



Rainow Primary School

- Caring - Learning - Achieving -

A Guide to the Year 6 Curriculum in English and Maths

This booklet provides information on the end of year expectations for children in our school.



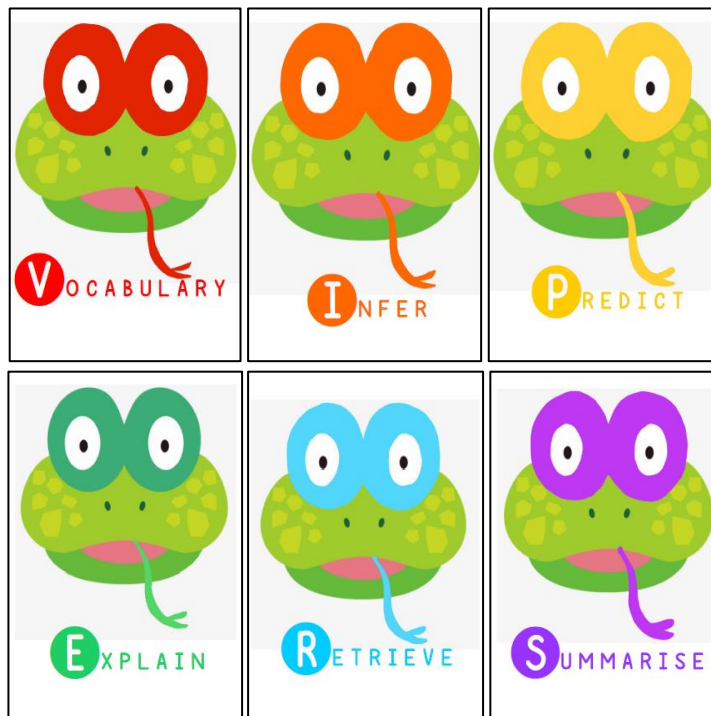
READING

By Year 6 your child may be a confident reader and be reading texts of greater length. However, you can still help them to develop their reading skills. Ensure they read aloud to you sometimes; talk to them about the books they are reading; ask questions about books they are reading; and encourage them to read a range of types of books. Sharing a book is often the best way to do this, so that you can model good reading and discuss the text together. Being aware of the expectations of the National Curriculum can help make reading with your child more productive without spoiling the pleasure.

The National Curriculum sets out the following key objectives to be achieved by the end of Year 6:

- read age-appropriate books with confidence and fluency (including whole novels)
- read aloud with intonation that shows understanding
- work out the meaning of words from the context
- explain and discuss their understanding of what they have read, drawing inferences and justifying these with evidence
- predict what might happen from details stated and implied
- retrieve information from non-fiction
- summarise main ideas, identifying key details and using quotations for illustration
- evaluate how authors use language, including figurative language, considering the impact on the reader
- make comparisons within and across books.

In school, we use VIPERS to help us focus on the different reading skills:





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For suggestions of books that your child could read, try the following links:

<https://www.thereaderteacher.com/year6>

<https://www.booksfortopics.com/year-6>

<https://www.lovereadng4kids.co.uk/>



WRITING

During Year Six, children will write a range of fiction and non-fiction pieces with increasing sophistication. They will be encouraged to develop their own 'writer's voice'. The children will need to make decisions about precise and effective word choices and sentence structures; in doing so, they will carefully consider the overall effect on the reader. The emphasis is very much on producing quality, controlled writing. The following criteria are displayed in the children's writing books and they focus on specific targets depending on their personal needs or the requirements of the task.

Rainow Writing Criteria for Y6

Planning my writing:

- I can use a range of good writing models to help me plan a variety of writing tasks
- I make notes to develop my ideas for writing drawing on reading and research where necessary

Structuring my writing:

- I can use paragraphs to organise my writing logically and shape a non-fiction text effectively
- I can develop ideas within a paragraph and use topic sentences to introduce them
- I am beginning to use a range of presentational devices in my writing (bullet points, underlining, headings and sub-headings)
- I can use cohesion within and between paragraphs, sustaining and developing ideas and introducing it with a topic sentence
- I can precis longer passages.

