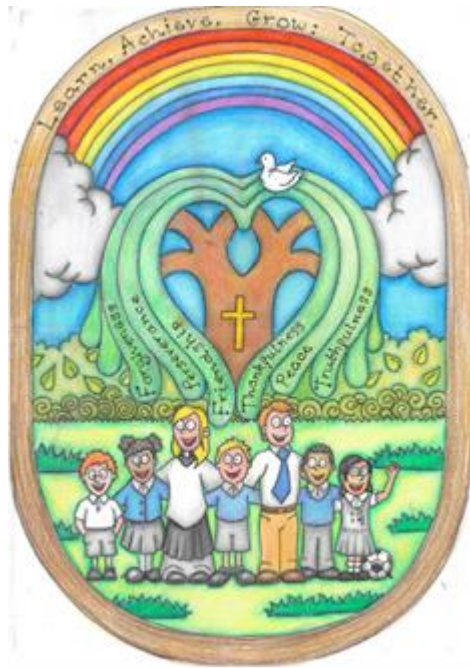


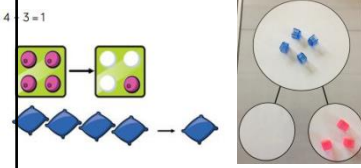
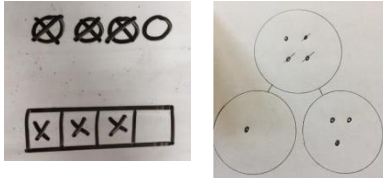
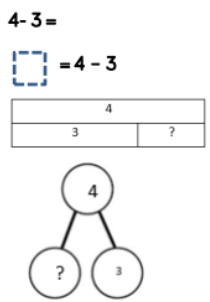
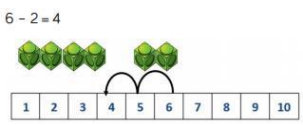
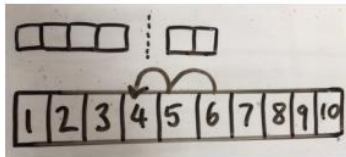
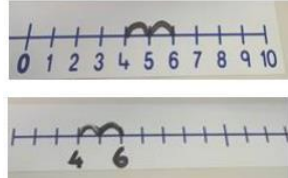
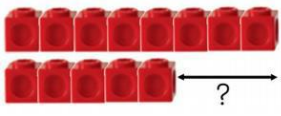
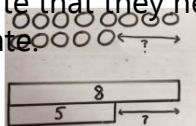
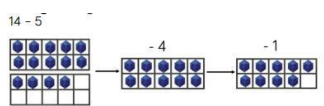
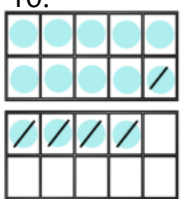
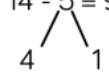
# St Nicholas C.E Primary School



## Calculation Progression Policy

### Subtraction

ST NICHOLAS C.E. PRIMARY SCHOOL  
SUBTRACTION- YEAR ONE

Objective	Concrete	Pictorial	Abstract
<p>Physically taking away and removing objects from a whole.</p>	<p>Tens frame, Numicon, cube and other items such as bean bags could be used.</p> 	<p>Children to draw the concrete resources they are using and cross out the correct amount. The bar model can also be used.</p> 	<p><math>4 - 3 =</math></p> 
<p>Counting back</p>	<p>Using number lines or number tracks – children start with 6 and count back 2</p> 	<p>Children to represent what they see pictorially</p> 	<p>Children to represent the calculation on a number line or number track and show their jumps.</p> 
<p>Finding the difference.</p>	<p>Using cubes, Numicon or Cuisinaire rods, other objects can also</p> <p>Calculate the difference between 8 and 5.</p> 	<p>Children to draw the cubes/ other concrete objects which they have used or the bar model to illustrate that they need to calculate.</p> 	<p>Find the difference between 8 and 5.</p> <p><math>8 - 5</math>, the difference is <input type="text"/></p> <p>Children to explore why <math>9 - 6 = 8 - 5 = 7 - 4</math> have the same difference.</p>
<p>Making 10</p>	<p>Using ten frames</p> 	<p>Children to present the ten frame pictorially and discuss what they did to make 10.</p> 	<p>Children to show how they can make 10 by partitioning the subtrahend.</p> <p><math>14 - 5 = 9</math></p>  <p><math>14 - 4 = 10</math> <math>10 - 1 = 9</math></p>

