Fractions

3

LESSON PLAN

SPECIFIC OBJECTIVES

The students will

- know the meaning of fraction.
- be able to express some parts of a whole as a fraction.
- learn to read and write a fraction.
- understand the meaning of numerator and denominator of a fraction.
- know how to compare and place in order the given fractions.
- learn how to represent a fraction on a number line.
- find out the fractional part of a collection.
- be able to add or subtract the fractions with the same denominator.
- be able to handle the situations with fractions in day-to-day life.

CONTENTS EXPLAINED INSIDE THE CHAPTER

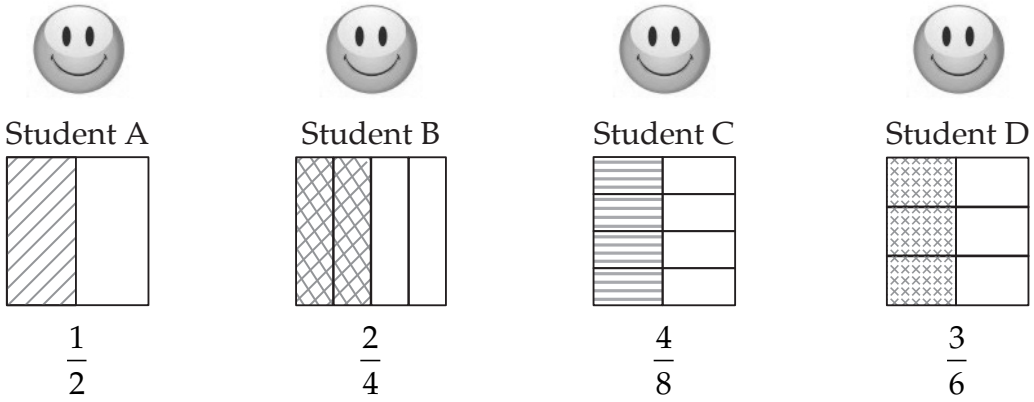
TEACHING AIDS

Circular and square paper pieces, pieces of sticky paper strip or paper strips in different colours, glue, a chart paper, a few collections of things, sketch pens

TEACHING STRATEGY

- First, the teacher should recall the fractional parts of some items taken from daily life like $\frac{1}{2}$ piece of a bread, a lemon, $\frac{1}{4}$ glass of water, $\frac{3}{4}$ bottle of milk, etc.

- Then, she should divide the class into groups of 2–3 students and provide them with square or circular piece of paper. She should ask them to fold their strips half or quarter and shade one part. Hence, she should explain the shaded part as $\frac{1}{2}$ or $\frac{1}{4}$ and unshaded part $\frac{1}{2}$ or $\frac{3}{4}$. Moreover, she should show them $\frac{1}{3}$ and $\frac{2}{3}$. After that, she should ask them to do the exercise given in 'Let Us Recall'.
- Again, she should explain few more fractions as shown on page 72. Now, she should introduces them the terms 'numerator' and 'denominator' of a fraction. Then, she should instruct them to do Exercise 3.1.
- Further, the teacher should prepare a fraction chart as shown on page 75 and display it in the class. She may also involve the students in this task. Then, she should explain them how to compare or order two or more fractions.
- The teacher should also discuss with them about the **equivalent fractions.** To do this, she may involve the students in shading some parts of the given shapes. For example,

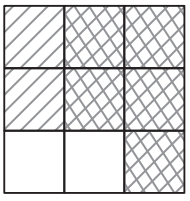


All the four students shade same parts of coire figure the square, therefore, $\frac{1}{2} = \frac{2}{4} = \frac{4}{8} = \frac{3}{6}$ are equivalent fractions.

- Thereafter, she should explain how to represent the fractions on a number line. She should go to pages 76–77 for text and exercise.
- Although the students are already familiar with the term 'sharing' or 'grouping' the given things, the teacher should recall it once more and explain what part each of them gets from the collection (i.e., whole). Then, she should go to pages 78–79 for text and exercise.
- Thereafter, she should explain them how to add and subtract the fractions having the same denominators. She may involve the students in doing a suitable activity using a square grid paper and sketch pens. For example,

Addition:

Student A shades 2 parts out of 9 parts, i.e., $\frac{2}{9}$ part of the square.



Student B shades 5 parts out of 9 parts, i.e., $\frac{5}{9}$ part of the whole square.

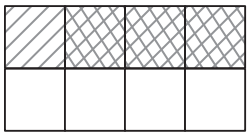
Total shaded part = $\frac{7}{9}$.

Therefore, they together shaded $\frac{2}{9} + \frac{5}{9}$ or $\frac{7}{9}$ part of the square.

$\frac{2}{9} + \frac{5}{9} = \frac{2+5}{9} = \frac{7}{9}$.

Subtraction:

Student A shades 4 parts out of 8 parts, i.e., $\frac{4}{8}$ part of the rectangle.



Student B crosses 3 parts out of 4 shaded parts, i.e., $\frac{3}{8}$ part is crossed of the rectangle.

Single shaded part = $\frac{1}{8}$

Thus, the single shaded part is $\frac{4}{8} - \frac{3}{8}$ or $\frac{1}{8}$ part of the whole rectangle, i.e., $\frac{4}{8} - \frac{3}{8} = \frac{4-3}{8} = \frac{1}{8}$

Now, the teacher should go to pages 79–82 for text and exercise.

- Next, the teacher should talk about the situations involving fractions from daily life. She should go to pages 82–83 for text and exercise.
- If possible, the teacher should involve the students in playing the dartboard game. Otherwise, she should discuss the situations given under the Fun Zone and ask them to complete the task.
- Finally, the teacher should guide the students to perform the Maths Lab Activity.

EXPECTED LEARNING OUTCOMES

Students are able to

- express the part of a whole as a fraction.
- understand the numerator and denominator of a fraction.
- compare the given fractions and arrange them in a particular order.
- explain the equivalent fractions through figures.
- read and discuss about a fraction chart.
- represent the fractions on the number line.
- evaluate the fractions of a collection.
- add and subtract the fractions with the same denominator.
- understand fractions in daily life activities and tackle the related problems.
- perform the addition/subtraction of fractions on the number line.