

Unit overview: Subtraction – Year Reception

National Curriculum requirements

Children at the expected level of development will:

- Have a deep understanding of number to 10, including the composition of each number;
- 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.

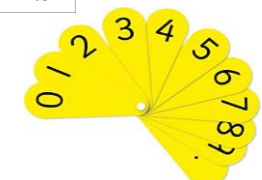
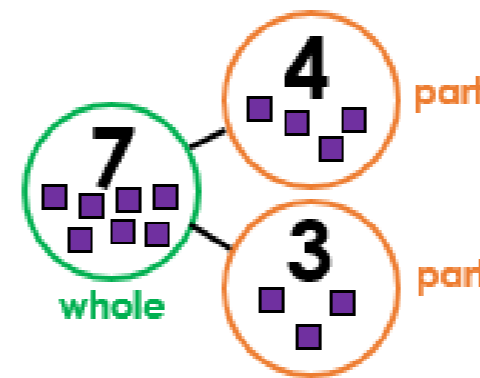
Vocabulary

- number names (0 – 20 and beyond)
- digit
- number bonds
- minus / subtract / take away
- whole
- part
- difference
- equal to
- less than

Manipulatives

- number cards
- counters
- interlocking cubes
- ten frames
- number lines
- bead strings
- counting tools (i.e. counting bears)

Visual representations



Sentence stems

_____ minus _____ is equal to _____.

_____ take away _____ is equal to _____.

The whole is _____. _____ is a part. _____ is a part.

To find the missing _____ you take away the other _____ from the _____.

When you subtract _____ from _____ the difference is _____.

Learning sequence

- Solve real-world mathematical problems with number up to 5.
- Counts objects, actions and sounds.
- Explore the composition of numbers up to 5.
- Subitise within numbers up to 5.
- Explore the composition of numbers up to 10.
- Use concrete objects to subtract a part from a whole.
- Automatically recall number bonds for numbers 0-5 and some to 10.
- Explore the composition of numbers to 20.
- Solve real-world mathematical problems that involve subtraction using concrete objects.

Unit overview: Subtraction – Year 1

National Curriculum requirements

By the end of the year, the children will be able to:

- read, write and interpret mathematical statements involving subtraction (–) and equals (=) signs
- represent and use number bonds and related subtraction facts within 20
- subtract one-digit and two-digit numbers to 20, including zero
- solve one-step problems that involve subtraction, using concrete objects and pictorial representations, and missing number problems such as $\square = 17 - 9$.

