

National Curriculum Strands

Year 1 – Number and place value (When planning ensure you track back to Reception and forwards to year 2)

National Curriculum

Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number.
Count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s
Given a number, identify one more and one less
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
Read and write numbers from 1-20 in numerals and words

Key Concepts

Numbers go in a specific order
We can count in different ways (forwards, backwards, in different increments)
Numbers can have more than one digit.
A group of objects can be partitioned in a number of ways- the total stays the same. (conservation)
Ordinal numbers are for describing the position of objects.
When comparing we use the terms 'greater than' and 'smaller than' and 'more than' and 'fewer than.'
When we are talking about objects we say 'more than' and 'fewer than'. When we are talking about numbers we say 'greater than' and 'smaller than'.
Making ten first supports with number conservation. Children then count on from ten rather than starting at 1.

Potential barriers

Unable to recognise numbers.
Knowledge of saying numbers out loud with no concern for value or amount of objects.
No understanding of the value that each digit holds.
Understanding of number size – confusion over 3 is bigger than 1.
Does not count with 1-1 correspondence.
Able to count forwards but struggles to count backwards or find 'one less than...'
Counts all rather than counting 'on' (no conservation of number).
Sees a 'ten' as one rather than ten ones.
Confusion between 'teen' numbers and multiples of ten: 16, 60.
Reversal of digits.

Example Questions

What number comes after 22? Before 65?
Count back from 10 to six. How many did you count?
Which tens number comes after 50? Before 80?
What would be the best way to count marbles into the jar?
There is always 1 left over when an odd number is divided by 2. True or false? Can you prove it?
Draw a ring around the person who is 9th in the line.
Estimate the number of pencils.
Estimate how many pairs of socks you could make. (Show a picture of unpaired socks)
Look at these numbers: 34 12 45 60 72 28 Which of these numbers is the largest? Which of these numbers is between 10 and 20?
This sentence is correct: 8 is less than 10. Two of these sentences are correct. Tick them: 18 is more than 30, 26 is less than 60, 50 is more than 17, 47 is less than 21.
Fill in the blanks: 35 is more than \square , 35 is between \square and \square , 35 has \square tens.
Write the number thirty-two.
Fill in the missing numbers: 18 is 1 less than \square , 18 is 10 less than \square .
Draw a circle around each even number: 11 12 13 14 15 16 17 18 19

Notes and guidance (non statutory)

Pupils practice counting (1,2,3...) ordering (e.g. first, second, third) and to indicate a quantity (e.g. 3 apples, 2 centimeters), including solving simple concrete problems until they are fluent.
Pupils begin to recognize place value in numbers beyond 20 by reading, writing, counting and comparing numbers up to 100, supported by objects and pictorial representations.
They practice counting as reciting numbers and counting as enumerating objects, and counting in 2s, 5s, and 10s from different multiples to develop their recognition of patterns in the number system (e.g. odd/even) including varied practice through increasingly complex questions.
They recognize and create repeating patterns with objects and with shapes.

Learning objectives (see overleaf for exemplification)

To identify one more and one less.
To compare quantities (using equal to, more than, less than (fewer), most, least)
To match numbers and quantities.
To locate numbers on a number line.
To read & write numbers from 1-20 in numerals and words.
To identify odd and even numbers.
To understand ordinal numbers.
To compare numbers up to 20 (and beyond).
To describe and extend number sequences.
To make ten.
To regroup (carry out a fair swap).
To make ten and count on (in concrete).
To identify ten and count on (in pictorial).
To count out a 2 digit number to 20 and regroup in the 1s.
To partition and recombine numbers to 20 into 10s and 1s (teen numbers).
To partition and recombine any 2 digit number into 10s and 1s.

