

How to help at home: Year 5

Maths

As well as continuing to secure times tables knowledge, we would like the children to continue to practice and develop their skills of using fractions. Below are a number of the different strategies we look at and links to online games and other resources you can use to practice these skills.

Tips – Simplifying Fractions

To simplify a fraction, divide the top and bottom by the **highest number** that can divide into both numbers exactly.

Example: Simplify the fraction $\frac{24}{108}$:

$$\frac{24}{108} = \frac{12}{54} = \frac{6}{27} = \frac{2}{9}$$

Arrows indicate the steps: 24 ÷ 2 = 12, 108 ÷ 2 = 54; 12 ÷ 2 = 6, 54 ÷ 2 = 27; 6 ÷ 3 = 2, 27 ÷ 3 = 9.

That is as far as we can go. The fraction simplifies to $\frac{2}{9}$.

You can also divide both numbers by their **greatest common factor**. This method works for any fractions.

Tips- Converting from Improper fractions to mixed numbers and then the other way

To convert an improper fraction to a mixed fraction, follow these steps:

1. Divide the numerator by the denominator
2. Write down the whole number answer
3. Then write down any remainder above the denominator

To convert a mixed fraction to an improper fraction, follow these steps:

1. Multiply the whole number part by the fractions denominator
2. Add that to the numerator
3. Then write the result on top of the denominator

[Fractions Games Menu - Math Games \(sheppardsoftware.com\)](http://www.fractions4kids.com/simplifying-fractions-catapult-game/)

<https://www.iknowit.com/lessons/c-simplifying-fractions.html>

<https://www.fractions4kids.com/simplifying-fractions-catapult-game/>

Adding Fractions

Follow these 3 steps:

1. Make sure the denominators are the same by finding an equivalent fraction
2. When the denominators are the same add the numerators
3. Simplify if you can

Subtraction Fractions

Follow these 3 steps:

1. Make sure the denominators are the same by finding an equivalent fraction
2. Subtract the numerators
3. Simplify if you can

Multiplying Fractions

Follow these 3 steps:

1. Multiply the numerators
2. Multiply the denominators
3. Simplify if you can

Dividing Fractions

Follow these 4 steps:

1. Turn the second fraction (the one you want to divide by) upside down.
2. Multiply the numerators
3. Multiply the denominators
4. Simplify if you can

YouTube links for + - x and ÷ fractions

Adding and Subtracting - [Math Antics - Adding and Subtracting Fractions \(youtube.com\)](https://www.youtube.com/watch?v=...)

Multiplying Fractions

[Math Antics - Multiplying Fractions \(youtube.com\)](https://www.youtube.com/watch?v=...)

Dividing Fractions

[hMath Antics - Dividing Fractions \(youtube.com\)](https://www.youtube.com/watch?v=...)

Finding Equivalent Fractions

To find equivalent fractions we must follow the rule.

"Whatever we do to the top, we have to do to the bottom"

This video will show you what this means.

[Equivalent Fractions \(youtube.com\)](https://www.youtube.com/watch?v=...)

