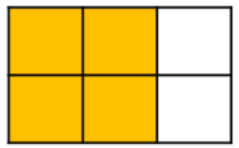
Summer Term 1 Overview Year 3 – Fractions

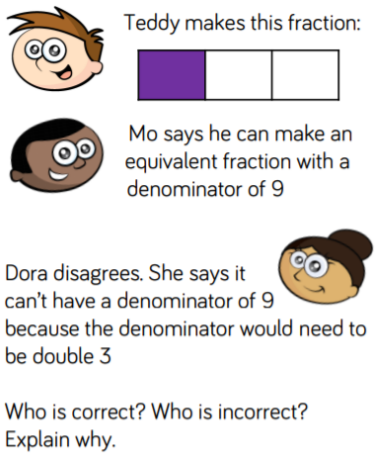
Summer Term 1 Book – The Ironman		
Topic - Measurement: Fractions		**Guide Time = 3 weeks**
Assessment:	White Rose Maths Hub end of block assessments End of term assessments – NFER assessments Teacher assessment judgements based on AfL	**Very Important Points (VIPs):** - Equivalent means equal to or the same as. - The numerator is the number on the top of the fraction. - The denominator is the number on the bottom of the fraction. - Equivalent fractions are worth the same amount, but may have different numerators and denominators. - A number line can help us find equivalent fractions. - A fraction can have more than one fraction equivalent in value. - Fractions equivalent to a half have a numerator that is half the denominator. - A unit fraction is any fraction with 1 as the numerator and a whole number as the denominator. - A non-unit fraction is where the numerator is not 1. - We can use <, > and = signs to compare fractions. - Ascending order means from smallest to largest. - Descending order means from largest to smallest. - When adding two or more fractions, you only add the numerators. - When subtracting fractions, you only subtract the numerator/s. **Fat Question:** How can fractions of amounts guide and encourage us to stay healthy? Think about what you eat, what exercise you do and your sleep pattern.
Links to prior learning (sequencing) and canon book	Children will have been introduced to fractions in KS1, where they have been taught to recognise, find, name and write fractions representing a third, half, quarter and three-quarters of a set of objects or quantity They will also have learnt how to write simple fractions of a whole amount and recognise the equivalence of ½ and 2/4. Pupils will have learnt to count in fractions up to 10 and understand the positioning of these on a number line. This ensures that children understand fractions as numbers and that they can add up to more than one. Children are expected to be able to link unit fractions to equal sharing and grouping, to numbers and also measures. Learning around fractions can help understand what fraction of amounts the Iron Man has used to recreate himself and what this could be equivalent to in other metals.	
Links to other learning (cross fertilisation)	In Computing, children will understand how programmers use fractions of an amount and problem solving, including general mathematical skills to create software and solve issues. In DT, the children will be designing and creating an Ironman robot. They will use their knowledge of fractions to select amounts of materials used to create the robot. Children can create diagrams using fractions knowledge to represent this. In Geography, children can explore how different layers involved in the structure of a river bed occupy different fractions of the amounts. In History, children will be learning about the Anglo Saxons and how fractions can represent their settlement and invasion of England.	

Links to future learning	The skills taught this half term will form the basis of all future learning on fractions as the children move up through the school. Children are able to develop and build-upon prior learning, which they can apply across all aspects of the school curriculum and in weekly arithmetic tests, termly assessments or to help them prepare for the following year. In year 4, children will move on to using their fractions skills to recognise and write decimal equivalents of tenths or hundreds, as well as solving simple measure and money problems involving fractions and decimals to 2 decimal places. In UKS2, children will move onto recognising mixed numbers and improper fractions, as well as been able to convert from one form to another. They will able progress to converting and writing decimals as fractions, as well as the relation of fractions to percentages. Children will learn to add and subtract fractions with different denominators. Thematic questions: The World Beyond Us: What fraction of the solar system is occupied by humans? Modern Britain: How can the way we measure objects in Modern Britain relate to using fractions? Healthy Bodies, Healthy Minds: What fraction of our diet should be carbohydrates? What fraction of our diet should be protein? What fraction of our diet should be fruits and vegetables? The World Around Us: What fraction of the world is covered in water? Culture: Use fractions to investigate the religions of children in our school. Technology in Action: What online apps and programmes can be used to help us understand fractions?	
Character/Wider Development ('50 things', cultural capital, skills)	**As part of our 50 things:** - Children can collate data from investigations, such as trees and wildlife in their local area, to inform which are the most popular and differences between species.	