Writing sentences & joining clauses

- I use correct and consistent tense throughout my work
- I use relative clauses appropriately to make the meaning of my sentence clear for the reader
- I can use passive and modal verbs mostly appropriately
- I know how to use subordinate clauses to add clarity to my writing
- I explore different classes of conjunction and use them correctly
- I can move adverbial clauses within a sentence to make changes to the meaning.

Engaging and giving detail

- I use rich and adventurous vocabulary to add interest to my writing
- I write both formal and informal texts using the appropriate language structure
- I use stylistic devices to create effects in writing (simile, metaphor, personification)
- I can use dialogue in stories to move the narrative forward or to give information about characters
- I explore synonyms considering subtleties in meaning
- I am developing ways of depicting action in my fiction writing.

Punctuating Sentences

- I can use punctuation accurately in my writing (Capital letters . ! ? Commas in lists and after fronted adverbials)
- I can punctuate direct speech correctly, including the 'new speaker, new line' rule
- I can use commas to mark phrases or clauses accurately
- I can use brackets, dashes or commas to indicate parenthesis
- I can use colons, semi-colons and dashes to mark boundaries between independent clauses and colons to introduce lists.

Improving and editing

- When editing my writing, I can improve sentences and longer sections which impact on the overall effectiveness of the text
- When self- or peer-editing, I always consider the overall impact of the text and suggest relevant improvements
- I can perform my own compositions using appropriate intonation and volume
- I know how to correct my writing using dictionaries, a thesaurus, or spell checker.



The Government web site provides examples of children's writing at the "expected standard" by the end of year 6, as well as "working towards the expected standard" and "working at greater depths".

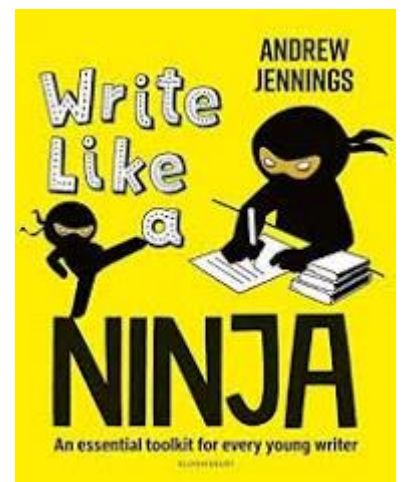
Clicking on the following link will give you an idea of the expectations for a Year 6 writer.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/653136/2018_exemplification_materials_KS2-WTS_Dani_.pdf

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/653133/2018_exemplification_materials_KS2-EXS_Morgan_.pdf

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/655619/2018_exemplification_materials_KS2-GDS_Frankie_.pdf

'Write Like a Ninja' and 'LinkyThinks' are fantastic resources for children to refer to whilst they write.





SPELLING

During Year Six, children will be taught the following:

- develop a range of personal strategies for learning new and irregular words
- develop a range of personal strategies for spelling at the point of composition
- develop a range of strategies for checking and proof reading spellings after writing
- use further prefixes (co-/sub-/auto-/micro-) and suffixes (-able/-ible/-ibly) and understand how to add them
- spell some words with 'silent' letters (for example, knight, psalm, solemn)
- spell words which contain -ough and ie/ei
- continue to distinguish between homophones and other words which are often confused
- use knowledge of morphology and etymology in spelling and understand that the spelling of some words needs to be learnt specifically
- use dictionaries to check the spelling and meaning of words
- use a thesaurus
- proofread for spelling errors.

Statutory Word List for Years Five and Six:

accommodate	conscience	existence	muscle	rhythm
accompany	conscious	explanation	necessary	sacrifice
according	controversy	familiar	neighbour	secretary
achieve	convenience	foreign	nuisance	shoulder
aggressive	correspond	forty	occupy	signature
amateur	criticise	frequently	occur	sincere
ancient	curiosity	government	opportunity	sincerely
apparent	definite	guarantee	parliament	soldier
appreciate	desperate	harass	persuade	stomach
attached	determined	hindrance	physical	sufficient
available	develop	identity	prejudice	suggest
average	dictionary	immediate	privilege	symbol
awkward	disastrous	immediately	profession	system
bargain	embarrass	individual	programme	temperature
bruise	environment	interfere	pronunciation	thorough
category	equip	interrupt	queue	twelfth
cemetery	equipped	language	recognise	variety
committee	equipment	leisure	recommend	vegetable
communicate	especially	lightning	relevant	vehicle
community	exaggerate	marvellous	restaurant	yacht
competition	excellent	mischievous	rhyme	

Children should be practising spellings from the current pattern/rule and the Y5/6 Word List. What do the words mean? Can they include them in a sentence? Can they spot them whilst they are reading? Do they know any synonyms or antonyms for the word?

