

CLASS – VI
LESSON PLAN
CHAPTER-7: FRACTIONS

Topic	Chapter :7 Fractions
Class Transaction	Total: 8 periods (approx. 40 min each)
Pre-requisite for the course	This lesson requires 1. Basic knowledge of fractions, factors, multiples, L.C.M, 2. Knowledge of number line
Assessment of qualifying knowledge	1. Written test 2. Lab activity 3. HW notebook
Objective	Students would be able to identify the difference between various types of fractions, compare the fractions, represent on the number line and develop skills of performing various operations on fractions,, thereby inculcating competencies like collaboration, critical thinking and creativity
Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will develop the ability to understand</i> 1. Proper fractions, improper fractions, mixed fractions, equivalent fractions. 2. The method of representing fractions on the number line. 3. Operations on fractions <u>SKILLS and COMPETENCIES</u>- <i>Students would be able to</i> 1. Develop the ability to analyze and differentiate between various types of fractions. 2. Perform skills like representing fractions on the number line and operations of addition and subtraction on fractions and develop critical thinking and collaboration in the process.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- <i>Brain Storming</i>-The class would start with a discussion on what the students have already learnt in the previous classes and hence what is it that they would learn now. They would also be told the significance of the topic that they would be studying. <i>Introduction of the topic</i>- ppt and Digital Content would be shared <i>Guided practice followed by Independent Practice</i>- NCERT questions to be discussed in the classroom. Techniques to be used: Quiz/ KWC Chart/ Password Daily Practice Problem MCQ

	• Ignore spelling mistakes and formulae, if not written • Call parents at regular intervals • Provide grade-up classes • Encourage and motivate them at every level.
Marks	The weightage would be given by CBSE.
ASSESSMENT QUESTIONS	Q1. Write the fractions of total number of multiples of 3 from 2 to 25. Q2. Write four equivalent fractions of $\frac{13}{7}$ Q3. Mark the fractions on the number line: $\frac{3}{4}, \frac{5}{4}, \frac{7}{4}$. Q4. Express as mixed fractions: (i) $\frac{13}{7}$ (ii) $\frac{10}{3}$ Q5. Solve the following: (i) $4 - 2\frac{1}{2} + 2$ (ii) $5/8 + 12/14$ (iii) $4/5 - 5/6$

DAY	ONE
Objective	Enhance ability to accurately recognize and use appropriate terminology related to fractions and developing the art of communication and critical thinking.
Assessment of qualifying knowledge	Quiz and knowledge testing on fractions and their operations/ Independent Practice.
Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will know, identify and able to find fraction in different situations.</i> <u>SKILLS and COMPETENCIES</u> <i>Students would be able to Reason effectively and critically differentiate between fractions and whole.</i>
Strategies (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Anticipatory Set: 10 min (Story Telling/Arun b'day party chart) Facilitator will ask few questions to introduce the topic • What is a fraction? • Where do you come across situations with fractions in your life? • What does numerator stand for? • What does denominator stand for? Discussion of topic through Collaborative Learning: 15 min <u>Inquiry based learning</u> (Critical Thinking and Think pair and share)

	Students would ask to find fractions in different cases. The facilitator would take rounds and ensure that each learner is engaged. Guided practice: 10 min The students will solve the questions from NCERT book, solved examples before Ex 7.1 in their notebook in the class with the help of their facilitator. The facilitator would take rounds and help the students in solving the questions. Independent Practice: Students will go through the solved examples before Ex 7.1 of NCERT text book. Closure: 5 min A short oral test would be taken to check proper assimilation of the topic discussed.
Resources	Text Book: NCERT text book for Mathematics Reference Book CBSE Exemplar
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebooks.
Assessments	Oral Test (5 minutes)
DAY	TWO
Objective	Students will be able to represent fractions them on the number line in and able to identify proper, improper and mixed fractions in collaborative manner .
Assessment of qualifying knowledge	Written questions on representing fractions on number line.
Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will know and</i> • Demonstrate the fractions on number line • Able to identify different types of fractions. <u>SKILLS and COMPETENCIES</u>- <i>Students will be able to</i> differentiate and classify and reason various types of fractions and represent on the number line, in collaboration with each other.
Transaction Methodology (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Recapitulation: 5 min Brainstorming on the previously taught concept would be done. Some questions can be asked like- • What is a fraction? • What fraction of a day is 4 hours? Discussion of topic through Collaborative Learning: 15 min (Critical Thinking, Collaboration) (KWC Chart/ Think pair and share) Facilitator will give certain situations of mixed, improper, proper fractions and learner will classify them accordingly in their notebooks. Facilitator will give situations of whole, decimal representation on number line and ask students where and how $\frac{1}{2}$ be represented number line Guided practice: 15 min The students, with the help of the facilitator, will solve the questions from