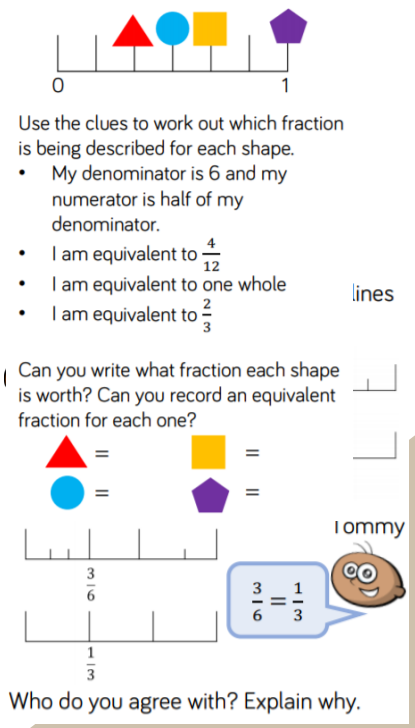
OVERVIEW OF TEACHING SEQUENCE

Key Facts Learning	Learning Focus or Key Question	Learning Outcomes (NC)	Key Words/ Vocabulary	Greater Depth/SEND	Misconceptions	Activities and Resources
Equivalent fractions (1) (2 lessons split into varied fluency and problem solving)	LO: To recognise equivalent fractions.	To recognise equivalent fractions with small denominators; to compare unit fractions with the same denominators; to solve problems that involve the above.	Fractions Equivalent Part Whole Denominator Numerator Equal parts Objects Diagram	**GD:** Children to complete challenges linked to reasoning and problem solving showing clear understanding. GD pupils have the opportunity to investigate equivalent fractions on comment and explain the patterns they notice using key mathematical vocabulary. Explain reasoning of why equivalent fractions can have different denominators and numerators, yet be worth the same amount. Use real life examples to model complex ideas to encourage deeper thinking. Used during varied fluency lesson to deepen	**Children may think that:** Children may understand that the values on the number rods and diagrams are equal, however not understand that they represent part of a whole. This may lead to an issue of misunderstanding the role of the numerator and denominator. Children may not understand the meaning of equivalent.	Children will recap the meaning of equivalent and the representation of a fraction. Children will use their VIPs from the lesson to investigate and record equivalent fractions using number rods and diagrams. Children will recognise equivalent fractions represented in bar models to understand what they are worth. Children will be able to write the equivalent fractions they recognise. Maths investigations can be used to secure the understanding and recognition of equivalent fractions using equal parts. E.G paper folding investigation. Children will answer reasoning and problem solving questions relating to the recognition of equivalent fractions, expressing their understanding through written explanations using key mathematical vocabulary. **Resources:**

				understanding fractions as part of a whole. During varied fluency lesson, explanations can be developed by showing/ explaining how they know when a fraction is equivalent or not to peers in the class. Provide opportunities to investigate the relationships between equivalent fractions and non-equivalent fractions. **SEND:** Focus on the understanding of a fraction being part of a whole and how concrete fractions can be represented using a numerator and denominator. Pre-teach key vocabulary such as 'equivalent', 'denominator' and 'numerator' which will aid their recognition of equivalent fractions during the lesson. Pictorial and physical manipulatives could be used to further support children's understanding of fractions and to identify patterns of when equivalent amounts occur.	Children may misunderstand patterns and similarities in numbers as equivalent fractions – not understanding that fraction is part of a whole. Children may think that each fraction only has one equivalent fraction. Children may think that even though a fraction is equivalent in a diagram, in numerical form it is not worth the same amount.	White Rose Maths Premium Resources - https://resources.whiterosemaths.com/resources/year-3/summer-block-1-fractions/ Third Space Learning https://mathshub.thirdspacelearning.com/resources/1837/Ready-to-go-Lesson-Slides-Year-3-Fractions-Summer-Block-1 **Mathematical questions:** If the ___ rod is worth 1, can you show me ½ ? How about ¼ ? Can you find other rods that are the same? What fraction would they represent? How can you fold a strip of paper into equal parts? What do you notice about the numerators and denominators? Do you see any patterns? Can a fraction have more than one equivalent fraction? **Deepen the moments:** Explain how the diagram shows both $\frac{2}{3}$ and $\frac{4}{6}$  Are there any other equivalent fractions to 2/3?

