Parent Homework Helper

Helping you to understand how your child learns to read, write and calculate at Hope School.

IF I TRY I CAN

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At Hope School we are committed to the principle that all children have the right to an education which meets their learning, emotional and social needs.

Welcome to Hope School

Contents

Welcome to a guide that shows parents how pupils in Hope School progress in reading, writing and mathematics.

Up-to-date

Teaching methods may have changed since you attended school. I hope this guide helps you understand how your child learns at Hope School, giving you an overview of what is involved.

How to use this guide

You don't need to read it all at once…just use it when your child asks for help with homework.

Questions?

If you have any questions, please do not hesitate to call the school office on 0151 2351410.

Hope School caters for children aged 5-13 years.

Writing: Oxford Writing Criterion Scale

All schools know that high quality assessment – linked to targeted and effective teaching – is the key to ensuring children make good progress. It allows teachers to identify and address any challenges children are facing as early as possible and also to extend and deepen learning for those who are ready.

The Oxford Writing Criterion Scale (OWCS) offers a comprehensive solution to assessment without Levels and can be used both as a periodic summative teacher assessment tool and as a tool to inform next steps for success, both in the short and long term. The OWCS has been matched to the yearly expectations of the 2014 National Curriculum in England, so that teachers can assess, track and report pupil attainment and progress against these expectations, and can do so consistently across a school. Schools outside of England, or those not following the National Curriculum in England, can also use the Oxford Writing Criterion Scale with confidence. That is because it is based on a deep understanding of progression in writing and the skills children need to master along the way, and goes far beyond simply 'ticking the boxes' of the 2014 National Curriculum in England.

The Oxford Writing Criterion Scale is a curriculum-neutral assessment tool that sets high expectations for all children and draws on best practice and expert subject knowledge.

Standard 1: Reception (age 5-6)

Standard 1 can be used both for the termly formal assessment of children's writing throughout Year 1/age 5-6 and to identify the next steps required for progress.

Essential Pre-writing skills

Before being assessed against Standard 1, children must be beginning to draw identifiable letters and/or write his/her own name.

Standard 1: Reception/age 5-6 – end of year expectation

By the end of the Reception Year, children should be able to:

- Write three or more simple statements on a given subject that can be read without the child's help and that make sense, although letter shapes and spelling may not be fully accurate. There may be no full stops (or there may be one or more in the wrong places) and use of capitals and lower case letters may not be fully established.

Children are expected to be a 'Secure Standard 1' by the end of the Reception Year in order to be on track to meet National Expectations at the end of KS1. NOTE: Children moving up into Year 1/P2 who have not achieved against criteria 18 and 19 from Standard 1 must focus on these as a priority.

Standard 2: Year 1 (age 5-6)

Standard 2 can be used both for the termly formal assessment of children's writing throughout Year 1/age 5-6 and to identify the next steps required for progress.

Essential Standard 1 skills

The following skills must be secured as quickly as possible in Year 1/age 5-6:

- Write three or more simple statements on a given subject that can be read without the child's help and that make sense, although letter shapes and spelling may not be fully accurate. There may be no full stops (or there may be one or more in the wrong places) and use of capitals and lower case letters may not be fully established.

Standard 2: Year 1/age 5-6 –

end of year expectation

By the end of Year 1/age 5-6, children should be able to:

- Produce a paragraph or more of developed ideas independently that can be read without help from the child. The outcome may be more like spoken than written language but must not be a retelling.
- Write one or more sentences extended by the use of 'and' or another conjunction and two or more sentences showing the correct use of full stops and capital letters.
- Usually spell most CVC words and most common words from the Reception and Year 1 Word lists correctly.
- Produce letter shapes which are mainly accurate, with clear spaces between most words.

Children are expected to be a 'Secure Standard 2' by the end of Year 1 in order to be on track to meet national expectations at the end of KS1.

Standard 3: Year 2 (age 6-7)

Standard 3 can be used both for the termly formal assessment of children's writing throughout Year 2/age 6-7 and to identify the next steps required for progress.

Essential Standard 2 skills

The following skills must be secured as a priority in Year 2/age 6-7:

- Produce a paragraph or more of developed ideas independently that can be read without help from the child. The outcome may be more like spoken than written language but must not be a retelling.
- Write one or more sentences extended by the use of 'and' or another conjunction and two or more sentences showing the correct use of full stops and capital letters.
- Usually spell most CVC words and most common words from the Reception and Year 1 word lists correctly.
- Produce letter shapes which are mainly accurate, with clear spaces between most words.