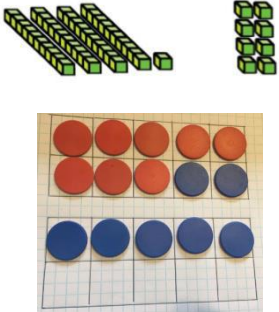
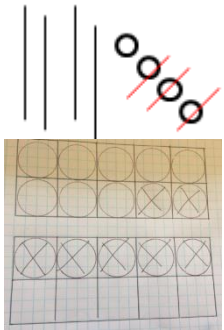

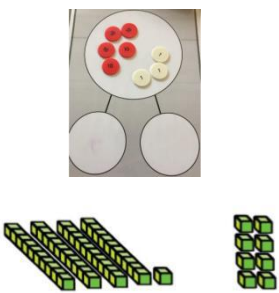

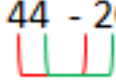
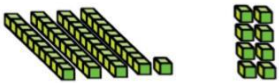
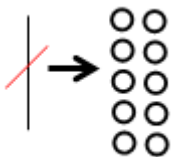
Vocabulary

Stem Sentences

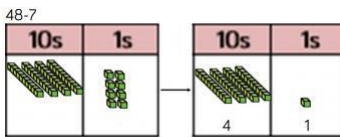
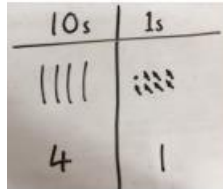
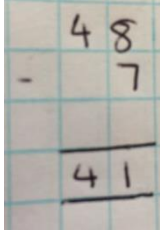
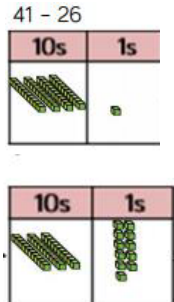
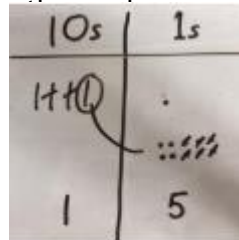
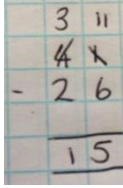
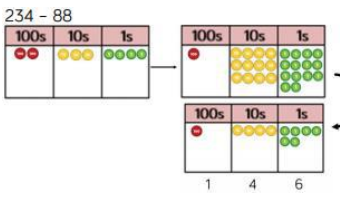
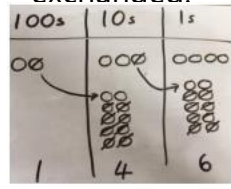
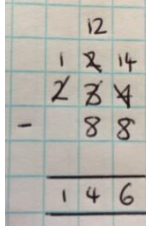
Take away    minus    less than    the difference    subtract    fewer    decrease

The whole is \_\_\_ so \_\_\_ is a part and \_\_\_ is a part  
(The whole is 10 so 6 is a part and 4 is a part)  
\_\_\_ is a part and \_\_\_ is a part so \_\_\_ is a whole  
(7 is a part and 3 is a part so 10 is the whole)  
The difference between \_\_\_ and \_\_\_ is \_\_\_ (The difference between 12 and 4 is 8).

