



Glasgow Counts: Learning at Home:



Early Level



Next slide

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 <u>here</u>.
- 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.

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.



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.

Can you find me the number 4?

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

Navigate to home

page

Glasgow's Improvement Challenge - Leaders of Early Learning

Glasgow Counts. Learning at Home – Numeracy Early Tracker 1



				Early Level Tracker 1											
E	stima Rour	ition & iding	K estimat	nows tes by	they can check counting within <u>E1</u>	n 0-10		Can apply : the nu	subit Imbe	ising skills r of items <u>E2</u>	to estimate in a set	2	Uses the language of estimation, including more than, less than, fewer than and the same E3		
E	1	vord seq.	Say short forward and backward number word sequences within 0-10 <u>No1</u>			Uses ordinal numbers in real life contexts e.g. I am first/second/third in the line' <u>No2</u>			xts :'	Recalls the number sequence forwards and backwards within 0-10 No3					
Number Structu		Numerals	Recognise numerals e.g. Identify (name) points to the number from 0-10 <u>N1</u>		numerals e.g. can stion 'what is that '' from 0-10 <u>N2</u>	Expla is rep	ains zero presented as 0 <u>N3</u>	Or	rders num and ba with	erals forwa ickwards in 0-10 <u>N4</u>	rds	Identifies num numbers in a sec use the languag	nber before quence wit ge before, a <u>N5</u>	e, after and missing hin 0-10; beginning to after and in-between	
ing, Quantities &		Subitising	Identifies 'how many?' in regular dot patterns e.g. dot arrangement/on fingers/five frames/10 frames/dice without counting up to 6			ldenti de	entifies 'how many?' in irregular dot patterns e.g. dot arrangement/on fingers/five frames/10 frames/dice without counting up to 6 <u>\$2</u>			Represents amo e.g.dot arrang 10 frames/d	Represents amounts in different arrangements e.g.dot arrangement/on fingers/five frames/ 10 frames/dice without counting up to 6 \$3				
ireness of Number – Counti	counting		When counting objects understands the order in which we say the numbers is always the same (stable order) C1.1-3		one item when word is said (1-to- pondence) <u>C2</u>	When unde numbe obje name numb set (c	n counting obj erstands that t er name of the ect counted is t given to the t ber of objects cardinal princij	ects the e last the total in a ple)	When under number affect (orde	counting ob stands that r of objects ted by posit er irrelevan <u>C4</u>	ijects the is not tion ce)	Counts objects recognising t appearance of t has no effect overall total wi (conservat	s in a set hat the he objects on the ithin 0-10 tion)	Counts anything e.g. objects at a distance/in a book/sounds/claps within 0-10 (abstract principle) <u>C6</u>	
Awa		Place Value	Explains t	hat ze	ero means there <u>P</u>	is none of a partic <u>/1</u>	ular qu	ular quantity Partitions quantities to 10 in not affect the t			to 2 or more parts and recognises that this does total e.g. 6 as 3 and 3/2 and 2 and 2 PV2				
Addition and Subtraction		on and action	Sorts & classifies objects using quantity as an attribute e.g. sets of 1, 2 within 0-10 <u>AS1</u>	Com dec the v	pares 2 sets to ide which has fewest/most vithin 0-10 <u>AS2</u>	Finds the total wi 1,2 or 3 is added t existing amount e number line or he chart (augmentat <u>AS3</u>	hen to an t.g. a tight tion)	Finds the total when a a g, a ght on) Finds the total when 2 sets are added together within 0-10 (aggregation) AS4		Finds out H are left wh are take within AS	now mar nen 1 or n away 1 0-10	Compares to difference l sets as a quar 0-10	o find the between ntity within 0	Beginning to count on and back in ones to add and subtract with objects or number line within 0-10 <u>AS7</u>	
Multiplication and Division		ication vision	Shares out a group of items into 2 equal sets wir Groups objects into matching or natural sets of 2 e.g. s <u>M&D1</u>			thin 0-: hoes w	hin 0-10. Begin to identify haves and doubles using concrete materials within <u>M&D2</u>			terials within 0-10					
D	Fra t ec	ions, Is and 6	ldentifies wholes a appropriate languag	and ha ge e.g	alves in a social g. 'I have eaten f F <mark>D%1.1-3</mark>	context and uses half of my banana'	Splits	Splits a whole into smaller parts and explains that equal parts are the same' <u>FD%2.1-2</u>			Understands that a whole can be shared equally and unequally <u>FD%3.1-2</u>				

Organisers

Click the links to take you to the experiences for that box

Glasgow's Improvement Challenge - Leaders of Early Learning

Glasgow Counts. Learning at Home – Numeracy Early Tracker 1

Organiser





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



Glasgow Counts: Learning at Home Early Level



Glasgow's Improvement Challenge - Leaders of Early Learning

Glasgow Counts. Learning at Home – Numeracy Early Tracker 1



Glossary of terms (1)

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. Next slide

Glasgow's Improvement Challenge - Leaders of Early Learning

Glasgow Counts. Learning at Home – Numeracy Early Tracker 1



Glossary of terms (2)

Number/ Numeral identification	When shown a number, say which number it is e.g. what number is this?	Place value	The relative value of different digits within a number. It is the position of a digit within a number that determines what value that digit represents. The use of zero as an empty place value holder is important.
Number/ Numeral recognition	In a group of numbers, find the requested number e.g. where is the 3?	Partitioning	To split a number into its component parts. This is useful when performing mental calculations. It is important to partition numbers in a variety of ways, not simply into tens and ones
1-1 correspondence	When counting, each object must be counted only once and as the number name is identified.	Sharing	In the context of division, sharing is splitting a quantity into a number of equal/unequal shares.
		Subtraction	To take one quantity away from another.
Ordinal numbers	These describe a position in an ordered set e.g. first, sixth	Sum	The result of adding two or more numbers.
Part-part-whole	The process of splitting numbers into parts, such as splitting 8 into 6 and 2. This allows learners to see the relationship between a number and its component parts. This can result in learners making connections between addition and subtraction.	Subitising	Recognising a quantity without counting.
Pictorial (representations)	Visual diagrams such as dots, number lines and grids to develop an understanding of numerical and mathematical concepts.	Stable Order	When counting objects, the order in which numbers are said is always the same.