				Access to 'helpful' peers and clear modelling from adults are vital in ensuring children gain a secure understanding. Children to complete varied fluency questions focusing on concrete versions of equivalent fractions using diagrams and number rods primarily. Partially worked examples are used during input/modelling by teacher to focus learning on the objective of 'equivalent fractions', rather than the skill of writing the fraction.		
Equivalent fractions (2) (2 lessons split into varied fluency and problem solving)	LO: To find equivalent fractions on a number line.	To recognise equivalent fractions with small denominators; to compare unit fractions with the same denominators; to solve problems that involve the above, recognise, find and write fractions of a discrete set of objects: unit	Fractions Equivalent Number line Part Whole Denominator Numerator Equal parts Objects Diagram Intervals	**GD:** Children to complete challenges linked to reasoning and problem solving showing clear understanding. GD pupils have the opportunity to investigate equivalent fractions on comment and explain the patterns they notice using key mathematical vocabulary. Explain reasoning of why equivalent fractions can have different denominators and numerators, yet be worth the same amount.	**Children may think that:** Children may think that values on a number line can't be equivalent if the value of the denominator is different. This may lead to an issue of misunderstanding the role of the numerator and denominator. Children may not understand the	Children will be reintroduced to the concept of equivalent values, linking this to how equivalent fractions can be represented. Children will deepen their recognition and understanding of equivalent fractions exploring them through number rods, diagrams of concrete representations and paper slips. This will be built upon by using number line to understand and fine equivalent fractions. Children will understand that a number line is divided into different amounts of equal parts and how this helps to find equivalent fractions. Children will answer reasoning and problem solving questions relating to the recognition of equivalent fractions on a number line, expressing their understanding through written explanations using key mathematical vocabulary.

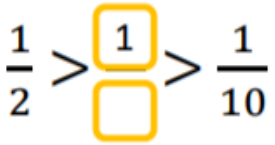
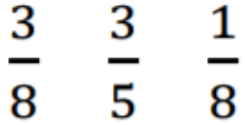
		fractions and non-unit fractions with small denominators.		Use real life examples to model complex ideas to encourage deeper thinking. Used during varied fluency lesson to deepen understanding fractions as part of a whole. During varied fluency lesson, explanations can be developed by showing/ explaining how they know when a fraction is equivalent or not to peers in the class. Provide opportunities to investigate the relationships between equivalent fractions and non-equivalent fractions. **SEND:** Focus on the understanding of a fraction being part of a whole and how concrete fractions can be represented using a numerator and denominator. Pre-teach key vocabulary such as 'equivalent', 'denominator' and 'numerator' which will aid their recognition of equivalent fractions during the lesson.	meaning of equivalent. Children may misunderstand patterns and similarities in numbers as equivalent fractions – not understanding that fraction is part of a whole. Children may think that each fraction only has one equivalent fraction. Children may think that even though a fraction is equivalent in a diagram, in numerical form it is not worth the same amount. Children may not view the fraction as part of a whole.	**Resources:** White Rose Maths Premium Resources - https://resources.whiterosemaths.com/resources/year-3/summer-block-1-fractions/ Third Space Learning https://mathshub.thirdspacelearning.com/resources/1837/Ready-to-go-Lesson-Slides-Year-3-Fractions-Summer-Block-1 **Mathematical questions:** The number line represents 1 whole, where can we see the fraction __ Can we see any equivalent fractions? Look at the number line divided into twelfths. Which unit fractions can you place on the number line as equivalent fractions? e.g. 1/2 , 1/3 , 1/4 , 1/5 etc. Which unit fractions are not equivalent to twelfths? **Deepen the moments:**

				Basic number lines used labelled with equivalent fractions with small-value denominators. Pictorial and physical manipulatives could be used to further support children's understanding of fractions and to identify patterns of when equivalent amounts occur. Access to 'helpful' peers and clear modelling from adults are vital in ensuring children gain a secure understanding. Children to complete varied fluency questions focusing on concrete versions of equivalent fractions using diagrams and number lines with minimal fractions on it. Partially worked examples are used during input/modelling by teacher to focus learning on the objective of 'equivalent fractions', rather than the skill of writing the fraction.		
Equivalent fractions (3) (2 lessons split into varied	LO: To consolidate learning on equivalent fractions.	To recognise equivalent fractions with small denominators; to compare	Fractions Equivalent Part Whole Denominator Numerator	**GD:** Children to complete challenges linked to reasoning and problem solving showing clear understanding. GD pupils	**Children may think that:** Children may misunderstand that a fraction is	Children will recap recognising equivalent fractions on a number line and using the number line to find equivalent fractions. Children will use proportional reasoning to link pictorial images with abstract methods to find equivalent

