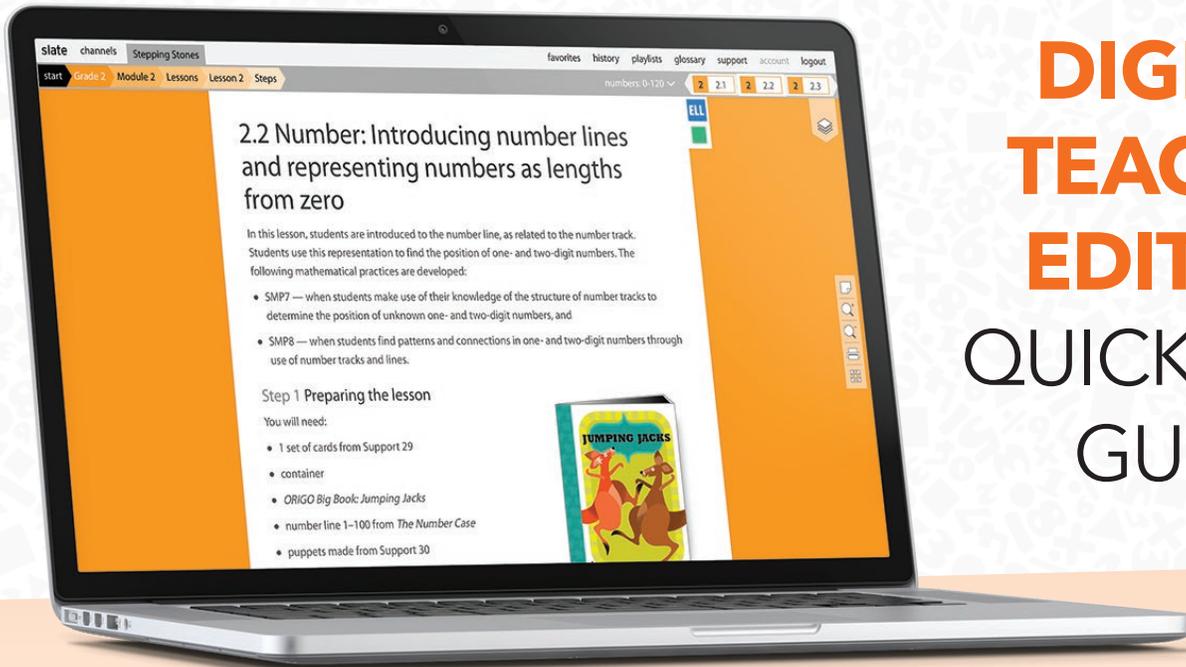


# ORIGO STEPPING STONES 2.0

COMPREHENSIVE MATHEMATICS

GRADES  
K-6



## DIGITAL TEACHER EDITION QUICKSTART GUIDE

## Introduction

*ORIGO Stepping Stones 2.0* is an innovative program that integrates print and digital technology to give educators a flexible and balanced mathematics solution. This world-class comprehensive instructional program has been developed for elementary teachers who are implementing college and career-readiness standards.

*ORIGO Stepping Stones 2.0* balances the dimensions of rigor by:

- Developing **conceptual understanding** using a range of powerful visual models.
- Creating rich opportunities for classroom **discourse** and **language** development.
- Fostering **thinking skills** and **procedural fluency**.
- Providing opportunities to **apply** learning across real problems, open investigations, and enrichment activities.
- Offering **multiple methods to assess** deep understanding, fluency of skills, and applications of mathematics.

## Digital Teacher Edition Quickstart Guide Contents

This guide will quickly get you started using *ORIGO Slate*, our online digital platform. The following pages will navigate you through the *Stepping Stones 2.0* instruction, including the resources and support for differentiation, ongoing practice, and assessment.

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## System Requirements

- *Slate* works best in Google Chrome or Firefox.
- Clear your internet browser history/cache before you login to every *Slate* session. Search your internet browser's help section to find out how.

