Year 3	Year 4	Year 5	Year 6
Find fractions of an amount (practically, pictorially, written method and inverse). Show, using diagrams, equivalent fractions. +/- fractions with the same denominators (with answers less than a whole). Compare/order fractions with the same denominator.	Find equivalent fractions. +/- fractions with the same denominator (going over a whole). Convert mixed numbers to improper fractions and vice versa. Solve problems involving fractions.	Compare/order fractions with different denominators. Simplify fractions. Write all fractions bigger than one as a mixed number. +/- fractions with different denominators (including mixed numbers). Multiply fractions	Simplify all fractions. Compare/order fractions, including fractions > 1. Divide fractions.

Improper Fraction to Mixed Number (and vice versa!)

Mixed Number to Improper Fraction

Whole number multiplied by the denominator and add the numerator. Keep the denominator the same.

$$5\frac{2}{6} = \frac{32}{6}$$

5 x 6 + 2 = 32

Improper Fraction to Mixed Number

Numerator divided by denominator. Whole number and remainder over denominator.

$$\frac{17}{5} = 3\frac{2}{5}$$

17 ÷ 5 = 3r2

All improper fractions need to be turned into mixed numbers once taught in Yr 4!

Adding Fractions

Mixed numbers need to be turned into improper fractions first!

Find Common Denominator to convert to 2 equivalent fractions that share the same denominator (in this case 12) then:

Numerator + Numerator

Denominator stays the same.

$$\frac{2}{6}+\frac{3}{4}=\frac{4}{12}+\frac{9}{12}=\frac{13}{12}=1\frac{1}{12}$$

Subtracting Fractions

Mixed numbers need to be turned into improper fractions first!

Find Common Denominator to convert to 2 equivalent fractions that share the same denominator (in this case 10) then:

Numerator - Numerator

Denominator stays the same

$$\frac{4}{5} - \frac{1}{2} = \frac{8}{10} - \frac{5}{10} = \frac{3}{10}$$

Mixed numbers need to be turned into improper fractions first!

Multiplying Fractions

To multiply fractions – simply multiply numerators and then multiply denominators.

If multiplying by an integer – turn the whole number into a fraction by adding 1 as a denominator. Then:

Numerator x Numerator

Denominator x Denominator

$$\frac{2}{6} \; x \; 4 = \frac{2}{6} x \frac{4}{1} = \frac{8}{6}$$

Dividing Fractions

Keep it – keep the 1st fraction the same

Flip it – flip the second one upside down

Change it – change the operation from divide to multiply

Then simply multiply numerators and multiply denominators

$$\frac{2}{6} \div \frac{3}{4} = \frac{2}{6} x \frac{4}{3} = \frac{8}{18}$$

Mixed numbers need to be turned into improper fractions first!

Whole numbers need to be turned into fractions first!

Any questions?