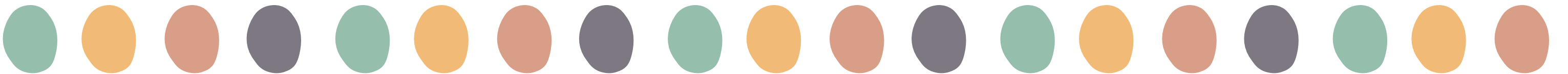


Y3- Overview

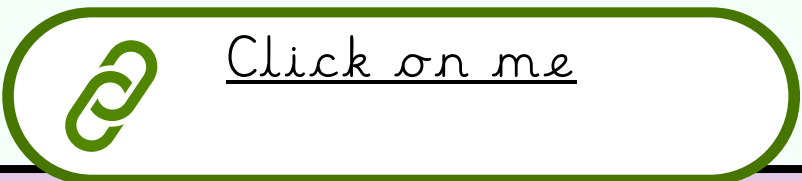
	Autumn 1		Autumn 2		Spring 1		Spring 2		Summer 1		Summer 2			
Unit	1	2			3	4	5	6	7	8		9	10	11

	Number and place value
	Number facts
	Addition and subtraction
	Multiplication and division
	Fractions
	Geometry
	Other

Summer 2	Non-unit fractions (2 weeks)
Ready to progress	3F-1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts. 3F-3 Reason about the location of any fraction within 1 in the linear number system. 3F-4 Add and subtract fractions with the same denominator, within 1
NCETM documents	THE WHOLE DOCUMENT https://www.ncetm.org.uk/media/2ifhbt14/ncetm_spine3_segment03_y3.pdf#page=4
Small steps	- To explain that non-unit fractions are made up of more than one unit fraction. - To identify non-unit fractions in different representations. - To identify the number of equal or unequal parts in a whole across various contexts. - To use knowledge of non-unit fractions to solve mathematical problems. - To use knowledge of unit fractions to find one whole. - To place fractions between 0 and 1 accurately on a number line. - To compare non-unit fractions that have the same denominator. - To review and apply strategies for comparing unit fractions. - To compare fractions that have the same numerator. - To compare non-unit fractions, including those equal to one whole.
Links	NCETM-to slide 157 https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.ncetm.org.uk%2Fmedia%2Fhgpnbdp4%2Fcp-year-3-unit-8-unit-fractions.pptx&wdOrigin=BROWSELINK OAK https://www.thenationalacademy/teachers/programmes/maths-primary-ks2/units/non-unit-fractions/lessons?sid-6bd120=mj9ONsXe32&sm=0&src=3 WHITE ROSE https://assets.whiteroseeducation.com/new-schemes/Y3%20Summer%20Block%201%20SOL%20Fractions%20B.pdf Mastery with greater depth https://www.ncetm.org.uk/media/oaqfcvjq/mastery_assessment_y3.pdf
Reasoning	What do you notice? 1/10 + 9/10 = 1 2/10 + 8/10 = 1 3/10 + 7/10 = 1 Continue the pattern. Can you make up a similar pattern for eighths? The answer is 5/10. What is the question? Can you write different number sentences involving fractions or operations that could give this answer? Use your understanding of non-unit fractions to explain how they are made up of more than one unit fraction. Look at different representations of fractions. Which show non-unit fractions? Can you identify the number of equal or unequal parts in each whole? How could you use your knowledge of unit fractions to find one whole from a part? Can you place fractions like 1/4, 3/4, and 5/6 accurately between 0 and 1 on a number line? Compare these fractions with the same denominator: 2/6 and 5/6 Which is larger? How do you know? Review and apply your strategies for comparing these unit fractions: 1/2, 1/3, 1/5 Which is the smallest? Compare these fractions with the same numerator: 2/5 and 2/7 Which is larger? How do you know? Compare these fractions and decide which are greater than, less than, or equal to one whole: 5/4, 3/3, 6/8, 8/8



