

Social, Emotional, and Academic Development (SEAD) Lesson Plan for Mathematics

GRADE LEVEL/COURSE AND MATH STANDARD(S)

2.OA.B.2 Fluently add and subtract within 20 using mental strategies.2 By end of Grade 2, know from memory all sums of two one-digit numbers.

2.NBT.B.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

Priority Standards Consideration: [2020-21 Priority Instructional Content in ELA/Literacy and Mathematics](#)

- Emphasize problems that involve sums less than or equal to 20 and/or the related differences to keep the focus on making sense of different problem types; assign fewer problems with sums greater than 20 or related differences.
- Incorporate additional practice on the grade 1 fluency of adding and subtracting within 10 (1.OA.C.6) early in the school year to support the addition and subtraction work of grade 2 (2.OA).

LESSON OBJECTIVE/GOAL

- I can fluently add and subtract within 20.
- I can add and subtract like units within 100.
- I can do my best to work with my partner.

LANGUAGE OBJECTIVE(S)/GOAL(S)

ELA SL.2.1 Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.

INTRODUCTION

This lesson is adapted from [EngageNY Grade 2, Module 1, Lesson 3](#) and utilizes the lesson planning template from [Stride 3: A Pathway to Equitable Math Instruction: Creating Conditions to Thrive \(pages 13–14\)](#). The lesson will be delivered in two sessions.

The lesson is intended to:

- Develop a sense of math problems and persevere in solving them (SMP1). My students are at the beginning stages of constructing their identities as mathematicians as well as recognizing their strengths. Anecdotal evidence (from my conversations and observations of my students) suggests that they are used to being led through whole group lessons and guided practice with the teacher’s voice modeling and directing their thinking. It is challenging for them to solve a math task that appears different in format and structure and yet requires the same skills to solve as a problem previously modeled. They often wait for me to tell them what to do instead of having a go at solving problems. The intent of the activities in this lesson is twofold. First, I will guide my students to find entry points to solve single-digit addition problems within 20 and addition problems within 10. Second, I will build trust and rapport by asking questions that elicit students’ thinking which communicates that all students’ mathematical thinking is important and valued.

SEAD THEME

<input checked="" type="checkbox"/>	Identity
<input checked="" type="checkbox"/>	Discourse
<input type="checkbox"/>	Agency
<input type="checkbox"/>	Belonging

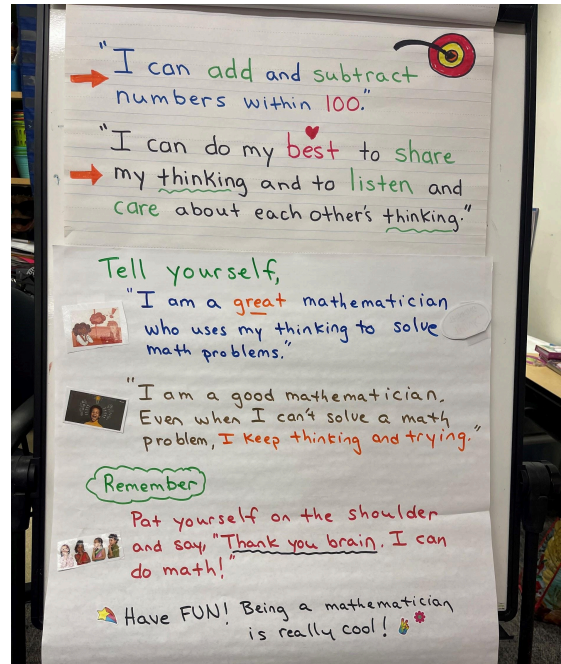
SMP(S) TO SUPPORT THE SEAD THEME

<input checked="" type="checkbox"/>	SMP 1: Make sense of problems and persevere in solving them.
<input type="checkbox"/>	SMP 2: Reason abstractly and quantitatively.
<input type="checkbox"/>	SMP 3: Construct viable arguments and critique the reasoning of others.
<input type="checkbox"/>	SMP 4: Model with mathematics.
<input type="checkbox"/>	SMP 5: Use appropriate tools strategically
<input type="checkbox"/>	SMP 6: Attend to precision.
<input type="checkbox"/>	SMP 7: Look for and make use of structure.
<input type="checkbox"/>	SMP 8: Look for and express regularity in repeated reasoning.

