Bridges in Mathematics Tech-Enhanced Activity for Seesaw

Measuring with Centimeters

This activity is based on The Math Learning Center's Tech-Enhanced Activities (TEAs), adapted from the Bridges in Mathematics Second Edition PK–5 math curriculum. This activity is designed to support Bridges Grade 2, Unit 7, Module 1, Session 2, Session 4, and Session 5 (login required). For standards alignment, refer to the Bridges sessions.

Overview

<table>
<tr><td colspan="3">The work supports students' understanding of centimeters and meters, their relationship to inches, and their application in problem-solving to find the difference between two lengths.</td></tr>
<tr><td></td><td>**Students will:**</td><td>**Assets**</td></tr>
<tr><td>**Part 1**</td><td>Meet the army ants (each 1 cm long), estimate the length of a centimeter, and explore the relationship between inches and centimeters.</td><td>Army Ants</td></tr>
<tr><td>**Part 2**</td><td>Compare an army ant ruler and inchworm ruler, explore the relationship between centimeters and meters, and solve several measurement story problems.</td><td>One Hundred Army Ants</td></tr>
<tr><td>**Part 3**</td><td>Solve ant path problems by finding the difference between the lengths of two paths, and then create and solve their own ant path problem.</td><td>Ant Path Problems</td></tr>
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Content notes:
1. Part 1 is aligned with the How Long Is the Army Ant Problems & Investigations of Session 2, steps 1–6. Students explore the relationship between inches and centimeters, inspired by the questions posed in step 5.
2. Part 2 is aligned with the One Hundred Army Ants & More Problems & Investigations of Session 4, steps 1–4. Then students solve several ant path problems similar to those on the Ants & Hotdogs Home Connections page.
3. Part 3 is aligned with the Ant Paths Problems & Investigations of Session 5 and focuses on step 6 and step 9. An additional activity is provided for students to create and solve their own ant path problem.

Part 1: Army Ants [Seesaw]
Students meet the army ants (each 1 cm long), estimate the length of a centimeter, and explore the relationship between inches and centimeters.

1. Choose your delivery method:

If delivering asynchronously	If delivering synchronously

● Students self-pace through the activity.
● They compare different objects to the length of a centimeter, explore the relationship between inches and centimeters, and reflect on the relationship between the two units.
	● Start a Zoom or Google Meet session.
	● Open the activity and share your screen. Students do not yet need to open their copy.
	● Introduce the new character, the army ant.
	   ○ Consider reading or singing Army Ants with your class.
	● Discuss the size of each object in comparison to the size of an army ant using the "Smaller, larger, or the same size?" page.
	   ○ If possible, invite students to find household items larger, smaller, and equal to a centimeter in length and show them on their webcams.
	● On the "Comparing army ants and inchworms" page, work with students to compare the length of an inchworm (inch) and an army ant (centimeter).
	● Preview the last four pages by explaining the directions for "Measure the stump" and "Measure the leaf," as well as the measurement reflection. Then have students open their copy and complete the tasks independently.

Part 2: One Hundred Army Ants [Seesaw]
Students compare an army ant ruler and inchworm ruler, explore the relationship between centimeters and meters, and solve several measurement story problems.

1. Choose your delivery method:

If delivering asynchronously	If delivering synchronously
- Students self-pace through the activity. - Students share observations about the inchworm and army ant rulers and explore the relationship between centimeters and meters. - They solve the two "Ant paths" story problems independently.	- Preview the activity. Start a Zoom or Google Meet session. - Open the activity and share your screen. - On the "Introducing the army ant ruler" and "You may have noticed" pages engage students in a discussion of the two measurement tools. Focus on comparing inches and centimeters. If helpful, invite students to find and show a measurement tool with centimeters in their home. - On the pages featuring a meter stick, work with students to count by 10s and confirm the number of centimeters in a meter. - On the "Ants paths" page, work with students to solve the measurement problem. Alternatively, invite students to solve using paper and pencil and then share their work using their webcam. - Preview the problem on the "More ant paths" page and then invite students to open their copy of the pages and solve the problem independently.

2. Prior to Part 3, review students' solution to the last problem to assess their progress in finding the difference in two lengths using addition or subtraction.

Part 3: Ant Path Problems [Seesaw]

Students solve ant path problems by finding the difference between the lengths of two paths, and then create and solve their own ant path problem.

1. Choose your delivery method:

If delivering asynchronously	If delivering synchronously
● Students self-pace through the activity. ● They solve a problem in which they find the difference between the lengths of two ant paths, and consider strategies for solving this problem. ● Students then create and solve their own ant path problem.	● Start a Zoom or Google Meet session. ● Open the activity and share your screen. Students do not yet need to open their copy. ● Focus students' attention on noticing the lengths of the paths on the "Two ant paths" page. ● Display the "Comparing ant paths" and "Strategies and solutions" pages, work with students to solve the problem, and discuss strategies for solving. ● Preview the last three pages, in which students solve another problem and then create and solve their own ant path problem. ● Direct students to open their copy of the activity and complete the tasks independently.

2. Review students' work on the problem solving pages to assess their progress toward finding the difference between two lengths, using addition or subtraction.