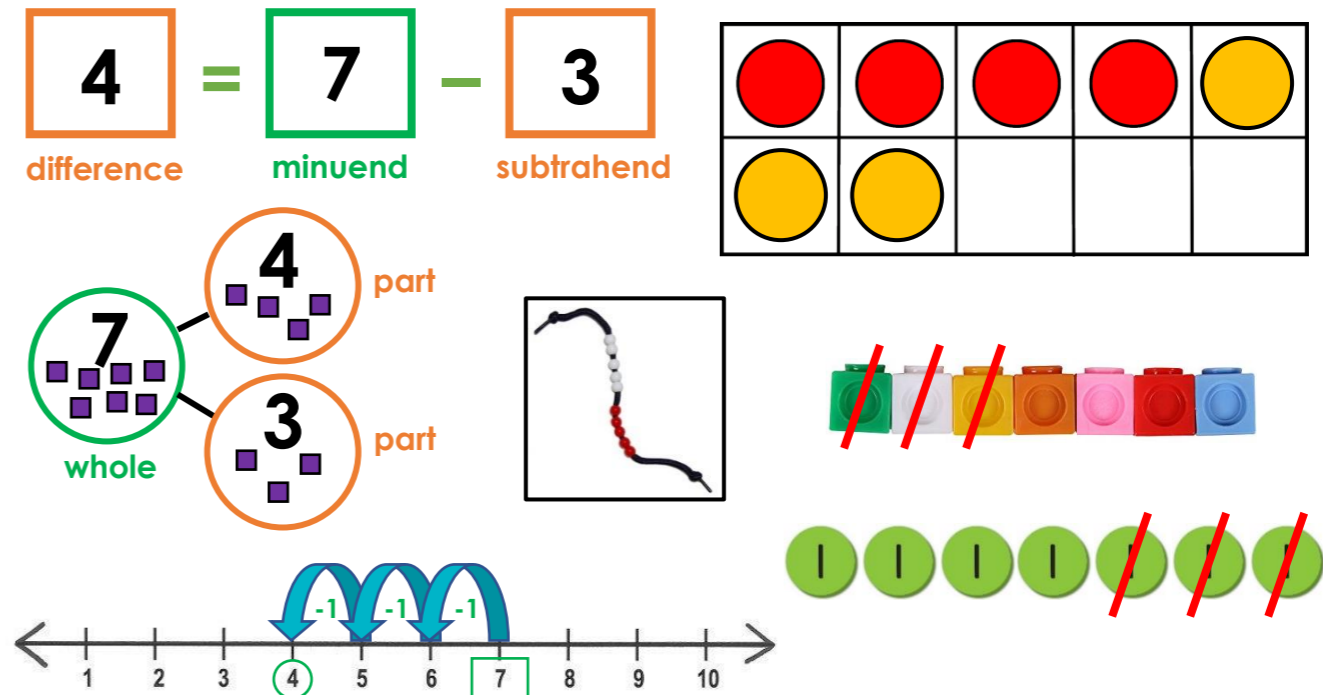
Vocabulary

- number names (0 – 100)
- digit
- number bonds
- minus / subtract / takeaway
- whole / minuend
- part / subtrahend
- part / difference
- equal to

Manipulatives

- number cards
- counters
- dienes
- place value counters
- interlocking cubes
- ten frames
- number lines
- bead strings

Visual representations



Sentence stems

_____ minus _____ is equal to _____.

_____ take away _____ is equal to _____.

When you subtract _____ from _____ the difference is _____.

The whole is _____. _____ is a part. _____ is a part.

_____ is the minuend. _____ is the subtrahend. The difference is _____.

To find the missing _____ you take away the other _____ from the _____.

Learning sequence

- read, write and interpret mathematical statements involving subtraction (–) and equal to (=) signs
- represent and use number bonds and related subtraction facts within 10, e.g. $2 + 6 = 8$ therefore $8 - 6 = 2$
- subtract one-digit numbers within 10, including zero
- represent and use number bonds and related subtraction facts within 20, e.g. $12 + 6 = 18$ therefore $18 - 6 = 12$
- subtract one-digit and two-digit numbers to 20, including zero using concrete objects, pictorial representations, and mentally, including:
 - subtracting a one-digit number from a two-digit number
 - subtracting three one-digit numbers
- solve one-step problems that involve subtraction using concrete objects and pictorial representations, and missing number problems
- estimate to check answers

Unit overview: Subtraction – Year 2

National Curriculum requirements

By the end of the year, the children will be able to:

- solve problems with subtraction:
 - using concrete objects and pictorial representations, including those involving numbers, quantities and measures
 - applying their increasing knowledge of mental and written methods
- recall and use subtraction facts to 20 fluently, and derive and use related facts up to 100
- subtract numbers using concrete objects, pictorial representations, and mentally, including:
 - a two-digit number and ones
 - a two-digit number and tens
 - two two-digit numbers
- recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.

