

SUPPLEMENTAL LESSONS

**Math Grade 2
4th Quarter**



Various online tools which make teaching and learning richer
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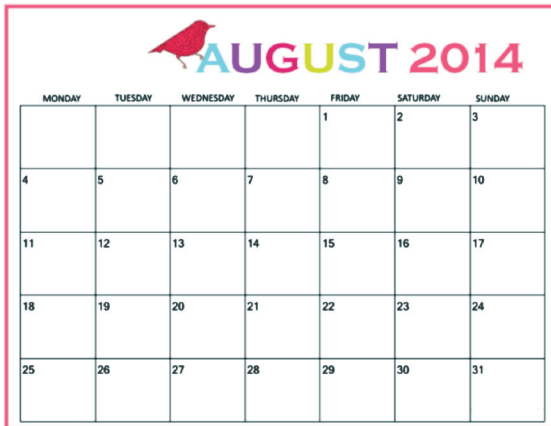
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4th Quarter Grade 2 Supplemental Lesson Plan

Finding Elapsed Time in Days

Introduction

1. Write the date on the board. Then, post on the board a calendar.
2. Ask the pupils to look at the calendar and state the day it falls on.
3. Ask some pupils to give a date and let the other pupil look into the calendar and check the day of the week.



MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Body

1. Ask a pupil to write his/her birthday on the board. (Example: Marc's birthday is on June 29.)
2. Write on the board: "Today is June 6. How long is it from now till Marc's birthday?" and ask the class to discuss.
3. Explain to the class that to find the number of elapsed time in days between today and Marc's birthday, we start counting from June 6 and end with June 29. (24 days)
4. Ask another pupil and let them identify the elapsed time between today and their birthday.

Knowledge

Elapsed Time

Learning Competency

M2ME-IVa-6

- Visualizes and finds the elapsed time in days

KU

Numbers can be represented in many ways such as with base ten blocks, words, pictures, number lines, and expanded form.



KQ

How do operations affect numbers?

5. For practice, let the pupils determine the elapsed time in days by determining the birthday of their household members and the date today and check their answers using a time elapsed calculator online. (Sample site: <http://www.timeanddate.com/date/durationresult.html?d1=05&m1=06&y1=2014&d2=29&m2=06&y2=2014>)

Calculate duration between two dates – results

Design changes: What is new and why?

Start Date				End Date			
Month:	Day:	Year:	Date:	Month:	Day:	Year:	Date:
6	5	2014		6	29	2014	
Today				Today			

Include end date in calculation (1 day is added)

[Add time fields](#) [Count only workdays](#)

Calculate duration

From and including: **Thursday, June 5, 2014**
To, but not including: **Sunday, June 29, 2014**

Result: 24 days
It is 24 days from the start date to the end date, but not including the end date

Alternative time units
24 days can be converted to one of these units:

- 2,073,600 seconds
- 34,560 minutes
- 576 hours
- 24 days
- 3 weeks (rounded down)

6. Give the pupils a worksheet to work on for practice and pattern recognition.
7. For enrichment, let the pupils choose one task from the following:
- Form pairs. Ask 10 of their classmates' birthday and determine the elapsed time between the date today and their birthday.
 - Form pairs. Let the pupils determine the birthday of the first five Presidents of the Philippines, and determine the elapsed time between today and their birthday.
 - Form pairs. Ask each pair to give the birthdays of the family members and let the partners determine the elapsed day between today and the birthday of their family member.

Differentiated Activities

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Conclusion

To facilitate the summary of the lesson, let the pupils show **Smiley Signal Cards** to represent their understanding of finding the elapsed time in days.



1. I know how to find the elapsed time in days.
2. I can find the elapsed time in days on my own.
3. I can apply my knowledge of finding the elapsed time in days in real life situations.

Measuring Objects Using Appropriate Measuring Tools in mL or L

Introduction

Show to the class pictures of the following objects. Then ask the pupils: How much water can we put in the following containers? What unit of measure is appropriate to use?