Standard 3: Year 2/age 6-7 – end of year expectation

By the end of Year 2/age 6-7, children should be able to:

- Produce close to a side (or more) of A4 writing that is clear and coherent with one or more strong features, responding mainly correctly to stimulus and purpose (not in a retelling, narrative or poem).
- Write sentences which show some variety, at least in the words with which they open, and which include some descriptive language and/or detail, including adjectives, adverbs and associated expanded phrases.
- Use some ambitious words for their age (occasional misuse is acceptable).
- Spell all CVC and most common words on the Year R, 1 and 2 word lists correctly, plus most simple compound words. Spelling of unknown complex words should be phonetically logical.
- Use simple past and present tenses mainly correctly.
- Correctly use three or more different connectives and three or more different types of punctuation, with most sentences demarcated with final punctuation followed by a capital letter.
- Produce handwriting which is controlled, mainly regular in size and becoming neat. There may be evidence of joining.

Children are expected to be a 'Secure Standard 3' by the end of Year 2 in order to be on track to meet national expectations at the end of KS1.

Standard 4: Year 3 (age 7-8)

Standard 4 can be used both for the termly formal assessment of children's writing throughout Year 3/age 7-8 and to identify the next steps required for progress.

Essential Standard 3 skills

The following skills must be secured as a priority in Year 3/age 7-8:

- Produce close to a side (or more) of A4 writing that is clear and coherent with one or more strong features, responding mainly correctly to stimulus and purpose (not in a retelling, narrative or poem).
- Write sentences which show some variety, at least in the words with which they open, and which include some descriptive language and/or detail, including adjectives, adverbs and associated expanded phrases.
- Use some ambitious words for their age (occasional misuse or 'purple prose' is acceptable).
- Spell all CVC and most common words on the Year R, 1 and 2 word lists correctly, plus most simple compound words. Spelling of unknown complex words should be phonetically logical.
- Use simple past and present tenses mainly correctly.
- Correctly use three or more different connectives and three or more different types of punctuation, with most sentences demarcated with final punctuation followed by a capital letter.
- Produce handwriting which is controlled, mainly regular in size and becoming neat. There may be evidence of joining.

Standard 4: Year 3/age 7-8 – end of year expectation

By the end of Year 3/age 7-8, children should be able to:

- Produce close to a side or more of A4 writing that is clear and coherent with some of the features below.
- Interpret the stimulus and purpose broadly accurately and demonstrate about 75% accuracy in basic skills.
- Show variety in sentence structure, including opening in a range of ways, adding detail and/or description and using a wider range of connectives and punctuation.
- Use interesting language with some use of words that are ambitious for their age (occasional misuse or 'purple prose' is acceptable).
- Use most past and present tense verbs accurately.
- Begin to use direct speech and a wider range of connectives (conjunctions, adverbs and prepositions) to show time, place and cause.
- Begin to use paragraphs.
- Produce handwriting that is neat and mainly joined.
- Initiate edits and improvements to their work by proof reading what they have written.

Children are expected to be a 'Secure Standard 4' by the end of Year 3 in order to be on track to meet national expectations at the end of KS2.

Standard 5: Year 4 (age 8-9)

Standard 5 can be used both for the termly formal assessment of children's writing throughout Year 4/age 8-9 and to identify the next steps required for progress.

Essential Standard 4 skills

The following skills must be secured as a priority in Year 4/age 8-9:

- Produce close to a side or more of A4 writing that is clear and coherent with some of the features below.
- Interpret the stimulus and purpose broadly accurately and demonstrate about 75% accuracy in basic skills.
- Show variety in sentence structure, including opening in a range of ways, adding detail and/or description and using a wider range of connectives and punctuation.
- Use interesting language with some use of words
- that are ambitious for their age (occasional misuse or 'purple prose' is acceptable).
- Use most past and present tense verbs accurately.
- Begin to use direct speech and a wider range of connectives (conjunctions, adverbs and prepositions) to show time, place and cause.
- Begin to use paragraphs.
- Produce handwriting that is neat and mainly joined.
- Initiate edits and improvements to their work by proof reading what they have written.

Children are expected to be a 'Secure Standard 4' by the end of Year 3 in order to be on track to meet national expectations at the end of KS2.

Standard 5: Year 4/age 8-9 – end of year expectation

By the end of Year 4/age 8-9, children should be able to:

- Produce more than a side of A4 writing that is clear and coherent with strong features and accurate interpretation of the stimulus and purpose.
- Spell most common words on the Year 3 and 4 word lists correctly, plus all compound words and many complex words.
- Show variety in sentence type and structure, including more sophisticated sentence openings, adding detail and/or description and using a wider range of sophisticated connectives.
- Use interesting language with a wide range of words that are ambitious for their age (occasional misuse is acceptable).
- Use a wide range of punctuation accurately.
- Use a wider range of connectives (conjunctions, adverbs and prepositions) to show time, place and cause.
- Produce handwriting that is neat and joined.
- Organize writing appropriately for the purpose, including using paragraphs.
- Initiate edits and improvements to their work by proof reading what they have written.

