

Phase 1

Domain:	Place	Value
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understand that

Domain. Flace value		
Revision year R	New learning- KPIs:	Resources to support learning:
• I can count confidently to 10	 I can count within 100, forwards and backwards, starting with any number. I can reason about the location of numbers to 20 within the linear 	
• I know the value of each number to 10	 number system, including comparing using < > and = I know that 10 ones are equivalent to 1 ten I know that multiples of 10 are made up from a number of tens, for 	
 I have a deep understanding of number to 10, 	 example, 50 is 5 tens. I can place the numbers 1 to 9 on a marked, but unlabelled, 0 to 10 number line. 	10.
including the composition of each number;	 I can estimate the position of the numbers 1 to 9 on an unmarked 0 to 10 number line. I can count forwards and backwards to and from 100 	
 I can subitise (recognise quantities without counting) up to 5: 	 I can read and write numbers from 1 to 20 in numerals and words. I can count to and across 100, forwards and backwards, beginning 	Tens frames with place value counters to support chi understand that 10 of something fit into
 I can verbally count beyond 20, recognising the pattern of the counting system; I can compare 	 with 0 or 1, or from any given number I can count, read and write numbers to 100 in numerals; I can, given a number, identify one more and one less I can identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least 	Dienes to show children that 10 ones make 10.
quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity;	 Visualisation: Part whole model to show partitioning in a standard and non-standard way Bar model to model the partitioning of numbers Numicon visual beside the numeral and word, to help with recognise the composition of number 	Bundling sticks help children group objects into tens of
• I can begin to develop a sense of the number		9 19 29 39 49 59 69 79
counting forward to	50 > 38	0 10 20 30 40 50 60 70 80
and beyond 20, pausing at each multiple of 10.		Number lines to identify or place two-digit numbers of number lines. A partially marked number line can be use children recognise numbers before multiples of 10.
 I can play games that involve moving along a numbered track, and 		10 20 30 40 50 60 70 80 90 1 2 3 4 5 6 7 8 9

	Common	misconceptions:
	• Pu	pils who do not keep track
	of	what has been counted.
	• Pu	ipils who keep counting by
	SO	ying the number words in
	or	der but do not correspond
bonds to	th	is to a single object.
	• Pu	pils reversing digits when
	W	riting numbers e.g. 31
	ra	ther than 13.
	• Pu	pils who believe where the
	=	sign is denotes the answer
	• Pi	pils finding it difficult to
ildren to	co	unt over boundaries e.g.
	29	9 to 30 or backwards from
	20) to 19.
	• Pu	ipils who can only count
	fo	rwards that need to
	pr	actise counting backwards
	m	ore.
	• Pi	ipils not pronouncing ty
	ar	a teen correctly and
	C0	ntusion between -ty and -
	Te	en numbers as a result.
and anot		
ind ones.		
89 99		
90 100		
n marked		
ed to heln		





place, place value, stands for, represents, the same number as, as many as, equal to, partition, order, regroup,

Of two objects/amounts

greater, more, larger, bigger, less, fewer, smaller, less,

Of three or more objects/amounts:

greatest, most, biggest, largest, least, fewest, smallest

one more, one less, compare, order, size

first, second, third... tenth... twentieth, twenty-first, twenty-second...

last, last but one, before, after, next, between, half-way between above, below

Equals, is the same as(including equals sign), Difference between, How many more to make...?, How many more is...?, How much more is...?, Subtract, take away, minus, How many fewer is...than...?, How much less

is...?

Domain: Number facts

number;	
iait in a	
.g	
ernative to	
handle and	
ckwards to	



Revision year R:

- I can count confidently to 10
- I know the value of each number to 10
- I know the relationships and patterns to numbers to 10
- I can look for patterns and relationships, spot connections
- Have a deep understanding of number to 10, including the composition of each number;
- Subitise (recognise quantities without counting) up to 5;
- Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.
- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity;
- I can distribute items fairly, for example, put 3 marbles in each bag. Recognise when

New learning- KPIs:

- I can develop fluency in addition and subtraction facts within 10.
- I can count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers.
- I can develop fluency in addition and subtraction facts within 10.
- I can read and write numbers from 1 to 20 in numerals and words.
- I can count in multiples of twos, fives and tens (NPV NC statement)

Visualisation:



Resources to support learning:



Cuisenaire rods where the orange rod can represent 1



Number lines to show children equal intervals

Numberlink Board™	_	-	Think	it ~ Link it	
www.creativemaths4all.co.uk		Registered de	sign 5002102	Copyright © C	reativemaths4all 2016

Numberlink boards to show children the relationship or multiplication facts and to teach the 1, 10, 5 derive str

	Comm	on misconceptions:
	•	Pupils who do not keep track
		of what has been counted
	•	Pupils who keep counting by
	_	saving the number words in
		order but do not correspond
		this to a single object
		This to a single object.
whole	•	Pupils reversing digits when
		writing numbers e.g. 31
		rather than 13.
	•	Pupils who believe where the
		= sign is denotes the answer
	•	Pupils finding it difficult to
		count over boundaries e.g.
		29 to 30 or backwards from
		20 to 19.
	•	Pupils who can only count
		forwards that need to
f		practise counting backwards
ructure		more.
	•	Pupils not pronouncing 'ty'
		and 'teen' correctly
		andconfusion between '-ty'
		and '-teen' numbers as a
		result.