Mental maths

To count to and across 100
To count larger collections by grouping into tens, then fives or twos.
To count backwards in ones from any two digit number
To count on any given single digit number from any two digit number (count on seven from 22)
To count in multiples of 2, 5 and 10
To describe and extend number sequences: counting on or back in steps of ones or tens from any given number.
Count in 2s from 0-20.
Count in 2s from any given number
To identify one more and one less than any given number
Can say whether any number from 1-100 is odd or even and why.
Count in tens from zero... from 40... from 8
Count in 2s from zero, count from 1,3,5
To say what number comes next in a given pattern. (16,14,12, \square , \square)
To recall number bonds (see addition strand for exemplification)
To know number bonds of all numbers within 10 (6 = 1+5, 5+1, 4+2, 2+4 etc)
To know number bonds to 10
To know number bonds within 20
To make a reasonable estimate (then count to check)
To state the value of the digits in a two digit number (14 is one ten and four ones)

Exemplification of Learning objectives

| Year 1 – Number and place value | | Progression (a combination of these models and images can be used for every objective) | | | |
|---|---|---|--|---|--|
| <p>To find one more/less than a given number</p> <p>One more than five is six.</p> | <p>To compare quantities</p> <p>'More than' to compare objects. 'There are more green apples than red apples' 'There are fewer/less red apples than green apples'</p> <p>'Greater than' to compare numbers. 5 is greater than 3 3 is smaller than 5</p> <p>Count and compare</p> | <p>To match numbers and quantities.</p> <p>9 Nine</p> <p>Can you make this amount using unifix cubes?</p> | <p>To locate numbers on a number line.</p> <p>Where would 15 be on the number line? How do you know? On a bead string? On a counting stick?</p> | <p>To read and write numbers to 20</p> | |
| <p>To identify odd and even numbers</p> <p>1 odd 2 even 3 odd 4 even 5 odd</p> <p>Use 'pairs of' to represent even</p> <p>Represent up to 9 using ten grid.</p> | <p>To understand ordinal numbers</p> <p>Circle the fourth elephant</p> <p>1st</p> <p>Circle the ninth spider</p> <p>1st</p> | <p>To compare numbers up to 20. (fewer/more) (smaller/greater)</p> <p>Which set has fewer?</p> <p>Set A has 5 spiders and set B has 12 spiders. Set A has 7 spiders fewer than set B.</p> <p>17 13 17 is greater than 13.</p> | | | |
| <p>To describe and extend number sequences</p> <p>How many stars in the next pattern?</p> <p>Find the missing numbers: 15, 14, 13, □, □, □</p> | <p>To make ten</p> <p>To use bundles of straws for children to feel the 'ten-ness' of ten.</p> <p>One ten and 2 ones = 12</p> | <p>To regroup (carry out a fair swap)</p> <p>For children to use Dienes to create a 'fair swap' (regrouping of ten ones for one ten)</p> <p>Fair swap</p> | <p>Counting and making tens</p> <p>COUNT THE</p> <p>1, 2, 3, 4, 5, ... 10</p> <p>Make tens and count.</p> <p>10 ten 10, ... 20 ten, ... twenty</p> | | |
| <p>To make ten and count on (concrete)</p> <p>Use objects, dienes or bundles of straws to 'make 10' then count on:</p> <p>10.....11, 12, 13, 14 11 14 10.....11, 12 12</p> | <p>To make ten and count on (pictorial)</p> <p>Draw around ten and then count on.</p> <p>Ten and eight is eighteen.</p> <p>10..... 11, 12, 13, 14, 15, 16, 17, 18</p> | <p>To count out a 2 digit number to 20 and regroup in the 1s</p> <p>Regroup</p> | <p>To partition and recombine numbers to 20 into 10s and 1s. (teen numbers then beyond 20)</p> <p>'16 is 1 ten and 6 ones'</p> <p>16 whole 10 part 6 part</p> | | |