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

Number Progression Pathways: Early Level

Tracker 2

Estim Ro	ation and unding	Knows they can check Uses the l estimates by counting within 0-10 including Can apply subitising skills to estimate the number of items in a set		language of estimation, g more than, less than, r than and the same	Checks estimates b	y counting	Demonst	rates skills of estimation in the context of number	
r Structure	No. word sequences	Say short forward and backward number word sequences within 0-10	Uses ordinal nu real life cou e.g. I am first/ third in the	umbers in ntexts 'second/ e line'	Recalls the number sequence forwards and backwards within 0-10	Recalls the Nu t Orders r Identifies the nur	mber sequence forv to at least 20, from a numbers forwards & nber before, after a	vards and back ny given numb backwards to nd missing nun	wards, from zero per. at least 20. nbers in a sequence.
ss of Number – Counting, Quantities & Numbe	Numerals	Explains that zero is represented by the numeral '0' Orders numerals forwards and backwards within 0-10 Identifies number before, after and missing numbers in a sequence within 0-1 beginning to use the language before, after and in-between				Recognises number names and numerals to at least 20. Orders numbers forwards & backwards within the range 0-20. Identifies the number before, after and missing numbers in a sequence.			
	Subitising	Identifies and represer arrangements e. 10 fram	nts regular and i g.dot arrangeme nes/dice withou	rregular do ent/on fing t counting	ot patterns in different ers/five frames/ up to 6	Identifies 'how many?' in regular & irregular dot patterns, arrays, five frames, ten frames and dice without having to count – SUBITISING.			
	Counting	Uses the 5 principles of counting to count objects within 0-10 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 number of objects to a Uses ordinal numbers in rea	to count a given t least 20. al life contexts.	tven Counts in jumps (skip counts) in 2s, 5s and 10s and begins to use this as a useful strategy ts. to find how many in a larger group.	
Awaren	Place Value	Explains that zero Partitions qu recognises that this does	means there is antities to 10 in not affect the t	none of a p to 2 or mo otal e.g. 6	particular quantity re parts and 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 a Sorts, classifies have t Beginning to cou with ob	decide which ha partitions, orde he same and dif nt on and back bjects or numbe	s the fewe rs and com fering qua in ones to a r line with	st/most within 0-10 npares sets that ntities add and subtract in 0-10	Counts on and back in ones to demonstrate understanding of addition and subtraction.	appropriately the n symbols +, -,	hathematical =.	Links number families when explaining mental strategies for addition & subtraction. Solves simple missing number equations, for example, 3 + • = 10. Uses a range of strategies to add and subtract mentally to at least 10.
Multi and	iplication 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.			Doubles numbers to a total of at least 20.
Fractions, Decimals and %		begin to identify haves and doubles using concrete materials within 0-10 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 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

Esti R	imation & ounding	K estimat	ínows tes by	they can check counting withir <u>E1.1</u>	า 0-10	Can apply subitising skills to estimate the number of items in a set <u>E2.1</u>				to estimate in a set	Uses the language of estimation, including more than, less than, fewer than and the same <u>E3.1</u>		
	No. word seq.	Say short f word	orwa d seq	rd and backward uences within 0- <u>No1.1</u>	l number 10	Uses ordinal numbers in real life contexts e.g. I am first/second/third in the line' <u>No2.1</u>			Recalls the number sequence forwards and backwards within 0-10 No3.1				
Number Structure	Numerals	Recognise numerals e.g. Identify (name) points to the number from 0-10 <u>N1.1</u>			numerals e.g. can stion 'what is that '' from 0-10 <mark>12.1</mark>	Expl is re	lains zero presented as 0 <u>N3.1</u>	Orde	ers num and ba with <u>N</u>	erals forwards ickwards in 0-10 <mark>4.1</mark>	lde numt use	entifies number before bers in a sequence with the language before, a <u>N5.1</u>	, after and missing hin 0-10; beginning to fter and in-between
ing, Quantities &	Subitising	Identifies 'how many?' in regular dot patterns e.g. dot arrangement/on fingers/five frames/10 frames/dice without counting up to 6 <u>\$1.1</u>			Identifies 'how many?' in irregular dot patterns e.g. dot arrangement/on fingers/five frames/10 frames/dice without counting up to 6 <u>S2.1</u>			Repi e.g 1	Represents amounts in different arrangements e.g.dot arrangement/on fingers/five frames/ 10 frames/dice without counting up to 6 <u>S3.1</u>				
/areness of Number – Counti	Counting	When counting objects understands the order in which we say the numbers is always the same (stable order) <u>C1.1</u>		Touch counts each number 1 corres	one item when word is said (1-to- pondence) 2 <mark>2.1</mark>	Whe und numl obj nam num set	en counting object derstands that the ber name of the la ect counted is the re given to the tot nber of objects in (cardinal principle <u>C3.1</u>	tts e ast e tal a e)	When under number affec (orde	counting objects stands that the r of objects is not ted by position er irrelevance) <u>C4.1</u>	Co re appe ha ove	Counts objects in a set recognising that the appearance of the objects has no effect on the overall total within 0-10 (conservation) <u>C5.1</u> Counts anything objects at a distance/in a book/sounds/cla within 0-10 (abstract princip	
Aw	Place Value	Explains that zero means there is none of a parti- <u>PV1.1</u>				ular quantity Partitions quantities to 10 in not affect the t			to 2 or more parts and recognises that this does total e.g. 6 as 3 and 3/2 and 2 and 2 PV2.1				
Addition and Subtraction		Sorts & classifies objects using quantity as an attribute e.g. sets of 1, 2 within 0-10 <u>AS1.1</u>	Com dec the	pares 2 sets to ide which has fewest/most within 0-10 <u>AS2.1</u>	Finds the total wi 1,2 or 3 is added t existing amount e number line or he chart (augmentat <u>AS3.1</u>	hen co an e.g. a eight ion) Finds the total 2 sets are added t within 0-10 (aggro <u>AS4.1</u>		tal wh ed tog ggreg . <u>1</u>	hen gether gation)	Finds out how many are left when 1 or 2 are taken away within 0-10 <u>AS5.1</u>		Compares to find the difference between ts as a quantity within 0-10 <u>AS6.1</u>	Beginning to count on and back in ones to add and subtract with objects or number line within 0-10 <u>AS7.1</u>
Multiplication and Division		Shares out a group of items into 2 equal sets wit Groups objects into matching or natural sets of 2 e.g. sh <u>M&D1.1</u>				hin 0: noes	hin 0-10. Oes within 0-10 Begin to identify halves and doubles using concrete materials within 0-10 <u>M&D2.1</u>				erials within 0-10		
Fractions, Decimals and %		Identifies wholes a appropriate languag	and ha ge e.	alves in a social g. 'I have eaten l FDP1.1	context and uses nalf of my banana'	Spli	Splits a whole into smaller parts and explains that equal parts are the same' FDP2.1			and explains that same'	Understands that a whole can be shared equally and unequally FDP3.1		

Practitioner Page – DO NOT PRINT

Numeracy: E1.1

Glasgow's Improvement Challenge - Leaders of Early Learning



Estimation & Rounding	Knows they can check estimates by counting within 0-10	Can apply subi the numbe	tising skills to estimate er of items in a set	Uses the language of estimation, including more than, less than, fewer than and the same				
Task Aim To estima Task Des Child Child The a Child with	: ate how many objects are in a jo criptor : ren will guess how many things ren will verbally tell the adult t children will then count to chec ren will discuss which estimate the adult.	or. 5 are in the jar. he guess. k their estimate. s were the closest	 Resources: Take home page E1 Clear plastic jar Pasta, sweets, sma daily Post it notes Number line 	L.1 Il toys, natu	of Early Learning			
			Glasgow Counts. Learning at Home – Numeracy Early Iracker 1 Estimation Station Aim: your child will be encouraged to estimate (guess) how many things are in a jar. Children often enjoy guessing 'how many there are and then counting to see who is right. They can get excited by big numbers! Doing the activity below regularly using different sized items will help support your child with estimation.					
Different	iation		Provide a clear jar with a number of objects in it Start by filling the jar with up to 10 things that i a big jar with really small things will give the child who have summary last little	and change daily. nterest your child. Filling dren the experience of	 A clear jar A variety of objects e.g. buttons, coins, 			
Choose t child is at	he size of object to provide nun	nber range the	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.					
• For c recor	hallenge: use smaller objects a d the number.	nd the child can	 Record the estimate on a post-it (let your child do it if they want to), point to the number on a number washing line or let your child verbally guess and you can record. 					
• For support: use larger objects and the child can point to the number on a number line.			 3. Count the items and check the exact number. 4. Discuss and order who had the closest estimate/guess. 					