# Digital Teacher Edition Quickstart Guide

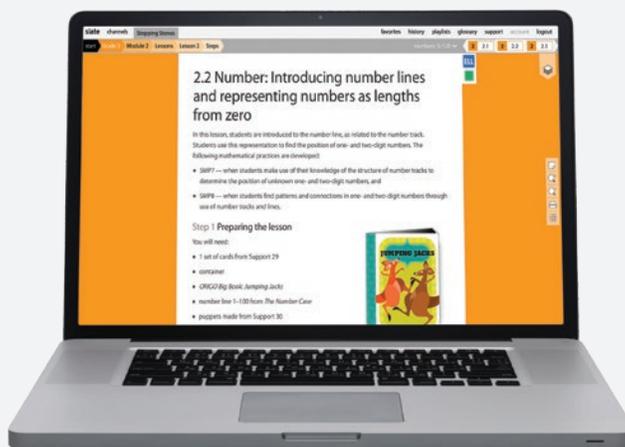
*Stepping Stones 2.0* is delivered online to give teachers one central location to access all their lesson plans, student activity pages, and teaching tools. Each Digital Teacher Edition gives instant access to all content for Grades K-6. One of the greatest benefits of a digital delivery platform is the ease with which ORIGO Education can immediately update content, offer updates, and/or provide enhancements.

## THE ONLINE CONTENT IN **STEPPING STONES 2.0** INCLUDES...

### MATHEMATICS

Each module begins with the essential background information you need to get started. Included in each module are:

- mathematical focus
- research into practice
- learning targets
- mathematical practices
- English language learners
- language development
- newsletters for home



### LESSONS

Included in each of the 12 modules are:

- 6 lesson plans, with small group activities (Grade K)
- 12 lesson plans (Grades 1-6)
- steps to teach each lesson
- differentiation activities for three levels (Extra Help, Extra Practice, and Extra Challenge)
- ongoing practice pages to maintain concepts and skills



All student pages and answers are projectable. Black and white versions of these pages are provided for printing.

### ASSESSMENT

Multiple methods to assess understanding and skills are provided. These include:

- pre-tests
- in-class observations
- portfolio samples
- check-ups
- performance tasks (Grades 1-6)
- individual interviews
- quarterly tests

### MORE...

Teachers looking to add to their math instruction can choose from the following:

- investigations (Grades 1-6)
- problem solving activities\*
- cross-curricula links
- enrichment activities

\* Starts in Module 5 for Grade K

## Login Page

To access *Stepping Stones 2.0* you must have a *Slate* account.

1. If you already have a *Slate* account, go to [origoslate.com](http://origoslate.com). Enter your **username** and **password** in the fields provided and click login. If appropriate, check the **Remember Me** box.
2. To create an account, go to [origoslate.com](http://origoslate.com), click on **Create a FREE Slate Account** and complete the form.

# Navigating *Slate*

Once you have logged in, you can select the *Stepping Stones 2.0* channel from the drop-down menu.

**Channels**  
 – access all online resources (all resources not grayed out are yours to explore).

**Implementation Tab**  
 – click to learn how to navigate and teach *Stepping Stones 2.0*.

The screenshot shows the Slate interface with the 'channels' dropdown menu open. The 'Stepping Stones 2.0' channel is highlighted. The main content area displays the 'Stepping Stones 2.0' banner and a list of authors and consultants.

# Navigating *Stepping Stones 2.0*

Once you have selected the *Stepping Stones 2.0* channel you are ready to review the program!

**Breadcrumb**  
 – shows the path of your navigation. Each move along the path allows you to select grade, module, lesson, etc. Click any part of the breadcrumb to go back to that page or menu.

**Sequence Navigator**  
 – allows you to move back and forth along the topic sequence to access content from other lessons or grade levels (see page 6).

The screenshot shows a lesson page titled 'Introducing number lines and representing numbers as lengths from zero'. The breadcrumb at the top reads 'start > Grade 2 > Module 2 > Lessons > Lesson 2 > Steps'. The sequence navigator at the top right shows a sequence of lessons: 2, 2.1, 2.2, 2.3, with 2.1 highlighted.