ST NICHOLAS C.E. PRIMARY SCHOOL  
SUBTRACTION- YEAR TWO

Objective	Concrete	Pictorial	Abstract
2-digit – 1s	<p>Use concrete resources</p> 	<p>Represent the resources</p> 	<p>Use number fact knowledge, join the ones (smiles), number line</p> $44 - 3 = ?$ 
2-digit – 10s	<p>Place value counters/dienes</p> 	<p>Represent resources using lines for tens and circles for ones</p> 	<p>Answer a question by using partitioning or column subtraction</p> $\begin{array}{r} 54 \\ 20 - \\ \hline ?? \end{array} \quad 44 - 20 = ?$ 
Two digit number subtract a two digit number	<p>Use manipulatives To understand exchanging → 1 ten exchanges for ten ones. (swap shop)</p> 	<p>Represent resources by crossing out and exchanging place value</p> 	
Vocabulary		Stem Sentences	
<p>Take away minus less than the difference subtract fewer decrease <b>partitioning</b> <b>tens ones place value</b></p>		<p>The whole is ___ so ___ is a part and ___ is a part (The whole is 10 so 6 is a part and 4 is a part) ___ is a part and ___ is a part so ___ is a whole (7 is a part and 3 is a part so 10 is the whole) The difference between ___ and ___ is ___ (The difference between 12 and 4 is 8).</p>	

ST NICHOLAS C.E. PRIMARY SCHOOL  
SUBTRACTION- YEAR THREE

Objective	Concrete	Pictorial	Abstract
Column method TO - O	Using dienes  	Children to represent the base 10 pictorially.  	Column method or children could count back 7.  
Column method TO - TO	Using base 10 and having to exchange  	Represent the base 10 pictorially, remembering to show  	Formal column method. Ch'n know that when they have exchanged the 10 they still have 41 because $41 = 30 + 11$  
Column method HTO - TO	Using place value counters.  	Represent the place value counters pictorially; remembering to show what has been exchanged.  	Formal column method. Children must understand what has happened when they have crossed out digits.  


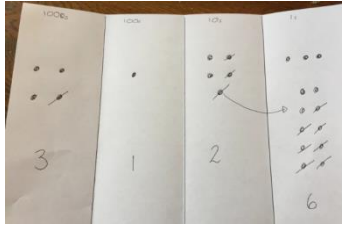
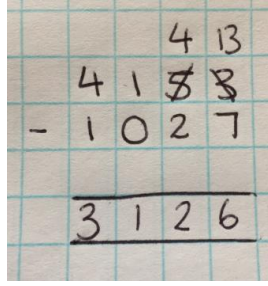
Vocabulary

Take away    minus    less than    the difference  
 subtract    fewer    decrease    partitioning    tens  
 ones    place value    **column**    **exchange**

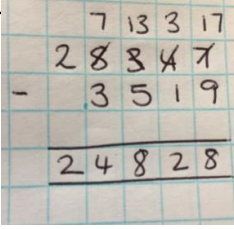
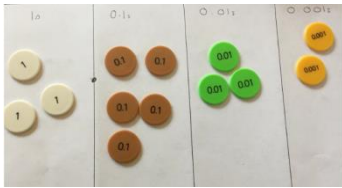
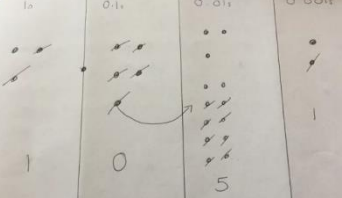
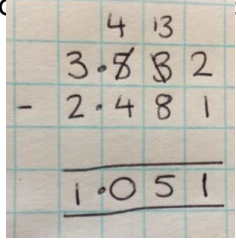
Stem Sentences

The whole is \_\_\_ so \_\_\_ is a part and \_\_\_ is a part  
 (The whole is 10 so 6 is a part and 4 is a part)  
 \_\_\_ is a part and \_\_\_ is a part so \_\_\_ is a whole  
 (7 is a part and 3 is a part so 10 is the whole)  
 The difference between \_\_\_ and \_\_\_ is \_\_\_ (The difference between 12 and 4 is 8)

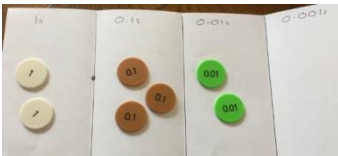
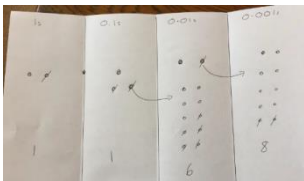
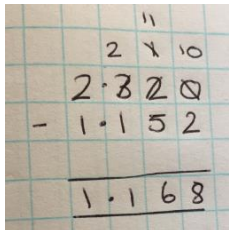
ST NICHOLAS C.E. PRIMARY SCHOOL  
SUBTRACTION- YEAR FOUR