Helping your child at home can make a huge difference.

The following web sites are very useful :

SPELLFRAME

http://www.bbc.co.uk/bitesize/ks2/english/spelling_grammar/

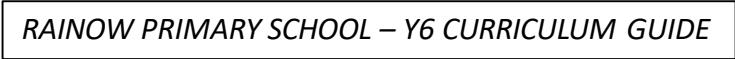
<https://www.topmarks.co.uk/english-games/7-11-years/spelling-and-grammar>

Have a good quality dictionary at home that your child will have access to when doing their homework. Encourage them to look words up that they come across in their reading if they are not sure of the definition. Writing for a purpose is the best kind of writing. Encourage your child to write thank you letters and check them for spelling mistakes. If you are going on holiday write packing lists, postcards, keep a family diary.



The following link will give you all the terms required by your child in year 6 and an explanation of their meaning.

The curriculum is very demanding now as far as grammar is concerned – especially if you have not studied it to the same depth at school.





MATHEMATICS

By Year 6, children should know basic number bonds (e.g. $2+6=8$, $20+60=80$, $200+600=800$) and all multiplication facts (and associated division facts) up to 12×12 . They need to have learnt them so well that they can be recalled **instantly** (no thinking time). Being able to do this enables efficient calculating, allowing them to fully focus on making sense of problems. Much of the knowledge in Year 5 relies on number facts being easily recalled. For example, to find common factors or to make simple conversions, knowledge of multiplication tables is essential.

Pupils are encouraged to ask themselves:

Can I do it in my head?

Do I need to make jottings?

Do I need to use a formal column method?

When introducing new concepts, concrete materials (hands-on resources) and pictorial representations (models and images) will be used to aid understanding before expecting children to work in an abstract way.

--- CONCRETE --- PICTORIAL --- ABSTRACT ---

Tips for helping with maths development:

+ Listen to your child – ask them to explain how they found an answer. Expect your child to use different strategies to solve problems – ask “Is there another way you could solve this?”

They truly understand what they are doing if they can explain or teach a concept to you.

+ Ask your child what they are doing in maths at school and try to use it in everyday life (e.g. fractions – what fraction of people in our family are children? What fraction of pizza is left/did you eat?) This gives them practise and shows them that maths relates to the ‘real’ world.

+ Give them opportunities to do maths – maths is everywhere!

Some great contexts for maths are:

- Money – counting and calculating – pocket money, banking, shopping
- Measuring – length, area, volume, cooking ingredients
- Travelling – reading numbers on signs, calculating distances & speeds, giving directions, timetables
- Games – Monopoly, Bingo, board games such as Snakes and Ladders



SOME USEFUL FACTS TO LEARN KNOW OFF BY HEART:

TIME

1 minute = 60 seconds
1 hour = 60 minutes
1 day = 24 hours
1 week = 7 days
1 leap year = 366 days
1 year = 365 days or 52 weeks or 12 months
1 century = 100 years
1 millennium = 1000 years

30 days has September, April, June and dark November.
All the rest have 31 days clear, except for February
which has 28 and 29 in each leap year.