Estimation Station

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.



Practitioner Page – DO NOT PRINT

Numeracy: E2.1

Glasgow's Improvement Challenge - Leaders of Early Learning



Estimation & Rounding	Knows they can check estimates by counting within 0-10	Can apply subit the numbe	tising skills to estimate er of items in a set	Uses the language of estimation, including more than, less than, fewer than and the same			
Task Aim To embed estimatio Task Desc The adult and ask the	: I children's subitising skills and ns. criptor . will place a small number of b ne child to estimate the amour	apply them to locks into a box nt. It should be	 Resources: Take home page E2.1 Wooden blocks (or any other small, easily counted objects) A box 				
The adult has estim The adult with their	should hold up the number of ated and repeat the number. will ask the child to show ther fingers.	fingers the child n the number	Glasgow's Improvement Challenge - Leaders of Early Learning Glasgow Counts. Learning at Home - Numeracy Early Tracker 1 Image: Counce Challenge - Leaders of Early Learning E2.1 Estimation box Image: Counce Challenge - Leaders of Early Tracker 1 Aim: To encourage your child to use their subitising skills to estimate 'how many?' Image: Counce Challenge - Leaders of Early Learning Estimation box Image: Counce Challenge - Leaders of Early Learning Image: Counce Challenge - Leaders of Early Learning Estimation box Image: Counce Challenge - Leaders of Early Tracker 1 Image: Counce Challenge - Leaders of Early Tracker 1 Estimation box Image: Counce Challenge - Leaders of Early Tracker 1 Image: Counce Challenge - Leaders of Early Tracker 1 Choose some small objects such as wooden blocks. You will need:				
by remov	ing them one by one.	count the objects	Place them into a small box and ask you to have a quick look before estimating amount. (Explain that estimating is havi really good quess.)	r child the How many blocks do you see?	 A selection of countable objects such as blocks. (buttons or seashells would also work) A small box or plastic tub. 		
Differenti Children o between	ation could be supported to work ou their estimate and their calcula	t the difference ation.	Ask your child to confirm their estimat by showing the number with their finge Count the numbers of objects with your Remember to celebrate their estimate right amount. Other incidental opportunities: Point out the 'difference' between the o Is it more or less than their estimate?	e rs. ro. hild. even when it's not the estimate and the actual amou	unt.		







Is it more or less than their estimate?

Practitioner Page – DO NOT PRINT

Glasgow's Improvement Challenge - Leaders of Early Learning









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.



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

Practitioner Page – DO NOT PRINT Glasgov Solution Glasgov Numeracy: No1.1 Glasgov	v's Improvement Challeng w Counts. Learning at Hom	ge - Leaders of Early Lean ne – Numeracy Early Track	rning ker 1	Disput Courts A transaum for Medianums:		
Say short forward and backward number word sequences within 0-10	Uses ordinal numbers e.g. I am first/secon	s in real life contexts d/third in the line'	Recalls the number and backwar	r sequence forwards ds within 0-10		
 Task Aim: To practice short forwards and backweet 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 	vards number per. mber. or after a given	Resources: • Take home page No1.1 • A homemade rocket e.g. a plastic bottle, some paper and some tape. Image: State of the state of				
Differentiation:		 Count backwards when pretending if with rockets. With your child: count forwards from 0-10 (or 0-launchpad. count backwards from 10-0 (or 5-blast off remembering to say ze Repeat, but suggest starting at a diforwards/backwards from that num Let's try counting backwards from 6 while 	-5) as the rocket moves to the 5-0) as the rocket prepares for ro then blast off. fferent number and counting iber. wonder in number	 A rocket (can be made using a plastic bottle or a cardboard tube from kitchen roll Tape or glue Alternatively go to your local park and your child can pretend to be a rocket. 		
For support start with plenty of practice for backwards 0-5 For challenge listen for missing numbers for backwards.	orwards and orwards and	Let's try counting come forwards from 4 Children love spotting mistakes adul miss a number or say the numbers in order. Can your child spot it?	number comes 7. Tam going to count and you can tell me if I have missed out any <u>numbers</u> . Other Incidental Oppo Jumping in puddles Playing hide and seek			





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.

Practit Nume	tioner Page – DO NOT PRINT Glasgov Glasgov Glasgov racy: No2.1 Glasgov	w's Improvement Challenge w Counts. Learning at Home	- Leaders of Early Lear – Numeracy Early Track	rning er 1			
No. word sequences	Say short forward and backward number word sequences within 0-10	Uses ordinal numbers in e.g. I am first/second/t	rs in real life contexts nd/third in the line' Recalls the number sequence forwards and backwards within 0-10				
Task /	Aim:		Resources:				
To he conte	lp children understand ordinal numb ext	ers in a real life	Take Home Page No 2.1				
Task The c • E	Descriptor: hild will: ngage in everyday conversations usi	ng ordinal numbers.					
• B a a	e encouraged to use ordinal number dults will draw children's attention t ppropriate questions.	rs in everyday life as o them by asking	123 Gias No 2	sgow's Improvement Challenge - Leaders of Early Learning sgow Counts. Learning at Home – Numeracy Early Tracker 1			
• A	nswer questions using ordinal numb	ers.	No.2				
• B F	e supported to use the correct matl irst, Second or Third.	nematical language of	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.				
• B n p	e supported to develop the link betw umber and the numeral it represent atterns.	ween the ordinal s by adults using finger	Getting dressed What is the first thing we put on when getting dressed? Mealtimes	The first thing we do is put our pants on. What is the second thing? Jack was the first			
Diffe For cl such	erentiation: hallenge, adults could start using hig as fourth, fifth, sixth etc	her ordinal numbers	Gooking/baking Gooking/baking Use your fingers to show the num three for third. Thi	bake first but third to finish his chips. What is the second ingredient we add? What is the second ingredient we add?			





Ordinal Numbers

Aim: To use ordinal numbers everyday to describe position in a set.