	NCERT book of Exercise – 7.2 in their notebook in the class with the help of their teacher. The teacher would ensure that each student tries to be independent at the work as well as be under the teacher's guidance. Independent Practice: Students will complete the remaining HW parts of Exercise 7.2 in their Math HW notebook. Students who would face difficulty in solving the problem would solve with the help of their buddies. Closure: 5 min(Password) A short oral test would be taken to check proper assimilation of the topic discussed.
Resources	Text Book: NCERT text book for Mathematics Reference Book CBSE Exemplar
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebook.
Assessments	Oral quiz / Independent practice.
DAY	THREE
Objective	To express the fraction in the lowest form and also to find equivalent fractions to a given fraction.
Assessment of qualifying knowledge	Independent practice.
Learning Outcomes	<u>KNOWLEDGE-</u> <i>Students will develop the ability to understand the concept of lowest form and equivalent fractions.</i> <u>SKILLS and COMPETENCIES</u> - <i>Students would be able to</i> Critically apply the concepts on given fractions and collaboratively realize the fact that in standard form the HCF of numerator and denominator is 1 Comprehend that equivalent fractions can be find out according to the given condition.
Transaction Methodology. (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Recapitulation: 5 min Quick revision on the previous concept would be taken up. Discussion of topic through Collaborative Learning: 15 min (Creativity, Collaboration) Think , pair and share/Find the rule. Class will be divided into small groups and some questions like :- - What is a relation between $\frac{1}{6}$, $\frac{2}{12}$, $\frac{3}{18}$ etc. - What is the common factor of numerator and denominator of $\frac{2}{12}$. - How $\frac{1}{4}$ can be turn to 12 in denominator, etc. Facilitator will explain the concept of Lowest form and equivalent fractions in the collaborative way. Guided Practice: 15 min The students will solve the questions from NCERT book, solved examples before Ex 7.3 in their notebook in the class with the help of their facilitator. The facilitator would take rounds and help the students in solving the questions.

	Independent Practice: Students will do the remaining parts of Ex7.3 in their homework notebook. Closure: <u>5 min</u> A short video can be shown for recapitulation.
Resources	Text Book: NCERT text book for Mathematics Reference Book CBSE Exemplar
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebooks.
Assessments	Independent practice.
DAY	FOUR
Objective	Attain mastery on simplest form, equivalent fractions.
Assessment of qualifying knowledge	Written test on identifying whether the given fraction is in simplest form or not
Learning Outcomes	<u>AFFECTIVE</u>- Students will attain the mastery on the concept of lowest form and equivalent fractions. <u>SKILLS and COMPETENCIES</u> - Students would be able to 1. Critically apply and attain the mastery on the concepts of given fractions and collaboratively realize the need of lowest form of fractions. 2. Comprehend that equivalent fractions can be find out according to the given condition.
Strategies (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Recapitulation: <u>5 min</u> Quick revision on the previous concept would be taken up. Discussion of topic through Collaborative Learning: <u>15 min</u> (Creativity, Collaboration) Think, pair and share. Class will be divided into small groups and facilitator will provide sufficient practice on the learnt concept. Guided Practice: <u>15 min</u> The students will solve the questions from NCERT book, solved examples before Ex 7.3 in their notebook in the class with the help of their facilitator. The facilitator would take rounds and help the students in solving the questions. Independent Practice: Students will do the remaining parts of Ex7.3 in their homework notebook. Closure: <u>5 min</u> A short oral test would be taken to check proper assimilation of the topic discussed.
Resources	Text Book: NCERT text book for Mathematics Reference Book CBSE Exemplar
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebooks.
Assessments	Written test (5 minutes)