SQUARE NUMBERS

1x1 = 1
2x2 = 4
3x3 = 9
4x4 = 16
5x5 = 25
6x6 = 36
7x7 = 49
8x8 = 64
9x9 = 81
10x10 = 100

PRIME NUMBERS <50

2, 3, 5, 7, 11, 13, 17, 19,
23, 29, 31, 37, 41, 43, 47

WORD ORIGINS/MEANING

mono- = one

uni- = one

bi- = two

tri- = three

quad- = four

pent- = five

hex- = six

hept- = seven

sept- = seven

oct- = eight

nona- = nine

dec- = ten

cent- = hundred

mille- = thousand

kilo- = thousand

MEASURES

Length:

10 millimetres (mm) = 1 centimetre (cm)
100 centimetres = 1 metre (m)
1000 millimetres = 1 metre
1000 metres = 1 kilometre (km)

Mass:

1000 grams (g) = 1 kilogram (kg)
1000 kilograms = 1 tonne

Capacity:

1000 millilitres (ml) = 1 litre (l)

Fractions

One whole (1)							
$\frac{1}{2}$ (half)				$\frac{1}{2}$ (half)			
$\frac{1}{4}$ (quarter)		$\frac{1}{4}$		$\frac{1}{4}$		$\frac{1}{4}$	
$\frac{1}{8}$ (eighth)	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$

One whole					
$\frac{1}{3}$ (third)		$\frac{1}{3}$		$\frac{1}{3}$	
$\frac{1}{6}$ (sixth)	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$

One whole									
$\frac{1}{5}$ (fifth)		$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$		$\frac{1}{5}$	
$\frac{1}{10}$ (tenth)	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$	$\frac{1}{10}$

Fraction / Decimal / Percentage Equivalence

Fraction	Decimal	Percentage
1 (whole)	1.0	100%
$\frac{1}{2}$	0.5	50%
$\frac{1}{4}$	0.25	25%
$\frac{3}{4}$	0.75	75%
$\frac{1}{10}$	0.1	10%
$\frac{2}{10}$	0.2	20%



MATHEMATICS – ADDITION

OBJECTIVES

Pupils should be taught to:

- ✓ add whole numbers with more than 4 digits, including using formal written methods (columnar addition)
- ✓ Add 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 addition and subtraction multi-step problems in contexts, deciding which operations & methods to use & why.

METHODS

Children will continue to practise using a range of strategies to add mentally.

For example, they might 'partition' the number: $2476 + 3832 = (2000 + 3000) + (400 + 800) + (70 + 30) + (6 + 2)$

We will extend our knowledge of column addition, using it to add yet bigger amounts. Using Place Value counters or Dienes, we will explore our understanding of how the method works.

Solve:

Th	H	T	O
4	4	3	4
+	3	3	2
<hr/>			
7	7	6	6

NB. Care must be taken when 'carrying' (this is where knowledge and understanding of Place Value is essential)

The concept of zero as a placeholder needs to be understood and utilised when adding numbers of different sizes (in different columns)

In this example, the child has realised their mistake. Placing a zero in the thousands column could help.

Addition is the inverse of subtraction; this relationship is demonstrated through 'Fact Families'.

369	
247	122

$$122 + 247 = 369$$

$$247 + 122 = 369$$

so $369 - 122 = 247$

$$369 - 247 = 122$$

Vocab:

add, addition, more than, sum, and, make, total, altogether, increase, plus, double, near double, partition, ones, tens, hundreds, thousands, ten thousands, carry, carrying, carry marks, columns, equals, is equal to, zero, placeholder



MATHEMATICS – SUBTRACTION

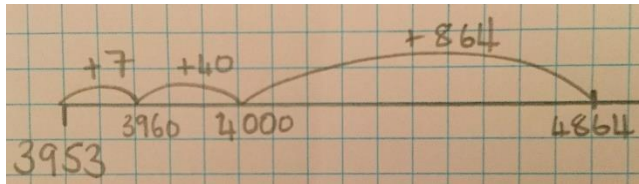
OBJECTIVES

Pupils should be taught 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 addition and subtraction multi-step problems in contexts, deciding which operations & methods to use & why.