Body

1. Explain to the class that capacity is the amount of liquid a container can hold and the units commonly used to measure capacity are the milliliter and liter.
2. Say: "Liter is used to measure capacity of a large container while milliliter is used to measure capacity of a small container," then show to the class examples of containers that are measured in L and in mL. (Example: 1.5 L and 200 mL of bottled soft drinks)

Knowledge

Measuring Objects
in mL or L

Learning Competency

M2ME-IVf-33

- Measures objects using appropriate measuring tools in mL or L

KU

Measurement describes the attributes of objects and events.

KQ

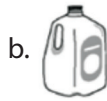
Why do I measure?

3. Give the pupils exercises on determining the appropriate measuring tools for capacity.

Example: Circle the appropriate measure of capacity for the following objects:



mL L



mL L



mL L



mL L



mL L



mL L

4. Using Thumbs-up-sideways-down, check the pupils' understanding of the lesson.
- Thumbs-up: I understand and can explain.
 - Thumbs-sideways: I can explain most of the concept.
 - Thumbs-down: I need assistance to explain.
5. Then, conduct a spin-off *Everyone Is a Teacher Here* for practice of learned concepts.
- Distribute problem sets to the pupils.
 - Tell them to go around the room and look for someone who can give help in answering the problems.
 - Processes the pupils' output and experience through a whole-class discussion.
6. For more practice, let the pupils engage in an interactive online activity on determining capacity. (Sample site: http://www.bgfl.org/bgfl/custom/resources_ftp/client_ftp/ks2/maths/measures/index.htm)

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MEASURES

Hi! I'm Jack the builder and I need some help!

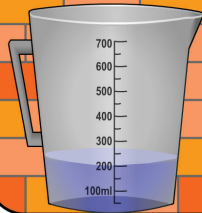
Jack is brilliant at building things but he is hopeless at measuring. He doesn't know which units of measurement to use and he doesn't read the measurements correctly. Please help him! **next** →



MENU

READING VOLUME AND CAPACITY

How much water is in the jug?
Read the scale carefully and type the answers in the boxes.
Remember to write out the unit of measurement in full.



capacity unit of measurement

check ?

Conclusion

For lesson synthesis, ask the pupils to choose a statement to complete from the following:

- *Today, I learned... Tomorrow, I need...*
- *Today, I felt... because...*
- *One word to describe today is...*

Creating Problems Involving Length, Mass, and Capacity

Introduction

Conduct a review on determining the appropriate measure for length, mass, and capacity.

Knowledge

Problem Solving
Involving Length,
Mass, and Capacity

Fill in the blank with the appropriate measure (**g, kg, mL, L, m, km**).

- a. Mrs. Almeda prepared 20 _____ of orange juice for her son's birthday party.
- b. My mother bought 2 _____ of chicken for our family's lunch and dinner viand today.
- c. Mika walked 40 _____ from her house to her friend Lyka's house.
- d. Mrs. Reyes lets her daughter drink 130 _____ of milk every day.

Body

1. Call on the pupils to act out on the situation that will be narrated. The narration involves problems involving length, mass, or capacity. This may be prepared beforehand so that the pupils will know what to do.

Example:

One morning, Cathy walked 385 m, and walked back using the same road. How many meters did she walk on that morning?

2. Call on volunteers to answer the following questions:
 - a. How can we get the answer to the given problem? What operation/s should you use?
 - b. What is the number sentence that represents the problem?
 - c. Call on a volunteer to show the solution on the board.
 - d. What is the final answer?

3. Call on other actors for the problem to be narrated.

Example:

Earl knows that eating fruits is good for the health. When he went to the market, he bought 2 kg of bananas, 1 kg of *dalandan*, and 1 kg of papaya. How many kilograms of fruits did Earl buy in all?