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When we are talking about numbers we say 'greater than' and 'smaller than'. Making ten first supports with number conservation. Children then count on from ten rather than starting at 1.</p> <p>Potential barriers Unable to recognise numbers. Knowledge of saying numbers out loud with no concern for value or amount of objects. No understanding of the value that each digit holds. Understanding of number size – confusion over 3 is bigger than 1. Does not count with 1-1 correspondence. Able to count forwards but struggles to count backwards or find 'one less than...' Counts all rather than counting 'on' (no conservation of number). Sees a 'ten' as one rather than ten ones. Confusion between 'teen' numbers and multiples of ten: 16, 60. Reversal of digits.</p> <p>Example Questions What number comes after 22? Before 65? Count back from 10 to six. How many did you count? Which tens number comes after 50? Before 80? What would be the best way to count marbles into the jar? There is always 1 left over when an odd number is divided by 2. True or false? Can you prove it? Draw a ring around the person who is 9th in the line. Estimate the number of pencils. Estimate how many pairs of socks you could make. (Show a picture of unpaired socks) Look at these numbers: 34 12 45 60 72 28 Which of these numbers is the largest? Which of these numbers is between 10 and 20? This sentence is correct: 8 is less than 10. Two of these sentences are correct. Tick them: 18 is more than 30, 26 is less than 60, 50 is more than 17, 47 is less than 21. Fill in the blanks: 35 is more than c, 35 is between c and c, 35 has c tens. Write the number thirty-two. Fill in the missing numbers: 18 is 1 less than c, 18 is 10 less than c. Draw a circle around each even number: 11 12 13 14 15 16 17 18 19</p> | <p>Notes and guidance (non statutory) Pupils practice counting (1,2,3...) ordering (e.g. first, second, third) and to indicate a quantity (e.g. 3 apples, 2 centimeters), including solving simple concrete problems until they are fluent. Pupils begin to recognize place value in numbers beyond 20 by reading, writing, counting and comparing numbers up to 100, supported by objects and pictorial representations. They practice counting as reciting numbers and counting as enumerating objects, and counting in 2s, 5s, and 10s from different multiples to develop their recognition of patterns in the number system (e.g. odd/even) including varied practice through increasingly complex questions. They recognize and create repeating patterns with objects and with shapes.</p> <p>Learning objectives (see overview for exemplification) To identify one more and one less. To match numbers and quantities. To locate numbers on a number line. To read & write numbers from 1-20 in numerals and words. To identify odd and even numbers. To understand ordinal numbers. To compare numbers up to 20 (and beyond). To describe and extend number sequences. To make ten. To regroup (carry out a fair swap). To make ten and count on (in concrete). To identify ten and count on (in pictorial). To count out a 2 digit number to 20 and regroup in the 1s. To partition and recombine numbers to 20 into 10s and 1s (teen numbers). To partition and recombine any 2 digit number into 10s and 1s.</p> <p>Mental maths To count to and across 100 To count larger collections by grouping into tens, then fives or twos. To count backwards in ones from any two digit number To count on any given single digit number from any two digit number (count on seven from 22) To count in multiples of 2, 5 and 10 To describe and extend number sequences: counting on or back in steps of ones or tens from any given number. Count in 2s from 0-20. Count in 2s from any given number To identify one more and one less than any given number Can say whether any number from 1-100 is odd or even and why. Count in tens from zero... from 40... from 8 Count in 2s from zero, count from 1,3,5 To say what number comes next in a given pattern. (16,14,12, c,c) To recall number bonds (see addition strand for exemplification) To know number bonds of all numbers within 10 (6 = 1+5, 5=1, 4=2, 2+4 etc) To know number bonds to 10 To know number bonds within 20 To make a reasonable estimate (then count to check) To state the value of the digits in a two digit number. (14 is one ten and four ones)</p> |
