



Medium Term Planning Maths – Subitising

Planning format developed by Karen Wilding. www.eymaths.co.uk



Medium -Term Planning ‘Maths Map’ Are you properly equipped for your journey yet?

Subitising

End destination – Children can talk about groups of objects by noticing what they see, what is different, what is similar and do this without counting

1. Check Your facts

Subject knowledge References:

Karen Wilding www.eymaths.co.uk

First Maths Glossary DK – page 14-15
NCETM

Doug Clements – Subitizing What is it?
Why teach it?

Judy Sayers – Building Bridges, making connections between counting and arithmetic: Subitising

Valerie Faulkner – Subitising through the years

2. Secure Your Expert Language!

Key language AND definitions so everyone is consistent.

Subitise/Subitising – Instantly recognise quantities without having to count them. (Seeing without counting)

Perceptual subitising - to make an immediate and accurate reckoning of the number of items in a group or sample without needing to pause and actually count them.

Conceptual subitising - the ability to recognise a whole quantity as the result of recognising smaller quantities.

How many? (subitising) – knowing how many without counting

How many? (counting) – To count how many are in the set.

Notice/Noticing – To look at recognise detail in objects

3. Predict the Hazards and Opportunities!

Identify the misconceptions and remember these are VERY valuable teaching opportunities.

False – That ‘How many?’ refers to only counting an amount.

False – subitising is only recognising dice patterns

False – you only subitise small amounts

False – Subitising is only for Early Years



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Paula Hartman Myoungwhon Jung Greg Conderman http://www.council-for-learning-disabilities.org/wp-content/uploads/2016/03/LDF_2012_AugFinal.pdf

Similar – Things that are nearly the same (size, shape, space)

Same – Things that are exactly the same (amount, size, colour, shape)

Different – Things that are not the same (amount, size, colour, shape)

Tell me what you can see/ What do you notice? What is different? What is the same/similar?

More – comparative used to mean greater in size or amount

Less – is used for singular mass amounts or things that cannot be counted - this includes '3 is less than 5'

Fewer – a smaller amount of countable things – cars, leaves, dogs, counters, pounds, bricks etc.

Greater (than) – an inequality used to compare two or more numbers, quantities or values. It is used when a quantity or number is bigger or larger than the second or rest of the quantities or numbers.

Group – a complete set of a predetermined amount

Groups – more than one complete set of a predetermined amount

Part/whole – To partition an amount (whole) into two or more parts

Sorting - arrange a group into a specific way

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

False – that it is part/part/whole only
False – no impact on older children's mathematical thinking



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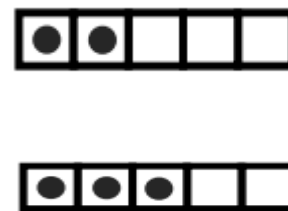
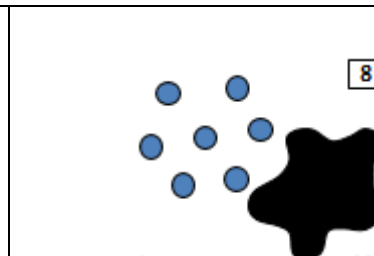
Equal - ___ is equal to ___ 'being the same in quantity, size, degree or value

	<p>Equal - ___ is equal to ___ 'being the same in quantity, size, degree or value</p>							
<p>4. Identify Your 'Vehicles/Hooks'</p> <p>What have the children shown you they are interested in that you can use to engage their interest and build upon what they already understand?</p>	<p>5. Build Essential Connections!</p> <p>Which other existing mathematical tools will they need to bring out and use here? Make these neutral.</p>	<p>6. Sharpen Those Tools!</p> <p>List the activities that will give children the opportunity to focus upon and become skilful in using specific tools. Use hyperlinks, images of tasks, book names and page</p>						
<ul style="list-style-type: none"> • Nature/natural world • Food/cooking • Shopping • Snack time fruit • Own body – fingers, toes, arms, legs, eyes etc. • Interests – observe and use • Tidying up time • Loose parts • Play schema <ul style="list-style-type: none"> ▪ Transporting – small amounts of objects in small pots/hands/bags etc. – what do you see? How do you see it? 	<ul style="list-style-type: none"> • Communicating - Talking/Demonstrating/Pictorial • Addition – part/whole – joining of parts – seeing parts in an amount. • Counting principles (see attached doc.) • Cardinality 	<table border="1"> <tr> <td data-bbox="1182 718 1429 877">Build Maths Mind – Christina Tondevold</td> <td data-bbox="1429 718 2190 877"> https://buildmathminds.com/freebies https://www.therecoveringtraditionalist.com/category/subitizing/ </td> </tr> <tr> <td data-bbox="1182 877 1429 1077">Karen Wilding training library www.eymaths.co.uk</td> <td data-bbox="1429 877 2190 1077"> Subitising principles document Super Subitising essential questions Super subitising 10 day challenge resources/videos/handouts </td> </tr> <tr> <td data-bbox="1182 1077 1429 1272">NCETM Early maths and number sense resources</td> <td data-bbox="1429 1077 2190 1272"> https://www.ncetm.org.uk/podcasts/how-early-years-children-develop-mathematical-thinking/ https://www.ncetm.org.uk/search?q=subitising </td> </tr> </table>	Build Maths Mind – Christina Tondevold	https://buildmathminds.com/freebies https://www.therecoveringtraditionalist.com/category/subitizing/	Karen Wilding training library www.eymaths.co.uk	Subitising principles document Super Subitising essential questions Super subitising 10 day challenge resources/videos/handouts	NCETM Early maths and number sense resources	https://www.ncetm.org.uk/podcasts/how-early-years-children-develop-mathematical-thinking/ https://www.ncetm.org.uk/search?q=subitising
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<ul style="list-style-type: none"> ▪ Trajectory – games where children can throw/drop/roll groups of objects to see how they land – What do you see? How do you see it? ▪ Positioning – lining items up and putting them into groups ▪ 	<ul style="list-style-type: none"> • Sorting/classifying (Size, shape, quantity, properties) • Pattern (noticing/seeing pattern in numbers) 	<p>Valerie Faulkner Videos and PPT explaining each stage/age</p>	<p>https://valeriefaulknermathclub.com/videos/videos-early-math/subitizing-videos-by-level/</p>
		<p>WRM Counting Principles</p>	<p>https://wrm-13b48.kxcdn.com/wp-content/uploads/2020/07/Reception-Scheme-Guidance-for-teachers-Autumn-2020.pdf</p>
<ul style="list-style-type: none"> • 		<p>Build Maths Mind – Christina Tondevold</p>	<p>https://www.therecoveringtraditionalist.com/savvy-subitizing-activity/ Free download cards to use in activities https://s3-us-west-2.amazonaws.com/bmmfreebies/Savvy_Subitizing_Cards.pdf?inf_contact_key=bdc20fdde2c594e0fd7bbc815ffc99eb09c74070ac2bf3cfa7869e3cfd4ff832</p>