Children are expected to be a 'Secure Standard 5'

by the end of Year 4 in order to be on track to meet

national expectations at the end of KS2.

Standard 6: Year 5 (age 9-10)

Standard 6 can be used both for the termly formal assessment of children's writing throughout Year 5/age 9-10 and to identify the next steps required for progress.

Essential Standard 5 skills

The following skills must be secured as a priority in Year 5/age 9-10:

- Produce more than a side of A4 writing that is clear and coherent with strong features and accurate interpretation of the stimulus and purpose.
- Spell most common words on the Year 3 and 4 word lists correctly, plus all compound words and many complex words.
- Show variety in sentence type and structure, including more sophisticated openings, adding detail and/or description and using a wider range of sophisticated connectives.
- Use interesting language with a wide range of words that are ambitious for their age (occasional misuse is acceptable).
- Use a wide range of punctuation accurately.
- Use a wider range of connectives (conjunctions, adverbs and prepositions) to show time, place and cause.
- Produce handwriting that is neat and joined.
- Organize writing appropriately for the purpose, including using paragraphs.
- Initiate edits and improvements to their work by proof reading what they have written.

Standard 6: Year 5/age 9-10 – end of year expectation

By the end of Year 5/age 9-10, children should be able to:

- Show variety in sentence type and structure, including the confident use of a range of sentence openings, punctuation for effect and the inclusion of additional detail and/or description.
- Use very interesting language with a wide range of words that are ambitious for their age and some literary features (e.g. alliteration, onomatopoeia, figurative language, etc.).
- Use the full range of punctuation accurately (as and when appropriate).
- Use a range of formal and informal styles or 'voice' when appropriate.
- Use a wide range of connectives for the full range of purposes and begin to use more sophisticated connectives.
- Produce handwriting that is fluent, neat and joined.
- Organize writing appropriately, including the use of paragraphs and a range of organizational devices.
- Initiate edits and improvements to their work by proof reading what they have written.

Children are expected to be a 'Secure Standard 6' by the end of Year 5 in order to be on track to meet national expectations at the end of KS2.

Standard 7: Year 6 (age 10-11)

Standard 7 can be used both for the termly formal assessment of children's writing throughout Year 6/age 10-11 and to identify the next steps required for progress.

Essential Standard 6 skills

The following skills must be secured as a priority in Year 6/age 10-11:

- Show variety in sentence type and structure, including the confident use of a range of sentence openings, punctuation for effect and the inclusion of additional detail and/or description.
- Use very interesting language with a wide range of words that are ambitious for their age and some literary features (e.g. alliteration, onomatopoeia, figurative language, etc.).
- Use the full range of punctuation accurately (as and when appropriate).
- Use a range of formal and informal styles or 'voice' when appropriate.
- Use a wide range of connectives for the full range of purposes and begin to use more sophisticated connectives.
- Produce handwriting that is fluent, neat and joined.
- Organize writing appropriately, including the use of paragraphs and a range of organizational devices.
- Initiate edits and improvements to their work by proof reading what they have written.

Children are expected to be a 'Secure Standard 6' by the end of Year 5 in order to be on track to meet national expectations at the end of KS2.

Standard 7: Year 6/age 10-11 – end of year expectation

By the end of Year 6/age 10-11, children should be able to:

- demonstrate a wide range of the criteria in Standards 6 and 7 effectively and in a wellmanaged and mature way, within a single piece of totally independent writing (one and a half sides or more)

Write with at least 98% accuracy across all aspects of their writing, e.g.

- text type/genre
- response to stimulus or purpose
- basic skills
- 'writing voice'

A secure of Standard 7 requires the production of a striking piece of writing, similar to that of a literate adult, although the stimulus may be more age appropriate. When asked, "How might this be appropriately improved?" there should be little or no improvement identifiable.

Children who are a 'Secure Standard 7' should easliy meet the curriculumn expectations at the end of key stage 2.

Learning to Read

Reading is a vital skill that we must teach the children from a young age. At Hope School we promote reading for enjoyment, therefore when you hear your child read at home, it must be a pleasurable experience rather than a chore!

