Republic of the Philippines

**Department of Education**

Region V (Bicol)

DIVISION OF CATANDUANES

Virac, Catanduanes

**Lesson Plan in Mathematics 5**

**Week 5**

**LESSON 13:**

Visualizing Division of Fractions

**I. Objective:** Visualizes division of fractions using models

**Value Focus:** Helpfulness

 **Prerequisite Concept and Skills:**

* Dividing whole numbers
* Reducing fractions to lowest terms

**Materials:** Geometric figures, fraction chart, flash cards, strips of paper

**References:** K TO 12 Grade 5 Curriculum

**II. Instructional Procedure**

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

Answer the following orally.

1. How many 5s are there in 45?
2. How many 10s are there in 120?
3. How many 9s are there in 72?
4. How many 12s are there in 60?
5. How many 15s are there in 75?
6. **Review**

Change the following to mixed number.

1. d.
2. e.
3. **Motivation**

Do you help your parents at home especially during weekends? Is it good

 to help your parents? Why?

1. **Developmental Activities**
2. **Presentation**

Present a problem to the class.

 Marion is helping his father in their carpentry shop. They have 2 meters of wood which they will use to make frames. If each frame will be m long, how many frames will they be able to make?

**Ask:** Who has a carpentry shop? Who helps his father in their carpentry shop?

 How many frames will they be able to make? Can you visualize if how

 many frames will they be able to make? (Note: Teacher will connect the

 objective of the lesson for the day.)

1. **Performing the Activities**

Group Work

Group the pupils into three teams.

Distribute strips of paper.

Let the pupils use the strips of paper to visualize the number of frames they can make.

Guide Questions:

1. What are given in the problem?
2. What is asked?
3. What operation should be used to solve the problem?
4. What is the number sentence?
5. Let 2 whole sheet of paper represent 2 meters of wood.
6. Fold/divide the paper into four equal parts to represent one-fourth of the whole paper.
7. How many fourths are there in 1 whole strip?
8. How many fourths are there in 2 whole strips?
9. How many picture frames can they make?
10. What is the value of N in the number sentence?

Expected Answer:

 Solve the problem using 2 whole strips of the same length.

 Strip 1

 Strip 2

There are 8 picture frames made out of a 2 meter wood.

1. **Processing the Activities**

After all groups have presented their answers, look back at the given problem.

**Ask:** What are given in the problem? ()

 What is asked? (the number of picture frames they can make)

 What operation should be used to solve the problem? (division)

 What is the number sentence? = N

 Represent of a meter of wood using the strips of paper.

 Strip 1

 Strip 2

How many fourths are there in 1 whole strip? (4)

How many fourths are there in 2 whole strips? (8)

How many picture frames can they make? (8)

What is the value of N in the number sentence? (8)

Through the visual representation, guide the pupils in finding the answer to

the problem without using actual computation.

**Ask:** Which group/s was/were able to give the correct answers?

 Which group/s missed an answer? Which group/s was/were not able to give the

 correct answer?

 Provide immediate feedback/remedial measures to those with incorrect

 answers?

 **Ask:** How did you find the activity? Why? What did you do to work cooperatively?

 Why?

 Was using paper folding helpful to you in visualizing division of fractions?

1. **Reinforcing the Concept and Skill**
2. Present and discuss the problem below.

**Explore and Discover!**

During a remedial class in Math, Mrs. Perez divided of a big chocolate bar to her pupils. She gave to each of her pupils. How many pupils attended the remedial class?

How will you visualize or illustrate the number of cups for the recipe?

1. Strategy 1 - We can use drawings, illustrations, or paper folding to find the answer.

Here is one way to picture out the problem.

 =

 Based from the illustration, there are eight (8) one-tenths (s) in .

1. Using a Fraction Chart

Find the answer to the following questions from the Fraction Chart.

1 Whole

1. How many halves are there in 1 whole?

1 ÷ = n n = 2

1. How many eights are there in 1 whole?

1 ÷ = n n = 8

1. How many sixths are there in ?

 ÷ = n n = 2

1. How many twelfths are there in ?

 ÷ = n n = 8

1. How many sixths are there in ?

 ÷ = n n = 4

Let the pupils answer the exercises under **Get Moving.**

**Get Moving!**

Illustrate the quotient of the following.

1. 2 ÷ = n
2. ÷ = n

Check after a period of time.

Ask the pupils to answer the exercises under **Keep Moving.**

**Keep Moving!**

Illustrate and find the quotient.

1. 4 ÷ = n 2. 3÷ = n 3. ÷ = n

Check pupils’ answer after the given period of time.

1. **Summarizing the Lesson**

Division of fractions can be visualized by paper folding, drawing, fraction

chart, and the like.

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

 Ask the pupils to solve the problems under **Apply Your Skills.**

 **Apply Your Skills!**

Read and solve. Use drawings to help you.

1. An aquarium is to be filled full of water. It takes 1 minute to fill it full. How long will it take to fill the aquarium?
2. Doring had 2 kilograms of sugar. She used kilogram for every cake she baked. How many cakes did she bake?
3. Of the hour that Ely allotted for cleaning his room, he spent hour for each activity. How many cleaning activities did he have?

 **C. Assessment**

1. Illustrate the quotient of the following.
2. ÷ = n
3. 4 ÷ = n
4. ÷ = n
5. Illustrate and find the quotient.
6. 6 ÷ = n 2. 4 ÷ = n

**D. Home Activity**

 **Remediation**

Find the quotient. Show your solution.

1. 7 ÷ = n 3. ÷ = n
2. 16 ÷ = n

**Enrichment**

Prepare an album showing the following equations. Use paper-folding methods.

1. ÷ = n 4. ÷ = n
2. ÷ = n 5. ÷ = n
3. ÷ = n

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