Fractions and Types of Fractions

Learning Objective:

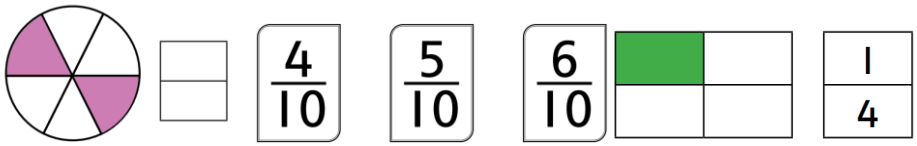
- Recognise like and unlike fractions.
- Compare two unlike fractions by converting them to equivalent fractions with the same denominator. Identify (unit, proper, improper) fractions and mixed numbers.
- Convert improper fractions to mixed numbers and vice versa.

Let's Talk Math:

- Ask the class to discuss how one might use fractions in their real lives.
- They may give you examples from the previous classes such as cooking, or for working with objects that have multiple parts.

Make Sure You Have:

- Chits
- Blocks,
- Rubber bands,
- Fraction charts



Activity: Fraction Fun: Comparison, Types, and Conversion

Duration: 1 Lesson **Whole Class Activity**

Let's Try It:

- Prepare chits with fractions (varying denominators).
- In pairs, pupils pick a chit each and compare fractions on the board to determine which is greater, lesser, or equal.
- After solving, the class will review their work.
- Allow up to seven pairs to participate, ensuring five have unlike fractions.
- Form groups of 5-7 students to compare fractions using tools or diagrams. Encourage them to simplify fractions and share tricks.
- On the board, write unit, proper, improper, and mixed fractions.
- Ask pupils to explain each type; if they struggle, provide examples.
- Proper fraction: numerator smaller than the denominator.
- Improper fraction: numerator equal to or greater than the denominator.
- Mixed fraction: whole number and proper fraction, convertible to improper.
- Unit fraction: numerator is 1.
- Have pupils group fractions and convert improper fractions to mixed and vice versa.

Assessment: Ask the pupils to compare fractions individually, or in pairs if they are struggling.

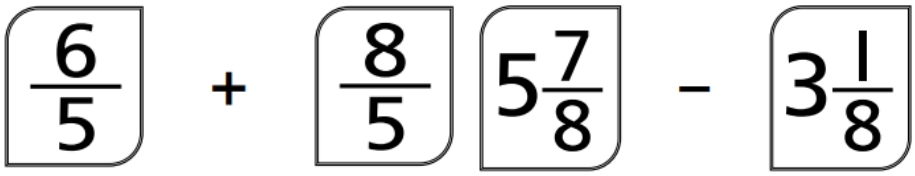
Addition and Subtraction of Fractions

Learning Objective:

- Add fractions with like denominators.
- Subtract fractions with like denominators

Let's Talk Math: Ask them to think about why we use fractions, instead of using whole numbers. For example, saying three slices of pizza might be simpler then saying three-eighth of a pizza.

Make Sure You Have: Set of Blocks



Activity: Simplifying and Adding Unlike Fractions

Duration: 1 Lesson **Group Activity**

Let's Try It:

- If the class is comfortable adding and subtracting like fractions, introduce blocks to explain unlike fractions.
- Prepare ten pairs of blocks bound together with rubber bands beforehand.
- Write the problem 2/6 + 1/3 on the board. Explain that these are unlike fractions (different denominators) but can still be added.
- Use blocks to demonstrate how fractions can be represented and simplified visually.
- Draw a diagram on the board to match the blocks.
- Explain that 2/6 = 1/3, showing how the same value can be expressed differently.
- Define simplification as reducing a fraction to its simplest form, making it easier to work with or add/subtract.
- Give an example of simplification: 30/100 simplifies to 3/10.
- Return to the problem and ask pupils to add the fractions now that they understand how to simplify them into like fractions.

Assessment: Reinforce the concept of four operations involving fractions before starting this activity.

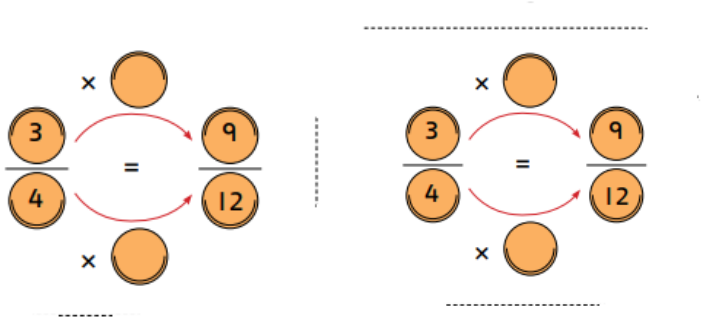
Multiplication and Division of Fractions

Learning Objective:

- Multiply a fraction (proper, improper), and mixed number by a whole number.
- Multiply two fractions, proper, improper, and mixed number.
- Divide a fraction (proper, improper) and mixed numbers by a whole number.
- Analyse real-life situations involving fractions by identifying appropriate number operations.

Let's Talk Math: Discuss with the pupils how multiplying and dividing fractions is like splitting things into smaller and smaller parts.

Make Sure You Have: A4 Sheets



Activity: Keep, Flip, Multiply

Duration: 1 Lesson **Individual Activity**

Let's Try It:

- Reinforce the concept of the four operations on fractions.
- Prepare sample activity sheets.
- Give each pupil an A4 sheet, ask them to make question involving multiplication division of fractions and related to real-life scenarios.
- Once they have written the questions ask them to swap the sheets and solve the questions.
- When the task is complete, get it peer checked.

Assessment:

- Make a basket of ample like fraction chits in quantity.
- Ask the first student to write their fraction on the board and make an fraction.
- Instruct the other two to write their fractions on the board.
- Instruct one of them to add a the fraction to the previous fraction.