## Navigating in a Lesson

Stepping Stones 2.0 contains a number of handy navigation features at your fingertips. The main features are explained below.

The screenshot shows a lesson page for 'Introducing number lines' with the following callouts:

- 2.MD.B.6** Identify the position of two-digit numbers on a number line
- Number: Introducing number lines
- Representing numbers as lengths from zero
- In this lesson, students are introduced to the number line, as related to the number track. Students use this representation to find the position of one- and two-digit numbers. The following mathematical practices are developed:
  - SMP7 — when students make use of their knowledge of the structure of number tracks to determine the position of unknown one- and two-digit numbers, and
  - When students find patterns and connections in one- and two-digit numbers through number tracks and lines.
- Look for and express regularity in repeated reasoning.
- Step 1 Preparing the lesson
- You will need:
  - 1 set of cards from Support 29
  - container
  - ORIGO Big Book: *Jumping Jacks*
  - number line 1–100 from *The Number Case*
- Resource Tab (see below)
- Roll over to show the cluster heading aligned to the standard and learning target of this lesson.
- Roll over the title of the lesson to reveal the learning target/s covered in the lesson.
- Roll over the sentence at the end of the initial paragraph to identify the mathematical practices.
- Functions (see below)

Grade 2, Module 2, Lesson 2

## Resource Tab

In this tab you can display all digital resources for the lesson by selecting **teach all**, or select the resource individually to display one-by-one. Create your own personalized playlist of resources by clicking the edit button. You can also print the resources for the lesson by selecting the **print** button. Alternatively, to print an individual resource, select that resource, and then **print** from the **viewer**.

See page 5 to learn how to use the **viewer**.

The Resource Tab interface includes buttons for 'print all', 'edit', and 'teach all'. Below these is a list of online resources for the lesson:

online resources – lesson		
SS	Support 29	+
SS	Support 30	+
JJ	Jumping Jacks (tool)	+
SI	Step In discussion	+
SS	Student Journal 2.2 (color)	+
SS	Student Journal 2.2 (b&w)	+
SS	Student Journal 2.2 (answers)	+
SS	Support 29 SPA	+

## Functions

- Sticky note** – click to create a quick note that is saved permanently to the page
- Zoom in** – click to zoom in on the page
- Zoom out** – click to zoom out on the page
- Print** – click to print the lesson notes
- Full screen** – click to toggle between normal and full screen views

# Teaching a *Stepping Stones 2.0* Lesson

To effectively teach using the *Stepping Stones 2.0* program, it is best practice to use the Digital Teacher Edition in conjunction with the student books. A *Stepping Stones 2.0* lesson follows a clear structure.

**DIGITAL TEACHER EDITION**  
 Grade 2, Module 2, Lesson 2

a. **Preparing the lesson** – Teachers use this information before a lesson to ensure all materials required for the lesson are at hand.

b. **Starting the lesson** – Instructions for the teacher to either review previously learned content or launch the current lesson with students.

c. **Teaching the lesson** – Provides guidelines and suggestions for interactive discourse during a minds-on experience for students.

**2.2 Number: Introducing number lines and representing numbers as lengths from zero**

In this lesson, students are introduced to the number line, as related to the number track. Students use this representation to find the position of one- and two-digit numbers. The following mathematical practices are developed:

- SMP7 — when students make use of their knowledge of the structure of number tracks to determine the position of unknown one- and two-digit numbers, and
- SMP8 — when students find patterns and connections in one- and two-digit numbers through use of number tracks and lines.

**Step 1 Preparing the lesson**

You will need:

- 1 set of cards from Support 29
- container
- ORIGO Big Book: Jumping Jacks*
- number line 1–100 from *The Number Case*
- puppets made from Support 30

Each student will need:

- Student Journal 2.2

**Step 2 Starting the lesson**

Have up to 20 students chose a card from the container and order themselves from 1 to 20 at the front of the classroom in a horse-shoe formation so they can see each other. Ask students to hold their card up to their chests, then have the students who are holding numbers that are greater than 10 lower their cards from view. Point to the student who comes after the 10th card and ask, **What number is (Selenia) holding? How do you know?** Have (Selenia) reveal her card. Repeat the discussion for the student in the 13th position, then 17th position. Elicit responses that refer to using the existing numbers on the *human number track* to count forward or backward. Students should be confident with determining missing numbers from 0 to 20 in this way and familiar with the structure of ordered numbers like those on a number track (SMP7). Repeat this activity during the week, having different series of numbers hidden, to provide opportunities for students to practice SMP7 and SMP8.