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| <p>Key Concepts Numbers go in a specific order. We can count in different ways (forwards, backwards, in different increments). Numbers can have more than one digit. A group of objects can be partitioned in a number of ways- the total stays the same. (conservation) Ordinal numbers are for describing the position of objects. When comparing we use the terms 'greater than' and 'smaller than' and 'more than' and 'fewer than'. When we are talking about objects we say 'more than' and 'fewer than'. When we are talking about numbers we say 'greater than' and 'smaller than'. Making ten first supports with number conservation. Children then count on from ten rather than starting at 1.</p> | <p>Learning objectives (see overview for exemplification) To identify one more and one less. To compare quantities (using equal to, more than, less than (fewer), most, least) To match numbers and quantities. To locate numbers on a number line. To read & write numbers from 1-20 in numerals and words. To identify odd and even numbers. To understand ordinal numbers. To compare numbers up to 20 (and beyond). To describe and extend number sequences. To make ten. To regroup (carry out a fair swap). To make ten and count on (in concrete). To identify ten and count on (in pictorial). To count out a 2 digit number to 20 and regroup in the 1s. To partition and recombine numbers to 20 into 10s and 1s (teen numbers). To partition and recombine any 2 digit number into 10s and 1s.</p> |
| <p>Example Questions What number comes after 22? Before 65? Count back from 10 to six. How many did you count? Which tens number comes after 50? Before 80? What would be the best way to count marbles into the jar? There is always 1 left over when an odd number is divided by 2. True or false? Can you prove it? Draw a ring around the person who is 9th in the line. Estimate the number of pencils. Estimate how many pairs of socks you could make. (Show a picture of unpaired socks) Look at these numbers: 34 12 43 60 72 28 Which of these numbers is the largest? Which of these numbers is between 10 and 20? This sentence is correct: 8 is less than 10. Two of these sentences are correct. Tick them: 18 is more than 10. 5 is less than 60. 50 is more than 17. 47 is less than 21. Fill in the blanks: 35 is more than \square, 35 is between \square and \square, 35 has \square tens. Write the number thirty-two. Fill in the missing numbers: 18 is 1 less than \square, 18 is 10 less than \square. Draw a circle around each even number: 11 12 13 14 15 16 17 18 19</p> | <p>Mental maths To count to and across 100. To count larger collections by grouping into tens, then fives or twos. To count backwards in ones from any two digit number. To count on any given single digit number from any two digit number (count on seven from 22) To count in multiples of 2, 5 and 10. To describe and extend number sequences: counting on or back in steps of ones or tens from any given number. Count in 2s from 0-20. Count in 2s from any given number. To identify one more and one less than any given number. Can say whether any number from 1-100 is odd or even and why. Count in tens from zero... from 40... from 8. Count in 2s from zero, count from 1, 3, 5. To say what number comes next in a given pattern. (16, 14, 12, \square, 8) To recall number bonds (see addition strand for exemplification) To know number bonds of all numbers within 10 (6 = 1+5, 5=1+4, 2+4 etc) To know number bonds to 10. To know number bonds within 20. To make a reasonable estimate (then count to check). To state the value of the digits in a two digit number (14 is one ten and four ones)</p> |