Problem solving



Click on me

Glossary

- Unit fraction - A unit fraction is a fraction where the numerator is 1
- Non-unit fraction - A non-unit fraction is a fraction where the numerator is greater than 1
- Denominator - A denominator is the bottom number in a fraction. It shows how many parts a whole has been divided into.
- Numerator - A numerator is the top number in a fraction. It shows how many parts we have.
- Division bar - The division bar is the horizontal line separating the two values in a fraction.
- Whole - All of something. All of a group or number.
- Proper fraction - In a proper fraction, the numerator is less than the denominator.

Stem sentences

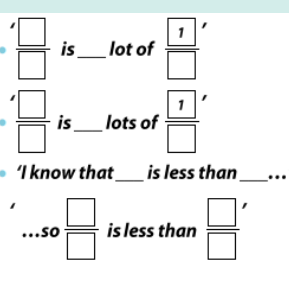
I have _____ one sixths; I have _____ - sixths.

There are _____ equal parts in the whole. There are _____ parts shaded. _____ is shaded.

The whole has been divided into _____ equal parts. _____ of the parts is shaded; that is _____ of the whole.

We have split our whole into _____ equal parts, so our unit fraction is _____.

When the numerator and denominator are the same, the fraction is equivalent to one whole



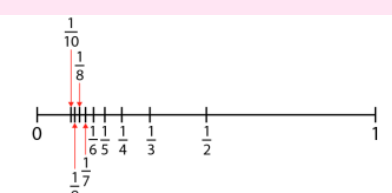
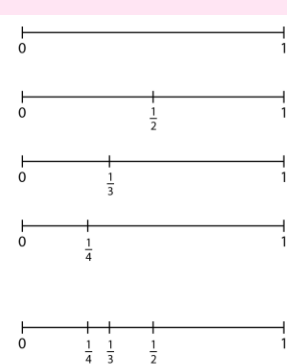
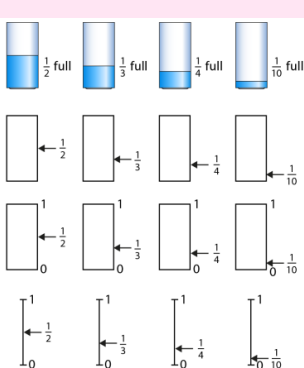
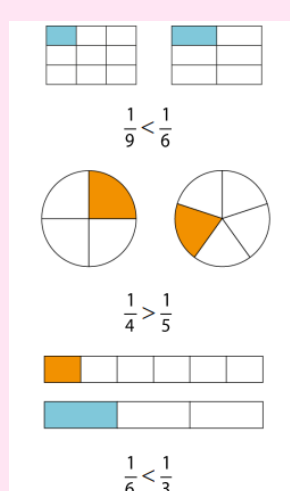
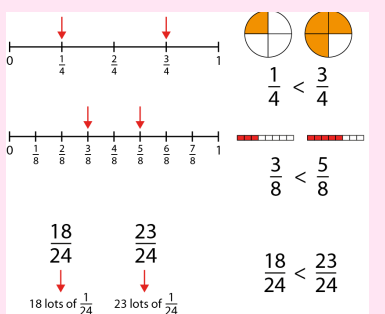
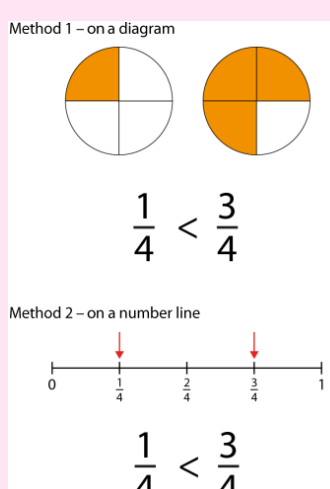
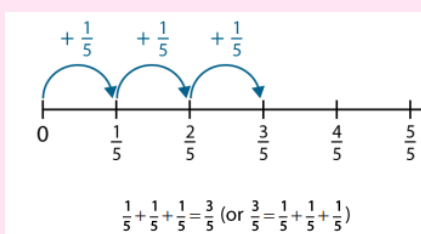
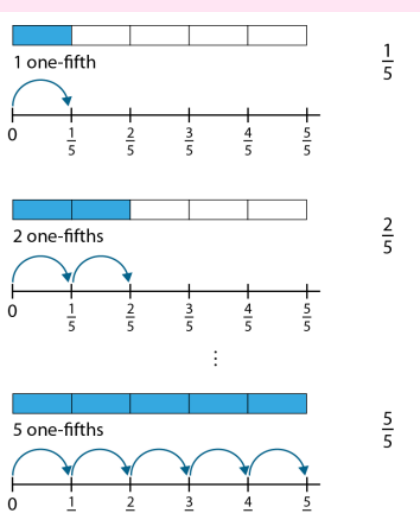
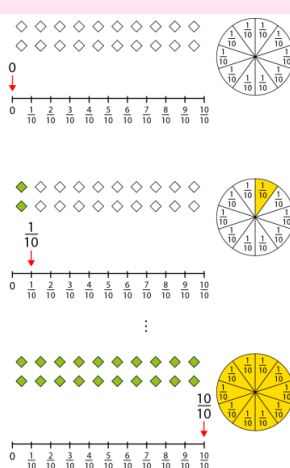
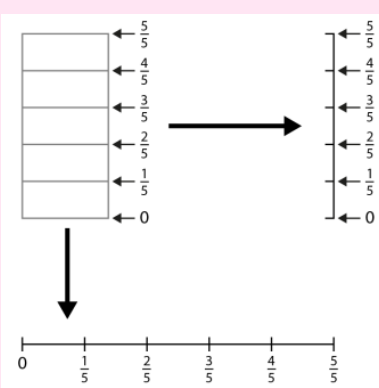
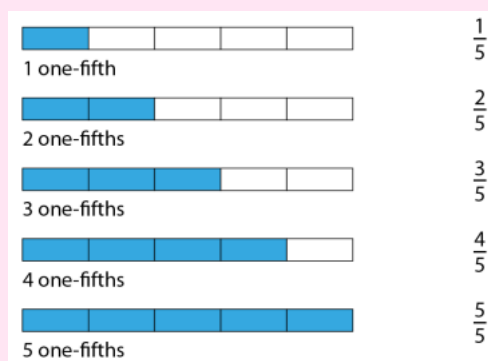
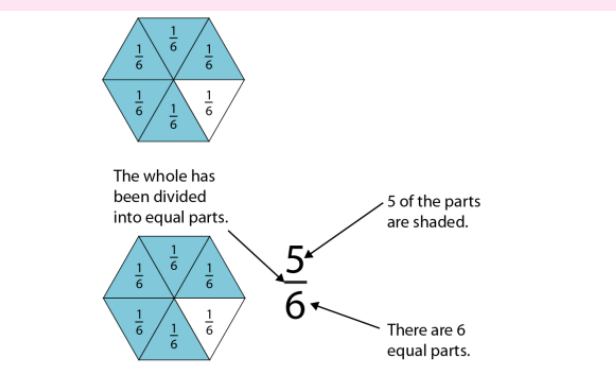
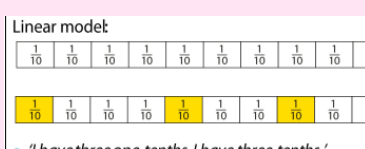
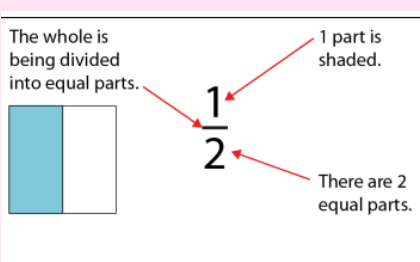
When we compare fractions with the same denominator, the greater the numerator, the greater the fraction.