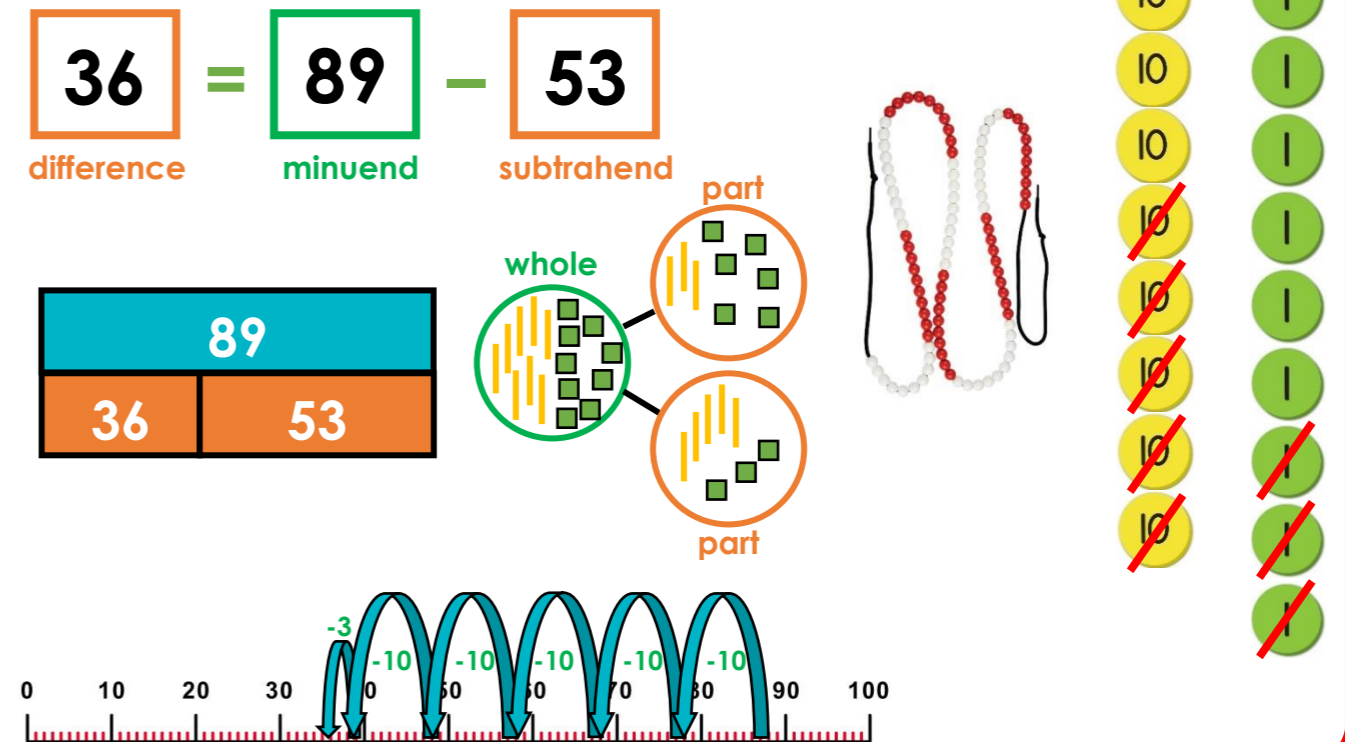
Vocabulary

- digit
- number bonds
- minus / subtract / takeaway
- whole / minuend
- part / subtrahend
- part / difference
- equal to
- partition

Manipulatives

- counters
- dienes
- place value counters
- interlocking cubes
- hundred squares
- ten frames
- number lines
- bead strings

Visual representations



Sentence stems

_____ minus _____ is equal to _____.

_____ take away _____ is equal to _____.

When you subtract _____ from _____ the difference is _____.

The whole is _____. _____ is a part. _____ is a part.

_____ is the minuend. _____ is the subtrahend. The difference is _____.

To find the missing _____ you take away the other _____ from the _____.

Learning sequence

- recall and use subtraction facts to 20 fluently, and derive and use related facts up to 100
- using number bond facts, subtract numbers using concrete objects, pictorial representations, and mentally, including:
 - a two-digit number and ones
 - a two-digit number and tens
 - two two-digit numbers
- using a 'make the previous 10' strategy, subtract numbers using concrete objects, pictorial representations, and mentally, including:
 - two one digit numbers
 - a two-digit number and ones
 - two two-digit numbers
- solve problems with subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures
- recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems
- apply their increasing knowledge of mental and written methods in a range of scenarios.

Unit overview: Subtraction – Year 3

National Curriculum requirements

By the end of the year, the children will be able to:

- subtract numbers mentally, including:
 - a three-digit number and ones
 - a three-digit number and tens
 - a three-digit number and hundreds
- subtract numbers with up to three digits, using formal written methods of columnar subtraction
- estimate the answer to a calculation and use inverse operations to check answers
- solve problems, including missing number problems, using number facts, place value, and more complex subtraction.