At school we hear every child read throughout the week. They are taught the skills of reading by the class teacher during phonics 'Read, Write Inc' and 'Fresh Start' lessons, 'guided reading', Lexia sessions as well as being encouraged to read in all other lessons.

In order for your child to make the most progress, we ask that they are heard by an adult at home at least 3 times a week. Children will then receive half a credit for them to spend at the end of term. This need only be for 5 – 10 minutes, but it really does make a difference!

In school, we promote the enjoyment of reading by having a weekly reading session on a Friday alongside reading with our in class support during intervention sessions. Each morning the children have access to magazines and ebooks on iPads during breakfast club.

Listening to stories is an important part of childhood. A bedtime story is always a great way to spend time with your child, build an enjoyment of books and most beneficial – it gets them off to sleep quicker!

Choosing a Book

Every child will be sent home with a reading book that is colour banded according to their level.

They may also bring home a book they have chosen from the classroom and one from the library. These books are for you to share with your child, reading to or with them, not for them to read to you. You could encourage your child to recognise the high frequency words they have been learning at school and at home, or blend simple 3 and 4 letter words together.

The children may also have books at home they might want to read with you. This too is fine, as long as the children are exposed to a range of books and are enjoying their reading experiences. It is through the choosing of books the children develop their own preferences.

Reading the same book time and time again is a good thing. We want the children to really know stories well. This helps them build language and storytelling skills. When a child knows what a book 'says' they then have the confidence to read it without fear of getting it wrong.

Libraries are fantastic places to view a range of books, we really recommend you join your local library and your child class teacher can help find the nearest to where you live.

What Else Can Your Child Read?

- Comics
- Magazines
- Travel Brochures
- Recipes
- Instructions for games
- Ebooks on the computer, tablet or kindle devices.
- Newspapers
- Sports reports
- Shopping Lists

Creating the Perfect Reading Environment

Here is a list of things you can do to create the perfect reading environment for you and your child.

- Choose somewhere calm and quiet.
- Sound excited and enthusiastic when talking about reading.
- Have somewhere comfortable to sit next to each other. You will need to see what they are reading and they need to see what you are reading. This could be on their bed, on the sofa etc.. make sure the TV is OFF!!
- Talk about the book before, during and after reading it. (There will be suggested questions later in the booklet)

Be a Good Role Model for Reading

To be a good role model you must:

- Handle books with care
- Let your child see you reading for pleasure
- Always stay positive and encouraging, even if you are frustrated with you child. Instead praise them, then help them.
- Continually use positive praise – "well done, that was brilliant sounding out..."
- Always value time for reading

Learning to Read

Strategies to Help Read a Book

There are many ways we can help read a book, these are the 6 main strategies we use in school. We may not use all of them every time; it all depends on the text and the need of the child.

Making Sense of a Sentence

If a child can't read a word, it sometimes helps to leave the word and carry on reading to the end of the sentence. You can then go back and read it again, often the child will then be able to guess what the word is, especially if they look at the initial sound of the word. They could also look at the pictures to help.

e.g. if the word they could not read was sandwich in the sentence 'the boy ate a ham sandwich, he ate it all up.' If you read the sentence without the word sandwich, it is quite easy to make a sensible guess.

Use of Phonics

Use the pure sounds the children are taught at school and blend together the letters / sounds they can see. Don't forget it's not always 1 sound for every 1 letter. Sometimes 2 or more letters make 1 sound. e.g. 'ea' makes the long 'e' sound. If you are unsure of this, ask your teacher for guidance. There is a Phonic workshop for parents held in school each year.

Word Recognition

Some words you just can't sound out, these are called 'tricky words'. Groups of these words are sent home to learn. Each year group has a list of 'High Frequency' words they must learn. If you know the word is one they have learnt, ask your child to try and remember. If they can't, don't worry or get frustrated, tell them the word and see if they can remember it next time.

Rehearsing Reading

Rehearsing a page can help build a child's confidence in reading. Particularly in a more challenging book, try reading a page to them first, stressing any difficult words. When modelling the reading, use expression and different voices for different characters. Then give them a few minutes to read it to themselves, then they can read the page to you. The more you do this, the more words they will be able to recognise.

Questions to Ask When Reading

Before Reading

- What do you think this book is about?
- What does the picture on the front page tell you?
- Where is the title? What does it say?
- Discuss the author and talk about other books they have read written by the same author.

During Reading

What is happening in the picture?

Why did the character behave that way?

Have you ever.....?

Why did....?

Where did....?

Who did...?