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 What do you The first thing we What is the think is the third do is put our pants first thing we thing we need on. What is the put on when to? getting dressed? second thing? Mealtimes Jack was the first Mia was the first to Craig finished his person to finish his finish her dinner. I apple first, who fish but third to wonder who will be was second? finish his chips. second? Cooking/baking What is the Before we bake second ingredient what is the first we add? thing that we do?

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.

Practitic	oner Page – DO	NOT PRINT Glasgo	w's Improvement Cha w Counts. Learning at	llenge - Leaders of Early Lea Home – Numeracy Early Track	rning er 1			
Numera	cy: No3.1		-			Classifier Courts A Transistor for Motion uncs. Chilocking Learning		
<u>No. word</u> sequences	Sa and word s	ay short forward backward number equences within 0-10	Uses ordinal nur e.g. I am first/s	nbers in real life contexts second/third in the line'	Recalls the number sequence forwards and backwards within 0-10			
Task A To reco Task d Mini h This ga require	im: all the numb escriptor: ide and seek ame can be p e lots of space	er sequence backwards c. blayed with any small to ce. It could be done at	s from 10-0. by and does not home, in a car or	 Resources: Take home page No 3.1 Any small toy such as a Lego character or action figure. 				
a resta The ch • clo • wa	urant. ild: oses their ey aits till they ł	es and counts from 10- near "zero" before they	0 with support. v open their	Glasgow's Improvement Challenge - Leaders of Early Learning Glasgow Counts. Learning at Home - Numeracy Early Tracker 1 No3.1 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.				
ey When hidder The ad	es. the countdo n toy. lult and chilo	wn is complete the chi I can take turns countii	ld hunts for the ng and seeking.	 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. 				
Differe The ch then tr	entiation: ild could be ry to beat th	timed while looking fo eir score.	r the toy and	10, 9, 8, 7, 6, 5, 4, 3, 2, 10! Ready or not go and seek! Other incidental opportunities: You could also time how long your child to then try to beat their score.	Do you think you can count down from 6 to zero? 6,5,4,3,2,1,0!			





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.



Do you think you can count down from 6 to zero? 6,5,4,3,2,1,0!

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.



Practitioner Page – DO NOT PRINT

Numeracy: N1.1

Glasgow's Improvement Challenge - Leaders of Early Learning



Numerals	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 ze is represented	ro I 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 A To ider Task D Childre • Fo • "H • Ch wh • Ch an nu • Ch	im: <i>ntify numerals with</i> escriptor: en will: cus on a different r unt" for that numb ildren can look in t nen in the superma ildren will be enco d do an action to re mber- jump, hop, s ildren could record mber by taking pho	in the environment. number each day per in their environment heir home, when out four rket. uraged to repeat the nu einforce the cardinality show on fingers etc I where they have found otos or drawing picture	t. or a walk, imber of that d the s.	 Take home page N1.1 A paper and pen A paper and pen Clasgow's improvement Challenge - leaders of Early Learning Glasgow's counts. Learning at Home - Numeracy Early Tracker 1 Constant County County						
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.					 Choose a "number of the day" and write it clearly on a piece of paper for your child to keep. 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. Can you show me 5 fingers? A pen A pen 					





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.



Practitioner Page – DO NOT PRINT Glasgow's Improvement Chal				lenge	- Leaders of Early Le	arning 🛛 🔊	
Numera	Numeracy: N2.1 Glasgow Counts. Learning a				– Numeracy Early Tra	cker 1	Glasgie Coins: A transistic Wisherung.
Recognise numerals e.g. points to the number from 0-10				ro forwards as 0 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 anumber name.Task Descriptor:					sources: Take home page I Toy cars Sticky labels	N2.1	
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.				A Wr the	Glasgow's I Glasgow Co Aim: To select t numeral is the symbol or name that child to identify numerals 0 to 10. ite numbers 0-10 on some small post se on to your child's toy cars.	mprovement Challenge - Leaders of Early ounts. Learning at Home - Numeracy Early Number-carsl the correct numeral when given the numb t stands for a number. Look for This is a crucial skill for when numbers. t its or pieces of paper. Stick	Plearning Tracker 1 wer name. playful ways to encourage your children begin to use written
				Place With or of to 1	the cars in front of your child in th support encourage them to name describing the cars. You may want t 10 as their confidence grows.	random order. the numerals by pointing to o begin with 0-5 and build up	 Labels or post-<u>ITS</u> with numbers written on them.
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.				Ott You the	What number is on this car? Ther incidental learning opportunitie to could also encourage your child to correct order.	er number is on the racing car?	





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.

You will need:

- Toy cars
- Labels or post-its with numbers written on them.



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Numeracy: N3.1

Glasgow's Improvement Challenge - Leaders of Early Learning



<u>Numerals</u>	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 A To helf "O" Task d • M ard • Us se en • En bo	im: b children understa escriptor: ake number cards (e marked '0' sing small snacks pla veral bowls and at npty courage the child t pport the child to r etween an empty pl	nd that zero is represen D-10 including at least to ace assorted quantities least 2 plates should be o count the quantity in correct number card recognise the connectio late and the numeral 'O	oted using wo that in e left each	Res •	Sources: Take home page I Plates or bowls Number cards 0-1 At least 2 number Small snacks I Glasgow's I Aim: To help your child underst Knowing that the numeral "O" repunderstand * to do: rite numbers 0-10 on small piece ero" cards ace different numbers of snacks skyour child to count the snacks skyour child to count the snacks	N3.1 N3.1 N3.1 N3.1 N3.1 Inprovement Challenge - Leaders of Early Counts. Learning at Home - Numeracy Early Meaning of Zero tand that zero means none of a quantity of presents nothing is very importance bigger numbers when they go to tas of paper. Make at least 2 as (1-10) in several bowls. is in each bowl and choose the present the bowl.	Vearning Tracker 1 Tracker
Differentiation: Go on a number walk to look for the number '0' on car registrations or door numbers			- A fi · Or sn	tow many nuts re in the blue powl? Can you ind that card? Which bo has zero nuts? have they have chosen all of the c acks and then play again using di your child have a go at putting the me deliberate mistakes and see	There is nothing in the orange bowl. Which card should we choose? correct cards, eat a few fferent quantities.	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 "O".

Knowing that the numeral "O" 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 "O" means nothing.

How many nuts are in the blue bowl? Can you find that card?

Which bowl has zero nuts? There is nothing in the orange bowl. Which card should we choose?

• Once they have chosen all of the correct cards, eat a few snacks and then play again using different quantities.

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.

