Crosby Primary School

Mathematics Medium Term Plan

Year 6 Autumn Term Unit 3 Fractions

R2P: 6F-1, 6F-2, 6F-3
NC
Use common factors to simplify fractions; use common multiples to express fractions in the same denomination.
Compare and order fractions, including fractions > 1.
Generate and describe linear number sequences (with fractions).
Add and subtract fractions with different denominations, and mixed numbers, using the concept of equivalent fractions.
Multiply simple pairs of proper fractions, writing the answer in its simplest form.
Divide proper fractions by whole numbers.
Associate a fraction with division and calculate decimal fraction equivalents for a simple fraction.

Focus: Fractions

Time: 4 weeks

Vocabulary
Bar Model
Fraction/proper/improper
Equivalent fraction
Mixed number
Numerator/denominator
Whole, equal part
Equal grouping/sharing
Parts of a whole
Half, two halves
Quarter, two quarters….
Third, two thirds…..
Fifths, sixths…..
proportion

Concept Sequence

Recap Equivalence Y5
Equivalence and simplify fractions – using highest common factors and build on equivalence. Use pictorial representations to support.
Equivalent fractions on a number line. Count forwards/backwards in fractions. Use divisions/draw extra intervals to help place fractions.

Recap Improper to Mixed and Mixed to Improper Fractions Y5

Compare and order - with the same denominators or with multiples of the same. Y5

Compare and order (denominator) – where denominators are not multiples of the same number – use lowest common multiples to find equivalent denominators. Use number sense to help visualise before converting.

Compare and order (numerator) – when numerators are the same the larger the denominator the smaller the fraction. Use most efficient method.

Add and Subtract – within 1 where the denomiantors are multiple sof the same number. Find lowest common multiple to find common denominators.

Add and subtract fractions where the denominators are not multiples of the same number. Continue to find LCM but need to find equivalent fractions.

Recap Y5 Add Mixed Numbers
Add Mixed Numbers – use bar models to support. Simplify answers and convert between improper fractions.

Recap Y5 Subtract Mixed numbers
Subtract Mixed fractions. Exchange method.

Mixed Addition and Subtraction. Multi-step problems.

Multiply fractions/mixed numbers with integers - use diagrams to make links with repeated addition so see need for denominator to stay the same. Partition mixed numbers into whole and fractions for efficiency (rather than converting to improper fractions).

Multiply fractions by fractions – us econcrete and pictorila representations to support. Mak elinks with multiplying fractions and finding fractions of amounts (x = of) . Spot patterns to assist with procedures.
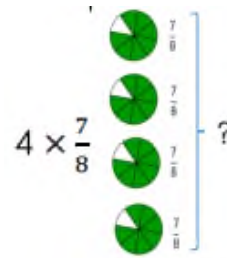
Divide fractions by integers – where the numerator is a multiple of the integer they are dividing by. Denonminator stays the same and numerator is divided by the integer. Link with multiplying by unit fractions. Use diagrams.

Divide fractions by integers – where the numerator is not a multiple of th einteger they are dividing by. Draw diagrams to divide fractions into equal parts. Find equivalent fractions to support.

Mixed questions with fractions - Four rules with fractions – recap order of operations. Draw bar models to represent word problems.

Fractions of amounts – Draw bar models to support divdinng by the demoniator and multiplying by the numerator.

Find the whole – use bar models.
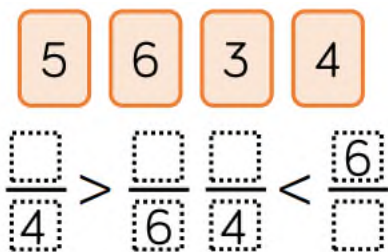
$$4 \times \frac{7}{8} = ?$$

Times Tables 5NF-1
Consolidate and practice all multiplication and division facts to 12x12 – any order, missing numbers, fractions.
Use multiplication and division facts to derive associated facts.
Develop multiplicative reasoning - links between multiplication, division and fractions.

Planning Links
Power Maths, White Rose, Maths No Problem/Aspire
White Rose Scheme of Work:
https://assets.whiterosemaths.com/new-schemes/Y6%20Autumn%20Block%203%20SOL%20Fractions%20A.pdf
https://assets.whiterosemaths.com/new-schemes/Y6%20Autumn%20Block%204%20SOL%20Fractions%20B%20.pdf
NCETM:
https://www.ncetm.org.uk/teaching-for-mastery/mastery-materials/primary-mastery-professional-development/fractions/

$$\frac{5}{4} > \frac{6}{6} \qquad \frac{3}{4} < \frac{6}{6}$$

Resources
Fraction wall, Number lines, Bar Models
Gordons Maths Games, Mathletics, TTRockstars
BBC Super Movers
https://www.bbc.co.uk/teach/supermovers/ks2-collection/zr4ky9q