Mental Fluency

MA1: Manipulate Calculation $4645 + 1996 = 6641$ $4641 + 2000 = 6641$	MA2: Round & Adjust $4645 + 1996 = 6641$ $4645 + 2000 - 4 = 6641$	MA3: Partitioning $576 + 258 = 834$ $700 + 120 + 14 = 834$	MA4a: Counting On $837 + 500 = 1337$ $837 + 500 = 1337$	MA4b: Counting On $7583 + 5000 = 12583$ $7583 + 5000 = 12583$	MA5: Double & Adjust $125 + 127 = 252$ $125 + 125 + 2 = 252$ $250 + 2 = 252$	MA6: Number Bonds $£4.56 + £3.27 + £1.44 = £9.27$ $£6.00 + £3.27$		
MS1: Manipulate Calculation $5864 - 2996 = 2868$ $5868 - 3000 = 2868$	MA2: Round & Adjust $5864 - 2996 = 2868$ $5864 - 3000 + 4 = 2868$	MA3: Partitioning $750 - 372 = 378$ $750 - 350 - 22 = 378$	MS4a: Counting On $8.3 - 7.9 = 0.4$ $7.9 + 0.4 = 8.3$	MS4b: Counting On $1204 - 950 = 254$ $950 + 204 = 1154$ $1154 + 50 = 1204$	MS5a: Counting Back $7291 - 2000 = 5291$ $5291 - 2000 = 3291$ $3291 - 2000 = 1291$	MS5b: Counting Back $8.6 - 4.1 = 4.5$ $8.6 - 4 = 4.6$ $4.6 - 0.1 = 4.5$	MS6: Number Facts $1424 - 724 = 700$ $724 + 700 = 1424$	
MM1b: Manipulate Calculation $45 \times 14 = 630$ $90 \times 7 = 630$	MM2b: Factorising $45 \times 14 = 630$ $(45 \times 2 \times 7)$ $90 \times 7 = 630$	MM3b: Re-ordering $(9 \times 8) \times 6 = 432$ $72 \times 6 = 432$ $(9 \times 6) \times 8 = 432$ $54 \times 8 = 432$ $(8 \times 6) \times 9 = 432$ $48 \times 9 = 432$	MM4b: Partitioning $126 \times 6 = 756$ $600 + 120 + 36 = 756$	MM5b: Round & Adjust $3.9 \times 5 = 19.5$ $(4 \times 5) - (0.1 \times 5)$ $20 - 0.5 = 19.5$	MM6b: Doubling $78 \times 2 = 156$ $140 + 16 = 156$	MM7b: Doubling Table Facts $16 \times 7 = 112$ $8 \times 7 = 56$ $16 \times 7 = 112$	MM8b: Doubling Up $125 \times 16 = 2000$ $125 \times 2 = 250$ $250 \times 2 = 500$ $500 \times 2 = 1000$ $1000 \times 2 = 2000$	
MM9s: Mult by 2 then Halve $56 \times 25 = 1400$ $56 \times 100 = 5600$ $5600 \div 2 = 2800$ $2800 \div 2 = 1400$	MM10a: Jump! $\times 1000 \rightarrow 63400$ $\times 100 \rightarrow 6340$ $\times 10 \rightarrow 634$ $\div 10 \rightarrow 63.4$	MD1b: Manipulate Calculation $1200 \div 400 = 3$ $12 \div 4 = 3$	MD2a: Divide by 100 then Double twice $800 \div 25 = 32$ $800 \div 100 = 8$ $8 \times 2 = 16$ $16 \times 2 = 32$	MD3c: Halving $\text{Half of } 92 = 46$ $40 \div 2 = 20$ $40 \div 4 = 10$ $\text{Half of } 92 = 46$ $45 \div 2 = 22.5$	MD4c: Halve, Halve, Halve $5000 \div 8 = 625$ $\text{Half of } 5000 = 2500$ $\text{Half of } 2500 = 1250$ $\text{Half of } 1250 = 625$	MD5c: Division = Fraction $\frac{1}{2} \text{ of } 8 = 8 \div 2 = 4$ $\frac{1}{4} \text{ of } 8 = 8 \div 4 = 2$	MD6c: Find the Blank! $394 \div 6 = 65 \text{ r } 4$ $360 \div 6 = 60$ $60 \times 6 = 360$ $360 + 34 = 394$	MD7c: Jump -1000000 $\div 10 \rightarrow 634$ $\div 100 \rightarrow 6.34$ $\div 1000 \rightarrow 0.634$



Written Strategies

The Four operations

It's essential that the children are confident with their written methods, solving problems with the four operations. Here is how we teach written methods for the four operations

Addition

Vertical layout, contracting the working to a compact efficient form:

$$\begin{array}{r} 368 \\ +493 \\ \hline 861 \end{array}$$

Note: The numbers 'carried' will be shown under the line.

