

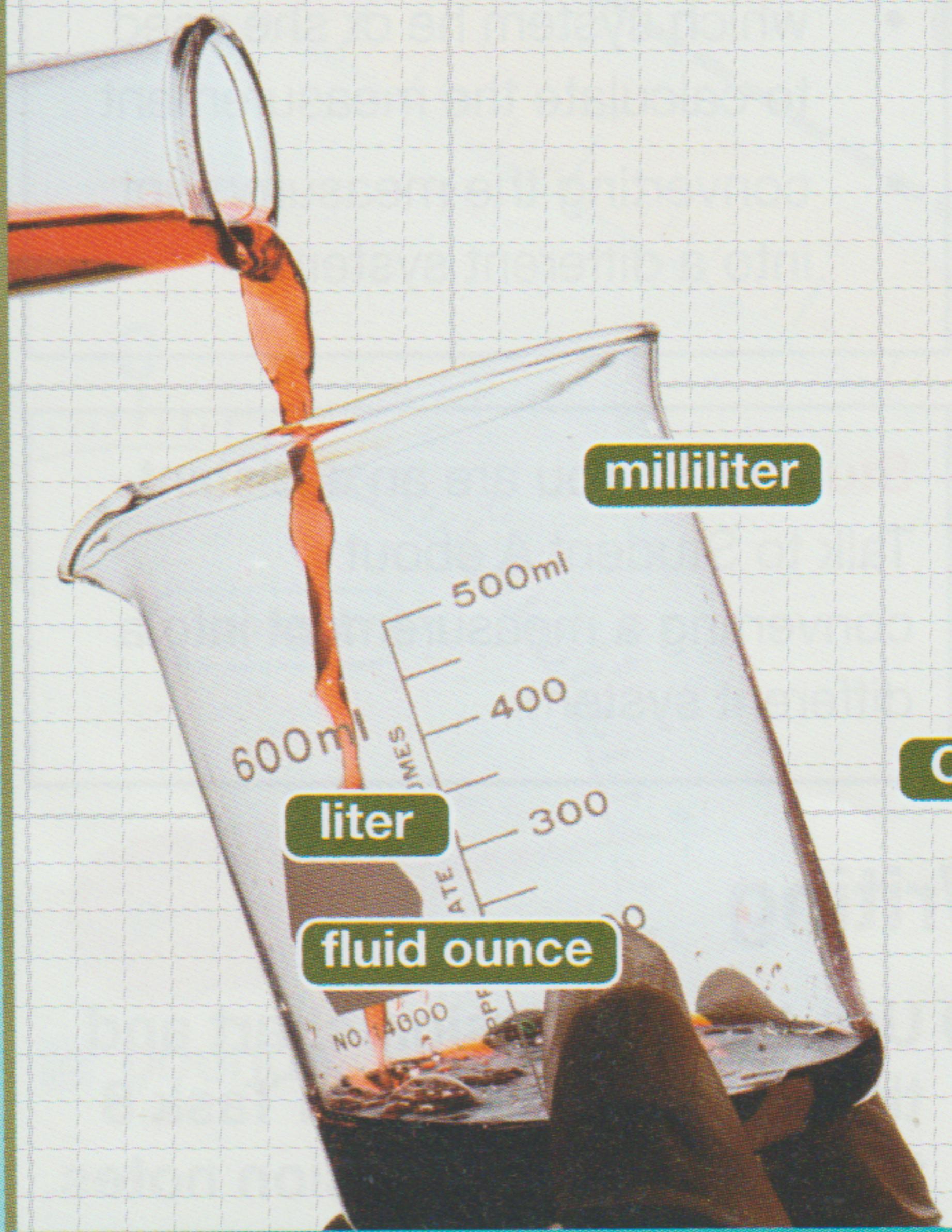
# 10 Measurements 2

## Get ready!

1 Before you read the passage, talk about these questions.

- 1 What are some different measurements of volume?
- 2 What is the difference between the Celsius system and the Fahrenheit system?