Vocabulary

- digit
- number bonds
- minus / subtract / takeaway
- whole / minuend
- part / subtrahend
- part / difference
- equal to
- partition
- estimate

Manipulatives

- counters
- dienes
- place value counters
- interlocking cubes
- hundred squares
- ten frames
- number lines
- bead strings

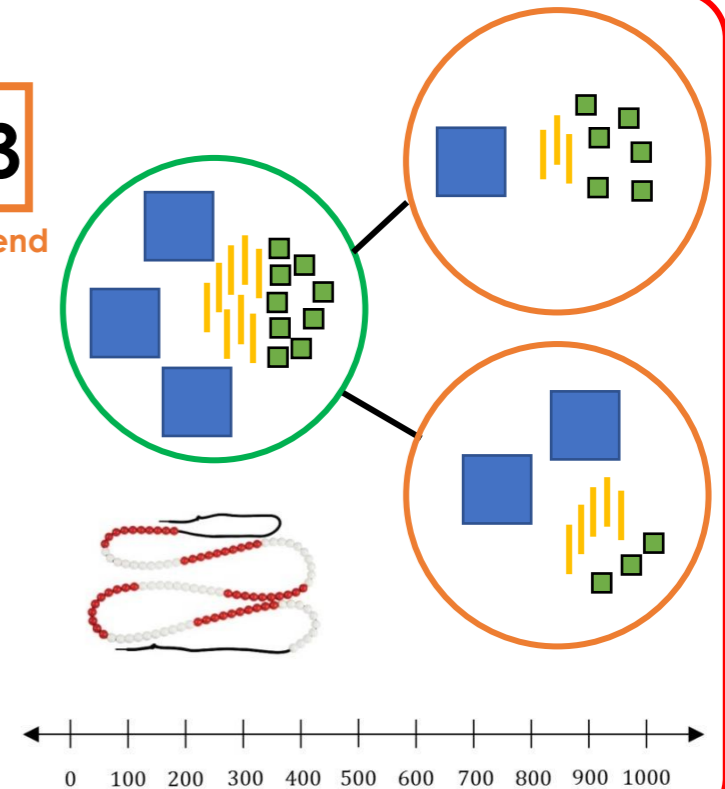
Visual representations

$$\boxed{136} = \boxed{389} - \boxed{253}$$

difference minuend subtrahend



	H	T	O
	3	8	9
-	2	5	3
<hr/>			
	1	3	6



Sentence stems

_____ minus _____ is equal to _____.

_____ take away _____ is equal to _____.

When you subtract _____ from _____ the difference is _____.

The whole is _____. _____ is a part. _____ is a part.

_____ is the minuend. _____ is the subtrahend. The difference is _____.

To find the missing _____ you take away the other _____ from the _____.

Learning sequence

- using number bond facts, subtract numbers using concrete objects, pictorial representations, and mentally, including:
 - a two-digit number and ones
 - a two-digit number and tens
 - two two-digit numbers
 - a three-digit number and ones
 - a three-digit number and tens
 - a three-digit number and hundreds
- subtract numbers with up to three digits, using formal written methods of columnar subtraction (using number bond facts only)
- using a 'make the previous 10/100' strategy, subtract numbers using concrete objects, pictorial representations, and mentally, including:
 - a two-digit number and ones
 - two two-digit numbers
 - a three-digit number and ones
 - a three-digit number and tens
 - a three-digit number and hundreds
- subtract numbers with up to three digits, using formal written methods of columnar subtraction
- solve problems, including missing number problems, using number facts, place value, and more complex
- estimate the answer to a calculation and use inverse operations to check answers

Unit overview: Subtraction – Year 4

National Curriculum requirements

By the end of the year, the children will be able to:

- subtract numbers with up to 4 digits using the formal written methods of columnar subtraction where appropriate
- estimate and use inverse operations to check answers to a calculation
- solve two-step problems in contexts, deciding which operations and methods to use and why.