Subtraction

$$\begin{array}{r} 5 \quad 6 \quad 3 \\ - 2 \quad 4 \quad 1 \\ \hline 3 \quad 2 \quad 2 \end{array} \quad \text{and} \quad \begin{array}{r} 45 \quad 156 \quad 13 \\ - 2 \quad 7 \quad 8 \\ \hline 2 \quad 8 \quad 5 \end{array}$$

Multiplication

Vertical format, compact working

$$\begin{array}{r} 58 \\ \times 27 \\ \hline 392 \\ 4 \\ \hline 1120 \\ 1 \\ \hline 1512 \end{array}$$

Division

Short division:

$$\begin{array}{r} 0 \quad 3 \quad 5 \\ 5 \overline{) 175} \end{array}$$

Spelling

In year 5, children are taught to:

- Use further prefixes and suffixes and understand the guidance for how to add them.
- Spell further homophones.
- Spell words that are often misspelt.
- Place the possessive apostrophe accurately in words with regular plurals [for example, girls', boys'] and in words with irregular plurals [for example, children's].
- Use the first two or three letters of a word to check its spelling in a dictionary and check word meanings.
- Write from memory simple sentences dictated by the teacher, which include words and punctuation taught so far.
- Spell some words with 'silent' letters [for example, knight, psalm, solemn]
- Continue to distinguish between homophones and other words which are often confused

Below are some strategies and games to try:

<u>Pattern Spotting</u>	<u>Word trains</u>	<u>Backwards words</u>	<u>Words within words</u>
<u>Boggle</u>	<u>Anagrams</u>	<u>Hangman</u>	<u>Tic Tac Toe</u>

As well as their spelling lists set by their spelling teacher, children can practice the spelling of words from the year 3/4 & 5/6 spelling list found in the National Curriculum.

Below can be found the Year 5/6 statutory spelling list.

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



Writing, grammar and punctuation

In year 5, children should be able to write at length, considering the genre, audience and purpose of their writing. Writing should include a range of sentence types with more than one clause. Words should be chosen carefully to ensure clarity and cohesion. Children need to understand and use grammatical terminology from the year 5 National Curriculum and apply this in their writing.

Reading for writer hints

When reading a text that the children really enjoy, look for what the writer has done to make it so good.

- Long/ short sentences used to build tension and suspense.
- Use of similes and metaphors.
- Repetition of words.
- Language

Editing

Ask children to proof read your writing. They love finding mistakes in someone else's work!

Choose a section from a text that they found boring, can they rewrite it to make it better?

Online grammar games

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

<https://www.teachwire.net/news/7-of-the-best-online-grammar-games-for-ks2>

<http://www.crickweb.co.uk/ks2literacy.html>

<https://www.education.com/games/punctuation/>

A-Z

Challenge children to write an A-Z of adjectives/ nouns/ verbs/ adverbs.

Magpie Book

Keep a notebook nearby when reading. When children find a new and exciting word, add it to their magpie book so they don't forget it!

Book Talk

Share picture books and try to verbally tell the story drawing on the details in the pictures.

Swap

Choose a page from a favourite book. Can children retell that page swapping all the adjectives for alternatives?

Drop in

Give children a simple sentence and ask them to 'drop in' different features. Ideas for 'drop ins' include: similes, adverbial phrases, embedded clause, adjectives.

From boring to brilliant

Take a boring sentence and get children to add/take away words, change words, reorder words, add an ending/beginning.

Reading

In year 5 children should apply their growing knowledge of root words, prefixes and suffixes (morphology and etymology), both to read aloud and to understand the meaning of new words that they meet.

It is important that children maintain positive attitudes to reading and understanding of what they read by:

- Continuing to read and discuss a wide range of fiction, poetry, plays, non-fiction and reference books or textbooks
- Reading books that are structured in different ways and reading for a range of purposes
- Increasing their familiarity with a wide range of books, including myths, legends and traditional stories, modern fiction, fiction from our literary heritage, and books from other cultures and traditions
- Recommending books that they have read to their peers, giving reasons for their choices
- Identifying and discussing themes and conventions in and across a wide range of writing
- Making comparisons within and across books
- Learning a wider range of poetry by heart
- Preparing poems and plays to read aloud and to perform, showing understanding through intonation, tone and volume

Here are some links to reading/comprehension games:

Comprehension—<https://www.education.com/games/ela/reading/>

Comprehension—<https://www.topmarks.co.uk/english-games/7-11-years/reading>

Comprehension—<https://www.everyschool.co.uk/english-key-stage-2-comprehension-2.html>

Ideas for non-online games to play -<https://readingeggs.co.uk/articles/2016/01/25/reading-games/>