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Numeracy: N4.1

Glasgow's Improvement Challenge - Leaders of Early Learning



<u>Numerals</u>	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		ero forwards and backwards within 0-10 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. 					Resources: • Take home page N4.1 • Small toys with the numbers 0-10 attached to them on paper, post its or sticky labels. Image: Stagew's improvement Challenge - Leaders of Early Learning Clasgow Counts. Learning at Home - Numeracy Early Tracker 1 Image: Stagew's improvement Challenge - Leaders of Early Learning Clasgow Counts. Learning at Home - Numeracy Early Tracker 1 Image: Stagew's improvement Challenge - Leaders of Early Learning Clasgow Counts. Learning at Home - Numeracy Early Tracker 1 Image: Stagew's improvement Challenge - Leaders of Early Learning Clasgow Counts. Learning at Home - Numeracy Early Tracker 1 Image: Stagew's improvement Challenge - Leaders of Early Learning Clasgow Counts. Learning at Home - Numeracy Early Tracker 1 Image: Stagew's improvement Challenge - Leaders of Early Learning Clasgow Counts. Learning at Home - Numeracy Early Tracker 1 Image: Stagew's improvement Challenge - Leaders of Early Learning Classes Image: Stagew's Counts. Learning at Home - Numeracy Early Tracker 1 Image: Stagew's Counts. Learning at Home - Numeracy Early Tracker 1 Image: Stagew's Counts. Learning at Home - Numeracy Early Tracker 1 Image: Stagew's Counts. Learning at Home - Numeracy Early Tracker 1 Image: Stagew's Counts. Learning at Home - Numeracy Early Tracker 1 Image: Stagew's Counts. Learning at Home - Numeracy Early Tracker 1 Image: Stagew's Counts. Learning at Home - Numeracy Early Tracker 1 Image: St				
Differentiation: Starting from and finishing at numbers other than 0 and 10 will reinforce children's understanding of numerals and their meaning.					with? What number comes after number 4? When they are confident ordering start from 10 and order backwards Can you start from number 4 and stop at number 8?	t order So far we have 0,1,2,3,4,5w hat is the next number? forwards, challenge them to b start at ns to order skwards. kwards. tets order backwards starting from 7! 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!			





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. Let's count to Which check we have number do them in the we start right order So far we have

What number comes after number 4?

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

Can you start from number 4 and stop at number 8?

with?

Ask your child to start at different numbers to order forwards and backwards.

Lets order backwards starting from 7!

0,1,2,3,4,5...w

hat is the next

number?

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!

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Numeracy: N5.1

Glasgow's Improvement Challenge - Leaders of Early Learning



<u>Numerals</u>	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 0-10Identifies number before, after and missing numbers in a sequence within 0-10; beginning to use the language before, after and in-between				
Task A To ensi- after (Childre "after" Task D The ad clothin access The ite to the The ch and ca	im ure children can ide (and any missing) ir en should be beginn and "in between". escriptor: lult will collect som and create an ind monophic som monophic som ild can then peg th n be asked to find then the solution of the solution of the solution the solution of the solu	entify all numbers befor n a number line from 0 - ning to use the words "b door washing line for th will have numeral cards a e clothes in the correct the missing item!	e and 10. before", of e child to attached order	Res • • • • • • • • • • • • • • • • • • •	Sources: Take home page I A washing line (st Pegs Socks or small pie Tape or blue tack	N5.1 tring or ribbon) eces of clothing unprovement Challenge - Leaders of Earl counts. Learning at Home – Numeracy Early Washing Line Numbers! ecome confident in arranging numbers from e lots of opportunities for child s of opportunities to explore nu ight your child can use safely. s of paper. Collect socks or the number cards to the the washing in the right	y Learning (Tracker 1 w Learning (Tracker 1 (Tracker 1) (Tracker 1 (Tracker 1 (Tracker 1) (Tracker 1 (Tracker 1) (Tracker 1 (Tracker 1) (Tracker 1 (Tracker 1) (Tracker 1)		
Differentiation. Start with ordering from 0-5 before moving to 10.		What comes What comes <u>before</u> ? What comes <u>after</u> ? unber is in <u>between</u> and? and? and? 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.							





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.





What number is <u>in</u> <u>between</u> ... and ...?

• 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



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Numeracy: S1.1

Glasgow's Improvement Challenge - Leaders of Early Learning



Subitising	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? dot arrangement/on fing without	" in irregular dot patterns e.g. gers/five frames/10 frames/dice counting up to 6	Represents amounts in dif e.g.dot arrangement/on t 10 frames/dice without	fferent arrangements fingers/five frames/ t counting up to 6
Task A To be patte Task I • A p • A q o • Q a	Aim: e able to accurately subitise and point rn that represents the answer to a q Descriptor: dults should reproduce the dot path aper or card dult and child take turns asking eac uestions which can be answered by f the arrays. Questions can be anything but must nswer between one and six	nt to the dot question. erns supplied on h other pointing to one have an	 Take home page Si Paper or card Pen Scissors Ilight display the series of th	1.1 provement Challenge - Leaders of Early Learnin unts. Learning at Home - Numeracy Early Tracker : Subitising say how many they see without count children to think about numbers as a on to paper or card and cut is with your child. ons and seeing how quickly ith the matching answer. What age are you?	Ing. It is an essential part an actual group of objects.
Differentiation. The child could be supported to think of their own questions that have answers from one to six.		What number comes after number 4? The questions can be as silly as you li should already know the answer and t between one an	the ks How many heads do you have? ke but remember the child he answer should always be d six.		





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.



Practitioner Page – DO NOT PRINT

Numeracy: S2.1

Glasgow's Improvement Challenge - Leaders of Early Learning



Subitising	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?' i dot arrangement/on finge without co	irregular dot patterns e.g. /five frames/10 frames/dice nting up to 6	Represents amounts i e.g.dot arrangement 10 frames/dice wit	n different arrangements /on fingers/five frames/ hout counting up to 6		
 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. 				 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. Clasgow's Improvement Challenge - Leaders of Early Learning Clasgow Counts. Learning at Home - Numeracy Early Tracker 1 Solution 1 Clasgow's Improvement Challenge - Leaders of Early Learning Clasgow Counts. Learning at Home - Numeracy Early Tracker 1 Solution 1 Clasgow's Improvement Challenge - Leaders of Early Learning Clasgow Counts. Learning at Home - Numeracy Early Tracker 1 Solution 1 Concerption 2 Concerpti			
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.			How many jewels can you see? • 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"?				




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.

How many jewels can you see? How do you know there are 5? I am going to 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.



Practitioner Page – DO NOT PRINT

Numeracy: S3.1

Glasgow's Improvement Challenge - Leaders of Early Learning

Glasgow Counts. Learning at Home – Numeracy Early Tracker 1



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

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

Task aim:-

Subitising

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.







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:



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

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.