Medium Term Planning Maths – Subitising

	<p>The whole is... The parts are...</p>	<p>The whole is... The parts are...</p>			
		<p>SWAT</p>			



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7. 'Concrete' Experiences 'Walk the Walk'

Move from 'Real World' to 'Maths World'.

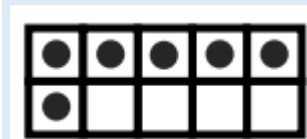
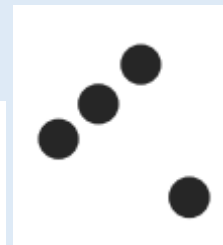
Concrete real world



Concrete maths world



8. Creating Representations 'Capture the experience using an Image!' (Pictorial) Capture the experiences using meaningful and generalised representations.



9. Translate the Experience into 'Abstract' Symbols

How are these experiences recorded using mathematical words and symbols?

Numerals – 1,2,3,4,5,6,7,8,9,10

1 is a part, 1 is a part, 1 is a part, 1 is a part – 4 is the whole

1 is a part, 1 is a part, 2 is a part – 4 is the whole

2 is a part, 2 is a part – 4 is a whole

1 is a part, 3 is a part – 4 is the whole



$$1+1+1+1 = 4$$

$$1+1+2 = 4$$

$$2+2 = 4$$

$$3 + 1 = 4$$



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The **whole** is...
The **parts** are...

●	●	●	●	
●	●	●		

Two diagrams illustrating subitising. The left diagram shows a large circle divided into two smaller circles. The right diagram shows a large circle divided into three smaller circles.





End Point - What do I want the children to understand and be able to do? Long Term aims for subitising – Nursery/Reception

SUBITISING PRINCIPLES – DOCUMENT FROM KAREN WILDING – SEE ATTACHED

- Children notice and comment on (not labelling with number names) amounts of objects in everyday life and in books or photos.
- Children notice and label a small number of items within the whole amount (without counting) usually involving one, two or three items.
- Children notice and compare when amounts are more or less than each other. They use language appropriate to their level of development and language acquisition.
- Children notice and label one, two and three items regardless of size of items i.e. moving away from thinking that because items are larger that they are 'more'.
- Children explore using the same number of items (number unknown) by placing quantity in different sized objects. For example the same amount of 'counters/wooden blocks/pompoms/toy cars'.
- Children notice and explain when groups of items (up to three initially) have been created.
- Children notice and explain how the same total amount can be seen in different ways (4 – 2,2-1,1,2 – 2,2 – 1,1,1,1, - 3, 1)
- Children copy patterns of dots using counters of the same colour.



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- Children re-create a dot pattern when shown briefly and then hidden.
- Children talk about the size of the part with the whole.
- Children notice when dot patterns are compared, when 1 of the pattern ‘loses’ or ‘gains’ a dot and uses this to justify why they are no longer equal. ‘1 more’ or ‘1 less’.

Characters of Effective Learning – How do young children learn best?

Playing and exploring – engagement Finding out and exploring Playing with what they know Being willing to ‘have a go’	Active learning – motivation Being involved and concentrating Keeping trying Enjoying achieving what they set out to do	Creating and thinking critically – thinking Having their own ideas Making links Choosing ways to do things
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Children’s interests – What are this group of children motivated by? What areas interest them? How are these children engaged in their learning? What do they love to do? When are they at their most happiest?