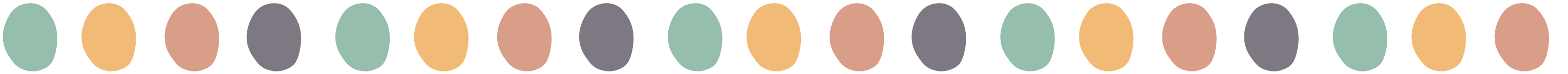
When comparing unit fractions, the greater the denominator, the smaller the fraction.

When we compare fractions, the whole has to be the same.

The whole is divided into _____ equal parts and we have _____ of them.

Representations





Y3- Overview

	Autumn 1		Autumn 2		Spring 1		Spring 2		Summer 1		Summer 2			
Unit	1	2			3	4	5	6	7	8		9	10	11

	Number and place value
	Number facts
	Addition and subtraction
	Multiplication and division
	Fractions
	Geometry
	Other

Summer 1	Composition of non-unit fractions: addition and subtraction (2 week)
Ready to progress	3F-1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts. 3F-2 Find unit fractions of quantities using known division facts (multiplication tables fluency).
NCETM documents	THE WHOLE DOCUMENT - https://www.ncetm.org.uk/media/42uhwrcpy/ncetm_spine3_segment04_y3.pdf#page=31
Small steps	- To use repeated addition of a unit fraction to form a non-unit fraction. - To use repeated addition of a unit fraction to form one whole. - To add fractions that have the same denominator. - To add on fractions with the same denominator to a given fraction. - To add fractions with the same denominator and generalise the rule. - To subtract fractions that have the same denominator. - To add and subtract fractions with the same denominator in a range of contexts. - To explain that addition and subtraction of fractions are inverse operations. - To subtract fractions from a whole by converting the whole into a fraction. - To substitute a fraction representing a whole to solve subtraction problems
Links	NCETM-FROM 152 https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.ncetm.org.uk%2Fmedia%2Fhgpnbdp4%2Fcp-year-3-unit-8-unit-fractions.pptx&wdOrigin=BROWSELINK OAK https://www.thenationalacademy/teachers/programmes/maths-primary-ks2/units/composition-of-non-unit-fractions-addition-and-subtraction/lessons?sid=b38651=KPII8XGOIH&sm=0&src=3 WHITE ROSE https://assets.whiteroseeducation.com/new-schemes/Y3%20Spring%20Block%203%20SOL%20Fractions%20A.pdf Mastery with greater depth https://www.ncetm.org.uk/media/oaqfcrjq/mastery_assessment_y3.pdf
Reasoning	Spot the mistake Someone says: "1/10 + 2/10 = 3/20." Spot the mistake and correct it. Can you explain why the denominator stays the same when adding fractions? What comes next? Start with 2/10. Keep adding 1/10 each time. What comes next in the sequence? Now try the same with 1/5. How many 1/5s will make one whole? What do you notice? 1/10 + 1/10 + 1/10 = 3/10 2/5 + 2/5 = 4/5 What do you notice about adding fractions with the same denominator? Can you write your own examples and describe the pattern? True or false? 3/10 + 5/10 = 9/10 7/8 - 4/8 = 3/8 1 - 3/5 = 2/5 Are these true or false? Explain how you know. Odd one out Which is the odd one out? 4/6 + 1/6, 2/8 + 3/8, 2/5 + 1/7 Why? Think about what happens to the denominators in each calculation. What do you notice? 1 - 3/8 = 5/8 1 = 6/6, so 6/6 - 2/6 = 4/6 What do you notice about subtracting from a whole? Ordering Start with 2/6. Add 1/6 each time. Write the results in order. What happens to the total each time you add another part?