Practitioner Page – DO NOT PRINT Glasgow's Improvement Challenge - Leaders of Early Learning							
Numeracy: C1.1 Glasgow	Counts. Learning at Hor	me – Numeracy Early Trac	ker 1	Glusgov Counts A Transausin, for Murbanancs			
When counting objects understands the order in which we say the numbers is always the same (stable order) Touch counts one item when each number word is said (1-to-1 correspondence)	en counting objects understands lat the number name of the last ect counted is the name given to 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 recognisin that the appearance of the object has no effect on the overall tota within 0-10 (conservation)	ng Counts anything e.g. objects at a distance/in a book/sounds/claps within 0-10 (abstract principle)			
Task Aim:	F	Resources:					
To count aloud in order	•	Take home page C	1.1				
Task Description	•	A picture of a snak ground.	e on a piece of pape	er or on the			
The adult will draw a simple snake with at le	east 15 spaces	A small object or to	by that can be used	as a counter.			
	•	A dice (or number	ed cards)				
The child will throw a dice or choose a num	ber card.						
		123 Glasgow's Im Glasgow Cou	provement Challenge - Leaders of Early Learnin nts. Learning at Home – Numeracy Early Tracker 2	6 L 🔅 🔐 🙆			
The adult will support the child to count the	e dots on the	Aim: To support your child to	Snake Game understand that we always say numbers in the	e same order.			
dice and the number of spaces as they mov	'e.	The words used for numbers are complicated as there is no <u>recognisable</u> 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.					
The adult will make some deliberate mistak	es and ask the	• Draw a snake shape with at least 15 s	spaces. You v	vill need: uper and pen			
child to correct them.		 Roll a dice or chose a number card to make. Start from the tail. Encourage your child to count aloud c 	o see how many moves to as they move their object.	dice Fyou don't have a dice you buld make number cards 1-6			
		 Take turns to roll the dice and move spaces. Make a deliberate mistake e a 12.5 a 	the correct number of • A as	small toy that can be used : a counter			
Differentiation:		Let's count	1,2,3,4,5I'm not sure what				
For support practise counting together.		 1,2,3,4,5 The winner is the first to get safely 	number comes next!? beyond the snakes head. If	<u>i</u>			
For challenge make some deliberate mistak	es and see if	you land on the snakes head the snak	e eats you!	-			
your child corrects you.		Encourage your child to count as often a in the pond, swings in the play park, pe stop. Making deliberate mistakes m	is possible. Count the ducks ople in a queue at the bus akes it even more fun!	and the second sec			





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 snakes head. 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



Practition	Practitioner Page – DO NOT PRINT Glasgow's Improvement Challenge - Leaders of Early Learning Numeracy: C2.1 Glasgow Counts. Learning at Home – Numeracy Early Tracker 1								
Counting	When counting objects understands the order in which we say the numbers is always the same (stable order)	Touch counts one item when each number word is said (1-to-1 correspondence)	When counting objects underst that the number name of the object counted is the name giv the total number of objects in (cardinal principle)	tands last en to a set	When counting objects understands that the number of objects is not affected by position (order irrelevance)	Counts objects in a set recog that the appearance of the c has no effect on the overall within 0-10 (conservation)	nising bjects total classifier for the service book/sounds/claps within 0-10 (abstract principle)		
Task Ai To cour they sa as touc Task De The ad	m: ht by touching or hy the correct num ch counting. escriptor ult should place tw	moving each inc ber word. This is wo containers or	lividual object as often referred to tubs in front of	R • •	Resources: Take home page Ca Two tubs or bowls 10 Lego bricks (or a	2.1 any small object f	or counting)		
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					Glasgow's I Glasgow C C2.1 Aim: To help children understand t Touch counting or 1:1 correspondence count them will help children	Improvement Challenge - Leaders of Early L ounts. Learning at Home – Numeracy Early Tr 1:1 Lego hat when counting objects each object mu t is a crucial aspect of learning to to understand that every object	earning acker 1 st correspond to a number. count. Moving objects as they must be counted once.		
The add	ult must ensure th y one object	nat one number i	is attributed		 Place up to 10 Lego blocks in a smal Ask your child to count the Lego bl time into the other container sayin move them. Explain that every piece must be contained by the same set of the same set	I container. ocks by moving them one at a g the next number as they punted one time. How many pieces of Lego do we have in	You will need: • Two small bowls or containers • Lego pieces or other small objects that can be easily counted.		
Differe Once the into diff in here of num	ntiation: he objects have be ferent container. ⁻ ?" This helps reinf ber.	een counted they The adult can asl orce cardinality	y can be put back <: "how many are and conservation		Comes next? To start with children will count one m piece. Help by placing your hand on top and count slowly. Encourage your child to move other ite they open a packet of sweets, ask the them. Ask them to count and move the they have	here? here? hore than one number for each of theirs to move with them erms as they count them. When erm to count them as they eat heir snacks to see how many b			





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.



Practitioner Page – DO NOT PRINT Glasgow's Improvement Challenge - Leaders of Early Learning Glasgow Counts. Learning at Home – Numeracy Early Tracker 1							
When counting objects understands the order in which we say the numbers is always the same (stable order)Touch counts one item when each number word is said (1-to-1 correspondence)When counting objects underst that the number name of the object counted is the name giv the total number of objects in (cardinal principle)	tands last en to a setWhen 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. 	 Resources: Take home page C3.1 Groups of small objects like small toys, pens, books, tins Number cards 0-5 or 0-10 						
 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 	123 Glasgow's Improvement Challenge - Leaders of Early Learning Glasgow Counts. Learning at Home – Numeracy Early Tracker 1 Image: Count of the set						
 beside the numeral card. Adult asks child to count how many are there to check they have the right amount. 	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.						
Differentiation: Count out pieces of snack during mealtimes and repeatedly ask 'How many?'	 Repeat with the other cards until you have a complete number museum. 1,2,3,4 you have four pigs. Can you bering me six cars? Can you check there are five packets of raisins? 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! 						





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



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



Practitioner Page – DO NOT PRINT Glasgow's Improvement Challenge - Leaders of Early Learning Numeracy: C4.1 Glasgow Counts. Learning at Home – Numeracy Early Tracker 1							
When counting objects understands the order in which we say the numbers is always the same (stable order)Touch counts one item when each number word is said (1-to-1 correspondence)When counting objects unders that the number name of the object counted is the name give the total number of objects in (cardinal principle)	stands be last wen to a set exactlyWhen 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 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 	Resources :- Image: Calculation of the second 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.) Image: Calculation of the second place of the seco						
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.	 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 member where well to bener when we had to be the point that the total member well to be used the additional point that the total member well to be the sum and the point that the total member well to be used to the point that the total point that the total point that the total member well to be there will be if we start there? 						





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.



number won't change unless you add some or take some away.

Practitioner Page – DO NOT PRINT Glasgow's Improvement Challenge - Leaders of Early Learning Glasgow Counts. Learning at Home – Numeracy Early Tracker 1								
Numeracy: C5.1	Charapter Covers A Transition for Withouting Learning							
When counting objects understands the order in which we say the numbers is always the same (stable order) Touch counts one item when each number word is said (1-to-1 correspondence) When counting objects under that the number name of the object counted is the name given the total number of objects in (cardinal principle)	stands e last ven to n a set whether the number of objects is not affected by position (order irrelevance) (order irrelevance) (order irrelevance) (conservation) (conserva							
Task Aim:	Resources:							
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.	 Take home page C5.1 Some spoons 							
Task Descriptor:								
The adult sets spoons into two rows.The adult and child count the spoons	123 Glasgow's Improvement Challenge - Leaders of Early Learning Glasgow Counts. Learning at Home – Numeracy Early Tracker 1 Image: Constraint of Constraints							
• 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	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.							
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.	 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. How many spoons are there in 							
Other learning opportunities:	this row? them?							
Covering some of the spoons with a tea towel will reinforce the idea that the total does not change just because the appearance has.	 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?" 							