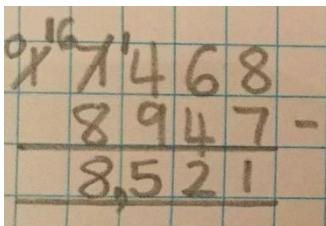
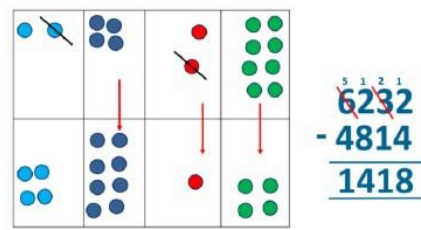
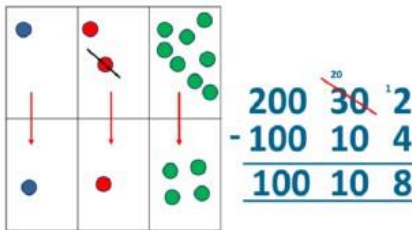
METHODS

'Counting On' on a numberline to find the difference between numbers is a useful method to use.

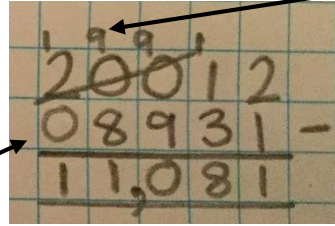


• nearest multiple of 10?
• next multiple of 100?
• next multiple of 1000?
 $864 + 40 + 7 = 911$

When understanding of the expanded method is secure, children will move on to the formal method of decomposition, which can be modelled using place value counters.



The concept of zero as a placeholder needs to be understood and used when adding numbers of different sizes (in different columns)



Care must be taken when exchanging across more than one column (this is where knowledge and understanding of Place Value is essential).

Subtraction is the inverse of addition; this relationship is demonstrated through 'Fact Families'. These are particularly useful in helping us solve missing number problems.

10,754	
a	2,709

$$10,754 - 2,709 = a$$

$$10,754 - a = 2,709$$

so $a + 2,709 = 10,754$
 $2,709 + a = 10,754$

Therefore, $a = 10,754 - 2,709 = 8,045$

Vocab:

subtraction, subtract, minus, decrease, less than, find the difference (between), count on, number line, number track, fewer, take (away), how many are left/left over? how many more/fewer is... than...? how much more/less is...? exchange, columns, decomposition, equals, zero, place holder



MATHEMATICS – MULTIPLICATION

OBJECTIVES

Pupils should be taught to:

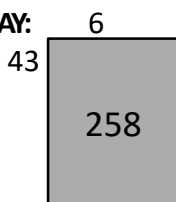
- ✓ identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers
- ✓ know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers
- ✓ establish whether a number up to 100 is prime and recall prime numbers up to 19
- ✓ multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers
- ✓ multiply numbers mentally drawing upon known facts
- ✓ multiply whole numbers and those involving decimals by 10, 100 and 1000

METHODS

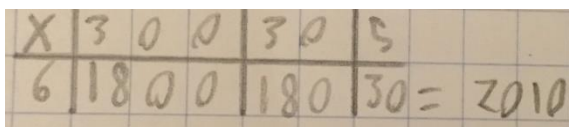
Children will continue to practise using known facts to help them multiply. For example, if $6 \times 7 = 42$ then $60 \times 7 = 420$ and $6 \times 70 = 420$.

Explicit links will be made between the array model and the grid method:

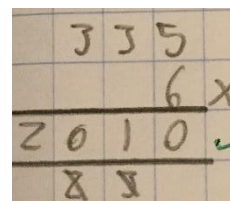
ARRAY:



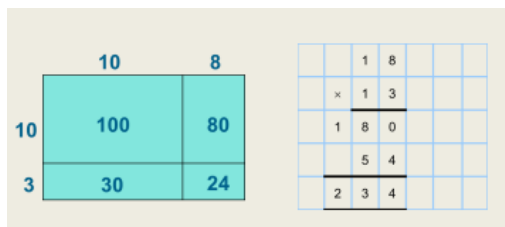
GRID METHOD:



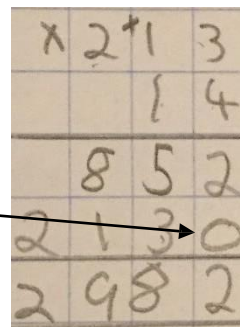
SHORT MULTIPLICATION:



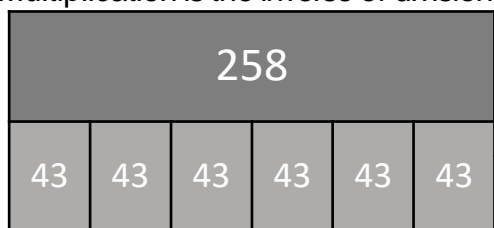
Children will also explore how the grid method supports understanding of long multiplication (2d x 2d)



Children will use their understanding of place value to explain why a zero is needed here:



NB. Multiplication is the inverse of division; this relationship is demonstrated through 'Fact Families'.