Questions For Non-fiction Books

- What fact(s) did you enjoy learning about the most?
- Of the information you learned, which would you like to share with someone else?
- Would you like to read more books about this topic? Why?
- What else would you like to learn about this topic?
- What pictures or illustrations did you find interesting? Why?
- Is this book like any other book that you have read? If so, how are they alike? How are they different?
- Which did you like better? Why?
- What kind of research do you think the author had to do to write this book?
- What questions would you ask the author if you ever had the opportunity to meet him/her?
- How can you learn more about this topic?
- Would the book be different if it had been written 10 years ago?
- Did you discover anything that may help you outside of school?

After Reading

- Who was your favourite character? Why?
- Did you like the book? Why?
- What was the most exciting part of the book?
- Would you choose that book again?
- Recall main events in the story

Reading Records

What to write in my child's reading record:

- It is important that reading records are completed at home as it gives the teacher an idea of how often they read and how well they are doing at home.
- The table below will give you a few ideas of what to write – try to keep your comments positive and factual. You are not expected to comment on each of the areas each time!
- How enthusiastic the child was about the choice of book
- How well the child was able to retell the story, showing their understanding
- What strategies they used to read unfamiliar words
- Interesting words discussed
- High Frequency words they recognised in the text
- How confident they were with reading new words
- Did they answer questions well?
- Was there a common mistake the teacher may need to pick up on in class?
- Did the child recognise when he / she had made a mistake? Did they correct themselves?
- How fluently they read
- How well they used expression

Learning to Read

RM Books

RM Books is an ebook library designed for schools. The pupils at Hope have access through the internet to high-quality etextbooks, curriculum titles, fiction and non-fiction, as well as free use of hundreds of classic literature ebooks. RM books is used in lessons but the boys can also access ebooks in their free time.

The many benefits of ebooks include:

- A fresh, 'off the shelf' experience every time.
- Greater student engagement (especially boys).
- Anywhere, anytime access enabling students to read content from home and in school.

Useful Reading Websites

www.oxfordowl.co.uk – free online Oxford Reading Tree resources
www.bugclub.co.uk – whole school online reading facility
www.jollylearning.co.uk - Jolly phonics
www.parentlink.co.uk - contains ideas to help at home
www.bbc.co.uk - school section words and pictures phonic activities
www.phonicsplay.co.uk
www.literacytrust.org.uk
www.crickweb.co.uk/assets/resources/flash.php?&file=ww
www.woodlands-junior.kent.sch.uk/interactive/onlinestory.htm
www.bbc.co.uk/cbeebies/stories
www.snaithprimary.eril.net/rindex.htm - nursery rhymes
www.familylearning.org.uk
www.speedteach.co.uk/p_general/links.htm
www.topmarks.co.uk/Search.aspx?subject=31
www.readingforlife.org.uk/parents
www.bookstart.org.uk

Ten fabulous apps

Read Me Stories – Children's books - Free
Sentence Reading Magic – Free
acb Pocket Phonics Lite – Free
acb Pocket Phonics- Pay fee
Word Magic – Pay fee
The Story Mouse Talking Books – Free
ABC Animals - Pay fee
Reading for Kids – I like Reading – Free
Word Domino – Free
Read with Biff, Chip & Kipper ... Free

In a Nutshell

Reading is one of the most important skills a child needs to learn. To help them at home:

- Try to read as often as possible with your child
- Create the right environment for reading
- Model a positive attitude and enthusiasm for reading (even if that is not how you really feel)
- Let your child choose a book they enjoy – they don't always have to read it to you!
- Don't forget, memorising a book isn't cheating, it builds confidence, helps them know the structure of a story and makes reading fun!
- Let the child hold the book
- Talk about the book as you read
- Support them in reading new words, don't jump in too quickly and don't get cross when they can't do it
- If your child is too tired to read to you – it's ok to read to them
- A bedtime story is the best way to get your child ready for sleep
- Most importantly – ENJOY TIME READING TOGETHER!!!
- "A child who reads well is more likely to be successful in later life"

Calculation: Addition

Written methods for addition

It is important that children's mental methods of calculation are practised on a regular basis and secured alongside their learning and use of written methods of addition.

The aim is that children use mental methods when appropriate, but for calculations that they cannot do in their heads they use a written method accurately and with confidence.

Children are taught and acquire secure mental methods of calculation and one written method of calculation for addition which they know they can rely on when mental methods are not appropriate.

This policy shows the possible stages of each written method for addition, each stage building towards a more refined method.