Key Concepts

Numbers go in a specific order

We can count in different ways (forwards, backwards, in different increments)

Numbers can have more than one digit.

A group of objects can be partitioned in a number of ways- the total stays the same. (conservation)

Ordinal numbers are for describing the position of objects.

When comparing we use the terms 'greater than' and 'smaller than' and 'more than' and 'fewer than.'

When we are talking about objects we say 'more than' and 'fewer than'. When we are talking about numbers we say 'greater than' and 'smaller than'.

Making ten first supports with number conservation. Children then count on from ten rather than starting at 1.

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| <p>Example Questions What number comes after 22? Before 65? Count back from 10 to six. How many did you count? Which tens number comes after 50? Before 80? What would be the best way to count marbles into the jar? There is always 1 left over when an odd number is divided by 2. True or false? Can you prove it? Draw a ring around the person who is 9th in the line. Estimate the number of pencils. Estimate how many pairs of socks you could make. (Show a picture of unpaired socks) Look at these numbers: 34 12 45 60 72 28 Which of these numbers is the largest? Which of these numbers is between 10 and 20? This sentence is correct: 8 is less than 10. Two of these sentences are correct. Tick them: 18 is more than 30, 26 is less than 60, 50 is more than 17, 47 is less than 21. Fill in the blanks: 35 is more than □, 35 is between □ and □, 35 has □ tens. Write the number thirty-two. Fill in the missing numbers: 18 is 1 less than □, 18 is 10 less than □. Draw a circle around each even number: 11 12 13 14 15 16 17 18 19</p> | |



Example Questions

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Count back from 10 to six. How many did you count?

Which tens number comes after 50? Before 80?

What would be the best way to count marbles into the jar?

There is always 1 left over when an odd number is divided by 2. True or false? Can you prove it?

Draw a ring around the person who is 9th in the line.

Estimate the number of pencils.

Estimate how many pairs of socks you could make. (Show a picture of unpaired socks)

Look at these numbers: 34 12 45 60 72 28 Which of these numbers is the largest? Which of these numbers is between 10 and 20?

This sentence is correct: 8 is less than 10. Two of these sentences are correct. Tick them: 18 is more than 30, 26 is less than 60, 50 is more than 17, 47 is less than 21.