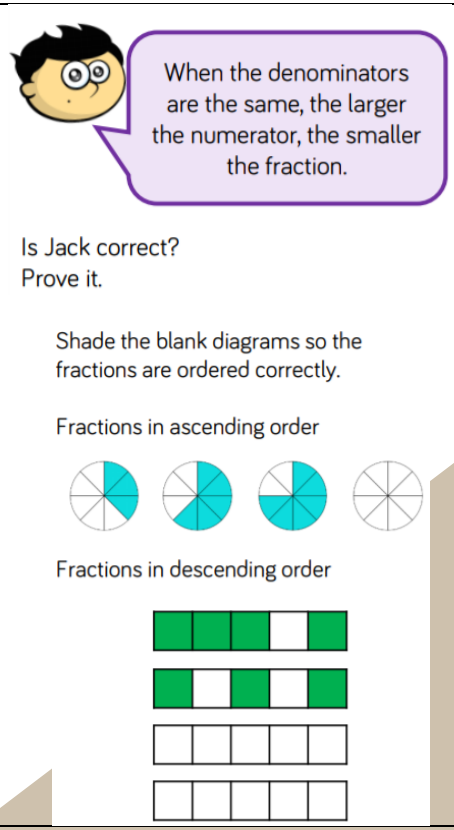
fluency and problem solving)		unit fractions with the same denominators; to solve problems that involve the above, recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.	Equal parts Objects Diagram Patterns Pictorial	have the opportunity to investigate equivalent fractions on comment and explain the patterns they notice using key mathematical vocabulary. Explain reasoning of why equivalent fractions can have different denominators and numerators, yet be worth the same amount. Use real life examples to model complex ideas to encourage deeper thinking. Used during varied fluency lesson to deepen understanding fractions as part of a whole. During varied fluency lesson, explanations can be developed by showing/ explaining how they know when a fraction is equivalent or not to peers in the class. Provide opportunities to investigate the relationships between equivalent fractions and non-equivalent fractions. **SEND:** Focus on the understanding of a fraction being part of a whole and how concrete fractions can be represented	part of whole – misconception of which number is the numerator and denominator. Children may not understand the meaning of equivalent. Children may misunderstand patterns and similarities in numbers as equivalent fractions – not understanding that fraction is part of a whole. Children may think that each fraction only has one equivalent fraction. Children may think that even though a fraction is equivalent in a diagram, in numerical form it is not worth the same amount.	fractions. Children should then look for patterns in numerators and denominators of equivalent patterns to understand the relationship between them. A fraction wall can be used to assist with this. Children will answer reasoning and problem solving questions relating to equivalent fractions, expressing their understanding through written explanations using key mathematical vocabulary. **Resources:** White Rose Maths Premium Resources - https://resources.whiterosemaths.com/resources/year-3/summer-block-1-fractions/ Third Space Learning https://mathshub.thirdspacelearning.com/resources/1837/Ready-to-go-Lesson-Slides-Year-3-Fractions-Summer-Block-1 **Mathematical questions:** Why do our times tables help us find equivalent fractions? Can we see a pattern between the fractions? Look at the relationship between the numerator and denominator, what do you notice? Does an equivalent fraction have the same relationship? If we add the same number to the numerator and denominator, do we find an equivalent fraction? Why? **Deepen the moments:**

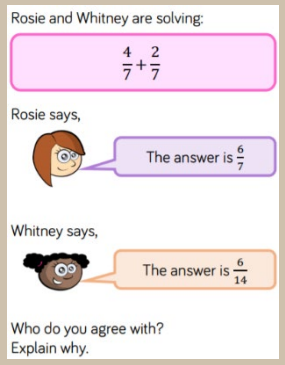
				using a numerator and denominator. Pre-teach key vocabulary such as 'equivalent', 'denominator' and 'numerator' which will aid their recognition of equivalent fractions during the lesson. Basic number lines and fractions walls to be used to support with finding equivalent fractions and identifying patterns between written unit fractions and pictorial representations. Pictorial and physical manipulatives could be used to further support children's understanding of fractions and to identify patterns of when equivalent amounts occur. Access to 'helpful' peers and clear modelling from adults are vital in ensuring children gain a secure understanding. Children to complete varied fluency questions focusing on concrete versions of equivalent fractions using diagrams and number lines with minimal fractions on it.	Children may not view the fraction as part of a whole.	**Always, sometimes, never.** If a fraction is equivalent to one half, the denominator is double the numerator. Prove it. Can you find any relationships between the numerator and denominator for other equivalent fractions? Dora has shaded a fraction.  She says,  I am thinking of an equivalent fraction to the shaded fraction where the numerator is 9 Is this possible? Explain why.