There are some key basic skills that children need to help with addition, which include:

- counting
- estimating
- recalling all addition pairs to 10, 20 and 100 (7 + 3 = 10, 17 + 3 = 20, 70 + 30 = 100)
- knowing number facts to 10 (6 + 2 = 8)
- adding mentally a series of one-digit numbers (5 + 8 + 4)
- adding multiples of 10 (60 + 70) or of 100 (600 + 700) using the related addition fact, 6 + 7, and their knowledge of place value
- partitioning two-digit and three-digit numbers into multiples of 100, 10 and 1 in different ways (432 into 400 + 30 + 2 and also into 300 + 120 + 12)
- understanding and using addition and subtraction as inverse operations

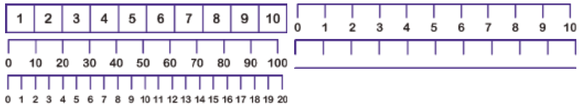
Using and applying is a key theme and one of the aims of National Curriculum and before children move onto the next stage in written calculation it is important that their skills are broadened through their use and application in a range of contexts, these include:

- using inverse
- missing box questions
- using units of measure including money and time
- word problems
- open ended investigations

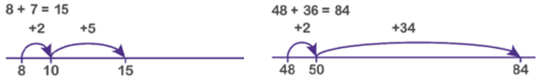
Stage 1: Practical (combining) and adding on (increasing)

Prior to recording addition steps on a number line, children will work practically with equipment where they are **combining** sets of objects. As they become more confident, this practical addition of sets of objects will be mirrored on a number line so that the two are being done together and children are **adding on**. This will prepare them for the abstract concept of adding numbers rather than objects.

Stage 2: Number tracks and number lines

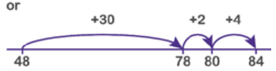


Steps in addition can be recorded on a number line. The steps often bridge through a multiple of 10 and, this is more efficient if children know how to partition 1-digit numbers.



In this example, 7 has been partitioned into 2 and 5 which makes bridging through 10 more efficient.

or



In these examples, the 6 in 36 has been partitioned into 2 and 4 which makes bridging through 10 more efficient. With practice, children will need to record fewer jumps

Stage 3: Partitioning (expanded columnar method)

Partition both numbers into tens and units or hundreds, tens and units (using a grid makes this easier)..

48 + 36 = 84

	40	8	
+	30	6	
	70	14	84

148 + 36 = 184

	100	40	8	
+		30	6	
	100	70	14	184

This builds on children's mental maths skills of partitioning and recombining 40 + 30 = 70

8 + 6 = 14

48 + 36 = 84

Stage 4: Efficient (column method)

48	148	48.56
+ 36	+ 36	+ 32.23
84	184	80.79
1	1	1

Children should be encouraged to estimate their answers first.

Column addition remains efficient when used with larger whole numbers or decimals, and when addingmore than two numbers, once learned, the method is quick and reliable.

Calculation: Subtraction

Written methods for Subtraction

It is important that children's mental methods of calculation are practised on a regular basis and secured alongside their learning and use of written methods of subtraction.

The aim is that children use mental methods when appropriate, but for calculations that they cannot do in their heads they use a written method accurately and with confidence.

Children are taught and acquire secure mental methods of calculation and one written method of calculation for subtraction which they know they can rely on when mental methods are not appropriate.

This policy shows the possible stages of each written method for subtraction, each stage building towards a more refined method.

There are some key basic skills that children need to help with subtraction, which include:

- counting
- estimating
- recalling all addition pairs to 10, 20 and 100 along with their inverses (7 + 3 = 10, 10 – 3 = 7,17 + 3 = 20, 20 – 3 = 17, 70 + 30 = 100, 100 – 30 = 70)
- knowing number facts to 10 and their inverses (6 + 2 = 8, 8 - 2 = 6)
- subtracting multiples of 10 (160 - 70) using the related subtraction fact, 16 - 7, and their knowledge of place value
- partitioning two-digit and three-digit numbers into multiples of 100, 10 and 1 in different ways (432 into 400 + 30 + 2 and also into 300 + 120 + 12)
- understanding and using subtraction and addition as inverse operations

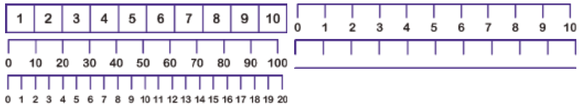
Using and applying is a key theme and one of the aims of National Curriculum and before children move onto the next stage in written calculation it is important that their skills are broadened through their use and application in a range of contexts, these include:

- using inverse
- missing box questions
- using units of measure including money and time
- word problems
- open ended investigations

Stage 1: Practical (taking away)

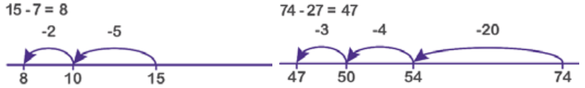
Prior to recording subtraction steps on a number line, children will work practically with equipment where they are 'taking away' a small group from a larger set of objects. As they become more confident, this practical subtraction will be mirrored on a number line so that the two are being done together. This will prepare them for the abstract concept of subtracting numbers rather than objects.

