Adding & Subtracting on the Number Line

Supports Bridges Grade 1, Unit 4, Module 1, <u>Session 2</u>, <u>Session 3</u> & <u>Session 4</u>

Overview

This Tech-Enhanced Activity is based on learning in Sessions 2-4. The work supports understanding of the use of the 0-10 number line to add and subtract.

Preview this content with a short video.

	Students will:	Assets			
<u>Part 1</u>	Fill in the missing numbers on a 0–10 number line.	What's in the Box? [Slides]			
Part 2	Learn how to add and subtract on a 0–10 number line and create their own story problem.	Hopping Along on the Number Line to 10 [Slides]			
<u>Part 3</u>	Use the 0–10 number line to solve addition and subtraction story problems and play the Frog Jump game.	Frog Jump Game [Slides] Frog Jump Game [DDM]			

Some tech skills your students will need:

- Drag and drop elements
- Type in text boxes

Content notes:

- Part 1 of this activity aligns with the What's In the Box? Problems & Investigations from Session 2. Emphasis was placed on the 0–10 number line, used in the remainder of the module.
- 2. Parts 2 and 3 are aligned with the Hopping Along the Number Line to Ten Problems & Investigations from Session 3.
- 3. At the end Part 3, students are introduced to Work Place 4A The Frog Jump Game from Session 4.

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Part 1: What's in the Box?

Students fill in missing numbers on a 0–10 number line.

You will need your copy of:

Google Slides: What's in the Box? (asynchronous or synchronous learning)

- English: <u>preview</u> | <u>copy</u>
- Spanish: preview | copy
- 1. Distribute the slides to students via Google Classroom, email, or another preferred method and *make a copy for each student*.
- 2. Preview the slides and choose your delivery method:

 If delivering asynchronously Students self-pace through slides and make observations about a number line. Students fill in the missing numbers on provided number lines, then self-check their work. 	 If delivering synchronously Start a Zoom or Google Meet session. Open the slides and share your screen. Students do not yet need to open their copy. Show the number line and ask students what they notice. Facilitate a discussion based on their observations, pointing out the structure of the number line. Using the first two "What's in the box?" examples, invite students to generate ideas for how to find the missing numbers on the number line. Show students how to self-check their work using the slides. Have students open their copy of the slides and fill in the missing numbers
	on the number lines.

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Part 2: Hopping Along on the Number Line to 10

Students learn how to add and subtract on a 0–10 number line and create their own story problem.

You will need your copy of:

Google Slides: Hopping Along on the Number Line to 10 (asynchronous or synchronous learning)

- English: <u>preview</u> | <u>copy</u>
- Spanish: preview | copy
- 1. Distribute the slides to students via Google Classroom, email, or another preferred method and *make a copy for each student*.
- 2. Choose your delivery method:

 If delivering asynchronously Students self-pace through the slides, observing Tad and Polli as they hop along the number line. Students practice counting the number of hops needed for Tad and Polli to catch flies. They solve addition and subtraction story problems, showing their work on the number line and producing matching equations. Students create their own story problem about Tad or Polli and show their work. 	 If delivering synchronously Start a Zoom or Google Meet session. Open the slides and share your screen. Students do not yet need to open their copy. Show the number line and orient students to the context. Have them watch how Tad and Polli use the number line, and facilitate a discussion based on their observations. Have students practice counting the hops made by Tad and Polli. Demonstrate how to add and subtract on the number line. Have students open their copy of the slides. Have them solve the story problems about Tad and Polli, show their work on the number line, and produce matching equations. Invite students to create their own story problems about Tad or Polli and show their work in the slides.
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- 3. Prior to Part 3, review student work to gauge understanding of adding and subtracting with the number line.
- 4. Student-created story problems from the final slide can be used to customize the sample student work in Part 3.

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Part 3: Frog Jump Game

Students use the 0–10 number line to solve addition and subtraction story problems and play the Frog Jump game.

You will need your copy of:

Google Slides: Frog Jump Game (asynchronous or synchronous learning)

- English: <u>preview</u> | <u>copy</u>
- Spanish: preview | copy
- 1. Preview the Google Slides. If desired, replace the sample story problems with your own students' work from Part 2. See teacher notes in the slides and remove the notes before distributing.
- 2. Distribute the slides to students via Google Classroom, email, or another preferred method and *make a copy for each student*.

 equations. Students play the Frog Jump game in the Digital Display Materials, either alone or with someone at home. Have students turn in their completed work in the slides. 	Show the student samples and facilitate a discussion about how they used hops on the number line to solve the problem. Have students open their copy of the slides and solve addition and subtraction story problems about Tad and Polli. They show their work on the number line and produce matching equations. Introduce the Frog Jump game in the Digital Display Materials and have students play in pairs or with someone at home.
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