soft or hard, food could be sorted sweet or savoury groups.

| Addition and Subtraction | Sorts \& classifies objects using quantity as an attribute e.g. sets of 1,2 within 0-10 | Compares 2 sets to decide which has the fewest/most within 0-10 | Finds the total when 1,2 or 3 is added to an existing amount e.g. a number line or height chart (augmentation) | Finds the total when 2 sets are added together within 0-10 (aggregation) | Finds out how many are left when 1 or 2 are taken away within 0-10 | Compares to find the difference between sets as a quantity within 0-10 | Beginning to count on and back in ones to add and subtract with objects or number line within 0-10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

## Task Aim:

To compare two sets to decide which has more/fewer within 0-10.

## Task Description

- The adult will scrunch up 10 pieces of paper into balls
- The child will take turns to throw the 'balls' into the basket.
- Children will say whether they got more/ fewer in the wastepaper basket than on the floor and how they know that.


## Differentiation:

For support bear in mind that children are much more familiar with more than fewer.

For challenge you may want your child to record who wins each round using tally marks.

## Resources:

- Take home page AS2.1
- Paper which you intend to recycle.
- Wastepaper basket.



## Basketball

Aim: To compare two sets of objects and explore what more and fewer mean
Many children enjoy trying to hit a target or throw a ball into a hoop or basket. Comparing how many objects land in the basket, with how many that don't can help develop your child's understanding of quantities.

## You will need:

- Paper you intend to recycle.
- Two wastepaper baskets or cardboard boxes.


Look for other opportunities to compare amounts for example when tidying up or during mealtimes
basket than on the floor? What makes

How many are on
Do you think you got more balls in the
you say that?
the floor?

- Make 10 paper balls using paper for recycling.
- Ask your child to throw the balls into the basket.
- Compare the number of balls that land in the basket to the number that landed on the floor.



| Addition and Subtraction | Sorts \& classifies objects using quantity as an attribute e.g. sets of 1,2 within 0-10 | Compares 2 sets to decide which has the fewest/most within 0-10 | Finds the total when 1,2 or 3 is added to an existing amount e.g. a number line or height chart (augmentation) | Finds the total when 2 sets are added together within 0-10 (aggregation) | Finds out how many are left when 1 or 2 are taken away within 0-10 | Compares to find the difference between sets as a quantity within 0-10 | Beginning to count on and back in ones to add and subtract with objects or number line within 0-10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

## Task Aim

To add 1,2 or 3 objects to an existing set and find the total number of objects.

## Task Descriptor

The adult will arrange teddies (or other toys of interest) as if having a picnic.

The adult will count the number of teddies at the picnic with the child.

1,2 or 3 more teddies will join the picnic and the child will find the total.

## Differentiation

The child could give the correct number of plates or cups to the toys.
As another teddy is added the child can add plates and/or cups to the picnic blanket.

## Resources:

- Take home page AS3.1
- A selection of teddies or character toys of interest.
- A tea towel or picnic rug

| Glasgow's Improvement Challenge - Leaders of Early Learning Glasgow Counts. Learning at Home - Numeracy Early Tracker 1 |  |
| :---: | :---: |
| Teddy Bear Picnic <br> Aim: To find the total number of teddies when 1,2 or 3 more arrive for a picnicl |  |
| Once children are confident in counting groups of objects and they know that the last number they say is the total of a set they can begin to explore addition. The best way to teach children addition is to use real life objects that they are familiar with. |  |
| Arrange 3 teddies (or other toys your child enjoys playing with) in a space as if they are enjoying a picnic. <br> Ask your child to count how many teddies there are. Emphasise the total number. <br> Introduce one more teddy: <br> Repeat with two more teddies Emphasise that by adding more teddies the total number has changed. | You will need: <br> - A selection of teddies or other character toys that your child enjoys playing with. <br> - A tea towel to use as a picnic blanket. |
| Two more teddies <br> How many teddies are coming to the do we have now? picnial <br> I wonder how many teddies are here nowl |  |
| You can extend this by adding plates or cups to correspond with the total number of teddies. Try to use the words "add" "more" "make" "plus" and "altogether". |  |

## Teddy Bear Picnic

Aim: To find the total number of teddies when 1, 2 or 3 more arrive for a picnic!
Once children are confident in counting groups of objects and they know that the last number they say is the total of a set they can begin to explore addition. The best way to teach children addition is to use real life objects that they are familiar with.

