Lesson Plan

Grade: Five	Subject: Maths	Term: 1st	Time: 40mins

Teacher's Name: _____	Week: 6	Day: 1

Unit 2: HCF and LCM	Topic name: HCF by Prime Factorization Method

Student Learning Outcomes:

- Find HCF of two and three numbers up to 2 digits using prime factorization method.
- Solve real-life situations involving HCF.

Resource Material:

Chalk/Marker, White/Blackboard, Maths Textbook

Warm-up Activities: 5mins

Before beginning the lesson, ask students to say "Tasmiyah".

Ask students: Do you know about factors and multiples? Take their responses and appreciate them for their correct answers.

Teaching and Learning Activities: 20 mins

- Recall the concept of factors and multiples by reading the text given on page 24 "Let's Recall".
- Tell them HCF is abbreviation of Highest common factor. It is the greatest common factor of two or more numbers which divides those numbers completely without leaving any remainder.
- Tell them there are two methods to find the HCF of numbers. One is called prime factorization method and the other is division method.
- Now tell them prime factorization method by explaining the example 1 given on page 25.
- Tell them we have to find greatest possible length of wires, that cut the wire into equal length of pieces 16 cm and 28 cm. Solve it, step by step and explain thoroughly.

Review: 3mins

Recall the lesson by telling students about the steps to find the HCF of the given numbers.

Evaluation: 10mins

To assess the learning of the students, ask them to write two 2-digit numbers in their notebooks and find the HCF of these numbers.

Homework: 2mins

Solve Q1 (i-iv) of exercise 2.1.

Lesson Plan

Grade: Five	Subject: Maths	Term: 1st	Time: 40mins
Teacher's Name: _____	Week: 6	Day: 2	
Unit 2: HCF and LCM	Topic: HCF by Prime Factorization Method		

Student Learning Outcomes:

- Find HCF of two and three numbers up to 2 digits using prime factorization method.
- Solve real-life situations involving HCF.

Resource Material:

Chalk/Marker, White/Blackboard, Maths Textbook

Warm-up Activities: 5mins

Before beginning the lesson, ask students to say "Tasmiyah".

Ask students: How many methods are there to find the HCF of two or more numbers?

What is meant by HCF?

Take their responses and appreciate them.

Teaching and learning Activities: 20 mins

- Have students open their textbook to page 25. Write number 25, 45 and 60 given in example 2 on the board.
- Call a student to the front of the class and ask him/her to find the factors of 25, 45 and 60. Then ask them to write the prime factorization of 25, 45 and 60 and find the common prime factors.

5	25
5	5
	1

3	45
3	15
5	5
	1

2	60
2	30
3	15
5	5
	1

- Then instruct the whole class to find the HCF by finding the product of 25, 45 and 60. Ask the rest of the class to check their work and correct if needed.
- Roam around the class, check their work.

Review: 3mins

Recall the lesson by telling the students about the clue words that are used for HCF.

Evaluation: 10mins

To assess the students, ask them to Solve Q1 (v-vi) of Exercise 2.1 in their notebook and by prime factorization find their HCF. Roam around the class, check their work.

Homework: 2mins

Solve 1 (vii – viii) of exercise 2.1 in their notebooks.

Lesson Plan

Grade: Five	Subject: Maths	Term: 1st	Time: 40mins

Teacher's Name: _____	Week: 6	Day: 3

Unit 2: HCF and LCM	Topic: HCF by Prime Division Method

Student Learning Outcomes:

- Find HCF of two and three numbers up to 2 digits using division method.
- Solve real-life situations involving HCF.

Resource Material:

Chalk/Marker, White/Blackboard, Maths Textbook

Warm-up Activities: 5mins

Before beginning the lesson, ask students to say "Tasmiyah".

Ask students: How are you? Encourage them to say, "Alhamdulillah".

Ask students to tell how we can find the HCF of numbers by prime factorization method and factor tree method. Take their responses and appreciate them for their correct answers.

Teaching and Learning Activities: 20 mins

- Tell students today they are going to find HCF by division method.
- There is another way to find the HCF of numbers that is called division method. In division method, first we divide the greater number by the smaller number. Then divide the divisor by the remainder obtained in step 1 and then again divide the divisor by the remainder in step 2. Now solve the example step by step on the board and explain it to them.
- Solve the example 1 on the board step by step and explain each step to them to find the HCF by division method.
- Ask them to solve example 2 on page 26 of the textbook in their notebooks. Roam around the class, check their work and guide them if required.

Review: 3mins

Recall the lesson by explaining the steps of finding HCF by division method.

Evaluation: 10mins

To assess the learning of the students, ask them to solve Q2 (i,ii,iii) of Exercise 2.1 in their notebooks.

Homework: 2mins

Solve Q2 (iv, v, vi) in their notebooks.

