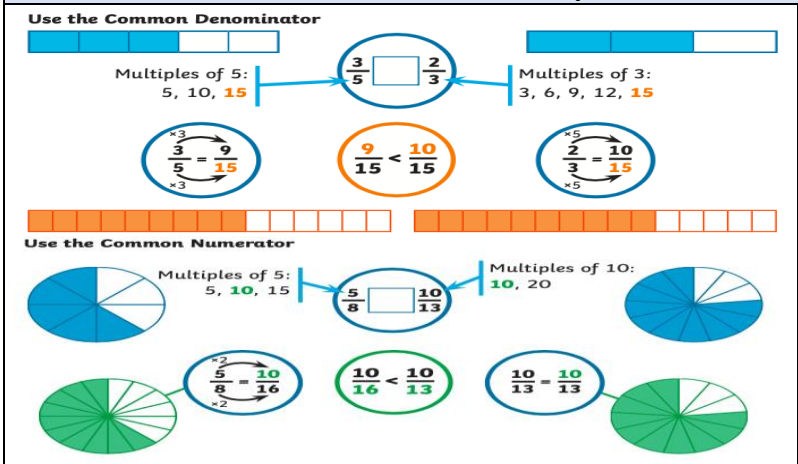
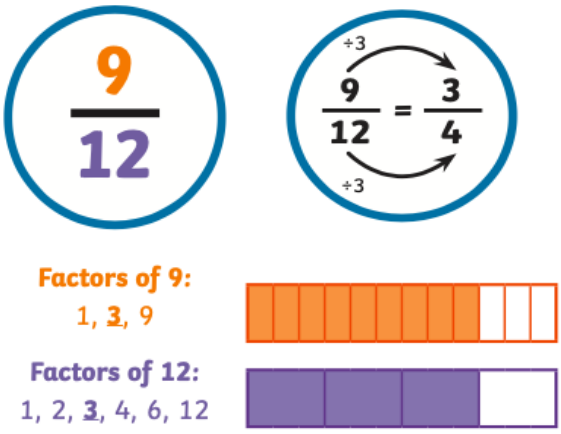
St John Fisher RC Primary School
Year 6 Maths Knowledge Organiser
Autumn 2 Block 3 – Fractions (1)

Objectives	Self-Assessment	Teacher
• I can find and name equivalent fractions of a given fraction, including tenths and hundredths.		
• I can use common factors and multiples to simplify fractions and express fractions in the same denomination.		
• I can compare and order fractions including those bigger than 2.		
• I can identify mixed numbers and improper fractions and convert from one to another such as 2/5 + 4/5 = 6/5 = 1 1/5.		

Compare, Order & Simplify





Key Vocabulary

numerator	The number above the line in a fraction.
denominator	The number below the line in a fraction.
equivalent	The same as or equal to.
proper fraction	A fraction that has a smaller numerator than the denominator.
improper fraction	A fraction that has a larger numerator than the denominator.
mixed fraction	An integer (number) combined with a proper fraction.
factor	A number that fits exactly into another number without a remainder.

Sentence Stems

Both the numerator and the denominator can be divided by ___ .	When the numerators are the same, the ___ the denominator, the ___ the fraction.

Assessment

I can use common factors and multiples to simplify fractions and express fractions in the same denomination.	I can compare and order fractions including those bigger than 2.	I can identify mixed numbers and improper fractions and convert from one to another such as 2/5 + 4/5 = 6/5 = 1 1/5.

St John Fisher RC Primary School
Year 6 Maths Knowledge Organiser
Autumn 2 Block 3 – Fractions (2)

Objectives	Self-Assessment	Teacher
• I can add and subtract fractions with different denominators and mixed numbers.		

Proper Fractions

Same Denominators

$\frac{4}{7}+\frac{2}{7}=\frac{6}{7}$

$\frac{8}{11}-\frac{3}{11}=\frac{5}{11}$

Different Denominators

$\frac{2}{7}+\frac{3}{5}$

Multiples of 7: 7, 14, 21, 28, **35**
Multiples of 5: 5, 10, 15, 20, 25, 30, **35**

$\frac{2}{7}=\frac{10}{35}, \frac{3}{5}=\frac{21}{35}$

$\frac{10}{35}+\frac{21}{35}=\frac{31}{35}$

$\frac{9}{10}-\frac{1}{4}$

Multiples of 10: 10, **20**
Multiples of 4: 4, 8, 12, 16, **20**

$\frac{9}{10}=\frac{18}{20}, \frac{1}{4}=\frac{5}{20}$

$\frac{18}{20}-\frac{5}{20}=\frac{13}{20}$

Mixed Fractions

Add or subtract the whole numbers and fractions separately.

$2\frac{2}{5}+1\frac{3}{10}$

$2+1=3$

$\frac{2}{5}+\frac{3}{10}=\frac{4}{10}+\frac{3}{10}=\frac{7}{10}$

$3+\frac{7}{10}=3\frac{7}{10}$

$2\frac{1}{2}-1\frac{1}{4}$

$2-1=1$

$\frac{1}{2}-\frac{1}{4}=\frac{2}{4}-\frac{1}{4}=\frac{1}{4}$

$1+\frac{1}{4}=1\frac{1}{4}$

Convert the mixed numbers to improper fractions.

$2\frac{2}{5}+1\frac{3}{10}$

$2\frac{2}{5}=\frac{12}{5}$ $\quad 1\frac{3}{10}=\frac{13}{10}$

$\frac{12}{5}+\frac{13}{10}=\frac{24}{10}+\frac{13}{10}=\frac{37}{10}$

$\frac{37}{10}=3\frac{7}{10}$

$2\frac{1}{2}-1\frac{1}{4}$

$2\frac{1}{2}=\frac{5}{2}$ $\quad 1\frac{1}{4}=\frac{5}{4}$

$\frac{5}{2}-\frac{5}{4}=\frac{10}{4}-\frac{5}{4}=\frac{5}{4}$

$\frac{5}{4}=1\frac{1}{4}$

Key Vocabulary

addition	Finding the total of two or more amounts.
subtraction	Finding the difference between two quantities.
numerator	The number above the line in a fraction.
denominator	The number below the line in a fraction.
proper fraction	A fraction that has a smaller numerator than the denominator.
improper fraction	A fraction that has a larger numerator than the denominator.
mixed fraction	An integer (number) combined with a proper fraction.
convert	To change a value from one form to another e.g. mixed fraction to an improper fraction.
partition	To separate numbers to smaller parts to make them easier to work with.

Sentence Stems

Fractions must have the same ___ before they can be added or subtracted.	The denominator has been multiplied by ___ , so to make the equivalent fraction, multiply the numerator by ___ .
To add/subtract the fractions, I could convert them both to ___ .	Mixed numbers can be partitioned into a ___ part and a ___ part.

Assessment

I can add and subtract fractions with different denominators and mixed numbers.