Arrange 3 teddies (or other toys your child enjoys playing with) in a space as if they are enjoying a picnic.

Ask your child to count how many teddies there are. Emphasise the total number.
Introduce one more teddy:
Repeat with two more teddies Emphasise that by adding more teddies the total number has changed.

Two more teddies are coming to the picnic!

You can extend this by adding plates or cups to correspond with the total number of teddies. Try to use the words "add" "more" "make" "plus" and "altogether".

## You will need:

- A selection of teddies or other character toys that your child enjoys playing with.
- A tea towel to use as a picnic blanket.


| Finds the total when |
| :---: | :---: | :---: |
| 1,2 or 3 is added to an |
| existing amount e.g. a |
| number line or height chart |
| (augmentation) |$\quad$| Finds the total when |
| :---: |
| 2 sets are added together within |
| $0-10$ (aggregation) |$\quad$| Finds out how many |
| :---: |
| are left when 1 or 2 |
| are taken away |
| within 0-10 |

Compares to find the difference between sets as a quantity within 0-10

Beginning to count on and back in ones to add and subtract with objects or number line within 0-10

## Task Aim :-

To begin to find the total when two sets are added together

## Task descriptor :-

- The adult and child should share a small bundle of fruit between them.
- The parent and child should count together how many pieces each has.
- The parent and child should lay out all the fruit in one straight line and count together to find a total.
- This can be repeated with different quantities and different resources.
- Adult should emphasise "how many" "total" and "altogether".


## Differentiation:

Once a child is confident in this, they can be encouraged to "count on" starting from the total in one set and adding the second quantity.

## Resources:

- Take home page AS4.1
- Any small quantity of easily manipulated fruit such as grapes, strawberries, orange segments.



## Addition

Aim: To begin to find the total when two sets are added together
Once children have learned how to count and understand the last number they say tells how many there are, they can begin to add two different sets together to find a new total. This experience will give your child the opportunity to explore addition through an everyday experience.

## What to do

- When sharing a snack with your child, share small quantities of fruit between you and your child. You don't have to have the same amount.
- Count aloud how many you have and help your child
 as they count their fruit. Encourage them to move each piece as they count.
- Ask your child "I wonder how many there are all together?" and listen to their reply.
- "What about if we put your fruit and my fruit together in a row to count them?"
- Lay the two sets together in one row.
- Support and encourage your child to count them all to find the total.

- Why not eat one piece each and try again to see if the total is different?
- You can repeat with other quantities or other objects.

You can add anything! Buttons, clothes pegs, socks, toys and books are all great for addition. Try to use the words "add" "more" "make" "plus" and "altogether" everyday!

## You will need :-

- 10 small pieces of any fruit (grapes, blueberries, strawberries, orange segments etc.)


| Finds the total when <br> 1,2 or 3 is added to an <br> existing amount e.g. a <br> number line or height chart <br> (augmentation) | Finds the total when <br> 2 sets are added together within <br> $0-10$ (aggregation) |
| :---: | :---: |

```
Finds out how many
are left when 1 or 2
    are taken away within 0-10
```

Compares to find the difference between sets as a quantity within 0-10

Beginning to count on and back in ones to add and subtract with objects or number line within 0-10

## Task Aim:

To find the total left in a set when objects are taken away.

## Task Descriptor

- The adult will line up 10 coins on top of a box.
- Children and adults will take turns to flick coins onto the floor.
- As each coin is flicked onto the floor, children will count how many are left.
- Children will also express how many coins have already been flicked.
- Children and adults will discuss the decreasing and increasing amounts.


## Differentiation:

For support add and takeaway within 0-5.
For challenge add or take away 2.

## Resources:

- Take home page AS5.1
- 10 coins or counters
- A box



## Coin Flick

Aim: To explore how many objects are left when 1 or 2 are taken away.
This is a simple way of introducing taking away using familiar objects. Games that involve counting real life objects will build your children's understanding of addition and subtraction.

