Year 7 : Understanding Fractions Medium Term Plan

Understanding Fractions		Representing Fractions	Draw fractions in different contexts e.g. counters, bar etc. Represent fractions on a number line.	
		Expressing one Quantity as a Fraction of Another	Understand why the denominator and numerator is represented by its particular value. Use real life contexts like money.	
		Equivalent Fractions	Find equivalent fractions including simplifying. Understand what happens to the fraction parts when the fraction is simplified.	Simplifying and equivalent fractions - fraction game - JUNIOR mathematical team game J.
		Compare and Order Fractions	Compare fractions by finding common denominators. Compare fractions when finding common numerators.	
		Fraction of Amount	Calculate a fraction of an amount by pictorial representation of fractional parts. Communicate about what is the whole and emphasise equal parts.	
		Fractional Increase and Decrease	Calculate fractional increase and decrease of amounts. Discuss about the new amount being less or more than the original whole.	Sales in shops Increases in prices
		Convert between Mixed and Improper Fractions	Understand pictorially how to covert between mixed and improper before allowing students to generalise a more efficient rule.	

Understanding Fractions		Representing Fractions	Draw fractions in different contexts e.g. counters, bar etc. Represent fractions on a number line.	
		Expressing one Quantity as a Fraction of Another	Understand why the denominator and numerator is represented by its particular value. Use real life contexts like money.	
		Equivalent Fractions	Find equivalent fractions including simplifying. Understand what happens to the fraction parts when the fraction is simplified.	Music to compare notes
		Compare and Order Fractions	Compare fractions by finding common denominators. Compare fractions when finding common numerators.	Music to compare notes
		Fraction of Amount	Calculate a fraction of an amount by pictorial representation of fractional parts. Communicate about what is the whole and emphasise equal parts.	
		Fractional Increase and Decrease	Calculate fractional increase and decrease of amounts. Discuss about the new amount being less or more than the original whole.	Sales in shops Increases in prices
		Convert between Mixed and Improper Fractions	Understand pictorially how to covert between mixed and improper before allowing students to generalise a more efficient rule.	
		Reverse Fraction of Amounts	Calculate the whole when given part of a fraction or when given the answer after a fractional change.	

Understanding Fractions		Representing Fractions	Draw fractions in different contexts e.g. counters, bar etc. Represent fractions on a number line.	
		Expressing one Quantity as a Fraction of Another	Understand why the denominator and numerator is represented by its particular value. Use real life contexts like money.	
		Equivalent Fractions	Find equivalent fractions including simplifying. Understand what happens to the fraction parts when the fraction is simplified.	Music to compare notes
		Compare and Order Fractions	Compare fractions by finding common denominators. Compare fractions when finding common numerators.	Music to compare notes
		Fraction of Amount	Calculate a fraction of an amount by pictorial representation of fractional parts. Communicate about what is the whole and emphasise equal parts.	
		Fractional Increase and Decrease	Calculate fractional increase and decrease of amounts. Discuss about the new amount being less or more than the original whole.	Sales in shops Increases in prices
		Convert between Mixed and Improper Fractions	Understand pictorially how to covert between mixed and improper before allowing students to generalise a more efficient rule.	
		Reverse Fraction of Amounts	Calculate the whole when given part of a fraction or when given the answer after a fractional change.	

Key Knowledge/Prior Learning KS2/Retrieval and Suggested Starters

- Use common factors to simplify fractions; use common multiples to express fractions in the same denomination
- Compare and order fractions, including fractions > 1
- Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction 3/8]
- Simplifying fractions
- Representing fractions pictorially e.g. shading and number lines
- Simply fraction and decimal equivalence.
- Factors
- Multiples

KS3 National Curriculum – what students will be practicing

- Represent fractions pictorially and on a number line.
- Simplify and find equivalent fractions
- Compare and order fractions
- Calculate fractions of amounts including increases and decreases.
- Convert between mixed numbers and improper fractions
- Calculate reverse fraction of amounts

Specific Ambitious Knowledge

- Use of the bar method throughout to represent questions pictorially.
- Use of pictures to find equivalent fractions when comparing/ordering.

Key Vocabulary/Literacy Opportunities

- Numerator
- Denominator
- Equivalent
- Simplify
- Parts
- Division
- Common factors
- Multiples
- Lowest common multiple
- Multipliers
- Ascending
- Descending

Key Formulae/Knowledge
• LCM for common denominators • Simplify using a common factor (or HCF).

Cross Curricular Links
• Art and design – scale factors • Business – cost/price increases/decreases • Science – quantity increases/decreases

Student' Thinking

Projects/Enrichment/Investigations
• Peaches today, peaches tomorrow: https://nrich.maths.org/peachestoday • Simplifying and equivalent fractions - fraction game - JUNIOR mathematical team game J. Projects: Core: Upper: Set 1: TBC