DAY	FIVE
Objective	To compare the given fractions
Assessment of qualifying knowledge	MCQ on finding the LCM and making the fractions like.
Learning Outcomes	<u>KNOWLEDGE</u>- to be able to compare the fractions and put proper sign between them. <u>SKILLS and COMPETENCIES</u> - <i>Students would be able to</i> Comprehend that between two like terms the term with greater numerator is greater, through collaborative leaning process.
Strategies (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Recapitulation: 5 min Quick revision on the previous concept would be taken up. Discussion of topic through Collaborative Learning: 15 min (Critical Thinking, Collaboration)/ Fraction wheel. The facilitator will ask some students their UT-1 marks of mathematics and write it on the board and ask students to compare. Also she can use fraction wheels to compare the two or more like fractions. She can ask learners to arrange in ascending/ descending order. Learners can conclude that between two like fractions the term with greater numerator is greater. Guided Practice: 15 min The students will solve the questions from NCERT book, solved examples before Ex 7.4 in their notebook in the class with the help of their facilitator. The facilitator would take rounds and help the students in solving the questions. Independent Practice: Students will compare fractions in view of its definition and complete the remaining parts of the Ex 7.4 in their notebooks. Closure: 5 min Discussion of muddiest point.
Resources	Text Book: NCERT text book for Mathematics Reference Book 1. CBSE Exemplar
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebooks.
Assessments	Independent practice.
DAY	SIX
Objective	To perform the operation of addition and subtraction on like fractions.
Assessment of qualifying knowledge	Independent practice.
Learning Outcomes	<u>KNOWLEDGE</u>- <i>Students will know and understand how to add and subtract like fractions.</i> <u>SKILLS and COMPETENCIES</u> - <i>Students would be able to</i> 1. Apply the given knowledge with 100 % accuracy
Strategies (The teacher can use the mentioned	Transaction would proceed in the following manner- Recapitulation: 5 min A quick recap can be given.

techniques, wherever applicable, and can use any other too.)	Discussion of topic through Collaborative Learning: <u>15 min</u> (Critical Thinking, Fraction Wheel) Facilitator will use fraction wheel to explain the addition and subtraction of like fractions. Guided Practice: <u>15 min</u> The students will solve the questions from NCERT book of Exercise – 7.5 in their notebook in the class with the help of their facilitator. Independent Practice: Students will complete the remaining HW parts of Exercise 7.5 in their Math HW notebook. Closure: <u>5 min</u> Summarization, preferably by a student, would be taken to check proper assimilation of the topic discussed.
Resources	Text Book: NCERT text book for Mathematics Reference Book CBSE Exemplar
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebooks.
Assessments	Independent practice.
DAY	SEVEN
Objective	To perform the operation of addition and subtraction on unlike fractions.
Assessment of qualifying knowledge	Independent practice.
Learning Outcomes	<u>KNOWLEDGE</u>- Students will know and understand that unlike fractions can be added and subtracted by making their denominator same by taking L.C.M. <u>SKILLS and COMPETENCIES</u> - Students would be able to 1. Classify given fractions as like or unlike fractions. 2. Add or subtract like fractions and unlike fractions.
Strategies (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Recapitulation: <u>5 min</u> Warming session would be taken. Discussion of topic through Collaborative Learning: <u>15 min</u> (Critical thinking, communication, Fraction wheel) Facilitator will explain addition and subtraction using fraction wheel and explain the arithmetic way to add/ subtract by taking L.C.M. Solved examples from the book would be taken up. Guided Practice: <u>20 min</u> The students will solve the questions from NCERT book of Exercise – 7.6 in their notebook in the class with the help of their facilitator. The facilitator would explain the questions from Ex 7.6 with a collaborative approach towards them. Independent Practice: Students will complete the remaining HW parts of Exercise 7.6 in their Math HW notebook.

	Closure: <u>5 min</u> A short video can be shown for recap
Resources	Text Book: NCERT text book for Mathematics Reference Book CBSE Exemplar
Self Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebooks.
Assessments	Independent practice.
DAY	EIGHT
Objective	To apply the knowledge of addition and subtraction of fractions to solve the problems in day today life with 100% accuracy.
Assessment of qualifying knowledge	Written test on calculating the sum and difference of fractions + LAB ACTIVITY.
Learning Outcomes	<u>KNOWLEDGE-</u> <i>Students will know and understand</i> 1. The various application of the knowledge of finding the sum and difference of fractions in different problems <u>SKILLS and COMPETENCIES</u> - <i>Students would be able to</i> 1. Critically study the problem. 2. Identify the operation required. 3. Apply the fractions in day to day life.
Strategies (The teacher can use the mentioned techniques, wherever applicable, and can use any other too.)	Transaction would proceed in the following manner- Recapitulation: <u>5 min</u> One-minute test would be taken. Discussion of topic through Collaborative Learning: <u>15mins</u> Mind mapping would be used Digital content would be used. Guided Practice: <u>15 min</u> The facilitator would explain through different examples. Collaborative approach would be taken up. Independent Practice: Students will go through the solved examples before Ex 7.6 of NCERT text book. Closure: <u>5 min</u> Summarization, preferably by a student, would be taken to check proper assimilation of the topic discussed.
Resources	Text Book: NCERT text book for Mathematics Reference Book CBSE Exemplar
Self-Study, Home Work, Assignments	Independent Practice: Students would do the given questions in their H.W. notebooks.
Assessments	Written test + Lab Activity.

