



**Chapter 6: Fractions**

Number of lessons (between 6&8)	Content of the unit	Assumed prior learning (tested at the beginning of the unit)
8	<ul style="list-style-type: none"> <li>• Simplifying Fractions</li> <li>• Converting between Mixed and Improper Fractions</li> <li>• Adding and Subtracting Fractions</li> <li>• Finding a fraction of an amount</li> <li>• Multiplying fractions</li> <li>• Dividing fractions.</li> </ul>	<ul style="list-style-type: none"> <li>• Writing one quantity as a fraction of another</li> <li>• Shading in fractions of a diagram</li> <li>• Finding what fraction of a diagram is shaded.</li> <li>• Identify the denominator of a fraction.</li> <li>• Identify the numerator of a fraction.</li> </ul>
Assessment points and tasks	Written feedback points	Learning Outcomes (tested at the end and related to subject competences)
Pre test Post test (half term exams/ mock exams)	Diagnostic marking (TF)-( green sticker)-(PF)/(SF) yellow and orange stickers Traffic lighting of exam papers	<ul style="list-style-type: none"> <li>• Can you write a fraction in its lowest terms by cancelling common factors?</li> <li>• Can you convert between mixed numbers and top-heavy fractions?</li> <li>• Can you apply addition and subtraction to mixed numbers and top-heavy fractions?</li> <li>• Can you find a fraction of a quantity?</li> <li>• Can you apply division to fractions?</li> <li>• Can you multiply fractions and mixed numbers?</li> </ul>



Lesson	Clear learning intentions	Clear success criteria	Hook	Presentation of content	Guided practice	Independent practice (homework)	Closure
1 Simplifying Fractions	Can you write a fraction in its lowest terms by cancelling common factors?	Find common factors. Understand equivalent fractions. Know when a fraction is in its lowest form	<a href="#">Fractangle</a>  Fractions prior knowledge check- Edexcel Fdn Bk, page 92  Display the following words and symbols in no particular order. Lowest common multiple < > Equivalent fractions Common denominator Unit fraction Ask students to explain the meaning of each word / symbol. Give examples.	Mathswatch Clip 48  Boardwork Maths-KS3-N5- Using Fractions- Slides 11-30	<a href="#">Simplification of fractions worksheet</a>		Simplify 24/36 in as many different ways as you can
2 Mixed/Improper fractions	Can you convert between mixed numbers and top-heavy fractions?	Recognise when a fraction is improper. Convert an improper	<a href="#">Recurring decimal</a>  Display the following words and symbols in no particular order.	Boardwork Maths-KS3-N5- Using Fractions- Slides 19-22	<a href="#">10Ticks, Level 5 Pack 2, Page 12</a>		Write down 3 things you have learnt today  WWW/EBI



		fraction to a mixed number Convert a mixed number into a top-heavy fraction.	Mixed number Improper Fraction Proper Fraction Top-Heavy fraction Ask students to explain the meaning of each word / symbol. Give examples.				
3 Adding and Subtracting Fractions	Can you apply addition and subtraction to mixed numbers and top-heavy fractions?	Add/subtract fractions with the same denominator. Add/subtract fractions with different denominators. Add/subtract mixed numbers.	Write down fractions in common use, such as $1\frac{2}{3}$ , $3\frac{4}{4}$ , $1\frac{4}{4}$ , $1\frac{3}{5}$ . Ask students to place them in (ascending or descending) size order, using their prior knowledge.  <a href="#">Explain how...</a>	Mathswatch Clip 71 (NEW GCSE)  Mathswatch Clip 56 (old GCSE)  Boardwork Maths-KS3-N6- Calculating with Fractions-slides 3-23	<a href="#">Adding and subtracting fractions worksheet</a>  New GCSE Foundation textbook – Page 95-Q12-Q18  <i>(Strengthen):</i> Page 113, Q1-Q5  <i>(Extend):</i> Page 116, Q1-Q2	<a href="#">Adding and Subtracting Fractions Homework</a>	Explain why $3 - \frac{1}{2} = 2\frac{1}{2}$
4 Fractions of Amounts	Can you find a fraction of a quantity?	Find a fraction of a quantity or measurement. Use fractions to solve problems.	<a href="#">Fractional Change</a>  <a href="#">Edexcel Fdn Bk Page 96 Fluency</a> Find $\frac{3}{5}$ of 60. Display student responses. Ensure that two methods are emphasised: find $\frac{1}{5}$ of 60, then	Mathswatch Clip 72 (NEW GCSE)  Mathswatch Clip 8/55 (old GCSE)  Boardwork Maths-KS3-N6- Calculating with Fractions-slides	<a href="#">Fractions of Amounts worksheet</a>  New GCSE Foundation textbook – Page 96-97, Q5-Q15		Discuss when and in what contexts students use fractions in daily life. Examples could include time, such as quarter past 9, length (the room is 5 and a half metres long), as well as student's own examples. List responses and