				Partially worked examples are used during input/modelling by teacher to focus learning on the objective of 'equivalent fractions', rather than the skill of writing the fraction.		
Compare fractions. (2 lessons split into varied fluency and problem solving)	LO: To compare fractions.	Compare and order unit fractions and fractions with the same denominator.	Fractions Part Compare Order Whole Denominator Numerator Equal parts Objects More than Less than Equal to Unit fraction Non-unit fraction	**GD:** Children to complete challenges linked to reasoning and problem solving showing clear understanding of how to compare fractions. Using mathematical symbols to compare multiple fractions at once. Use real life examples to model complex ideas to encourage deeper thinking of where fractions can be used in the real world. During varied fluency lesson, explanations can be developed by showing/ explaining how unit and non-unit fractions differ from one another. Provide opportunities to investigate the relationships between unit fractions and non-unit fractions.	**Children may think that:** The bigger the denominator, the larger the fraction. E.G. ¼ being larger than ½. Dividing something into more equal parts, makes each equal part smaller. Children may become confused with using comparative symbols and may need reminding of these: >, < or = Children may not view the fraction as part of a whole.	Children will be introduced to unit fractions and the use of a fraction wall to represent the value of different unit fractions. Children will use pictorial representations to compare and order the unit fractions with mathematical symbols. Children will then move onto comparing and ordering non-unit fractions with the same denominator, understanding their worth as different parts of the same whole. Children will answer reasoning and problem solving questions relating to comparing and ordering fractions, expressing their understanding through written explanations using key mathematical vocabulary. **Resources:** White Rose Maths Premium Resources - https://resources.whiterosemaths.com/resources/year-3/summer-block-1-fractions/ Third Space Learning https://mathshub.thirdspacelearning.com/resources/1837/Ready-to-go-Lesson-Slides-Year-3-Fractions-Summer-Block-1 **Mathematical questions:** Why is it important that the strips of paper are the same length and are lined up underneath each other? Can you think of a unit fraction that is smaller than 1/10? Can you think of a unit fraction that is larger than 1/3?

				GD pupils can explore how fractions could be compared when the denominator is of a different value. **SEND:** Focus on using a fraction wall and pictorial representations to compare which fraction is worth 'more' and which is worth 'less'. Initial focus is on non-unit fractions being compared in this manner. Pre-teach key vocabulary such as, 'denominator' and 'numerator' which will aid their recognition of parts of the fraction when it is being discussed in the lesson. Access to 'helpful' peers and clear modelling from adults are vital in ensuring children gain a secure understanding. Partially worked examples are used during input/modelling by teacher to focus learning on the comparison of the fraction amounts rather than mathematical symbols.		**Deepen the moment:** Complete the missing denominator. How many different options can you find?  Here are three fractions.  Which fraction is the largest? How do you know? Which fraction is the smallest? How do you know?

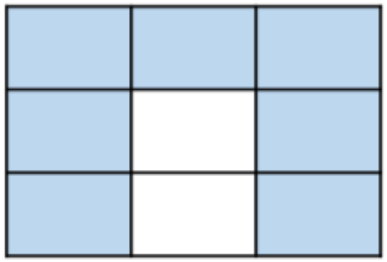
Order Fractions (2 lessons split into varied fluency and problem solving)	LO: To order fractions.	Compare and order unit fractions and fractions with the same denominator.	Fractions Part Compare Order Whole Denominator Numerator Equal parts Objects Smallest Largest Ascending Descending Unit fraction Non-unit fraction	**GD:** Children to complete challenges linked to reasoning and problem solving showing clear understanding of how to order fractions. Using mathematical symbols to compare multiple fractions at once. Use real life examples to model complex ideas to encourage deeper thinking of where fractions can be used in the real world. Provide opportunities to investigate the relationships between numerators and denominators. GD pupils can explore how fractions could be ordered when the denominator is of a different value. **SEND:** Focus on using a fraction wall and pictorial representations to order the fractions from 'smallest' to 'largest'. Pre-teach key vocabulary such as, 'smallest', 'ascending', 'descending'	**Children may think that:** The bigger the denominator, the larger the fraction. E.G. ¼ being larger than ½. Dividing something into more equal parts, makes each equal part smaller. Children may not view the fraction as part of a whole. Children may not fully understand ascending and descending.	Children should recap the meaning of ascending and descending, ready to order fractions later in the lesson. Children will use bar models and number lines to order unit fractions and fractions with the same denominator in ascending and descending order. They should also be able to identify which fractions are 'smallest' and which are 'largest'. Encourage children to explain in sentences how they can compare fractions when the numerators or denominators are the same. Children will answer reasoning and problem solving questions relating to comparing and ordering fractions, expressing their understanding through written explanations using key mathematical vocabulary. **Resources:** White Rose Maths Premium Resources - https://resources.whiterosemaths.com/resources/year-3/summer-block-1-fractions/ Third Space Learning https://mathshub.thirdspacelearning.com/resources/1837/Ready-to-go-Lesson-Slides-Year-3-Fractions-Summer-Block-1 **Mathematical questions:** How many equal parts has the whole been divided in to? How many equal parts need shading? Which is the largest fraction? Which is the smallest fraction? Which fractions are the hardest to make as paper strips? Why do you think they are harder to make? **Deepen the moment:**