1 US gallon = 3,785 liters  
1 US gallon = 128 US fluid ounces



To: l.stevens@gradycorp.net  
From: k.fanshaw@gradycorp.net  
Subject: Measurements on the Lynwood project

Hi Lisa,

I need some new measurements on the Lynwood project. Some of the quantities were in the wrong measurement system.

The liquid measurements must be in metric units. You recorded the **volume** in **gallons** and **fluid ounces**. I need them in **liters** instead. And remember, don't express small quantities as **cubic centimeters**. Our company always expresses them as **milliliters** instead.

Also, we need new measurements of **temperature**. We always use the **Celsius** scale. You can **convert** the **Fahrenheit** measurements with a simple formula:  $^{\circ}\text{C} \times \frac{9}{5} + 32 = ^{\circ}\text{F}$ .

Please remember to record measurements correctly next time. Let me know if you have any questions.

Kevin

## Reading

2 Read the email. Then, choose the correct answers.

- 1 What is the email mainly about?
  - which features of a machine to measure
  - the benefits of using a particular measuring system
  - the consequences of making errors when measuring
  - measurements that need to be corrected
- 2 Which of the following is NOT an instruction in the email?
  - Record volume measurements in fluid ounces.
  - Avoid expressing measurements in gallons.
  - Use milliliters instead of cubic centimeters.
  - Convert Fahrenheit measurements into Celsius.
- 3 According to the email, what is the problem with the measurements?
  - They are inaccurate.
  - They are expressed in very small units.
  - They are in the wrong system.
  - They are incomplete.

## Vocabulary

3 Match the words (1-6) with the definitions (A-F).

1	— Celsius	4	— Fahrenheit
2	— convert	5	— fluid ounce
3	— milliliter	6	— temperature

A	a measurement that uses the scale in which water boils at 100°
B	to change something into a different form or system
C	an imperial unit of volume
D	the measure of how hot or cold something is
E	a metric unit of volume
F	a measurement that uses the scale in which water boils at 212°

**4** Read the sentences and choose the correct words or phrases.

- 1 The engineer measured the amount of water in Celsius/liters.
- 2 A gallon/milliliter contains 128 fluid ounces.
- 3 Temperature/Volume measures an amount of space.
- 4 A cubic centimeter/fluid ounce is a metric unit.

**5**  Listen and read the email again. What is the formula for converting Celsius to Fahrenheit?

## Listening

**6**  Listen to a conversation between an engineer and an assistant. Mark the following statements as true (T) or false (F).

- 1  The man corrected the woman's volume measurement.
- 2  The woman calculated volume in fluid ounces.
- 3  The woman gives the temperature measurement in both scales.

**7**  Listen again and complete the conversation.

Engineer: Lisa, do you have the new measurements for the Lynwood project?

Assistant: Yes, I just 1 \_\_\_\_\_.

Engineer: Great. So 2 \_\_\_\_\_ of the fuel tank?

Assistant: Let me see. That was 94.5.

Engineer: Now that's a 3 \_\_\_\_\_, right?

Assistant: Yes. It was 25 4 \_\_\_\_\_. That times 3.78 equals about 94.5 liters.

Engineer: Okay. And 5 \_\_\_\_\_ the temperature in the tank?

Assistant: It was 104 degrees Fahrenheit. So that's about 40 6 \_\_\_\_\_.

## Speaking

**8** With a partner, act out the roles below based on Task 7. Then, switch roles.

### USE LANGUAGE SUCH AS:

Do you have ...?

Now, that's a ... measurement, right?

That equals ...

