

In Module 2, students convert metric mass units to add and subtract mixed units. This lesson builds on the content of 2.MD.5 and 3.MD.2.

Occasionally, students work beyond the **4.MD.1** and **4.MD.2** standards by converting from a smaller unit to a larger unit. They do this by creating a connection between metric units and place value units.

Develop students' basic number sense to make these conversions, and always accept answers in the smaller unit.

Eureka Math

4th Grade Module 2 Lesson 5

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Directions for customizing presentations are available on the next slide.



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Reflecting your Teaching Style and Learning Needs of Your Students

- > When the Google Slides presentation is opened, it will look like Screen A.
- > Click on the "pop-out" button in the upper right hand corner to change the view.
- \succ The view now looks like Screen B.
- > Within Google Slides (not Chrome), choose FILE.
- ➤ Choose MAKE A COPY and rename your presentation.
- ➤ Google Slides will open your renamed presentation.
- ➤ It is now editable & housed in MY DRIVE.



Icons



















Manipulatives Needed







Lesson 5

Objective: Use addition and subtraction to solve multi-step word problems involving length, mass, and capacity.

Suggested Lesson Structure

- Fluency Practice
 Concept Development
 Student Debrief
 Total Time
- (12 minutes) (42 minutes) (6 minutes) (60 minutes)





In Module 2, students convert metric length, mass, and capacity units to add and subtract mixed units. This lesson builds on the content of **2.MD.5** and



Use addition and subtraction to solve multi-step word problems involving length, mass, and capacity.

Sprint

- Put your name on side A.
- Hold your pencil in the air to show you are ready.
- When your teacher says, "Go", begin solving.
- Keep working to solve as many problems as you can.
- When your teacher says, "Stop", stop answering problems and hold your pencil in the air.
- Listen and check your work as your teacher reads the correct answers.
- Count how many problems you answered correctly and write them in the circle.
- Follow the same steps for side B. On side B, try to solve more problems than you did on side A.



Sprint: Convert Kilograms to Grams

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Some of the objectives of the Sprint are to generate excitement about math, to cultivate self-determination and perseverance, and to offer joyful experiences of success in math. The first weeks of school are an appropriate time to involve students in the design of their Sprint experience. Guide students through a discussion to make optimal decisions about tools and supports that can be used, the sequence or timing for completion, and the type of reward and recognition for success and improvement.



Convert Units

1 L 400 mL = _____ mL

Fill in the equation.

- 1 L 40 mL = _____ mL
- 1 L 4 mL = ____ mL
- 1 L 90 mL = ____ mL



Unit Counting

Count by 800 cm to 4,000 cm.

Say all of the numbers. Watch my fingers to know whether to count up or down. A closed hand means stop.



Concept Development

RDW

Students may work in pairs to solve Problems 1–4 below using the RDW approach to problem solving.

Concept RDW Development

The potatoes Beth bought weighed 3 kilograms 420 grams. Her onions weighed 1,050 grams less than the potatoes. How much did the potatoes and onions weigh together?

Concept RDW Development

Adele let out 18 meters 46 centimeters of string to fly her kite. She then let out 13 meters 78 centimeters more before reeling back in 590 centimeters. How long was her string after reeling it in?

Concept Development

Shyan's barrel contained 6 liters 775 milliliters of paint. She poured in 1 liter 118 milliliters more. The first day Shyan used 2 liters 125 milliliters of the paint. After the second day, there were 1,769 milliliters of paint remaining in the barrel. How much paint did Shyan use on the second day?

Concept RDW Development

On Thursday, the pizzeria used 2 kilograms 180 grams less flour than they used on Friday. On Friday, they used 12 kilograms 240 grams. On Saturday, they used 1,888 grams more than on Friday. What was the total amount of flour used over the three days?



Problem Set

A STORY OF UNITS

Lesson 5 Problem Set 4•2

Name

Date

Model each problem with a tape diagram. Solve and answer with a statement.

 The potatoes Beth bought weighed 3 kilograms 420 grams. Her onions weighed 1,050 grams less than the potatoes. How much did the potatoes and onions weigh together?



 Adele let out 18 meters 46 centimeters of string to fly her kite. She then let out 13 meters 78 centimeters more before reeling back in 590 centimeters. How long was her string after reeling it in?



Debrief

Participate in the discussion by...

- Thinking about the question.
- Sharing your work.
- Explaining your strategy.
- Listening to others.

Debrief

Did you find yourself using similar strategies to add and subtract the mixed unit problems? Explain.

How can drawing different models to represent a problem lead you to a correct answer?

Describe a mixed unit. What other mixed units can you name?

How can converting to a smaller unit be useful when solving problems?

When is it not useful?

Exit Ticket

A STORY OF UNITS

Lesson 5 Exit Ticket 4•2

Name

Date _____

Model each problem with a tape diagram. Solve and answer with a statement.

 Jeff places a pineapple with a mass of 890 grams on a balance scale. He balances the scale by placing two oranges, an apple, and a lemon on the other side. Each orange weighs 280 grams. The lemon weighs 195 grams less than each orange. What is the mass of the apple?

