Republic of the Philippines

**Department of Education**

Region V (Bicol)

DIVISION OF CATANDUANES

Virac, Catanduanes

Lesson Plan in Mathematics

**FIRST GRADING PERIOD**

**Lesson 14: Creating Problems (with reasonable answers) involving GCF and LCM**

**Of 2 – 3 given numbers (M5NS – Ie-71.2)**

**Week 5**

**Objective: Create problems (with reasonable answers) involving GCF and LCM**

 **Of 2 – 3 given numbers**

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| --- |
| **Value**: Creativity, Helpfulness and Industry |

 **Prerequisite Concepts and Skills:**

* Mastery of the multiplication basic facts
* Knowledge on finding the factors, multiples of the given numbers

and the divisibility rules

**Materials**: flash cards, chart

**References:** K to 12 Grade 5 Curriculum Guide (M5NS-Ie 70.5), MISOSA,

 Lesson Guide 5

**Instructional Procedure**:

1. **Preliminary Activities**
2. **Drill**

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Have a drill on how to find the GCF and LCM of 2 – 3 numbers, then

 provide these exercises.

1. Find the GCF and LCM.
2. 6 and 9 =­­­­­­­­­­­­­­­­­­­­­\_\_\_\_\_\_
3. 8 and 24 =\_\_\_\_\_\_
4. 15 and 75 = \_\_\_\_\_\_
5. 12, 18 and 42 =\_\_\_\_
6. 24, 42, and 60 =\_\_\_\_
7. **Review**

 Have a review on solving problems involving finding the GCF and LCM.

 Provide these exercises.

1. What is the smallest number of avocados that can be placed in baskets with 50 and 75?
2. What is the largest number of pechay and cabbage plants that can

be planted in rows of equal number if there are60 and 80 cabbage

plants?

1. **Motivation:**

**Ask**: *What do you do during weekend?*

 *Elicit the value of helpfulness and industry.*

**Ask**: *How do you show helpfulness at home? In school? Is it good to be helpful and*

*industrious? Why?*

**B. Developmental Activities**

 **1. Presentation**

 Present these problems to the class.

 Problem A

|  |
| --- |
| Andrew helps his father in their bakeshop every weekend. They bake 48 cupcakes and 60 cookies. They plan to pack them separately in small boxes. What is the biggest number of cupcakes and cookies that can be placed in boxes if these are of the same number? |

 Problem B

|  |
| --- |
| Freddie works as a food crew every three days, while Angel attends to her job as a cashier every other day. If Andrew and Angel start on the fifth day of the month, when will both of them report for work together? |

 Discuss with the class each problem. The teacher may ask some comprehension

 questions.

 **Ask:** *How will you solve the first problem? The second problem?*

 *Emphasize that the first problem involves finding the GCF, while the*

 *Second problem involves finding the LCM*.

 **Ask:** *Can you create problems similar to these problems?*

1. **Performing the Activities**

 Group the pupils into four working teams. Ask the groups to create a problem similar to the ones given. Give them enough time to perform the task.

1. **Processing the skills**

Let the group present and discuss the problem they have created.

 **Ask:** *How did you create a problem similar to the ones given?*

**Expected answers**:

* *We familiarized ourselves with the concept and its application to*

 *real-life situation.*

* *We thought of the type of problems we wanted to create.*
* *We read some problems similar to the ones given and studied*

 *their solution.*

1. **Reinforcing the concept and Skills**

 Discuss the presentation. Then, give the following exercises.

 **Pair Activity**

 Have the pupils create a problem similar to the one below.

|  |
| --- |
| Lani wants to put 16 big marbles and 48 small marbles into some boxes so that each of the boxes must proportionally contain the same number of small and big marbles. How many boxes will she need at most? |

|  |
| --- |
| Marain is going to put flowers in vase of 6, 8, and 12 flowers. What is the smallest number of flowers that Marian can put using the vase? |

 Ask the pupils to answer the following exercises A and B.

1. Write a question to complete each item. Then solve each problem.
2. Ana has three pieces of ribbons measures 16 cm, 24 cm, and 40 cm,

respectively. She wants to cut them into strips of the same length.

1. Lorna is preparing mocha and chocolate cupcakes for her visitors. She

arranges the cupcakes in a tray with 12 mocha and 18 chocolate cupcakes.

1. Create some problems involving GCF and LCM.

1. For more practice, let them answer the following exercises.

Write a problem for the following numbers and phrases.

1. 24 and 32 pictures

Pictures arrange in all

Biggest number

1. 6, 9, and 12 eggs

Arrange in a tray

Least number of eggs in a tray

**5. Summarizing the Lesson**

 Summarize the lesson by asking: How do we create problems involving

 GCF and LCM?

|  |
| --- |
| * *Familiarize oneself with the concept, and its application in real-life situations.*
* *Think of the type of problems you want to create.*
* *Read some problems and study their solutions.*
 |

 **6. Applying to New and Other Situations**

 Create problems involving GCF and LCM based on the following situations:

1. Karen is collecting Philippine and foreign stamps.
2. The children are arranging the books in the shelf.
3. Anna is preparing sandwiches for her visitors.
4. The pupils are preparing gifts for the typhoon victims.
5. Roberto is selling newspapers in the morning.

**C. Assessment**

 Create a problem involving GCF and LCM for each set of information given

 below.

 1.

|  |
| --- |
|  *25 apples, 30 avocado, and 100 santol fruits* *Biggest number of fruits in a tray* |

 2.

|  |
| --- |
| *3 red marbles, 8 blue marbles, and 12 green marbles**Smallest number of marbles* |

**D. Home Activity**

 **Remediation**

 Complete the problems by asking a question.

1. Mia collects shells. She has 30 of one kind and 36 of another kind. She puts

them on a piles.

 2. Dominic wants to donate 70 pieces of ruler, 140 ball pens, and

 280 notebooks to the pupils of Magalang Elementary School. He wants

 To pack them in boxes.

**Enrichment**

 Create 2 problems involving finding GCF and LCM.

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 EPS – I Mathematics