$43 \times 6 = 258$ so $258 \div 6 = 43$
 $6 \times 43 = 258$ $258 \div 43 = 6$
 6 equal groups of 43

Vocab:

array, lots of, groups of, times, multiplication, multiply, multiplied by, multiple of, product, factor, once, twice, three times, four times, five times... ten times, ...times as (big, long, wide, and so on), repeated addition, array, row, column, carry, zero, place holder, decimal point, decimals, short multiplication, long multiplication, grid



MATHEMATICS – DIVISION

OBJECTIVES

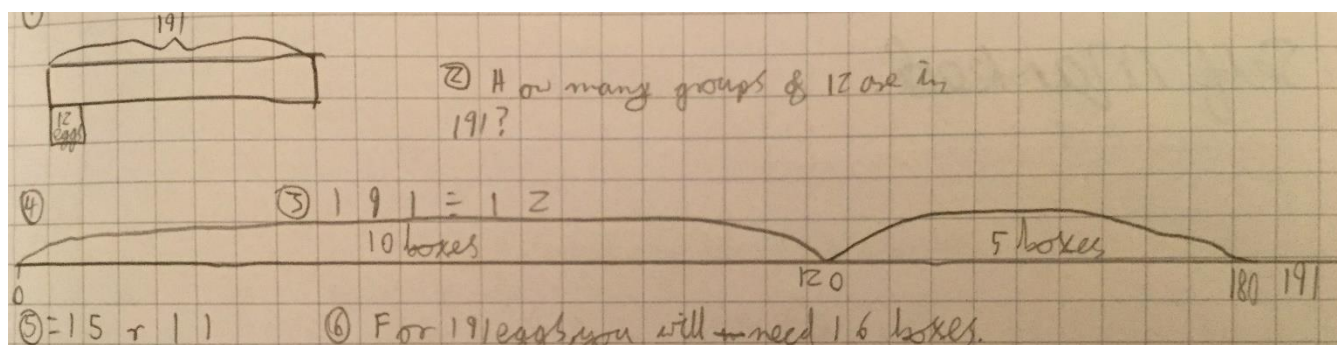
Pupils should be taught to:

- ✓ divide numbers mentally drawing upon known facts
- ✓ divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context
- ✓ divide whole numbers and those involving decimals by 10, 100 and 1000

METHODS

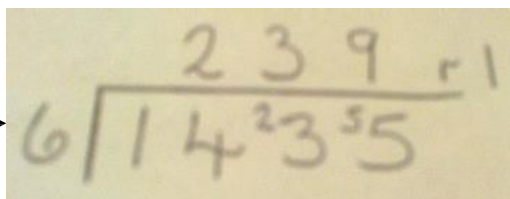
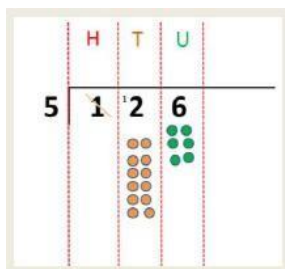
Sharing, Grouping and using a number line

Children will continue to explore division as sharing and grouping and to represent calculations on a number line until they have a secure understanding. They will encounter calculations with remainders as well as without. Remainders should be interpreted according to the context (i.e. rounded up or down to relate to the answer to the problem)

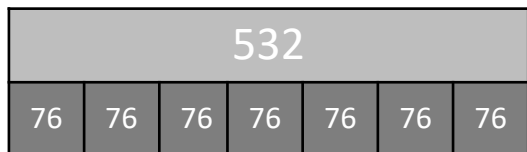


Short Division

This method is introduced using Place Value counters or Dienes to reinforce understanding.