Stage 2: Number tracks and number lines

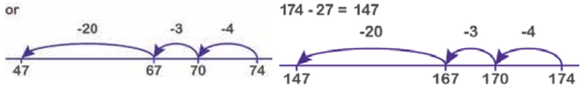


Counting back (to be introduced before counting up)

Steps in subtraction can be recorded from right to left on a number line. The steps often bridge through a multiple of 10 and, this is more efficient if children know how to partition 1-digit numbers.



In this example, 7 has been partitioned into 2 and 5 which makes bridging through 10 more efficient



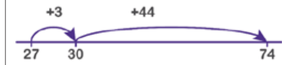
In these examples, 27 has been partitioned into tens and units then the 7 in 27 has been partitioned into 3 and 4 which makes bridging through 10 more efficient

With practice, children will need to record fewer jumps.

Counting up (to be introduced after counting back)

Steps in subtraction can be recorded from left to right on a number line. The steps often bridge through a multiple of 10.

or



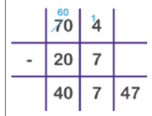
When carrying out money calculations that involve finding change or when calculating time duration, children should use this method

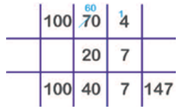
With practice, children will need to record fewer jumps.

They will decide whether to count back or forwards, seeing both as 'finding the difference'. It is useful to ask children whether counting up or back is the more efficient for calculations such as 57 – 12 or 86 – 77.

Stage 3: Partitioning (expanded columnar method)

Partition both numbers into tens and units or hundreds, tens and units (using a grid makes this easier).

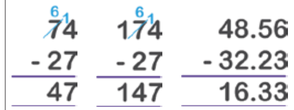




Stage 4: Efficient (column method)

Children should be encouraged to estimate their answers first.

Column subtraction remains efficient when used with larger whole numbers or decimals, once learned, themethod is quick and reliable.



Children should be encouraged to estimate their answers first

Column subtraction remains efficient when used with larger whole numbers or decimals, once learned, the method is quick and reliable.

Calculation: Multiplication

Written methods for Multiplication

It is important that children's mental methods of calculation are practised on a regular basis and secured alongside their learning and use of written methods of multiplication.

The aim is that children use mental methods when appropriate, but for calculations that they cannot do in their heads they use a written method accurately and with confidence.

Children are taught and acquire secure mental methods of calculation and one written method of calculation for multiplication which they know they can rely on when mental methods are not appropriate.

This policy shows the possible stages of each written method for multiplication, each stage building towards a more refined method.

There are some key basic skills that children need to help with multiplication, which include:

- counting
- estimating
- understanding multiplication as repeated addition
- recalling all multiplication facts to 12 × 12
- partitioning numbers into multiples of one hundred, ten and one
- working out products (70 × 5, 70 × 50, 700 × 5, 700 × 50) using the related fact 7 × 5 and their knowledge of place value
- adding two or more single-digit numbers mentally
- adding multiples of 10 (60 + 70) or of 100 (600 + 700) using the related addition fact, 6 + 7, and their knowledge of place value
- adding combinations of whole numbers
- understanding and using division and multiplication as inverse operations

Using and applying is a key theme and one of the aims of National Curriculum and before children move onto the next stage in written calculation it is important that their skills are broadened through their use and application in a range of contexts, these include:

- using inverse
- missing box questions
- using units of measure including money and time
- word problems
- open ended investigations

Stage 1: Practical (repeated addition)

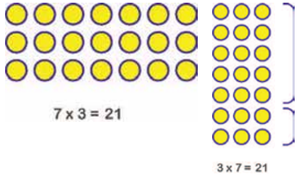
Children will work practically with equipment grouping objects to see multiplication as repeated addition. As they become more confident, this practical grouping of objects will be mirrored on a number line using the vocabulary 'lots of', 'groups of', 'how many lots', 'how many times' so that the two are being done together. This will prepare them for the abstract concept of multiplying numbers rather than objects.