				and 'largest' which will aid their recognition of parts of the fraction and number line when it is being discussed in the lesson. Access to 'helpful' peers and clear modelling from adults are vital in ensuring children gain a secure understanding. Partially worked examples are used during input/modelling by teacher to focus learning on the comparison of the fraction amounts rather than mathematical symbols.		
Add Fractions (2 lessons split into varied fluency and problem solving)	LO: To add fractions.	Add and subtract fractions with the same denominator within a whole.	Add Fraction Whole Part Denominator Numerator	**GD:** Children to complete challenges linked to reasoning and problem solving showing clear understanding of how to add fractions and how much of a whole the fraction represents.	**Children may think that:** Both the numerator and denominator need to be added together. All numbers in the fraction are added together to create	Children will begin adding fractions using pictorial and concrete representations to understand that it is two or more parts of a whole that are being added together. This will enable them to progress onto identifying numerators as the part of the fraction that needs to be added together. They will understand that the denominators do not need to be added together. Children will answer reasoning and problem solving questions relating to adding fractions, expressing their understanding through written explanations using key mathematical vocabulary.

				Adds more than two fractions together using mental maths skills. Use real life examples to model complex ideas to encourage deeper thinking of where fractions can be used in the real world. Provide opportunities to investigate the relationships between numerators and denominators. GD pupils can explore how fractions could be added when the denominator is of a different value. GD pupils could explore what happens when fractions are bigger than one and how this would be represented pictorially. **SEND:** Focus pictorial representations and concrete manipulatives to add the parts of a whole together initially. Pre-teach key vocabulary such as, 'denominator' and 'numerator, which will aid their recognition of parts of	a whole number as the answer. Children may not view the fraction as part of a whole.	**Resources:** White Rose Maths Premium Resources - https://resources.whiterosemaths.com/resources/year-3/summer-block-1-fractions/ Third Space Learning https://mathshub.thirdspacelearning.com/resources/1837/Ready-to-go-Lesson-Slides-Year-3-Fractions-Summer-Block-1 **Mathematical questions:** Using your paper circles, show me what 1/4 + 2/4 is equal to. How many quarters in total do I have? How many parts is the whole divided into? How many parts am I adding? What do you notice about the numerators? What do you notice about the denominators? **Deepen the moment:** 

				the fraction when it is being discussed in the lesson. Access to 'helpful' peers and clear modelling from adults are vital in ensuring children gain a secure understanding . Partially worked examples are used during input/modelling by teacher to focus learning on the addition of the numerator rather than the writing of the fraction. Recap of number bonds and basic addition skills to support with the adding of the numerators of two fractions. Use ruler/number line to aid basic addition/ subtraction skills.		Mo and Teddy share these chocolates.  They both eat an odd number of chocolates. Complete this number sentence to show what fraction of the chocolates they each could have eaten. $\frac{\square}{\square} + \frac{\square}{\square} = \frac{12}{12}$
Subtract Fractions (2 lessons split into varied fluency and problem solving)	LO: To subtract fractions.	Add and subtract fractions with the same denominator within a whole.	Subtract Fraction Whole Part Denominator Numerator Difference	**GD:** Children to complete challenges linked to reasoning and problem solving showing clear understanding of how to subtract fractions and how much of a whole the fraction represents. Subtracts more than two fractions together using mental maths skills.	**Children may think that:** Both the numerator and denominator need to be subtracted. All numbers in the fraction are subtracted to create a whole number as the answer.	Children will begin adding fractions using pictorial and concrete representations to understand that it is one or more parts of a whole that are being subtracted. This will enable them to progress onto identifying numerators as the part of the fraction that needs to be added together. They will understand that the denominators do not need to be added together. They will understand that 'finding the difference' between two fractions involves subtraction skills. Children will answer reasoning and problem solving questions relating to subtracting fractions, expressing their understanding through written explanations using key mathematical vocabulary.