**Step 3 Teaching the lesson**

- Display the *ORIGO Big Book: Jumping Jacks* and read the title. Encourage volunteers to tell the class what they know about kangaroos and to predict what the story might be about. Read the story, pausing as appropriate and allowing students to respond to questions and make predictions on where the characters will land on the number line (SMP8). Read the story a second time, encouraging further comments and discussion as time allows.
- Project slide 1 and discuss the points below:
  - What is happening in this picture?
  - How do Jackie and Jack know what number they are on?
  - What do you think this (pointing to the number line) is called?
- Attach a number line 0–100 from the number case to the board. Explain that a number line is like a number track in that it shows numbers in increasing order from left to right. Encourage discussion regarding the features of the number line (it is a length, 0 is the starting point, markings are shown at an equal distance from 0, the greater the number, the further away it is from zero — SMP7).
- Have two students place the puppets in the same place as they are in the picture. Ask, **If (Jackie) rolled a 7 and a 4 here, where would both characters land?** Have students act this out as they answer for each character. Encourage students to explain their thinking as they move the puppets (SMP8). Repeat this discussion and movement of the puppets along the number line for each character using different numbers, allowing more students to make sense of the structure of the number line (SMP7).
- Project the Step In discussion from Student Journal 2.2 and work through the questions with the whole class. Read the Step Up and Step Ahead instructions with the students. Make sure they know what to do and then have them work independently to complete the tasks.

**Step 4 Reflecting on the work**

Discuss the students' answers to Student Journal 2.2. Invite individuals to share the jumps they drew in Step Up Question 1 on the number line on the board. Discuss student's answers to the challenge in Step Ahead. Ask students to come to the board and act as each number in the questions to position themselves along a number line to demonstrate their distance from zero.

d. **Step In** – Provides teachers with guided discussion points that set the scene for the lesson. The Step In can be projected to the class and each point or question can be discussed with the whole class one step at a time. (Grades 1-6)

e. **Step Up** – Provides work for students to complete individually based on the discussion in the Step In. (Grades 1-6)

f. **Step Ahead** – Provides an additional task for students to develop higher-order thinking skills. (Grades 1-6)

g. **Reflecting on the work** – Provides teachers with discussion points and questions for the class to reflect on what they learned and understood from the lesson.

**2.2 Number: Introducing number lines and representing numbers as lengths from zero**

**Step In** Look at the number track.

What number would you write in the position that is shaded? How do you know?

**Look at the number line above.** How is it the same as the number track? How is it different? Where should we write 0 on the number line? What do you notice about the marks along the number line? What do the marks of different length show? How do you know? Which mark on the number line shows the same number that is shaded on the number track? How do you know?

What is a quick way to find 17 on the number line?

**Step Up** I. Draw jumps to show the position of each number on the number line.

a. 9

b. 14

**2. Draw a line from each number to its position on the number line.**

a. 5    b. 3    c. 9    d. 18

e. 1    f. 11    g. 7    h. 15

**3. Write the number that should be shown in each position.**

a.     b.     c.     d.

e.     f.     g.     h.

**Step Ahead** Imagine that you showed each of these numbers on a number line. Color the number in each pair that would be the **greater** distance from zero.

a. 7    11    b. 9    3    c. 10    16

d. 16    15    e. 8    12    f. 17    20

**STUDENT BOOK**  
Grade 2, Module 2, Lesson 2

## Teaching a Stepping Stones 2.0 Lesson: The Viewer

Once you have selected a resource from the **Resource Tab**, it will be displayed in the **Viewer**. This can be projected on an interactive or standard whiteboard for whole-class discussion.