Learning Competency

M2ME-IVf-34

- Creates problems involving length, mass, and capacity

KU

Measurement describes the attributes of objects and events.

KQ

Why do I measure?

4. Ask some volunteers to answer the given problem.
5. Using *Think-Pair-Share* activity (Lyman, 1981), ask the pupils to create their own problem involving length, mass, and capacity. Then let them form in pairs to share their word problem and discuss the construction and the answer. The pairs will share the problem and their answers to the whole class.
6. For skill building, let the pupils choose a task from the following:
 - a. Create two problems involving length and mass.
 - b. Create two problems involving mass and capacity.
 - c. Create two problems involving length and capacity.
7. Call on some pupils to read their problem and let the others answer the problem.

Conclusion

1. Conduct a Thumbs-up-sideways-down to check the pupils' understanding.
 - Thumbs-up: I understand and explain.
 - Thumbs-sideways: I can explain most of the concept.
 - Thumbs-down: I need assistance to explain.
2. Then ask the pupils to answer the question on a sheet of paper:

When you get home, what will you tell your parents you learned today?

Differentiated Activities

Solving Routine and Non-routine Problems Using Data Presented in a Pictograph Without and With Scales

Introduction

1. Engage the pupils in constructing a pictograph using an interactive online activity.

Try this

Click on each child to find out their favourite hobby. Then type in the total for each hobby and click Done.

Click the + and - buttons under each column to make a bar chart that represents the numbers in the table. Then click Done.

What is your favourite hobby?

Hobby	Total
Football	4
Dancing	1
Reading	5
Painting	2

Drag icons onto the chart to make a pictograph that represents the numbers in the table. Click Done when you've finished.

What is your favourite hobby?

★ represents 2 children

Football	★ ★
Dancing	★
Reading	★ ★ ★
Painting	★

Knowledge

Problem Solving
Involving
Pictographs

Learning

Competency

M2SP-IVi-4.2

- Solves routine and non-routine problems using data presented in a pictograph with and without scales

KU

Data can be organized in different ways.

KQ

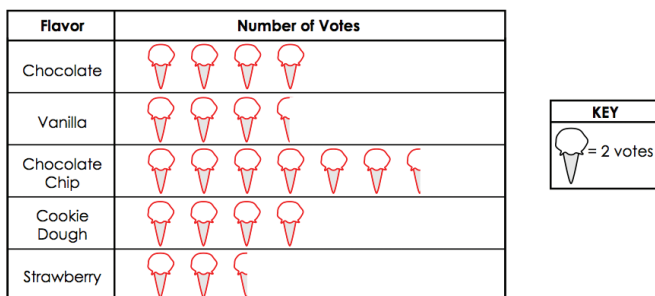
What are some ways data can be organized?

Body

1. Present to the class a problem involving pictograph.

Example:

Mr. Asia and Mrs. Africa are planning a party for their classes. The pupils are asked to vote for their ice cream flavor. The results are shown in the pictograph below from http://www.superteacherworksheets.com/graphing/pictograph-simple-3_TWNTM.pdf.



- a. What two flavors did the pupils like the least?
 - b. How many pupils voted for either cookie dough or strawberry?
 - c. How many more pupils voted for chocolate chip than vanilla?
 - d. How many votes were taken in all?
2. Guide the class on how to answer problems using the data presented in pictographs with or without scales.
 3. Let the pupils practice answering problems involving pictographs. The pupils may be engaged on an interactive online quiz for practice. (Sample site: http://www.softschools.com/math/data_analysis/pictograph/games/)

4. Give the pupils several practice exercises on answering problems with data presented using pictograph with and without scales.

Conclusion

Conduct a spin-off 3-2-1 (Rutherford, 2008) activity to synthesize the lesson.

Ask the pupils to write on a piece of paper their thinking on the...

- 3 important facts they learned
- 2 questions about the lesson
- 1 realization about the lesson