Objective	Concrete	Pictorial	Abstract
<p>Column method 4-digit – up to 4-digit</p>	<p>Using place value counters</p>  <p>A place value chart with columns for 1000s, 100s, 10s, and 1s. The 1000s column has four yellow counters. The 100s column has one red counter. The 10s column has four red counters. The 1s column has two white counters.</p>	<p>Represent the place value counters pictorially; remembering to show what has been exchanged.</p>  <p>A place value chart showing the exchange of a 1000 counter for ten 100 counters. The 1000s column has one dot and the number 3. The 100s column has one dot and the number 1. The 10s column has two dots and the number 2. The 1s column has six dots and the number 6. Arrows indicate the exchange of one 1000 counter for ten 100 counters.</p>	<p>Formal column method. Children must understand what has happened when they have crossed out digits.</p>  <p>A formal column method subtraction on a grid. The problem is 4133 minus 1027. The result is 3126. The digits 1, 3, and 3 in the original problem are crossed out with red X's.</p>
<p>Vocabulary</p>		<p>Stem Sentences</p>	
<p>Take away minus less than the difference subtract fewer decrease partitioning tens ones place value column exchange <b>thousands</b></p>		<p>The whole is ___ so ___ is a part and ___ is a part (The whole is 10 so 6 is a part and 4 is a part) ___ is a part and ___ is a part so ___ is a whole (7 is a part and 3 is a part so 10 is the whole) The difference between ___ and ___ is ___ (The difference between 12 and 4 is 8)</p>	

ST NICHOLAS C.E. PRIMARY SCHOOL  
SUBTRACTION- YEAR FIVE

Objective	Concrete	Pictorial	Abstract
Column method - integers			Formal column method. Children must understand what has happened when they have cr 
Column method – decimals (same number up to 3 d.p)	Using place value counters 	Children to represent the counters in a place value chart, circling when they make an 	Formal column method. Children must understand what has happened when they have c... s. 
Vocabulary		Stem Sentences	
Take away minus less than the difference subtract fewer decrease partitioning tens ones place value column exchange thousands <b>decimal tenths hundredths thousandths</b>		The whole is ____ so ____ is a part and ____ is a part (The whole is 10 so 6 is a part and 4 is a part) ____ is a part and ____ is a part so ____ is a whole (7 is a part and 3 is a part so 10 is the whole) The difference between ____ and ____ is ____ (The difference between 12 and 4 is 8)	

ST NICHOLAS C.E. PRIMARY SCHOOL  
SUBTRACTION- YEAR SIX

Objective	Concrete	Pictorial	Abstract
<p>Column method – decimals (different number up to 3 d.p)</p>	<p>Use place value counters</p>  <p>A place value chart with four columns labeled 1s, 0.1s, 0.01s, and 0.001s. The 1s column has two yellow counters. The 0.1s column has two orange counters. The 0.01s column has two green counters.</p>	<p>Children to represent the counters in a place value chart, circling when they make an exchange.</p>  <p>A place value chart similar to the one above, but with arrows indicating the exchange of one yellow counter from the 1s column into ten orange counters in the 0.1s column.</p>	<p>Formal column method. Children must understand what has happened when they have crossed out digits.</p>  <p>A formal column subtraction showing 2.82 minus 1.152. The result is 1.68. The digits 2, 8, and 2 in the original number are crossed out, and the digits 1, 6, and 8 in the result are underlined.</p>
<p>Vocabulary</p>		<p>Stem Sentences</p>	
<p>Take away minus less than the difference subtract fewer decrease partitioning tens ones place value column exchange thousands decimal tenths hundredths thousandths</p>		<p>The whole is ___ so ___ is a part and ___ is a part (The whole is 10 so 6 is a part and 4 is a part) ___ is a part and ___ is a part so ___ is a whole (7 is a part and 3 is a part so 10 is the whole) The difference between ___ and ___ is ___ (The difference between 12 and 4 is 8)</p>	