**3. Write the number that should be shown in each position.**

a.     b.     c.     d.

e.     f.     g.     h.

**Step Ahead** Imagine that you showed each of these numbers on a number line. Color the number in each pair that would be the **greater** distance from zero.

a. 7    11    b. 9    3    c. 10    16

d. 16    15    e. 8    12    f. 17    20

Click to close the viewer.

The **SlateCast** feature allows teachers to access the lesson notes while simultaneously projecting student content in the classroom.

Click to print the displayed resource.

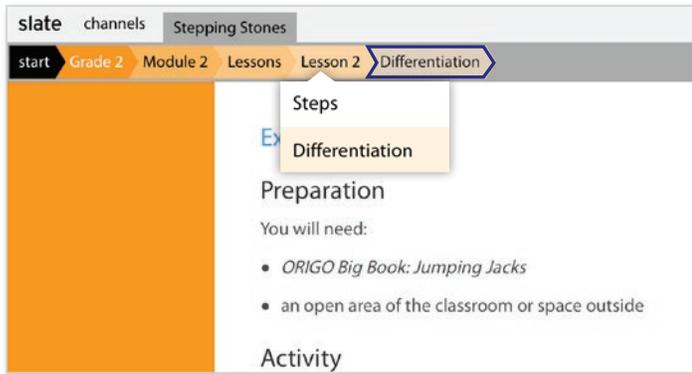
Click to navigate the pages of this resource.

Click to toggle between filling the entire screen with the viewer.

# Differentiating Instruction

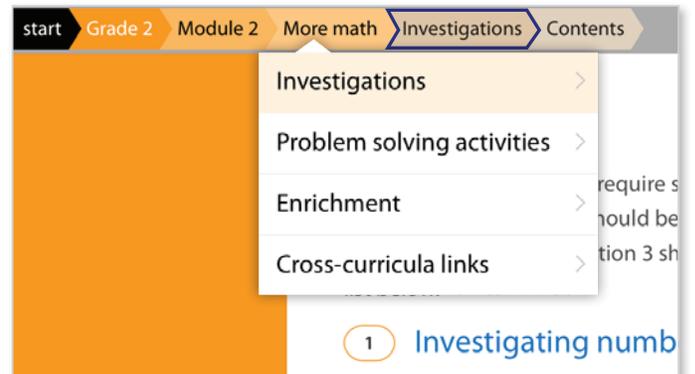
Extra help, practice, and challenge

Differentiation activities are provided in every *Stepping Stones 2.0* lesson. These are often provided at three levels: **Extra Help**, **Extra Practice**, and **Extra Challenge**.



More Math

Each module in *Stepping Stones 2.0* contains a **More Math** tab. Choose from **Investigations**, **Problem Solving Activities**, **Enrichment**, and **Cross-Curricula** links.



# Coherence: Navigating the *Stepping Stones 2.0* sequence

The *Stepping Stones 2.0* sequence navigator allows quick access to mathematical topics. Each Digital Teacher Edition provides access to all content for all grade levels making it easy to jump forward or back by topic to provide coherent instruction for student understanding.

Click here to go to the previous lesson in the topic sequence. Shows the current lesson.  
Click here to reveal the lesson notes.

Click here to go to the next lesson in the topic sequence.

Click here to show the topics.

Click here to go to the lesson notes for that lesson.

Hover over the highlighted grade to reveal the lessons that cover a particular topic.

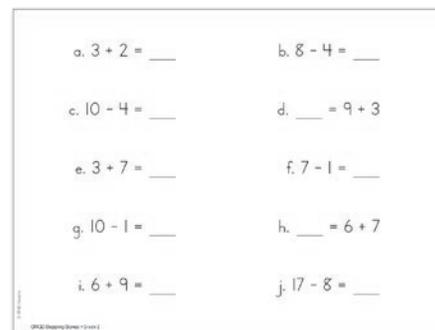
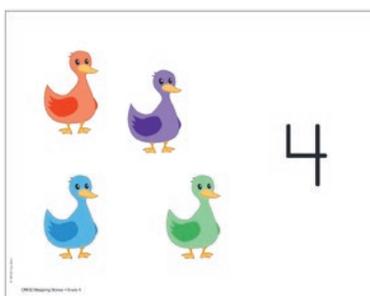
# Maintaining Concepts and Skills

Ongoing practice is an essential element of the scope and sequence of *Stepping Stones 2.0*. It is an integral part of the learning experiences students need to have in order to meet the expected standards by the end of the school year.