This image can be expressed as:

- 2 multiplied by 5
- two, five times
- 5 groups of 2
- 5 lots of 2
- 5 jumps of 2 on a number line

Stage 2: Practical and pictorial arrays (towards grid method)

Children use arrays to demonstrate their understanding of commutativity for multiplication facts



Children use their knowledge of known multiplication tables

This 3 x 7 array can also be seen as 3 x 5 add 3 x 2

Stage 3: Partitioning (grid method)

24 x 3 = 72

x	20	4	
3	60	12	72

24 x 32 = 768

x	20	4	
30	600	120	720
2	40	8	48
			768

Stage 4: Short (column)

24 x 3 = 72

```
  24
 x  3
 72
 1
```

1241 x 3 = 3723

```
 1241
 x   3
3723
 1
```

Stage 5: Long (column)

24 x 32 = 768

```
  24
 x 32
 48
720
765
 1
```

1245 x 13

```
 1245
 x  13
 3735
12450
16185
```

In the examples given, it is also correct to multiply starting with the tens digit (ie multiplying by the most significant digit first)

Written methods for Division

It is important that children's mental methods of calculation are practised on a regular basis and secured alongside their learning and use of written methods of division.

The aim is that children use mental methods when appropriate, but for calculations that they cannot do in their heads they use a written method accurately and with confidence.

Children are taught and acquire secure mental methods of calculation and one written method of calculation for division which they know they can rely on when mental methods are not appropriate.

This policy shows the possible stages of each written method for division, each stage building towards a more refined method.

There are some key basic skills that children need to help with subtraction, which include:

- counting
- estimating
- understanding division as repeated subtraction
- partitioning two-digit and three-digit numbers into multiples of 100, 10 and 1 in different ways (432 into 400 + 30 + 2 and also into 300 + 120 + 12)
- recalling multiplication and division facts to 12 × 12
- recognising multiples of one-digit numbers and dividing multiples of 10 or 100 by a single-digit number using their knowledge of division facts and place value
- knowing how to find a remainder working mentally, for example, find the remainder when 48 is divided by 5
- understanding and using division and multiplication as inverse operations

Using and applying is a key theme and one of the aims of National Curriculum and before children move onto the next stage in written calculation it is important that their skills are broadened through their use and application in a range of contexts, these include:

- using inverse
- missing box questions
- using units of measure including money and time
- word problems
- open ended investigations

Stage 1: Practical (sharing)

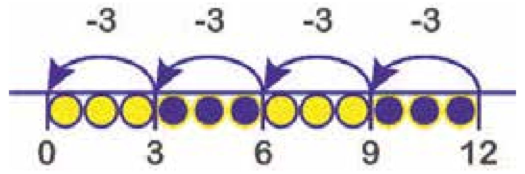
Children will work practically with equipment sharing objects one to one.

12 cakes are shared equally between 3 people.

Stage 2: Number lines (grouping)

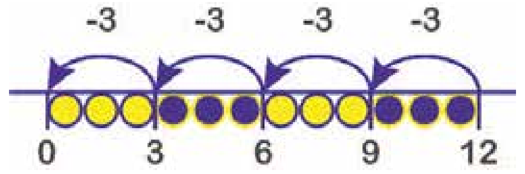
Children will move from sharing objects practically to grouping them, this will be mirrored on a number line, working from right to left so that they see division as repeated subtraction. This will prepare them for the abstract concept of dividing numbers rather than objects.

Each cake box holds 3 cakes, if I have 12 cakes, how many cake boxes will I need?



How many times can I subtract 3 from 12?

Using their knowledge of the inverse relationship between multiplication and division, children can use their multiplication tables when grouping on a number line, working from left to right.



How many groups of 3 are there in 12?

First without and then with remainders and ensuring that divisors offer an appropriate level of challenge.

Stage 3: Short division

372 ÷ 3 = 124   372 ÷ 3 = 124

```
  124          124
3|372        3|372
```

```
   28 12/15        28 4/5
15|432          15|432
```

remainder as a fraction

```
   28.8
15|432
```

remainder as a decimal

Stage 4: Long division

560 ÷ 24 = 23 r8   432 ÷ 15 = 28 r12

```
   23 r8           28 r12
24|560          15|432
   48              300   15x20
   80              132
   72              120   15x8
    8               12
```

```
   28.8            28 4/5
15|432.0        15|432
   30↓             30↓
   132             132
   120             120
    12 0            12
    12 0            12
     0
```

(12 ÷ 15 = 0.8)   (0.8 = 4/5)

remainder as a decimal   remainder as a fraction

With long division, there is the opportunity to teach an expanded method first (ie chunking)

How to find us

At Hope School we are committed to the principle that all children have the right to an education which meets their learning, emotional and social needs.

We aim to establish and develop the foundations for their lifelong learning.

Our school motto is "If I Try I Can" and we feel with the correct support and direction our pupils can achieve!

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