## What to do:

- Invite your child to count out ten coins and line them up on top of a box.
- Take turns to flick the coins off the box onto the floor.
- Talk about the fact that as you flick one coin and have one less on the box there is one more on the floor.


Look for everyday opportunities to take away and count objects such as when tidying up or during mealtimes. such as when tidying up or during mealtimes.

## You will need:

- Up to 10 coins.
- A cardboard box

| Finds the total when |  |
| :---: | :---: |
| 1,2 or 3 is added to an |  |
| existing amount e.g. a |  |
| number line or height chart |  |
| (augmentation) |  | | Finds the total when |
| :---: |
| 2 sets are added together within |
| $0-10$ (aggregation) |

Finds out how many
are left when 1 or 2
are taken away
within 0-10

Compares to find the difference between sets as a quantity within 0-10

Beginning to count on and back in ones to add and subtract with objects or number line within 0-10

## Task Aim:

This task helps children develop their understanding of the difference between two sets of objects.

## Task Descriptor:

The adults will need 10 small wooden blocks that can be stacked on top of each other.

A timer will be set for 5 seconds and both the adult and the child try to build a tower with the blocks before time runs out.
The tallest tower wins and the adult needs to draw attention to the difference between the towers.
"How many more blocks does your tower have?" or "Which tower has the fewest blocks?" "What is the difference between the towers?"

## Differentiation:

The numbers of blocks used could increase.
The total number of blocks could be written on a post it and placed next to the tower.

## Resources:

- Take home page AS6.1
- 10 small wooden blocks or toys that can be stacked




## 5 second Tower Challenge!

Aim: To compare amounts and find the difference between two sets of objects
This experience helps your child compare amounts and see the difference between two sets of objects. This will help your child develop understanding of subtraction.

## What to do:

Gather a pile of wooden blocks that can be stacked on top of each other.
Set a timer on your phone for 5 seconds (or more depending on your child's needs).
 In those 5 seconds you both try to build a tower as quickly as possible. The tallest tower wins.
Make sure the towers are built next to each other so you can compare them easily.
Count the number of blocks in each tower and draw your child's attention to the difference between them.


Many children will be fascinated with the timer. Encourage them to count down or use the timer for other challenges!

## You will need:

- Wooden blocks
- A timer, such as one found on most phones.


| Finds the total when <br> 1,2 or 3 is added to an <br> existing amount e.g. a <br> number line or height chart <br> (augmentation) | Finds the total when <br> 2 sets are added together within <br> $0-10$ (aggregation) | Finds out how many <br> are left when 1 or 2 <br> are taken away <br> within 0-10 |
| :---: | :---: | :---: |

> Compares to find the difference between sets as a quantity within 0-10

Beginning to count on and back in ones to add and subtract with objects or number line within 0-10

## Task Aim:

When adding groups of objects together children usually start counting from 1. The aim of this task is to encourage children to "count on" from a given number by jumping along a number line and finding the total.

## Task Description

The adult will create a simple number line by writing numbers 0-10 on paper and securing them to the floor with sticky tape.
The child will start on any given number
The adult will then add one jump.
The adult will reinforce and repeat e.g. 3 add 1 equals 4.

It is important for the adult to continually represent the numbers they say using their fingers.

This activity can also be used to explore subtraction by asking the child to jump back on the number line.

## Resources:

- Take home page AS7.1
- Paper with numbers 0-10 written on them. (Alternatively, if there is an outdoor space numbers 010 could be written on the ground with chalk.)


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## Number Line Addition

Aim: To count on in ones using a number line.


## Number Line Addition

Aim: To count on in ones using a number line.
When beginning to add groups of objects together children typically count all objects starting from 1.
This activity will show them how to 'count on' from a given number which is a crucial step in developing their addition and subtraction skills.

## What to do:

Write numbers 0-10 on paper and secure them to the floor.
Choose a number and ask your child to stand on that number e.g. 3
Tell your child you're going to add 1 jump. Show them 3 fingers and then add 1 more. Ask your child to jump to 4.
Explain that this means 3 add 1 equals 4.


This activity could also be used to explore subtraction. Ask your child to jump back on the number line. Use the words 'take away' and 'subtract' and reinforce this by using your fingers!