Lesson Plan

Grade: Five	Subject: Maths	Term: 1st	Time: 40mins
Teacher's Name: _____	Week: 6	Day: 4	
Unit 2: HCF and LCM	Topic: HCF by Prime Division Method		

Student Learning Outcomes:

- Find HCF of two and three numbers up to 2 digits using division method.
- Solve real-life situations involving HCF.

Resource Material:

Chalk/Marker, White/Blackboard, Maths Textbook

Warm-up Activities: 5mins

Before beginning the lesson, ask students to say "Tasmiyah".

Ask students to tell how we can find the HCF of numbers by division method. Take their responses and appreciate them for their good work.

Teaching and Learning Activities: 20 mins

- Write 12, 24, 88 on the board.
- Call a student to the front of the class.
- Ask him/her to find the HCF of the given numbers by division method step by step on the board. Ask the rest of the class to check the work and correct it if needed.
- Call random students one by one to the front of the class and ask them to write the numbers and then find the HCF of the numbers by division method.
- Take their responses and appreciate them for their good work.

Review: 3mins

Recall the lesson by explaining how to find the HCF of two or more numbers by division method.

Evaluation: 10mins

To assess the students learning, ask them to solve Q3 (i,ii) of Exercise 2.1 in their notebooks.

Homework: 2mins

Solve Q3 (iii-iv) in their notebooks.

Lesson Plan

Grade: Five	Subject: Maths	Term: 1st	Time: 40mins
Teacher's Name: _____	Week: 6	Day: 5	
Unit 2: HCF and LCM	Topic: HCF by Prime Division Method		

Student Learning Outcomes:

- Find HCF of two and three numbers up to 2 digits using division method.
- Solve real-life situations involving HCF.

Resource Material:

Chalk/Marker, White/Blackboard, Maths Textbook

Warm-up Activities: 5mins

Before beginning the lesson, ask students to say "Tasmiyah".

Ask students about their homework. Ask them to tell the steps to find the HCF of two or more numbers by division method. Take their responses and tell them the steps.

Teaching and Learning Activities: 20 mins

- Tell students today they are going to revise HCF concepts.
- Make pairs of students. Give each pair two or three number cards of 2-digit numbers. Instruct them to find the HCF of the numbers by using division method.
- Roam around the class and check their work. Ask them to raise their hands when finished.
- Now call one pair of students to the front and ask them to present their work to the whole class. Ask the rest of the class to check their working and point out if there is any mistake and to correct it.
- Repeat the same activity with other pairs of students. Appreciate them for their active participation.
- Ask student to make real life situation to finding HCF.
- Now call one by one each student to the front of the class and ask him/her to share their problems to the whole class.
- Appreciate them for their good work.

Review: 3mins

Recall the lesson by telling students about the method to find the HCF of two or more numbers by division method.

Evaluation:	10mins

Ask them to write three 2-digit numbers in their notebooks and find HCF of the numbers by division method.

Homework:	2mins

Revise the class work.

Lesson Plan

Grade: Five	Subject: Maths	Term: 1st	Time: 40mins

Teacher's Name: _____	Week: 6	Day: 6

Unit 2: HCF and LCM	Topic: LCM by Prime Factorization Method

Student Learning Outcomes:

- Find LCM of two and three numbers up to 2 digits using prime factorization method.
- Solve real-life situations involving LCM.

Resource Material:

Chalk/Marker, White/Blackboard, Maths Textbook

Warm-up Activities: 5mins

Before beginning the lesson, ask students to say "Tasmiyah".

Ask students: Do you know about multiples and common multiples? Take their responses and appreciate them for their correct answers.

Teaching and Learning Activities: 25 mins

- Tell students today they are going to know about least common factors.
- Ask them: Do you know about LCM? Take their response and tell them that when we find the prime factors of the given numbers and then the smallest number which is divisible by each of the given numbers is called LCM.
- Tell them that there are two methods to find the LCM of numbers. One is called prime factorization method and the other is division method.

2	12
2	6
3	3
	1

2	24
2	12
2	6
3	3
	1

Prime factorization of 12 = 2 × 2 × 3

Prime factorization of 24 = 2 × 2 × 3 × 2

The common prime factors are 2, 2 and 3.

- Now we find the LCM of 12 and 24 by prime factorization method. Tell them that first we find the prime factors of 12 and 24 then find the common prime factor and non-common prime factors and at the end to find the LCM we find the product of common and non-common prime factors.

$$\text{LCM} = \left(\begin{array}{c}\text{Product of common prime factors}\\ \text{of 2 or more numbers}\end{array}\right) \times \left(\begin{array}{c}\text{Product of non-common}\\ \text{prime factors}\end{array}\right)$$

- Solve the example 1 step by step on the board and explain it to students.

Review:	3mins

Recall the lesson by telling students about the steps to find the LCM of the given numbers.

Evaluation:	5mins

To assess the learning of the students, ask them to write two 2-digit numbers in their notebooks and find the LCM of the numbers.

Homework:	2mins

Revise the classwork.