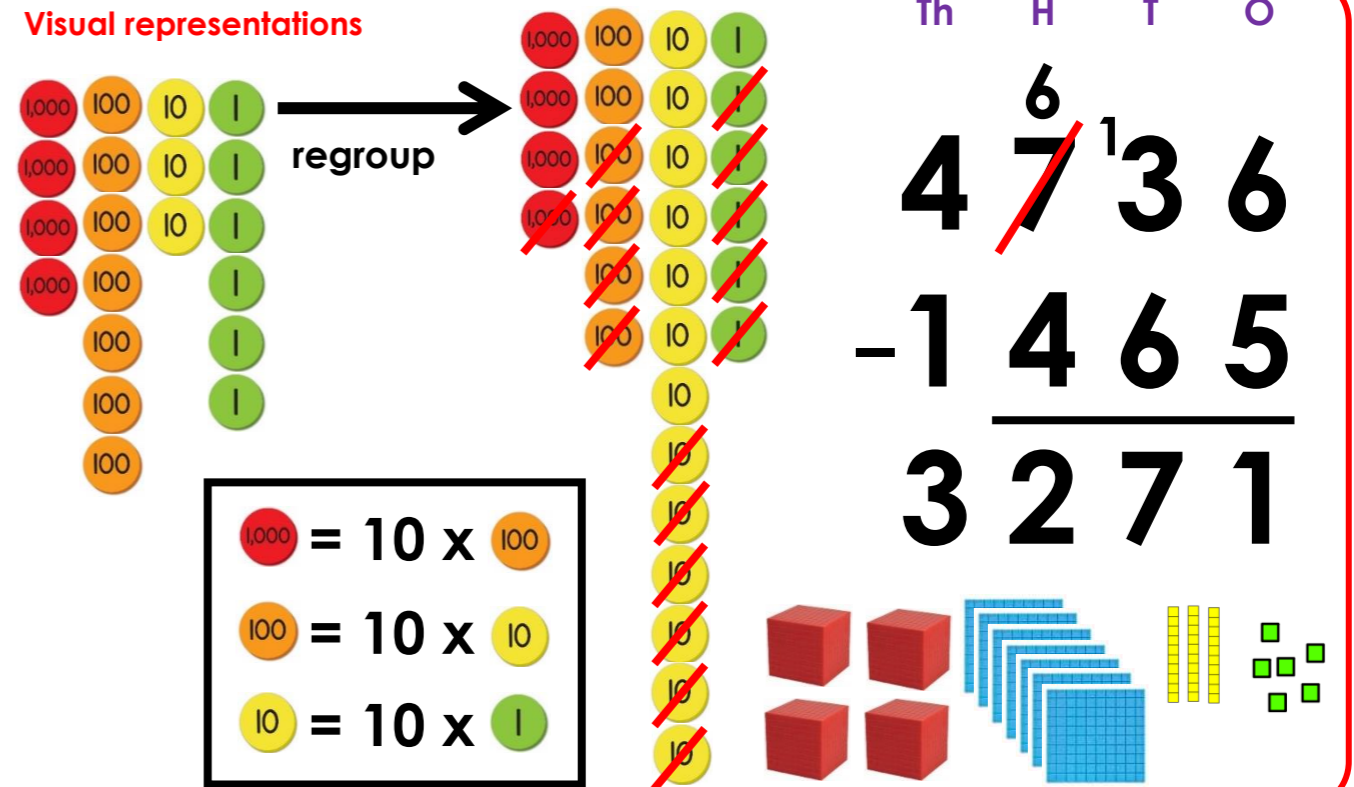
Vocabulary

- digit
- number bonds
- minus / subtract / takeaway
- whole / minuend
- part / subtrahend
- part / difference
- equal to
- regroup
- estimate

Manipulatives

- counters
- dienes
- place value counters
- interlocking cubes
- hundred squares
- ten frames
- number lines
- bead strings

Visual representations



The visual representations show the process of regrouping. On the left, place value counters represent 4736: four 1,000s, seven 100s, three 10s, and six 1s. An arrow labeled 'regroup' points to the right, where one 1,000 counter is crossed out and replaced by ten 100s. One of these 100s is further crossed out and replaced by ten 10s. This results in three 1,000s, two 100s, seven 10s, and one 1. To the right, a columnar subtraction diagram shows 4736 minus 1465. The 7 in the tens column is crossed out with a red slash, and a 1 is written above it. The result is 3271. Below the diagram are icons representing the place value counters: red cubes for 1,000s, blue sheets for 100s, yellow rods for 10s, and green squares for 1s.