				Use real life examples to model complex ideas to encourage deeper thinking of where fractions can be used in the real world. Provide opportunities to investigate the relationships between numerators and denominators. GD pupils can explore how fractions could be subtracted when the denominator is of a different value. GD pupils could explore what happens when fractions are bigger than one and how this would be represented pictorially. **SEND:** Focus pictorial representations and concrete manipulatives to subtract the parts of a whole together initially. Pre-teach key vocabulary such as, 'denominator' and 'numerator, which will aid their recognition of parts of the fraction when it is being discussed in the lesson. Access to 'helpful' peers and clear modelling from adults	Children may not view the fraction as part of a whole.	**Resources:** White Rose Maths Premium Resources - https://resources.whiterosemaths.com/resources/year-3/summer-block-1-fractions/ Third Space Learning https://mathshub.thirdspacelearning.com/resources/1837/Ready-to-go-Lesson-Slides-Year-3-Fractions-Summer-Block-1 **Mathematical questions:** What fraction is shown first? Then what happens? Now what is left? Can we represent this in a number story? Which models show take away? Which models show finding the difference? What's the same? What's different? Can you partition 9/11 in a different way? **Deepen the moment:** Find the missing fractions: $\frac{7}{7} - \frac{3}{7} = \frac{2}{7} + \frac{\square}{7}$ $\frac{\square}{9} - \frac{5}{9} = \frac{4}{9} - \frac{2}{9}$ How many fraction addition and subtractions can you make from this model?

				are vital in ensuring children gain a secure understanding. Partially worked examples are used during input/modelling by teacher to focus learning on the addition of the numerator rather than the writing of the fraction. Recap of number bonds and basic subtraction skills to support with the adding of the numerators of two fractions. Use ruler/number line to aid basic addition/ subtraction skills.		

Context (big picture learning)
Mathematics is an important, creative discipline that helps us to understand and change the world. We want all of our children within the Pontefract Academies Trust to experience all that mathematics has to offer and to develop a sense of curiosity about the subject with a clear understanding. As they grow throughout primary education, we want them to feel a sense of pride and achievement within this core subject: a subject that will impact their daily lives.

A key aspect of this will be the positive attitude we have and will pass onto the children, as they learn important mathematical concepts during their mathematics learning journey. We include VIPs (Very Important Points) to help children know their learning outcomes and retain and repeat important this knowledge over time.

Mistakes and misconceptions are a key part of the successes during their learning journey, as these moments help to show resilience, perseverance and commitment to learning mathematical concepts. At our school, the majority of children will be taught the content from their year group only. All children will have the opportunity to progress, build on prior knowledge, and have access to reasoning and problem solving questions. These questions help to secure and deepen their thinking and learning with mathematics. Another key factor is cross fertilization at every opportunity. As a whole, the children will spend their time learning, applying and mastering key skills that they will need throughout their life. In year 4, they will build on their mathematical knowledge, which they can take forward with them as they move into year 5 and beyond.

All resources found in folder name - Trust shared > Primaries > KS2 > Year 3/4 Planning > Cycle B > Summer 1 – The Ironman - Maths