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.

How many spoons are there in this row? I wonder how many there will be now we have moved them?

I wonder if the total is the same. Let's check...

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:







Practitioner Page – DO NOT PRINT		RINT Glasgo	w's Improvement Challen	ige - Leaders of Early Lea	rning 🛛 🕵 🌄	10 DN11			
Numera	cy: C6.1	Glasgo	ow Counts. Learning at Hor	me – Numeracy Early Trac	ker 1	Glasspor Counts Familiaria for Mothematics			
Counting	When counting objects understands the order in which we say the numbers is always the same 		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 I To he count Task I The a being size, o thing There sound walk. The a cars, f	Aim: elp children under ed. Descriptor: bstract principle counted. We can colour or position s we can't touch e are numerous o ds or things that dult should enco garden gates, ste	rstand that anythi means it does nor n count any object n. We can also cou such as aeroplane pportunities to co cannot be touched urage the child to ps or star jumps!	ing can be t matter what is ts regardless of int actions and es or sounds. ount actions, d when out for a	<section-header><section-header><section-header><text><text><image/><image/><image/><image/><image/></text></text></section-header></section-header></section-header>					
Diffe The a a nun skips.	r entiation: dult can give the nber of actions fr e.g. can you do	child a number a om a selection of 4 star jumps?	nd ask them to do jumps, claps and	near barking! Support your child to count actions suc They might need reminded to slow the o number for every one action. Having everyday conversations about	will drive past? h as steps, jumps or claps. action down and say one Can you count 5 jumps! maths really helps children make conne and the world they live in.	etions between learning			





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.



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







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

Practitioner Page – DO NOT PRINT

Numeracy: PV1.1

Glasgow's Improvement Challenge - Leaders of Early Learning









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.



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

Practitioner Page – DO NOT PRINT

Numeracy: PV2.1

Glasgow's Improvement Challenge - Leaders of Early Learning









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.



Practitioner Page – DO NOT PRINT Glasgow's Improvement Character Numeracy: AS1.1 Glasgow Counts. Learning at the second seco	allenge - Leaders of Early Learning t Home – Numeracy Early Tracker 1
Addition and SubtractionSorts & classifies objects using quantity as an attribute 	hds the total when e added together within -10 (aggregation) Finds out how many 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 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 Image: Construct the second process of the second proces of the second pro







Practitioner Page – DO NOT PRINTGlasgNumeracy: AS2.1Glasg			gow's Improvement Challenge - Leaders of Early Learning sgow Counts. Learning at Home – Numeracy Early Tracker 1					Chargo Courts A Travestick for Motionuncs
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 2 sets are a 0-10	s the total when added together within D (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	: re two sets to	decide which l	has more/ fewer		Resources: • Take ho	ome page AS2.1		

Task Description

within 0-10.

- 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.

- Paper which you intend to recycle.
- Wastepaper basket.





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



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.

- 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.

Do you think you got more balls in the basket than on the floor? What makes you say that?

How many are on the floor?

How many are in the basket?

Are there fewer balls on the floor than in the basket? 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

Practitioner Page – DO NOT PRINT Glasgow's Improvement Cha	llenge - Leaders of Early Learning
Numeracy: AS3.1 Glasgow Counts. Learning at	Home – Numeracy Early Tracker 1
Addition and SubtractionSorts & classifies objects using quantity as an attribute e.g. sets of 1, 2 within 0-10Compares 2 sets to decide which has the fewest/most within 0-10Finds 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 1,2 or 3 is added to an existing amount e.g. a 0-1	ds the total when added together within L0 (aggregation) Finds out how many are left when 1 or 2 are taken away within 0-10 Finds out how many are left when 1 or 2 are taken away within 0-10 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	Resources :
To add 1,2 or 3 objects to an existing set and find the total number of objects	Take home page AS3.1
number of objects.	A selection of teddies or character toys of interest.
Task Descriptor	A tea towel or picnic rug
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.	Glasgow's Improvement Challenge - Leaders of Early Learning Glasgow Counts. Learning at Home - Numeracy Early Tracker 1 Teddy Bear Picnic
1,2 or 3 more teddies will join the picnic and the child will	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.
find the total.	Arrange 3 teddies (or other toys your child enjoys playing with) in a You will need: 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: With.
	Repeat with two more teddies Emphasise that by adding more teddies the total number has changed. • A tea towel to use as a picnic blanket.
Differentiation The child could give the correct number of plates or cups to the toys.	Two more teddies are coming to the picnicl I wonder how many teddies are here now!
As another teddy is added the child can add plates and/or cups to the picnic blanket.	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".







Practitioner Page – DO NOT PRINT Glasgow's Improvement Challenge - Leaders of Early Learning Numeracy: AS4.1 Glasgow Counts. Learning at Home – Numeracy Early Tracker 1								
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)	Fin 2 sets are 0-	ds the total when e added together within 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 begin to together Task desc • The a fruit b	:- to find the toto c riptor :- dult and child petween them	al when two se should share a	ome page AS4.1 all quantity of e strawberries, o	asily manipulat range segment	ed fruit such as s.			
 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". 					Glasgow's Improvement Challenge - Leaders of Early Learning Glasgow Counts. Learning at Home - Numeracy Early Tracker 1 With a constrained of the total when two sets are added together Addition Mathematication of 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 colspan to add two different sets together to find a new total. This experience will give your child the opportunity together to find a new total. This experience will give your child the opportunity together to find a new total. This experience. You will need :- 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. • How many pieces have you get? • Use will need :- • Count aloud how many you have and help your child as they count their fruit. Encourage them to move each piece as they count. • 10 small pieces of any fruit (grapes, blueberries, strawberries, orange segments etc.) • What shout if we put yours fruit and my fruit together?" and listen to their rely. • What place if we put yours fruit together in a row to count			
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.						put your fruit and my fruit taget gether in one row. age your child to count them all t How many pieces are there altogether? ecce each and try again to see if the other quantities or other object Buttons, clothes pegs, socks, toys and e words "add" "more" "make" "plus".	her in a row to count o find the total. Total is another word for together he total is different? is. and books are all great for and "altogether" everydayl	



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



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 You will need :-• When sharing a snack with your child, share small quantities of fruit between you and your child. You don't have to have 10 small pieces of any fruit • the same amount. How many pieces (grapes, blueberries, have you got? strawberries, orange Count aloud how many you have and help your child segments etc.) 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. You have 3 How many Total is another pieces and I pieces are word for have 4 there together pieces altogether? • 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!