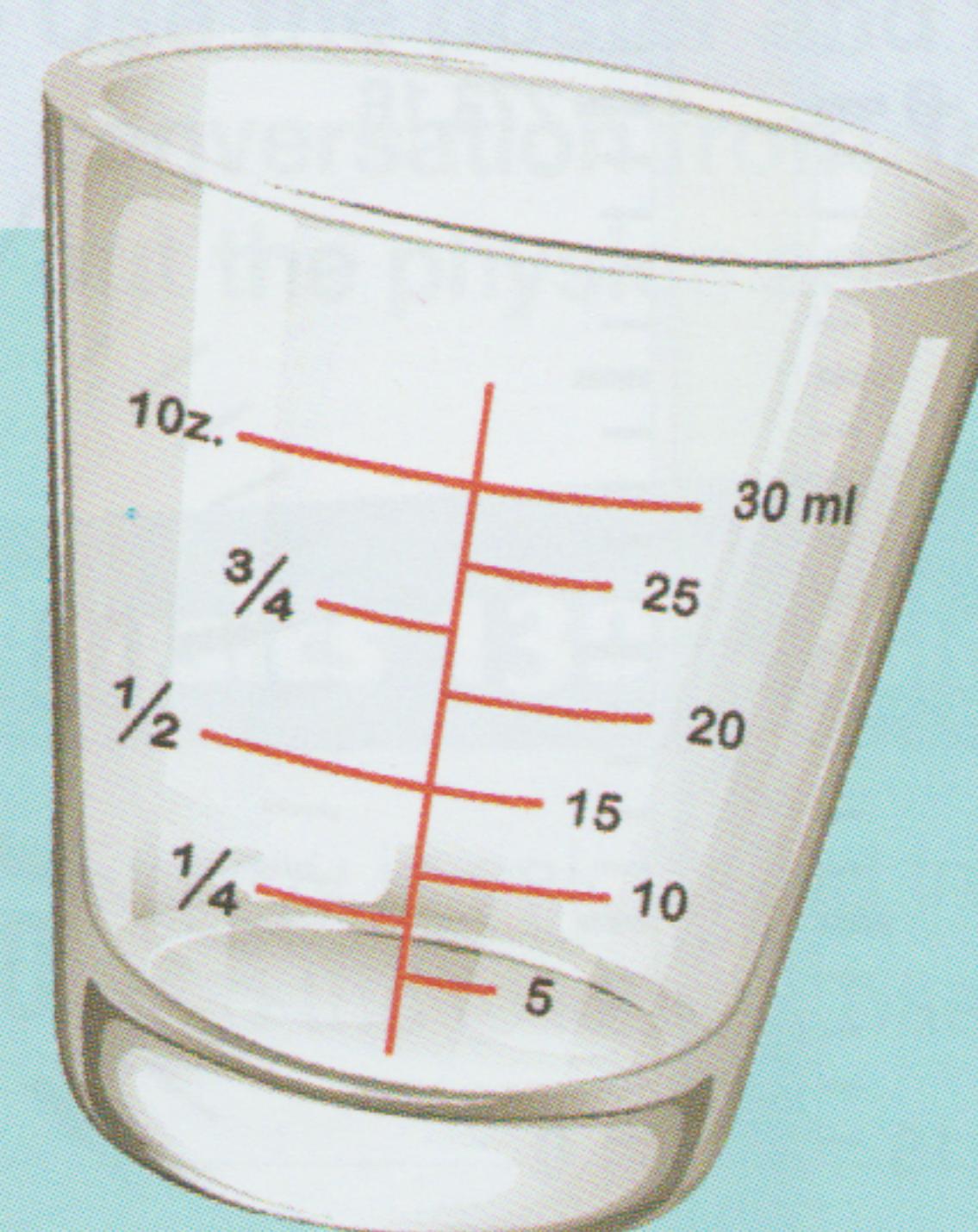
**Student A:** You are an engineer. Talk to Student B about:

- measurement conversions
- which types of measurements you need
- which system you prefer

**Student B:** You are an assistant. Talk to Student A about measurement conversions.

## Writing

**9** Use the email and the conversation from Task 8 to fill out the email from an assistant to an engineer.



Hi Kevin,

Here are the measurement conversions that you requested.

**Volume:** There were 3.6 \_\_\_\_\_ in the chamber. To convert that into \_\_\_\_\_ instead, I used the following formula: \_\_\_\_\_.

**Temperature:** The temperature was 60 degrees Celsius. To convert that into \_\_\_\_\_ instead, I used the following formula: \_\_\_\_\_.

I'll remember to use the correct system next time.

Lisa