items are distributed unfairly.			
Phase 2			
Domain: Addition and Subtrac	tion (securing mental calculation)		
 Revision year R: Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts. Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally. I can understand the cardinal value of number words, for 	 New learning- KPIs: I can compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers. I can read, write and interpret equations containing addition (+), subtraction (-) and equals (=) symbols, and relate additive expressions and equations to real-life contexts. I can learn and use number bonds to 10, for example:8 + _ = 10 Partition numbers within 10, for example: 5 = 2 + 3 I can read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs I can represent and use number bonds and related subtraction facts within 20 I can add and subtract one-digit and two-digit numbers to 20, including zero I can solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = 9. 	Resources to support learning: Image: Second seco	 Common misconceptions: Pupils who do not keep track of what has been counted. Pupils who keep counting by saying the number words in order but do not correspond this to a single object. Pupils reversing digits when writing numbers e.g. 31 rather than 13. Pupils who believe where the = sign is denotes the answer Conservation of number is not secure. For example, pupils do not recognise that there is the same amount in a new arrangement or coins or counters, or when the



understanding that 'four' relates to 4 objects. Subitise for up to to 5 items. Automatically show a given number using fingers.

example

 I can devise and record number stories, using pictures, numbers and symbols (such as arrows). Visualisation:

- Part whole model to show partitioning in a standard and non-standard way
- Bar model to model the partitioning of numbers
- Number line to show partitioned addition or subtraction and to model the strategy of counting on or counting back





Dienes to show children the relationship between number what 'ten times bigger' looks like



Place value counters and dienes to show the partition digit and three-digit numbers



Number lines to show children the position of numbers negative numbers and how to round to the nearest mul-



Place Value Arrow cards identify how digits change in and what this looks like when the number is blended ba together

	whole is split into parts and then recombined.In accurate use of	ł
	 comparative language Interpretation of the equal sign as where the answer 	ls
bers and	goes rather than meaning 'equal to'. Pupils finding it difficult to	
	count over boundaries e.g. 29 to 30 or backwards from 20 to 19.	n
ning of two-	 Pupils who can only count forwards that need to practise counting backward 	ls
	more. • Pupils not pronouncing 'ty' and 'teen' correctly and	
s including	confusion between '-ty' and teen' numbers as a result.	'-
tiple of		
addition ack		



	First	Then	Now		
	8	– 1	7		
		8 - 1 = 7			
	© ncetm.org				
Vocabulary:	1				
Total, altogether, add, more th	han, put together	, equals			

Subtract, take away, minus, less than, fewer than, difference between

Domain: Multiplication and division







	Comm	on misconceptions:
	•	Pupils who think sharing is
		always between 2 (which
		comes with practice of
		sharing with a 'friend' and
		connecting to counting in
		2<)
		Es). Pupile who do not understand
	-	halving and palate it to
lationship		anlitting dividing competing
anonship		into 2 ground agual or not
		into 2 groups, equal or not.
counting		
entity		
. (
os fit into a		
rays or to		
cation		





Groups of, lots of, equal groups of, count on, count back,

Phase 3			
Domain: Fractions			
Revision year R:	New learning- KPIs:	Resources to support learning:	Misconceptions:
•	 I can recognise, find and name a half as one of two equal parts of an object, shape or quantity 		•
	 I can recognise, find and name a quarter as one of four equal parts of an object, shape or quantity 		





 Revision from year R: I can learning- KT:: I can learning- KT:: I can recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyromids are not always similar to one another. I can see, exple, including manipulating shapes to place them in particular orientations. I can see, exple, including manipulating shapes to place them in particular orientations. I can recognise and name common 2-D and 3-D shapes, including: 2-D shapes (for example, including squares), cicleds and three quarter turns. I can see, exple, for example, including understand nets I can see example, including manipulating shapes to place them in particular orientations. I can chescribe position, direction and movement, including whole, half, quarter and three quarter turns. Visualisation and context: I can see, for example, for example, for example, for example, including understand nets I can see, for example, for example, including understand nets I can see, for example, for example, including understand nets I can see, for example, for example, including understand nets I can see, for example, for example, including understand nets I can see, for example, for example, including understand nets I can see, for example, for example, including understand nets I can recognise common 2D and 3D shapes from smaller shapes I can recognise common 2D and 3D shapes from smaller shapes I can recognise common 2D and 3D shapes from smaller shapes I can recognise common 2D and 3D shapes

h teaching	



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Domain: Measurement				
Revision from year R:	 New learning-KPIs: I can compare, describe and solve practical problems for: lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] I can mass/weight [for example, heavy/light, heavier than, lighter than] I can capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] time [for example, quicker, slower, earlier, later] I can measure and begin to record the following: lengths and heights I can mass/weight capacity and volume time (hours, minutes, seconds) I can recognise and know the value of different denominations of coins and notes I can recognise and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening] I can recognise and use language relating to dates, including days of the week, weeks, months and years 	Resources to support learning: 1112 9 8 7 6 5 Plastic clocks to teach children how to read the time		

Misconceptions:
 Reading the time and confusing the minute and hour hand



Visualisation and context:	

Vocabulary:

Heavy, light, heavier than, lighter, full, empty, more than, less than, half full, quarter full, capacity, volume

Revision section:

Early Learning Framework statements

Early learning goals statements

New learning KPI's section:

Bold National Curriculum statements

Ready to progress statements