

The Standard Algorithm for Addition

Supports Bridges Grade 4, Unit 4, Module 1, [Session 5](#) & [Session 6](#)

Overview

This Tech-Enhanced Activity is based on learning in Sessions 5 and 6. The work supports students' fluency using the standard algorithm for addition and their ability to choose the most efficient strategy for adding.

Preview this content with a short [video](#).

	Students will:	Assets
Part 1	Compare multiple strategies for solving the same addition problem and consider how they can apply one of those strategies to another problem.	Multi-Digit Addition Strategies [Slides]
Part 2	Use base ten pieces to review the standard algorithm for addition, notice regrouping, and understand how the algorithm relates to adding expanded forms of numbers.	Multi-Digit Standard Algorithm [Slides]
Part 3	Review and reflect on sample student work, analyze several strategies for solving the same addition problem, choose the most efficient strategy for solving several problems, and solve using a strategy of their choice.	Choosing a Strategy for Addition [Slides]

Some tech skills your students will need:

- Share work from an MLC app
- Upload an image to a Google Slide
- Type in text boxes

Content notes:

1. Part 1 of this TEA aligns with steps 1–6 of The Standard Algorithm for Multi-Digit Addition Problems & Investigations of Session 5. The story problem posed at the end of this part is problem 2 from the Addition Algorithm Practice Teacher Master.
2. Part 2 aligns with steps 8–14 and 17–19 of Session 5 Problems & Investigations. Problem 3 from the Addition Algorithm Practice Teacher Master has been replaced with $189 + 237$ so that all base ten pieces fit on the screen while allowing for regrouping of tens and ones
3. Part 3 begins with a comparison of strategies for solving two problems from the Addition Algorithm Practice Teacher Master. The remainder of Part 3 aligns only with steps 6–9 of the Think Before You Add Problems & Investigations in Session 6. The rest of this P&I and the Addition Strategies Work Sample Assessment are not included in this TEA.

Part 1: Multi-Digit Addition Strategies

Students compare multiple strategies for solving the same addition problem and consider how they can apply one of those strategies to another problem.

You will need your copy of:

Google Slides: Multi-Digit Addition Strategies (asynchronous or synchronous learning)

- English: [preview](#) | [copy](#)
- Spanish: [preview](#) | [copy](#)

1. Distribute the Google 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	If delivering synchronously
<ul style="list-style-type: none">• Students self-pace through the slides to observe different strategies that peers used to solve the same problem.• Students solve two multi-digit addition problems, one before considering the various strategies, and one after taking time to think about those strategies.• Have students turn in their completed work. Examine their work and consider the efficiency of the strategies selected for the problem on the final slide.	<ul style="list-style-type: none">• Start a Zoom or Google Meet session.• Open the slides and share your screen. Students do not yet need to open their copy.• Read the problem on the “First two nights” slide to students.• Invite them to explain the situation in their own words.• Have students open their copies of the slides.• Invite students to work independently on the “Solve it: First two nights” slide and have a brief discussion addressing any questions.• Reconvene and review the “Think and notice” slides together. Ask for additional student input on strategies used.• Review the directions for completing the remaining slides. Invite students to work independently or, if possible, in pairs or small groups.

Part 2: Multi-Digit Standard Algorithm

Students use base ten pieces to review the standard algorithm for addition, notice regrouping, and understand how the algorithm relates to adding expanded forms of numbers.

You will need your copy of:

Google Slides: Multi-Digit Standard Algorithm (asynchronous or synchronous learning)

- English: [preview](#) | [copy](#)
 - Spanish: [preview](#) | [copy](#)
1. Preview the Google Slides.
 2. Distribute the slides to students via Google Classroom, email, or another preferred method and **make a copy for each student**.
 3. Choose your delivery method:

<p>If delivering asynchronously</p> <ul style="list-style-type: none">• Students self-pace through the slides to review the standard algorithm for addition using expanded form and base ten pieces.• Students study regrouping in the slides and solve problems using the standard algorithm and strategies of their choice.• Have students turn in their completed slides when finished.	<p>If delivering synchronously</p> <ul style="list-style-type: none">• Start a Zoom or Google Meet session.• Open the slides and share your screen. Students do not yet need to open their copy.• Revisit the problem on the “Using base ten area pieces” slide.• Progress through the slides, focusing the discussion on:<ul style="list-style-type: none">○ expanded form○ the standard algorithm○ regrouping• Have students open their copies of the slides.• Review the instructions on the “It’s your turn!” slide and invite students to complete it independently.<ul style="list-style-type: none">○ If possible, allow students to work in pairs or small groups in breakout rooms to compare their work.• Facilitate a discussion of the work sample on the “Is this problem solved correctly?” slide. Annotate the slide with summarized student input.• Review the directions on the last slides and invite students to solve independently, with partners, or in small groups.
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4. Prior to Part 3, review student work from the last two slides, on which students recorded their work adding two numbers using the standard algorithm and one other strategy. Student work from these slides can be used to customize the opening slides for Part 3. Consider choosing 2–3 samples that feature different problems and strategies.

Part 3: Choosing a Strategy for Addition

Students review and reflect on sample student work, analyze several strategies for solving the same addition problem, choose the most efficient strategy for solving several problems, and solve using a strategy of their choice.

You will need your copy of:

Google Slides: Choosing a Strategy for Addition (asynchronous or synchronous learning)

- English: [preview](#) | [copy](#)
- Spanish: [preview](#) | [copy](#)

1. Preview the Google Slides. If desired, replace the “Student Work” slides with your students’ work. See the teacher note in the slides, and then remove the note before distributing.
2. Distribute the slides to students via Google Classroom, email, or another preferred method and **make a copy for each student**.
3. Choose your delivery method:

If delivering asynchronously	If delivering synchronously
<ul style="list-style-type: none">• Students self-pace through the slides to examine other students’ thinking and compare addition strategies to their own.• Students study a series of addition problems and choose the most efficient strategy for each.• Students self-select addition strategies to solve the remaining problems.	<ul style="list-style-type: none">• Start a Zoom or Google Meet session.• Open the slideshow and share your screen. Students do not yet need to open their copy.• Facilitate a discussion of the sample student work. Focus on strategies used and connections other students make to their own work. Annotate the slides with summarized student input.• Review the “Think before you add” and “Compare strategies” slides as a class. Facilitate a discussion, comparing and contrasting the strategies used.• As a class, complete the “Choose a strategy” slide. Annotate the slide with summarized student input.• Have students open their copies of the slides.• Invite students to work alone or with a partner to solve the remaining problems.