## You will need:

- Numbers 0-10 on paper secured to the floor.



## Multiplication

 and DivisionShares out a group of items into 2 equal sets within 0-10.
Groups objects into matching or natural sets of 2 e.g. shoes within 0-10

Begin to identify halves and doubles using concrete materials within 0-10

## Task Aim:

To help young children share out items into their natural sets e.g. socks, shoes, gloves

## Task Descriptor:

- The adult should gather some pairs of different patterned or coloured socks.
- The child will sort out the socks into their natural pairs using the pattern or the colour of the sock.
- The child can then count how many pairs of socks they have made.


## Differentiation:

This activity can easily be repeated with shoes, wellies or gloves.

## Resources:

- Take home page MD 1.1
- A selection of patterned socks




## Matching Socks

Aim: to group objects into natural sets of 2
This activity helps to cut down the number of odd socks we all have in our homes! It also develops the crucial skill of sorting objects into groups which is an important aspect of early multiplication.

## What to do:

- Separate the pairs of socks and put them in a tub or basket.
- Ask your child to pair the socks up using either colour or pattern. They can peg them together or simply place next to each other.
- Ask your child to count the number of pairs they have made.


This could also be done with other items such as shoes or gloves which have a natural set and will divide into pairing of 2 !

You will need:

- Up to 10 pairs of socks.
- Floor space, basket or washing line



## Multiplication

and Division

Shares out a group of items into 2 equal sets within 0-10. Groups objects into matching or natural sets of 2 e.g. shoes within 0-10

Begin to identify halves and doubles using concrete materials within 0-10

## Task Aim :

To begin to explore the concept of doubles using concrete materials to visually represent an amount and its double.

## Task Descriptor:

The adult suggests to the child that the toy is being greedy and wants "double" the amount of food that the child has.

- Adult explains "We add the same number on again to make a double."
- The child is provided with a quantity of fruit (or other resources) laid in a row.
- The adult supports the child to provide the puppet with double by laying an equivalent row of fruit and with a second equal row beside the toy to make double.
- The adult should emphasise "double is adding the same number on again".
- This experience can then be repeated with different amounts and different resources.


## Differentiation

Once children are confident with doubling, the game could be changed so that the toy wants half the amount and the child should be supported to find half.

## Resources:

- Take home page MD2.1
- A small quantity of fruit
- A puppet or soft toy
- Other resources for sharing



## Doubles

Aim: To explore what double an omount of objects looks like
Children can learn about halves and doubles as part of the sharing and grouping process. These are the early stages of being able to multiply and divide. This experience will give your child the opportunity to explore doubling in a playful and fun way.

## What to do

- Give your child two pieces of fruit and place them in a row.
- Explain that the greedy toy want double the amount of food that they have.
- Add a second row below for the toy to represent double. Count with your child to see how many the toy wants altogether
- Emphasise that doubling means the same amount again.
- Repeat with other amounts.


Encourage your child to use their fingers to represent the amounts when counting as this helps them to make connections between a quantity and double the amount.

## You will need :-

- A small quantity of fruit
- A soft toy or puppet
- Other things to share (toys or food or household items)


| Fractions, <br> Decimals and <br> $\underline{\%}$ | Identifies wholes and halves in a social <br> context and uses appropriate language <br> e.g. 'I have eaten half of my banana' | Splits a whole into smaller parts <br> and explains that equal parts are the same size | Understands that a whole <br> can be shared equally and unequally |
| :---: | :---: | :---: | :---: |

## Task Aim:

To familiarise the child with the words: "whole" and "half" in everyday situations.

## Task Description

Snack, time is the perfect opportunities to develop children's understanding of wholes and halves.

The adult should present the child with a slice of toast, a round biscuit and a banana. Different shaped objects are used to illustrate that a 'half' is not always the same shape.

The adult will ask the child if they want a whole biscuit or half a biscuit?

## Differentiation

The children could be given the whole snack and asked for it to be split or cut in half.

## Resources:

- Take home page FDP1.1
- A selection of different shaped snacks.