Fill in the blanks: 35 is more than □, 35 is between □ and □, 35 has □ tens.

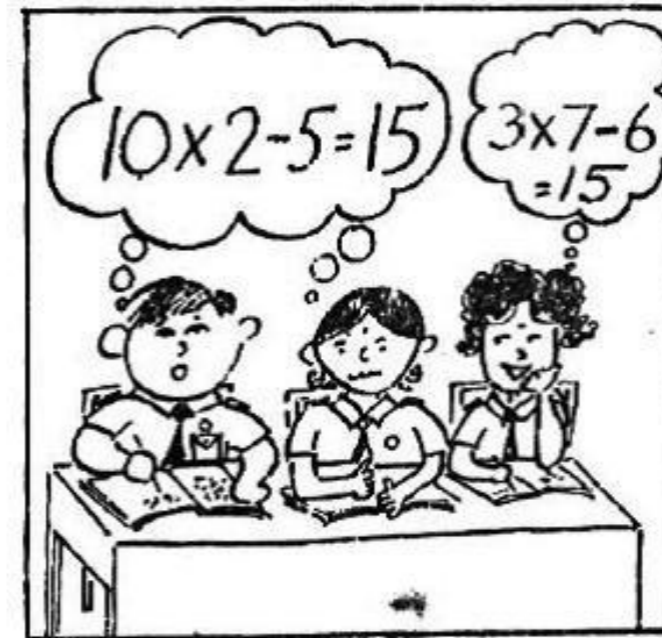
Write the number thirty-two.

Fill in the missing numbers: 18 is 1 less than □, 18 is 10 less than □.

Draw a circle around each even number: 11 12 13 14 15 16 17 18 19

National Curriculum Strands

| Year 1 – Number and place value (When planning ensure you track back to Reception and forwards to year 2) | |
|--|--|
| <p>National Curriculum Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. Count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s. Given a number, identify one more and one less. 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. Read and write numbers from 1-20 in numerals and words.</p> <p>Key Concepts Numbers go in a specific order. We can count in different ways (forwards, backwards, in different increments). Numbers can have more than one digit. A group of objects can be partitioned in a number of ways- the total stays the same. (conservation) Ordinal numbers are for describing the position of objects. When comparing we use the terms 'greater than' and 'smaller than' and 'more than' and 'fewer than'. When we are talking about objects we say 'more than' and 'fewer than'. When we are talking about numbers we say 'greater than' and 'smaller than'. Making ten first supports with number conservation. Children then count on from ten rather than starting at 1.</p> <p>Potential barriers Unable to recognise numbers. Knowledge of saying numbers out loud with no concern for value or amount of objects. No understanding of the value that each digit holds. Understanding of number size – confusion over 3 is bigger than 1. Does not count with 1:1 correspondence. Able to count forwards but struggles to count backwards or find 'one less than...' Counts all rather than counting 'on' (no conservation of number). Sees a 'ten' as one rather than ten ones. Confusion between 'teen' numbers and multiples of ten: 16, 60. Reversal of digits.</p> <p>Example Questions What number comes after 22? Before 65? Count back from 10 to six. How many did you count? Which tens number comes after 50? Before 80? What would be the best way to count marbles into the jar? There is always 1 left over when an odd number is divided by 2. True or false? Can you prove it? Draw a ring around the person who is 9th in the line. Estimate the number of pencils. Estimate how many pairs of socks you could make. (Show a picture of unpaired socks) Look at these numbers: 34 12 43 60 72 28. Which of these numbers is the largest? Which of these numbers is between 10 and 20? This sentence is correct: 8 is less than 10. Two of these sentences are correct. Tick them: 18 is more than 26 is less than 60, 50 is more than 17, 47 is less than 21. Fill in the blanks: 35 is more than \square, 35 is between \square and \square, 35 has \square tens. Write the number thirty-two. Fill in the missing numbers: 18 is 1 less than \square, 18 is 10 less than \square. Draw a circle around each even number: 11 12 13 14 15 16 17 18 19</p> | <p>Notes and guidance (non-statutory) Pupils practice counting (1,2,3...) or listing (e.g. first, second, third) and to indicate a quantity (e.g. 3 apples, 2 centimeters), including solving simple concrete problems until they are fluent. Pupils begin to recognise place value in numbers beyond 20 by reading, writing, counting and comparing numbers up to 100, supported by objects and pictorial representations. They practice counting as finding numbers and counting as enumerating objects, and counting in 2s, 5s, and 10s from different multiples to develop their recognition of patterns in the number system (e.g. odd/even) including varied practice through increasingly complex questions. They recognise and create repeating patterns with objects and with shapes.</p> <p>Learning objectives (see overview for exemplification) To identify one more and one less. To compare quantities (using equal to, more than, less than (fewer), most, least). To match numbers and quantities. To locate numbers on a number line. To read & write numbers from 1-20 in numerals and words. To identify odd and even numbers. To understand ordinal numbers. To compare numbers up to 20 (and beyond). To describe and extend number sequences. To make ten. To regroup (carry out a fair swap). To make ten and count on (in concrete). To identify ten and count on (in pictorial). To count out a 2 digit number. To partition and combine any 2 digit number into 10s and 1s. Memorisation To count to and across 100. To count larger collections by grouping into tens, then fives or twos. To count backwards in ones from any two digit number. To count on any given single digit number from any two digit number (count on seven from 22). To count in multiples of 2, 5 and 10. To describe and extend number sequences: counting on or back in steps of ones or tens from any given number. Count in 2s from 0-20. Count in 2s from any given number. To identify one more and one less than any given number. Can say whether any number from 1-100 is odd or even and why. Count in tens from zero... from 40... from 8. Count in 2s from zero, count from 1,3,5. To say what number comes next in a given pattern. (16,14,12, \square, \square) To recall number bonds (see addition strand for exemplification). To know number bonds of all numbers within 10 (6 = 1+5, 5+1, 4+2, 2+4 etc.) To know number bonds to 10. To know number bonds within 20. To make a reasonable estimate (then count to check). To state the value of the digits in a two digit number (14 is one ten and four ones).</p> |



