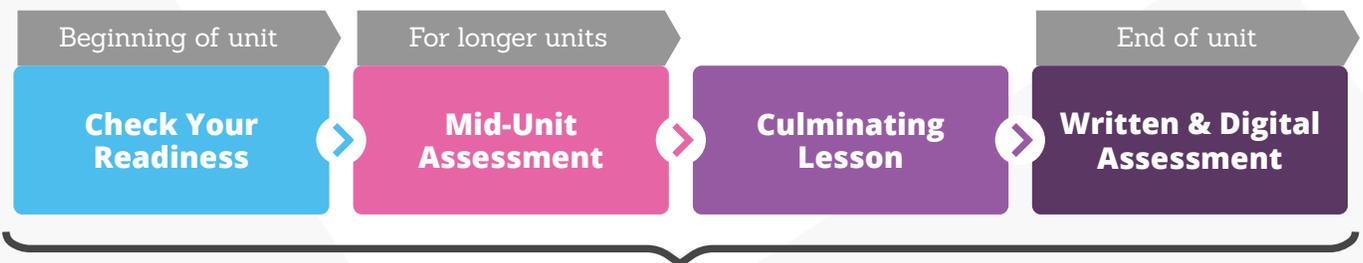


Comprehensive Mathematics Assessment for Real Results

Measure understanding and meet learning goals

LearnZillion Illustrative Mathematics (LZ IM) offers opportunities for both formative and summative assessment that empower teachers to measure student understanding and progress against learning goals. Students also have tools that promote ownership and accountability for learning.

Digital assessment resources include new generation item types including multiple choice, multiple select, and other tech-enhanced item types.



**Formative Assessment and Practice Opportunities
Ongoing Throughout Each Unit**

Formative Assessment

The LZ IM instructional design offers regular, embedded options for monitoring student progress and providing constructive feedback.

Each unit begins with a **Check Your Readiness diagnostic assessment** of concepts and skills that are prerequisite to the unit. Teachers can use these to identify students with particular below-grade needs or topics to carefully address during the unit. The teaching notes include scoring guidance to inform student instructional needs.

Card 4 of 9

Problem 2 ▾

Blueberries cost \$4.00 per pound.

Show answers

Enter the answer for each question in the box.

a. How many pounds of blueberries can you buy for \$1.00?

lbs

Explain your reasoning.

| Check Your Readiness Diagnostic Assessment

Formative Assessment in Detail

Let's solve problems involving proportional relationships using tables.

Student Learning Goal

Learning Targets appear at the end of each lesson and articulate the goals of the lesson. Teachers and students can use learning targets as formative assessment prompts for a written reflection or self-assessment as part of a lesson synthesis.

Student-facing **Learning Goals** appear at the beginning of each lesson and invite students into the work of that day.

Card 31 of 31
Learning Targets ▾

Full screen ▾

I understand the terms proportional relationship and constant of proportionality.

I can use a table to reason about two quantities that are in a proportional relationship.

Teaching notes

OPTIONAL

Pacing: ~3 minutes

- Share the learning target(s) with students.
- Ask students to reflect on whether or not they achieved the learning targets for today.
- You may want to use the "My Reflections" sheets for this unit to capture student responses.
- Questions to consider for this self-assessment:
 - Did you achieve today's learning target(s)?
 - Was anything easy for you?
 - What was challenging for you?
 - What else do you need in order to achieve the learning targets?

Learning Target

Card 16 of 31
2.3 Activity: Making Bread Do... ▾

Full screen ▾

A bakery uses 8 tablespoons of honey for every 10 cups of flour to make bread dough. Some days they bake bigger batches and some days they bake smaller batches, but they always use the same ratio of honey to flour. Complete the table as you answer the questions. Be prepared to explain your reasoning.

1) How many cups of flour do they use with 20 tablespoons of honey?

honey (tbsp)	flour (c)
8	10
20	
13	

2) How many cups of flour do they use with 13 tablespoons of honey?

3) How many tablespoons of honey do they use with 20 cups of flour?

Teaching notes

Launch

- Tell students that in this activity, they will think about a different proportional relationship.
- If necessary, show students the measuring cup and the tablespoon side by side to help make the context more concrete.
- You could even pantomime the first sentence in the activity: "measuring" 8 tablespoons of invisible honey and 10 cups of invisible flour.
- This launch continues on card 16.

Student response

- 25 cups of flour for 20 tablespoons of honey
- $16\frac{1}{2}$ or 16.25 cups of flour for 13 tablespoons of honey

Instructional Task

Each lesson includes a **Cool-down** (similar to an exit ticket) to assess whether students understood the work of that day's lesson. Teachers may use this as a formative assessment to provide feedback or to plan further instruction.

Each **Instructional Task** is accompanied by commentary about expected student responses and potential misconceptions so that teachers can adjust their instruction. There are also monitoring templates to support student approaches to the instructional routines.

Card 31 of 32
4.5 Cool-down ▾

Full screen ▾

Snow is falling steadily in Syracuse, New York. After 2 hours, 4 inches of snow has fallen.