## Projectable Tools

In Grades 1–6, lessons 1, 5, and 9 provide a projectable tool specifically designed to develop and maintain fact fluency for the four operations. This tool is provided through Grade 6, even though students are expected to be fluent in all facts before then.

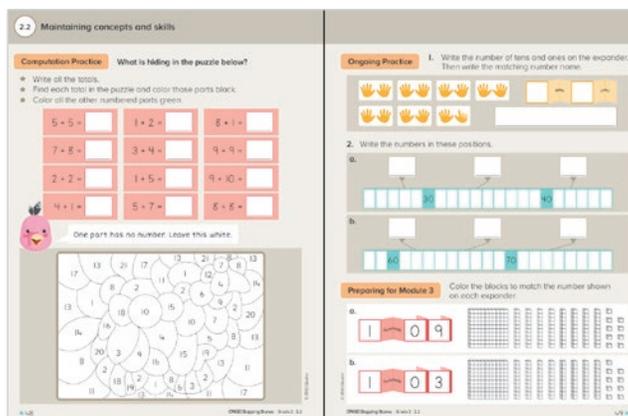
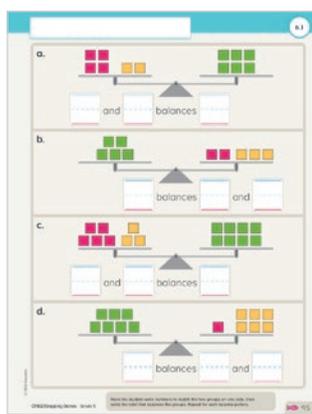
In Grade K, the projectable tools are specifically designed to develop fluency of counting and subitizing. In the later modules these also include basic fact practice. These tools can be found in lessons 1, 3, and 5.



## Student Journal Pages

In Grades 1–6, the even-numbered lessons 2, 4, 6, 8, 10, and 12 provide two additional Student Journal pages. These pages offer practice to help students maintain previously learned concepts and skills and opportunities to prepare for the upcoming module.

In Grade K, every lesson has one or two pages that provide essential practice of skills such as the writing of numerals. In the later modules, these pages also provide practice for number facts.



## Application of Concepts and Skills

In Grades 1–6, students can apply their knowledge of the concepts and skills they learn by engaging in the Investigations and Problem Solving Activities provided for each module.

In addition to the **Practice Book** pages for each lesson, Grade K offers a review page at the end of each module. The review pages practice two big ideas from the lessons in the module. These activities can be used inside or outside the classroom.

# Assessment

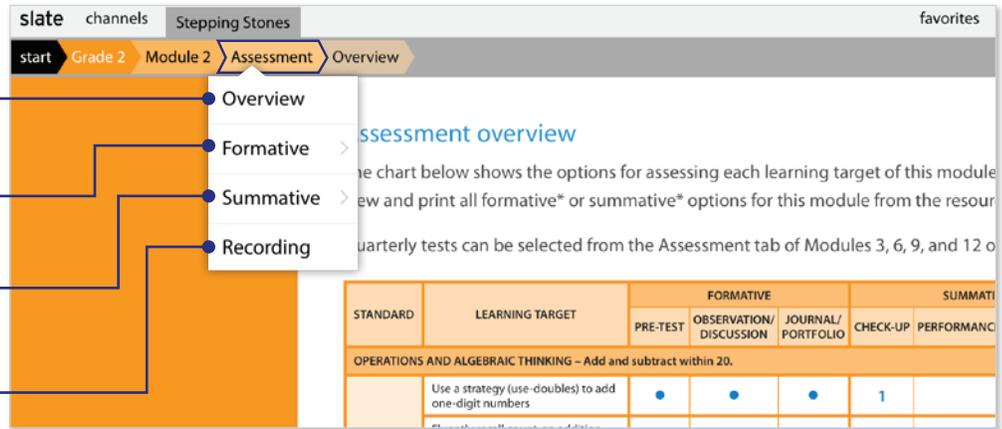
Assessment provides teachers with valuable information about student performance. *Stepping Stones 2.0* provides both **formative** and **summative** assessment options as shown below.