STEPS

Part 1: [EngageNY 2 Mod1 Lesson 3](#) Lesson will be delivered in two sessions.

- Students will sit in front of the chart. Teacher will state the learning target and review the Mathematician chart made during a previous lesson. Then the teacher will introduce new mindfulness steps that mathematicians use when solving problems.
- The *Fluency Practice* will begin with the first set of problems written on a chart. I will follow the script in the *Concept Development* section to engage and promote student thinking. Students will be given 10 minutes to work on *Sprint A*. The teacher will set a visual timer for students to monitor their time.
- Students will join me for explicit instruction. I will circle back to the *Concept Development* section of the lesson and begin the instruction by posing the identical question of, "What did you notice about today's Sprint?" I will continue the script. Students will use their personal whiteboards for *Part 2*. Please see the *NOTES ON MULTIPLE MEANS OF ENGAGEMENT* in the Engage NY lesson. I will begin by having all students use base ten blocks to represent the problem. Anecdotal evidence (from my conversations and observations of my students) suggests that they need additional support on developing a conceptual understanding of this concept.



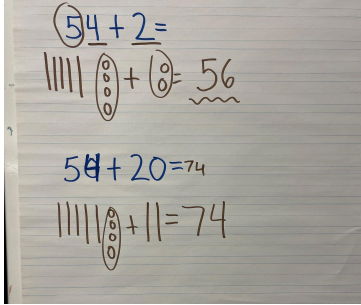
SUMMARY/REFLECTION OF LESSON

The strengths of this part of the lesson were in the scaffolds that I utilized to deliver grade level content and the mindfulness techniques to help build my students' identities as mathematicians. I intentionally built in additional steps to provide modeling and to include student voices. In retrospect, my students would have benefitted from additional practice solving problems using the base ten blocks. This

would be followed by a transition from using base ten blocks to drawing base ten blocks to solve problems. These additional steps and opportunities for practice would have provided an entry point for more students to successfully solve the application problems.

STEPS

Part 2: [EngageNY 2 Mod1 Lesson 3](#) continued.

- Students will review the concept that was developed in Part 1. I will model using mindfulness to solve problems that will be on the *Problem Set*. The modeling will be a “Think Aloud.” Intentionality will be used when having students contribute their own ideas about my thinking and when helping me solve problems.
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- Show what you know! I will set expectations for the *Problem Set*. Students should do their personal best to complete the Problem Set within the allotted 10 minutes of time. Again, students will be encouraged to use a mathematician's focus by paying attention to their thoughts about the math task and using this information to best solve a problem. I will model doing a quick draw of tens so that problems will continue to be scaffolded. Students who are not yet independent will be grouped with a teacher for additional support and encouragement.
 - The *Student Debrief* is intended to invite reflection and active processing of the total lesson experience. They should check their work by comparing answers with a partner before going over answers as a class. This is a new process for my students. If time permits, I will have two partners help me model the student actions for the class.
 - At the end of the lesson, students will return to their community circle to review their learning target and do a quick check-in on their learning. Students will congratulate themselves and each other on showing mathematician behavior which includes using skills to solve novel math problems along with listening to and caring about each other's thinking.

SUMMARY/REFLECTION OF LESSON

The success of this lesson is evidenced in the ability of my students to find an entry point to solve the *Problem Set* even when it took multiple attempts. The plan was to give each student who was working independently 10 minutes while I worked with the full support group. My student intern was monitoring the independent group. She signaled that the students needed more time. She noted that as she supported the students when they had misconceptions they were motivated to continue solving the problems. Students who were struggling were paired with a partner for additional support. This provided more opportunities for students to practice their problem solving.

Areas of growth center around pacing and time management. I would adjust the lesson by giving the independent group the first set of problems and adhere to the 10 minutes allotted time. The *Student Debrief* protocol would have invited reflection and active processing to address any student misconceptions and to celebrate student thinking. The second set of problems could be used as the *Exit Ticket*.