1) If it continues to snow at the same rate, how many inches of snow would you expect after 6.5 hours? If you get stuck, you can use the table to help.

time (hours)	snow (inches)
1	1
2	4
6.5	
π	

2) Write an equation that gives the amount of snow that has fallen after p hours at this rate.

3) How many inches of snow will fall in 24 hours if it continues to snow at this rate?

Teaching notes

Student response

- 13 inches. Two inches fell in 1 hour, and 6.5 is $1 \cdot (6.5)$, and $2 \cdot (6.5) = 13$.
- $p = 2z$ where z is the number of hours that have passed and p is the depth of the accumulated snow.
- 48 inches. $24 \cdot 2 = 48$.

Response to student thinking

- Points to emphasize: If students struggle with using the unknown variable of x in the cool-down, ask students to use a chart to assist in understanding.

Cool-Down

Track student progress and mastery

Summative Assessment

Each unit includes an End-of-Unit **written and digital assessment** that is intended for students to complete individually to assess what they have learned at the conclusion of the unit.

Card 8 of 9

Problem 6

The equation $F = \frac{9}{5}C + 32$ relates temperature measured in degrees Celsius, C , to degrees Fahrenheit, F .

Determine whether there is a proportional relationship between C and F .

Complete the sentence below. Choose the correct answer from the drop down menu.

The relationship between degrees Celsius and degrees Fahrenheit

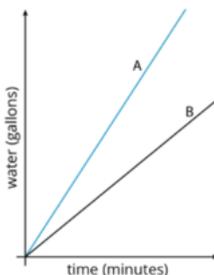
End-of-Unit Assessment

Digital assessments allow students to access, record, and submit their questions and answers for a variety of technology-enhanced item types including multiple choice, multiple select, drag-and-drop, cloze, graphing, labeling, constructed response, short essay, and drawing types.

These summative assessments feature a blend of automatically scored items and items that are manually reviewed, and include an item summary with item types, scoring guidance, and notes.

In longer units, a **mid-unit assessment** is also available. This assessment has the same form and structure as an end-of-unit assessment.

The two lines represent the amount of water, over time, in two tanks that are the same size.



Which container is filling more quickly?

A Container A

B Container B

Explain how you know.

Type your response in the space below.

Digital Assessments

All **summative assessment** problems include a complete solution and standard alignment. Multiple-choice and multiple response problems often include a reason for potential errors.

Problem	Item type(s)	Points	Automatic scoring	Manual scoring	Notes
1	Multiple choice	1	✓		
2	Multiple select	2	✓		<ul style="list-style-type: none">2 pts for both correct responses1 pt for one correct response
3	Multiple choice	1	✓		
4	Multiple choice Essay	2	✓	✓	<ul style="list-style-type: none">1 pt for the correct choiceUse the tiered rubric in the scoring guidance to guide your evaluation of the essay.
5	Cloze response	1	✓		<ul style="list-style-type: none">0.5 pts for each correct response in the table
6	Select from drop-down	1	✓		<ul style="list-style-type: none">1 pt for the correct drop-down selectionUse the tiered rubric in the scoring guidance to guide your evaluation of the response.

End-of-Unit Assessment Item Summary

Real-time data and reporting lets you gauge performance

Digital Practice

Additionally, a set of cumulative practice problems is provided for each lesson that can be used for homework or practice. Teachers can choose to collect and grade these or simply provide feedback to students.

Card 4 of 6

7.2.2 Practice 3 ▾

Show answers

A map of a rectangular park has a length of 4 inches and a width of 6 inches. It uses a scale of 1 inch for every 30 miles.

1. What is the actual area of the park in square miles?

Type your response in the space below.

2. How do you know?

Digital Practice

Performance Tasks

Most units have culminating lessons where students have an opportunity to show off their problem-solving skills or apply the mathematics they have learned to a real-world problem. They are recommended for groups of students who excel at synthesizing concepts in this way.

The End-of-Unit assessments, combined with students' work on the culminating lessons, will show a multi-faceted view of students' learning over the course of the unit.

■ Not attempted/incomplete □ Complete ● 0-50% ● 51-79% ● 80-100% ↗ Needs grading

Student	Score	1	2	3	4	5	6	7
Mindi Dileo	100% >	●	●	●	●	●	●	●
Gabriela Robbins	42.9% >	●	●	●	●	●	●	●
Darwin Koehler	57.1% >	●	●	●	●	●	●	●
Daisey Straker	57.1% >	●	●	●	●	●	●	●
Babette Dugas	42.9% >	●	●	●	●	●	●	●
Man Salmi	57.1% >	●	●	●	●	●	●	●

Class Performance Report

Data and Reporting

Real-time reporting is available for teachers to give them actionable data. Class Performance Reports show assignment scores and performance by items.

Drill downs allow teachers to analyze student work for open-ended item types.

LearnZillion Illustrative Mathematics offers a comprehensive array of assessment resources to support positive student outcomes in mathematics.

Learn more at

[lzill.com/im-assessment](https://www.lzill.com/im-assessment)