Mental maths

To count to and across 100

To count larger collections by grouping into tens, then fives or twos.

To count backwards in ones from any two digit number

To count on any given single digit number from any two digit number (count on seven from 22)

To count in multiples of 2, 5 and 10

To describe and extend number sequences: counting on or back in steps of ones or tens from any given number.

Count in 2s from 0-20.

Count in 2s from any given number

To identify one more and one less than any given number

Can say whether any number from 1-100 is odd or even and why.

Count in tens from zero... from 40... from 8

Count in 2s from zero, count from 1,3,5

To say what number comes next in a given pattern. (16,14,12, \square , \square)

To recall number bonds (see addition strand for exemplification)

To know number bonds of all numbers within 10 (6 = 1+5, 5+1, 4+2, 2+4 etc.)

To know number bonds to 10

To know number bonds within 20

To make a reasonable estimate (then count to check)

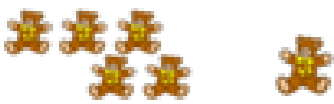





To state the value of the digits in a two digit number (14 is one ten and four ones)

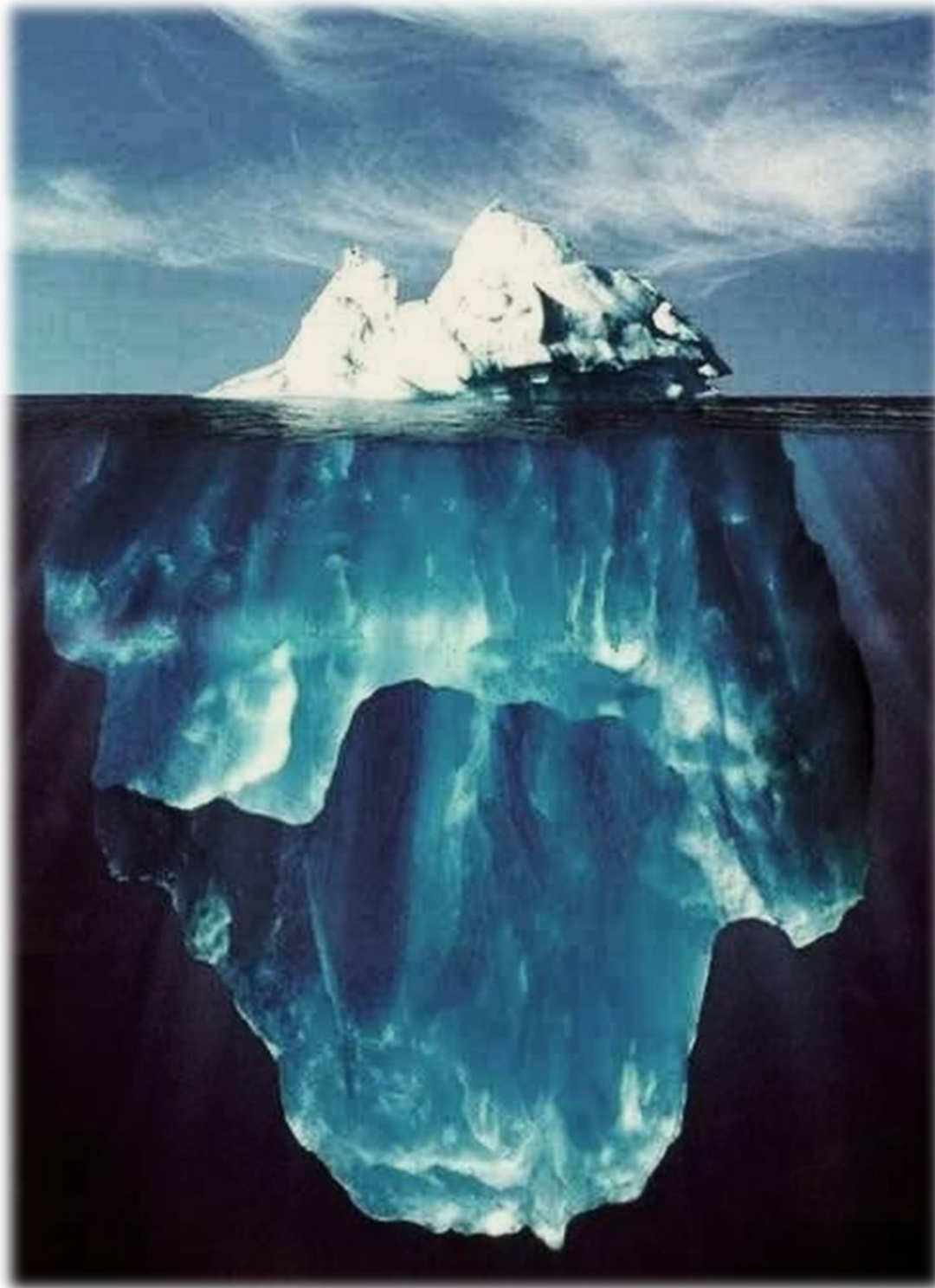
National Curriculum Strands

Learning objectives (see overleaf for exemplification)

- To identify one more and one less.
- To compare quantities (using equal to, more than, less than (fewer), most, least)
- To match numbers and quantities.
- To locate numbers on a number line.
- To read & write numbers from 1-20 in numerals and words.
- To identify odd and even numbers.
- To understand ordinal numbers.
- To compare numbers up to 20 (and beyond).
- To describe and extend number sequences.
- To make ten.
- To regroup (carry out a fair swap).
- To make ten and count on (in concrete).
- To identify ten and count on (in pictorial).
- To count out a 2 digit number to 20 and regroup in the 1s.
- To partition and recombine numbers to 20 into 10s and 1s (teen numbers).
- To partition and recombine any 2 digit number into 10s and 1s.



| Year 1 – Number and place value | | Progression (a combination of these models and images) |
|---|---|---|
| <p>To find one more/less than a given number</p>  <p>One more than five is six.</p>  | <p>To compare quantities</p> <p>'More than' to compare objects. 'There are more green apples than red apples' 'There are fewer/less red apples than green apples'</p>  <p>'Greater than' to compare numbers. 5 is greater than 3 3 is smaller than 5</p>  <p>Count and compare</p> | <p>To match numbers and quantities.</p> <p>9 _____ </p> <p>Nine _____ </p> <p>Can you make this amount using unifix cubes?</p> |



Deep
Learning
...without
sinking

Experience and the National Curriculum

Procedural
Fluency

Conceptual
Understanding