NB. Division is the inverse of multiplication; this relationship is demonstrated through 'Fact Families'.



$$\begin{aligned}
 532 \div 7 &= 76 \\
 532 \div 76 &= 7
 \end{aligned}$$

so

$$\begin{aligned}
 7 \times 76 &= 532 \\
 76 \times 7 &= 532
 \end{aligned}$$

Vocab:

array, lots of, groups of, multiples, repeated subtraction, number line, share, share equally, one each, two each, three each... group in pairs, threes... tens, equal groups of, divide, division, divided by, divided into, remainder, factor, divisor, quotient, divisible by, 'bus stop', short division, long division, chunk.



MATHEMATICS – FRACTIONS

OBJECTIVES

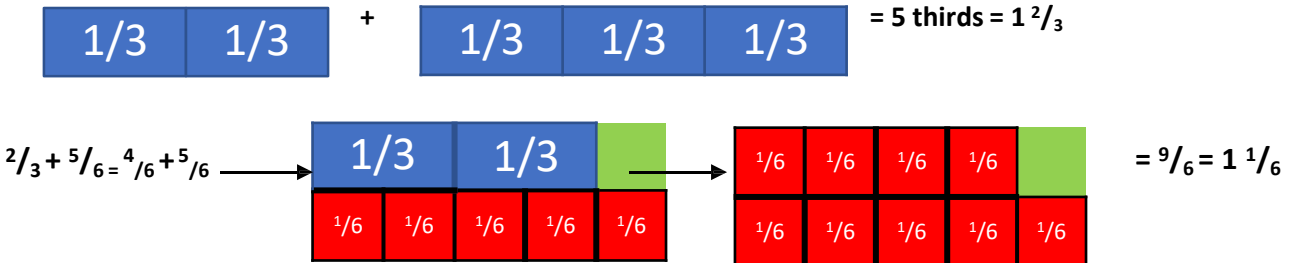
Pupils should be taught to:

- ✓ compare and order fractions whose denominators are all multiples of the same number
- ✓ identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths
- ✓ recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, $2/5 + 4/5 = 1 \frac{1}{5}$]
- ✓ add and subtract fractions with the same denominator and denominators that are multiples of the same number
- ✓ multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams
- ✓ read and write decimal numbers as fractions [for example, $0.71 = 71/100$]
- ✓ recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents
- ✓ round decimals with two d.p. to the nearest whole number and to one d.p.
- ✓ read, write, order and compare numbers with up to three d.p.
- ✓ solve problems involving number up to three d.p.
- ✓ recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal
- ✓ solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{5}$ $\frac{2}{5}$ $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25.

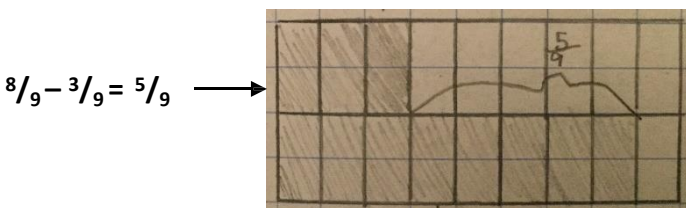
METHODS

Fraction strips, Bars and Cuisenaire Rods are useful resources for demonstrating these concepts.

Addition of fractions:

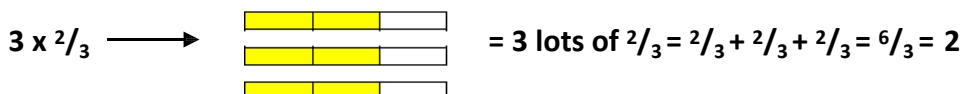


Subtraction of fractions:



Multiplication of fractions:

The concept of Repeated Addition is used here to reinforce what is happening to the fractions when they are multiplied by a whole number.



Vocab:

Whole, equal parts, four equal parts, one half, two halves, a quarter, two quarters, three quarters, one third, a third, equivalence, numerator, denominator, compare and order, tenths, equivalent decimals and fractions, proper fractions, improper fractions, mixed numbers, percentage, half, quarter, fifth, two fifths, four fifths, ratio, proportion.