Sentence stems

_____ minus _____ is equal to _____.

_____ take away _____ is equal to _____.

When you subtract _____ from _____ the difference is _____.

The whole is _____. _____ is a part. _____ is a part.

_____ is the minuend. _____ is the subtrahend. The difference is _____.

To find the missing _____ you take away the other _____ from the _____.

If I know _____ then I can calculate _____

Learning sequence

- using number bond facts, subtract numbers using concrete objects, pictorial representations, and mentally, including:
 - a two- / three- / four- digit number and ones
 - a two- / three- / four- digit number and tens
 - a two- / three- / four- digit number and hundreds
 - a two- / three- / four- digit number and thousands
- subtract numbers with up to four digits, using formal written methods of columnar subtraction (using number bond facts only)
- using a 'make the previous 10/100' strategy, subtract numbers using concrete objects, pictorial representations, and mentally, including:
 - a two- / three- / four- digit number and ones
 - a two- / three- / four- digit number and tens
 - a two- / three- / four- digit number and hundreds
 - a two- / three- / four- digit number and thousands
- subtract numbers with up to four digits, using formal written methods of columnar subtraction
- estimate and use inverse operations to check answers to a calculation
- solve two-step problems in contexts, deciding which methods to use and why

Unit overview: Subtraction – Year 5

National Curriculum requirements

By the end of the year, the children will be able to:

- subtract whole numbers with more than 4 digits, including using formal written methods (columnar subtraction)
- subtract numbers mentally with increasingly large numbers
- use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy
- solve multi-step problems in contexts, deciding which operations and methods to use and why.

Vocabulary

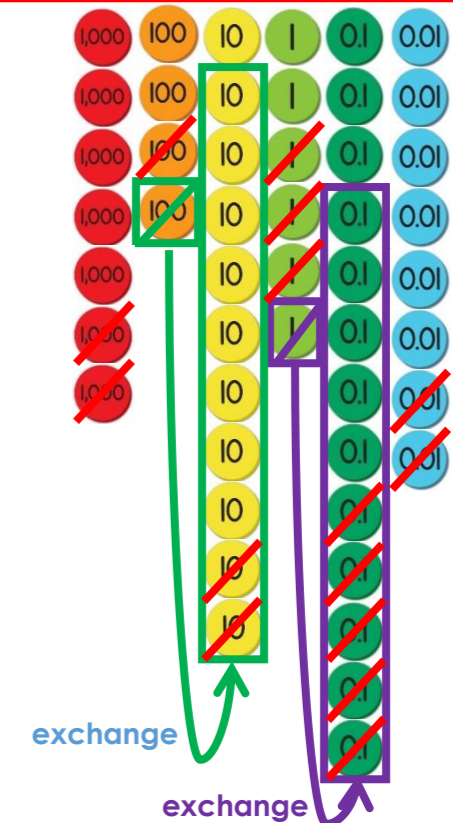
- digit
- number bonds
- minus / subtract / takeaway
- whole / minuend
- part / subtrahend
- part / difference
- equal to
- regroup
- estimate

Manipulatives

- counters
- dienes
- place value counters
- interlocking cubes
- hundred squares
- ten frames
- number lines
- bead strings

Visual representations

	Th	H	T	O	t	h
		3		5		
	7	4 ¹	1	6	.	3 ¹ 8
-	2	1	2	3	.	5 2
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	5	2	9	2	.	8 6



Sentence stems

_____ minus _____ is equal to _____.

_____ take away _____ is equal to _____.

When you subtract _____ from _____ the difference is _____.