## Snack fractions

Aim: To understand what is meant by the terms 'whole' and half 'mean'.
Lots of real-life experiences are needed to help children build an understanding that fractions are created when a whole object is divided into equal parts. This activity ensures children know what is meant by the terms 'whole' and 'half'. This will be invaluable when learning fractions at school.

## What to do:

Present your child with a slice of toast, a round biscuit and a cereal bar. Using a variety of objects ensures your child will understand that halves can be different shapes.


Hold up or point to the whole piece when saying whole and one half when saying half. Repeat with the other snacks.

Look for other opportunities for your child to split objects in half themselves. For example sticks and leaves from the park.

Having everyday conversations about maths really helps children make connections between learning and the world they live in.

## You will need:

- A selection of snacks


| $\frac{\begin{array}{c} \text { Fractions, } \\ \text { Decimals and } \end{array}}{\underline{\%}}$ | Identifies wholes and halves in a social context and uses appropriate language e.g. 'I have eaten half of my banana' | Splits and explains |
| :---: | :---: | :---: |
| Task Aim: |  |  |
| To join two halves to make a whole and explain that equal |  |  | halves must be the same size.

## Task Descriptor.

The adult will cut out shapes from paper or card.
The adult will cut the shapes in half.
The child will manipulate the halved shapes in order to find the whole.
The adult will explain that halves must be the same size.

## Differentiation:

Different shapes such as stars could ovals could be used to add challenge.

## Resources:

- Take home page FDP2.1
- Paper or card cut into shapes



## Shape Match

Aim: To match the two halves of a simple shape.
It is important for children to know that an object is halved by cutting it into equal sized pieces. Those two pieces must be equal in size. This is a simple matching game to build this understanding.

## What to do:

Cut out a selection of simple shapes from paper or card. You'll need a triangle, a circle and a square.
Cut these shapes in half.
Encourage your child to move the shapes around and try to put the halves together.
Explain that two different sized pieces don't match as halves mus $\dagger$ be the same size.


Try adding different shapes such as stars to add to the challenge!

## You will need:

- Paper or card cut into a triangle, a circle, a square and a rectangle.


| Fractions, <br> Decimals and <br> $\underline{\%}$ | Identifies wholes and halves in a social <br> context and uses appropriate language <br> e.g. 'I have eaten half of my banana' | Splits a whole into smaller parts <br> and explains that equal parts are the same size | Understands that a whole <br> can be shared equally and unequally |
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## Task Aim:

This task gives children the opportunity to develop their understanding of the terms "half", "equal" and apply it to parts of a "whole".

## Task Descriptor :

When preparing a sandwich with their child the adult will ask them to cut the sandwich in half.

- The adult will compare the two parts of the sandwich. It is unlikely that the two parts will be equal so this creates an opportunity to discuss what this means.
- The adult will demonstrate to child the difference between the two by placing the two parts on top of each other.
- The adult will then cut another sandwich in half equally and place the two halves on top of each other to show that they are the same size.
- The adult will emphasise the word "equal" and explain that this means 'the same'


## Differentiation :

This could be differentiated by cutting a sandwich into quarters.

## Resources:

- Take home page FDP3.1
- 2 sandwiches (toast, rolls, cakes etc. will also work)
- a knife that a child is able to use safely



## Split a Sandwich

Aim: To develop their understanding of the terms "half", "equal" and apply it to parts of a "whole".
Young children start to learn about fractions through everyday experiences. Start exploring this by splitting a whole into smaller parts and chatting about the sizes of the smaller parts. You don't have to worry about learning $\frac{1}{2}$ means a half.

## What to do:

When preparing a sandwich with your child ask them "Can you cut your sandwich in half?"


Compare the two parts of the sandwich. It is unlikely that the two parts will be equal, so this creates an opportunity to discuss what this means.

Do you think that your parts are the same size? Why?

Show your child the difference by placing

Equals means the same size
the two parts together.

## You will need:

- 2 sandwiches (toast, rolls, cakes etc. will also work)
- a knife that a child is able to use safely


Remember to emphasise the word "equal" and explain that this means 'the same'.


Having everyday conversations about maths really helps children make connections between learning and the world they live in.


[^0]:    Having everyday conversations about maths really helps children make connections between learning