Provides a chart to show the assessment options of the module.

Assessments used to make informed decisions to guide instruction.

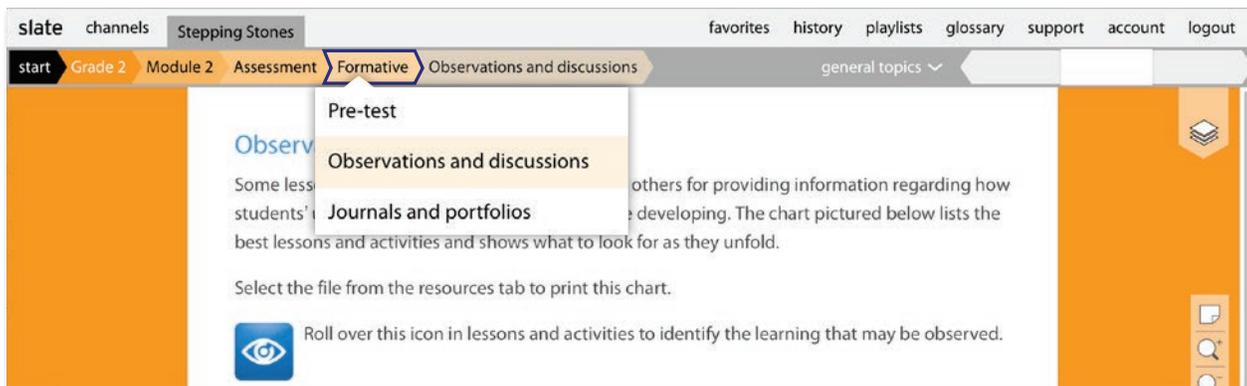
Assessments designed to take place at planned intervals after instruction.

Provides options for recording student achievement of the learning targets.



## Formative Assessment

Formative assessment is used to help teachers make informed decisions to guide instruction. These decisions range from reviewing content and reteaching concepts, to providing additional work for students who require extra assistance or challenges. Formative assessment can occur informally during lessons with observations of students, or formally with written instruments such as journal entries. *Stepping Stones 2.0* includes three different options for formative assessment. Look out for the **eye** and **folder** icons within lessons and activities to help identify what should be observed or where work samples should be generated.



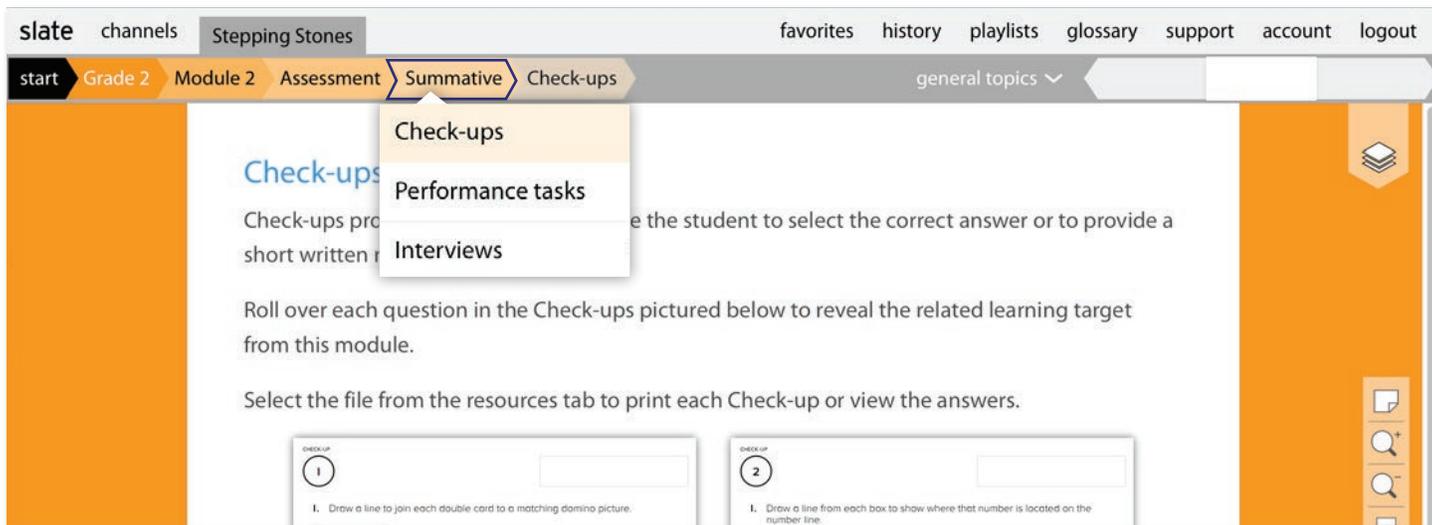
**Pre-test** – an optional assessment component designed to inform you of what students already know and can do before instruction begins.