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			multiply by 3 and work out $3 \times 60$ , then divide by 5. Discuss which method students prefer using.	25-31	<i>(Extend):</i> Page117, Q6, Q8,Q9		consider when you would keep these values as fractions and when you would convert them into appropriate units. It is simpler to say 'quarter past' when talking about time, but if you calculate using time, it may be more sensible to give the time as a number of minutes rather than a quarter of an hour.
5 Multiplying fractions	Can you multiply fractions and mixed numbers?	Multiply proper fractions. Multiply a proper fraction with a mixed number Multiply mixed numbers.	On mini whiteboards, colour in $\frac{3}{4}$ of this shape (4x4 square) in as many different ways as you can. Now shade in $\frac{1}{2}$ of the shaded area. What is a another way of finding this answer (multiply both fractions)  <a href="#">Explain the maths</a>	Mathswatch Clip 73 (NEW GCSE)  Mathswatch Clip 57 (old GCSE)  Boardwork Maths-KS3-N6- Calculating with Fractions-slides 33-46	<a href="#">Multiplying Fractions worksheet</a>  New GCSE Foundation textbook – Page 98-100-Q3-Q18  <i>(Strengthen):</i> Page 114, Q6-Q9  <i>(Extend):</i> Page116, Q1-Q2	<a href="#">Multiplying Fractions Homework</a>	Alison works in a shop. She works $5\frac{3}{4}$ hours a day from Monday to Friday. How many hours does she work in 4 weeks? She is paid £6.80 an hour. How much does she earn in this period of time? How would you use fractions to calculate how much money Alison earns? Find out the minimum wage, and make up your own similar examples to work out how much a person would earn on the minimum wage in a one-month period. Use people of different ages in your examples (as the minimum wage is different at different ages).
6 Dividing Fractions	Can you apply division to fractions?	Divide proper fractions. Divide a proper	<a href="#">Fill it up</a>	Mathswatch Clip 74 (NEW GCSE)	<a href="#">Dividing Fractions worksheet</a>		Steve is building a sheep shed. His sheep shed will



		fraction with a mixed number Divide mixed numbers.	<a href="#">Edexcel Fdn Bk Page 100 Fluency</a>  A plasterer has 10l of plaster. She wants to have enough plaster to fill four 3 litre containers. Does she have enough plaster? 1 Ask for verbal responses. Do the students perceive the problem as $4 \times 3 = 12$ or $10 / 3 = 3 \frac{1}{3}$ ?	Mathswatch Clip 57 (old GCSE)  Boardwork Maths-KS3-N6- Calculating with Fractions-slides 48-56	New GCSE Foundation textbook – Page 101, Q6-Q14  <i>(Strengthen):</i> Page 114, Q10-Q12		have an area of 1500 m <sup>2</sup> . Steve wants each sheep to have at least $2 \frac{1}{2}$ m <sup>2</sup> of space in the shed. He wants to have 590 sheep in it. Will the sheep have enough space in Steve’s shed?
7 <b>Homework Lesson</b>							
8 Check up lesson	Revision of objectives learnt throughout the topic.	Formative assessment on the core objectives, grouped by topic.					