Practitioner	Page –	DO	ΝΟΤ	PRINT	
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Numeracy: AS5.1

Glasgow's Improvement Challenge - Leaders of Early Learning



								At transauore for mananas "Ocking Learn"
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)	Finc 2 sets are 0-1	ds the total when added together within L0 (aggregation)	Finds out how many are left when 1 or 2 are taken away within 0-10	Compares to find th difference betweer sets as a quantity within 0-1	Beginning to count on and back in ones to add and subtract with objects or number line within 0-10
Task Aim: To find th Task Desc • The a • Childr the flo • As ea count • Childr alread • Childr	e total left in a criptor dult will line u ren and adults oor. ch coin is flick chow many ar ren will also ex dy been flicked ren and adults asing amounts	a set when obj p 10 coins on t will take turns e left. press how ma d. will discuss th	ects are taken an cop of a box. to flick coins of bor, children will ny coins have e decreasing and	way. nto	Resources: • Take ho • 10 coins • A box • A box • A box • Take to bis • This is a simple we • If e obj • What to do: • Invite your chill of a box. • Take turns to f • Take about the • Iess on the box	Glasgow's Improvement Glasgow's Improvement Glasgow Counts. Learni C Alm: To explore how many object and of introducing taking away of ects will build your children's d to count out ten coins and I flick the coins off the box ont fact that as you flick one bot there is one more on the floor	t Challenge - Leaders of Early Lea ng at Home - Numeracy Early Trac Coin Flick tests are left when 1 or 2 are tak using familiar objects. Gai understanding of additio ine them up on top to the floor. the top and have one pr.	aming ker 1 en away: en away: en away: unad subtraction. u will need: Up to 10 coins. A cardboard box
Different For suppo For challe	i ation: ort add and tal nge add or tal	keaway within ke away 2.	0-5.		You had 10 ber tops and you flicked 1 o How many are k on the box? Look for everyda such as	The The The Second Seco	and count objects caltimes.	





Coin Flick



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.



Practitioner	Page – DO NOT P	RINT Gla Gl	asgow's Improveme asgow Counts. Lear	llenge - Leader Home – Numer	s of Early Learnin acy Early Tracker 1		Di 01 Di 01 Juni 1	
			1				Glogan Counts A Francevork for Motionances Chiocking Learning	
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)	Finc 2 sets are 0-1	ds the total when added together within LO (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				Resources:				
This task helps children develop their understanding of the difference between two sets of objects.					Take hc10 sma	ome page AS6.1 Il wooden block	s or toys that o	can be stacked
Task Desc	riptor:							
The adult stacked o	s will need 10 n top of each o	small wooden other.	blocks that can					
A timer will be set for 5 seconds and both the adult and					000	Glasgow's Improveme	nt Challenge - Leaders of Early Lea	ning 🚜 😘
runs out.					AS 6.1	Glasgow Counts. Learn	ning at Home – Numeracy Early Track	eri 🤃 🔐
The tallest tower wins and the adult needs to draw					5 second Tower Challengel Alm: To compare amounts and find the difference between two sets of objects This experience helps your shild compare amounts and see the difference between two sets of			
attention to the difference between the towers.					What to day	ojects. This will help your chil	d develop understanding o	f subtraction.
"How many more blocks does your tower have?" or "Which tower has the fewest blocks?" "What is the difference between the towers?"					Gather a pile of w stacked on top of Set a timer on yo (or more dependir In those 5 second possible. The talk	rooden blocks that can be each other. ur phone for 5 seconds ng on your child's needs). Is you both try to build a tow est tower wins.	How many more blocks does the tall tower have? er as quickly as	Wooden blocks A timer, such as one found on most phones.
Different	iation:				compare them eas Count the number	sily. of blocks in each tower and	draw your child's	
The numbers of blocks used could increase.					attention to the c	arterence between them.	What's the	
The total number of blocks could be written on a post it and placed next to the tower.					Many children wi count do	Nocker? know? Il be fascinated with the time own or use the timer for othe	difference between the two towers? cr. Encourage them to r challenges!	





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.

How many

more blocks

does the tall

tower have?

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.



Numeracy: AS7.1

Glasgow's Improvement Challenge - Leaders of Early Learning











and 'subtract' and reinforce this by using your fingers!

Numeracy: MD1.1

Glasgow's Improvement Challenge - Leaders of Early Learning



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	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. 	 Resources: Take home page MD 1.1 A selection of patterned socks A selection of patterned socks
Differentiation: This activity can easily be repeated with shoes, wellies or gloves.	How many pairs of socks did you find? 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!







Numeracy: MD2.1

Glasgow's Improvement Challenge - Leaders of Early Learning



Multiplication and DivisionShares out a group of items into 2 equal sets within 0-1 Groups objects into matching or natural sets of 2 e.g. shoes within	0. thin 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. 	Resources: Image: Control of the second page MD2.1 • A small quantity of fruit • A puppet or soft toy • Other resources for sharing Image: Control of the second page with the second pa		
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.	 Repeat with other amounts. You have 2 oranges, Let's double 2. Now we have 4 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. 		




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)



Practitioner Page – DO NOT PRINT

Numeracy: FDP1.1

Glasgow's Improvement Challenge - Leaders of Early Learning

Glasgow Counts. Learning at Home – Numeracy Early Tracker 1









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



Practitioner Page – DO NOT PRINT

Numeracy: FDP2.1

Glasgow's Improvement Challenge - Leaders of Early Learning

Glasgow Counts. Learning at Home – Numeracy Early Tracker 1









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: You will need: Cut out a selection of simple shapes from paper or card. You'll need Paper or card cut into a • a triangle, a circle and a square. triangle, a circle, a square and a rectangle. 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 must be the same size. Are the pieces of your circle equal? How do you know? How many halves make up the whole shape? Try adding different shapes such as stars to add to the challenge!

Practitioner Page – DO NOT PRINT

Numeracy: FDP3.1

Glasgow's Improvement Challenge - Leaders of Early Learning

Glasgow Counts. Learning at Home – Numeracy Early Tracker 1



Fractions, Decimals and <u>%</u>	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		Understands that a whole can be shared equally and unequally
 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' 		<section-header><section-header><section-header><section-header><section-header><image/><image/><image/><image/><section-header><image/></section-header></section-header></section-header></section-header></section-header></section-header>		
<i>Differentiation :</i> This could be differentiated by cutting a sandwich into quarters.		same size? Why? Equals means the same size Show your child the difference by placing the two parts together. Having everyday conversations about maths really helps children make connections between learning and the world they live in.		





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: Cut another sandwich You will need: When preparing a sandwich with your child ask them in half equally and "Can you cut your sandwich in half?" place the two halves 2 sandwiches (toast, together to show that rolls, cakes etc. will Compare the two parts of they are the same also work) the sandwich. It is unlikely size. that the two parts will be a knife that a child is • equal, so this creates an able to use safely opportunity to discuss what this means. Do you think that your parts are the same size? Are these parts Why? of the sandwich equal? Show your child the Remember to emphasise Equals means the difference by placing the word "equal" and same size the two parts explain that this means together. 'the same'. Having everyday conversations about maths really helps children make connections between learning

and the world they live in.