The whole is _____. _____ is a part. _____ is a part.

_____ is the minuend. _____ is the subtrahend. The difference is _____.

To find the missing _____ you take away the other _____ from the _____.

If I know _____ then I can calculate _____

Learning sequence

- using a combination of number bond facts and 'make the previous 10/100' strategy, subtract numbers using concrete objects, pictorial representations, and mentally, including:
 - a two- / three- / four- digit number and ones
 - a two- / three- / four- digit number and tens
 - a two- / three- / four- digit number and hundreds
 - a two- / three- / four- digit number and thousands
 - decimal numbers, up to three decimal places
- subtract numbers (as sequence above) using formal written methods (columnar subtraction)
- subtract whole numbers with more than 4 digits – and up to three decimal places – using formal written methods (columnar subtraction)
- subtract numbers mentally with increasingly large numbers
- use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy
- solve subtraction multi-step problems in contexts, deciding which methods to use and why
- solve problems involving numbers up to three decimal places

Unit overview: Subtraction – Year 6

National Curriculum requirements

By the end of the year, the children will be able to:

- perform mental calculations, including with mixed operations and large numbers
- solve multi-step problems in contexts, deciding which operations and methods to use and why

Vocabulary

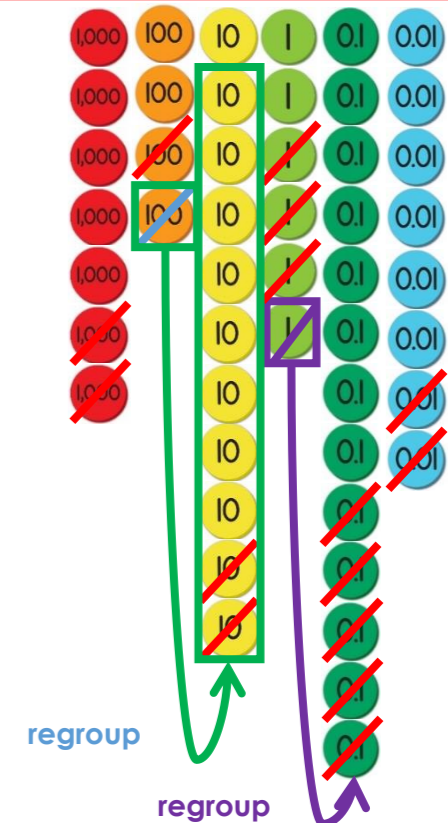
- digit
- number bonds
- minus / subtract / takeaway
- whole / minuend
- part / subtrahend
- part / difference
- equal to
- regroup
- estimate

Manipulatives

- counters
- dienes
- place value counters
- interlocking cubes
- hundred squares
- ten frames
- number lines
- bead strings

Visual representations

	Th	H	T	O	t	h
	7	4 ³	1 ¹	6 ⁵	.	3 ¹ 8
-	2	1	2	3	.	5 2
<hr/>						
	5	2	9	2	.	8 6



Sentence stems

_____ minus _____ is equal to _____.

_____ take away _____ is equal to _____.

When you subtract _____ from _____ the difference is _____.

The whole is _____. _____ is a part. _____ is a part.

_____ is the minuend. _____ is the subtrahend. The difference is _____.

To find the missing _____ you take away the other _____ from the _____.

If I know _____ then I can calculate _____

Learning sequence

- using a combination of number bond facts and 'make the previous 10/100' strategy, subtract numbers using concrete objects, pictorial representations, and mentally, including:
 - a two- / three- / four- digit number and ones
 - a two- / three- / four- digit number and tens
 - a two- / three- / four- digit number and hundreds
 - a two- / three- / four- digit number and thousands
 - decimal numbers, up to three decimal places
- subtract numbers (as sequence above) using formal written methods (columnar subtraction)
- subtract whole numbers with more than 4 digits – and up to three decimal places – using formal written methods (columnar subtraction)
- subtract numbers mentally with increasingly large numbers
- use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy
- solve subtraction multi-step problems in contexts, deciding which methods to use and why
- solve problems involving numbers up to three decimal places