**Observations and discussions** – provides suggestions for teachers on which lessons and activities are better suited to observe how students’ understanding of concepts and skills is developing.

**Journals and portfolios** – provides suggestions for teachers on which lessons and activities are better suited for generating work samples as evidence of the learning that has occurred.

## Summative Assessment

Summative assessment generally takes place at planned intervals after instruction. If used wisely, summative assessment can also serve a formative role to modify future instruction. *Stepping Stones 2.0* includes three different options for summative assessment.



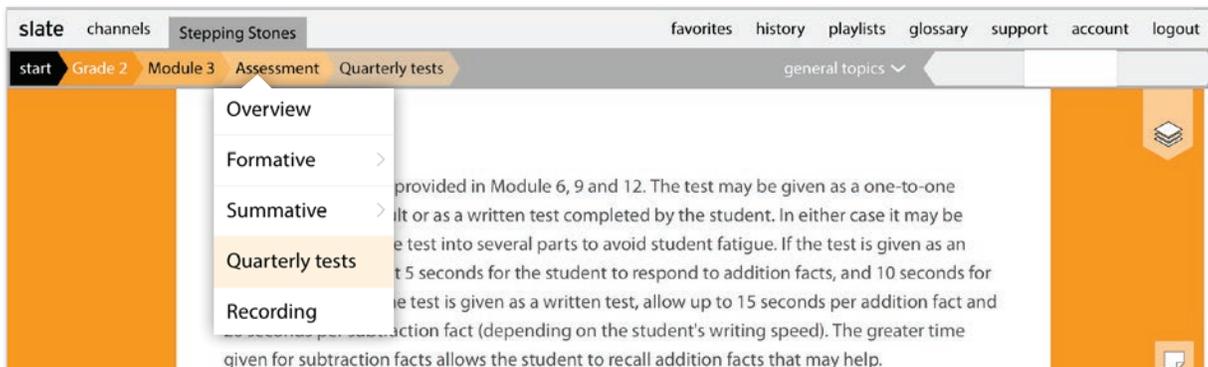
**Check-ups** – provide questions that require the student to select the correct answer or to provide a short written response. These assessments often parallel the pre-tests and can be used to determine what the student has learned as the result of instruction.

**Performance tasks (Grades 1-6)** – offer a deeper measure of understanding of one or two learning targets. A rubric accompanies each performance task, which provides you with examples of student responses and how they would score on the rubric.

**Interviews** – are used to assess certain concepts and skills such as the fluency of rote counting or mental computation that are more difficult to assess solely from paper-and-pencil methods.

## Quarterly Tests

Quarterly tests are used at the end of each quarter to assess key learning targets taught in the three modules of that quarter. This information can help you know how well students are maintaining concepts and skills. Quarterly tests can be found in the assessment tabs for Modules 3, 6, 9, and 12.



# Program Map