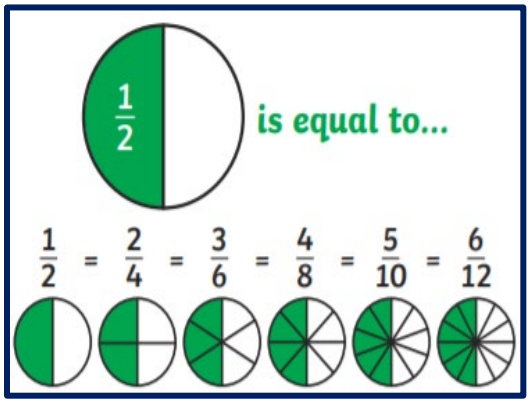
Year 3 Knowledge Organiser: Fractions

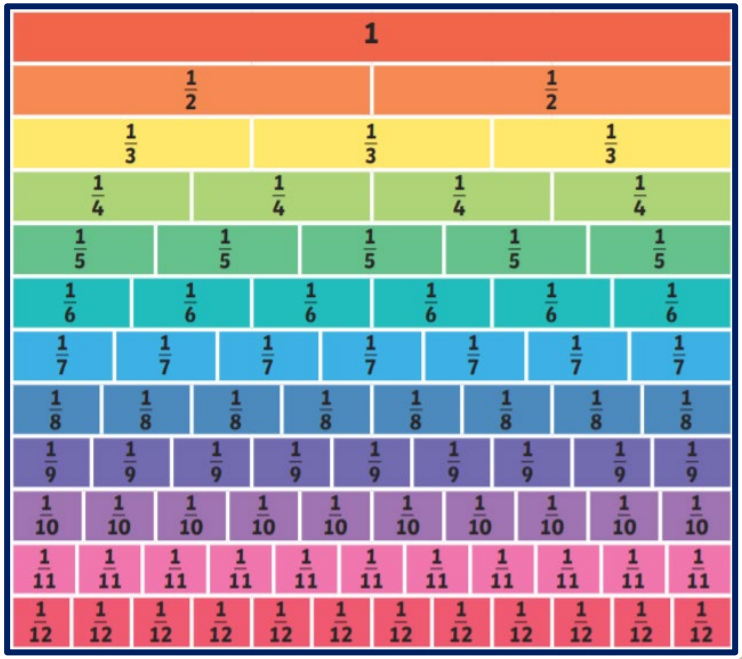
VIPs

- Equivalent means equal to or the same as.
- The numerator is the number on the top of the fraction.
- The denominator is the number on the bottom of the fraction.
- Equivalent fractions are worth the same amount, but may have different numerators and denominators.
- A number line can help us find equivalent fractions.
- A unit fraction is any fraction with 1 as the numerator and a whole number as the denominator.
- A non-unit fraction is where the numerator is not 1.
- We can use <, > and = signs to compare fractions.
- Ascending order means from smallest to largest.
- Descending order means from largest to smallest.
- When adding two or more fractions, you only add the numerators.
- When subtracting fractions, you only subtract the numerator/s.

Intent

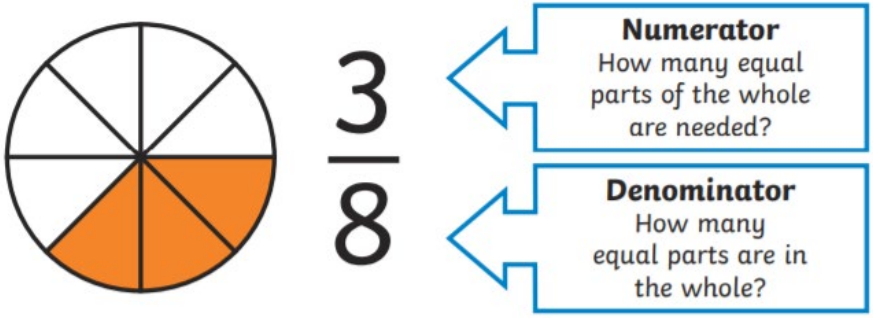
We will be able to build on our prior knowledge of time from KS1 and Year 3 to understand fractions and how they can be equivalent to one another. We will continue to recognise and identify patterns of equivalent fractions, using pictorial representations and number lines to show these. Mathematical symbols can be used to compare and order unit and non-unit fractions. We will add and subtract fractions with the same denominator to transfer our skills.

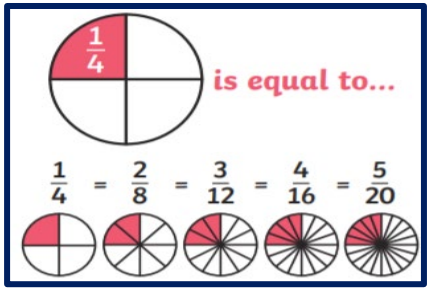




Fat Question

How can fractions of amounts guide and encourage us to stay healthy? Think about what you eat, what exercise you do and your sleep pattern.





Key vocabulary

Fractions
Whole
Equal Parts
Numerator
Denominator
Unit Fraction
Non-Unit Fraction
Compare
Order
Smaller
Larger
Ascending
Descending
Addition
Subtraction
Number line
Bar model
Difference
Equivalent
Halves
Thirds
Quarters
Fifths
Sixths
Eighths
Tenths