



Math Momentum



Learning Objectives

- Determine the meaning of absolute value.

Materials

- Print the following worksheets and data sheets:
 - *The Secret Garden* Math Warm-Up Worksheet 1 Lv 2 (per Level 2 student)
 - *The Secret Garden* Math Warm-Up Worksheet 1 Lv 3 (per Level 3 student)
 - *The Secret Garden* Finding Absolute Value Worksheet Lv 2 (per Level 2 student)
 - *The Secret Garden* Finding Absolute Value Worksheet Lv 3 (per Level 3 student)
 - *Classroom Resources* Number Line (Large) Worksheet
 - *Classroom Resources* Number Cards Worksheet
 - *Classroom Resources* Negative Number Cards Worksheet
 - *Classroom Resources* Positive/Negative Number Line (-30 to 30) Worksheet
 - *Classroom Resources* Positive/Negative Number Line (-20 to 20) Worksheet
 - *Classroom Resources* Positive/Negative Number Line (-10 to 10) Worksheet
 - System of Least Prompts Individual (per student) or Group Data Sheet
 - Constant Time Delay Individual (per student) or Group Data Sheet
- Gather the following materials from the enCORE Manipulatives Kit and/or your classroom:
 - Magnetic Whiteboard
 - Classroom whiteboard
 - Tape
 - Dry erase marker
 - Pencil (per Level 2 and 3 student)

Prior to Instruction

To prepare for teaching this lesson segment, follow these steps:

1. Gather, print, and prepare all of the materials listed above.
2. If you plan to program students' AAC devices, program the following words:

LEVEL 1	LEVEL 2	LEVEL 3
<ul style="list-style-type: none"> • numbers (-10 to 10) • positive • negative • number line 	<ul style="list-style-type: none"> • numbers (-20 to 20) • positive • negative • number line • absolute value • before/after 	<ul style="list-style-type: none"> • numbers (-30 to 30) • positive • negative • number line • absolute value • before/after

Anchor Instruction for All Students

Prior to beginning instruction, anchor instruction by referencing the Adapted Book *The Secret Garden*. **In *The Secret Garden*, we read about Weatherstaff showing Mary flowers and plants after it rained. If there were zero flowers before the rain and four flowers grew after the rain, how many flowers did Mary see?**

Math Warm-Ups

The following activities are designed to cognitively and physically engage your students at the beginning of the math lessons, as well as provide frequent practice on important math skills.

Each Math Warm-Up Activity involves fine and/or gross motor movement. Alternative actions are listed at the end of each activity. Please change actions as needed for your students' individual abilities. For Level 2 and 3 students, a Warm-Up Worksheet is also included for independent or group work after the activity.

Materials: *The Secret Garden* Math Warm-Up Worksheet 1 Lv 2 (per Level 2 student), *The Secret Garden* Math Warm-Up Worksheet 1 Lv 3 (per Level 3 student), *Classroom Resources* Number Line (Large) Worksheet, classroom whiteboard, tape, pencil (per Level 2 and 3 student)

Prior to Instruction: Place *Classroom Resources* Number Line (Large) Worksheet on the floor or tape it to a wall or whiteboard. Have students line up at zero. After the activity, give each Level 2 and 3 student a Math Warm-Up Worksheet 1 and a pencil.

	LEVEL 1	LEVEL 2	LEVEL 3
WARM-UP ACTIVITY	<p>Have students start at zero and walk or wheel 1-10 dots up the Number Line. Have them point to the number they end on.</p> <p>Alternative Action: Point to numbers while seated</p>	<p>Have students start at zero and walk or wheel 1-20 dots up the Number Line. Have them point to or state the number they end on.</p> <p>Alternative Action: Point to numbers while seated</p>	<p>Have students start at zero and walk or wheel 1-30 dots up the Number Line. Have them point to or state the number they end on.</p> <p>Alternative Action: Point to numbers while seated</p>

Core Vocabulary and Concepts

Zero- and Four-Second Delay Rounds

Remember, in the Zero-Second Delay Round, provide the correct answer immediately. In the Four-Second Delay Round, wait for four seconds for the student to respond. Refer to the procedures outlined at the beginning of the Unit if needed.

LEVEL 1	LEVEL 2	LEVEL 3
<ul style="list-style-type: none"> positive negative 	<ul style="list-style-type: none"> absolute value 	<ul style="list-style-type: none"> absolute value

Materials: *Classroom Resources* Positive/Negative Number Line (-10 to 10) Worksheet, Constant Time Delay Individual (per student) or Group Data Sheet, Magnetic Whiteboard, dry erase marker

Prior to Instruction: For Level 1, Level 2, and Level 3 students, place the *Classroom Resources* Positive/Negative Number Line (-10 to 10) Worksheet on the table. Use tape to secure number line if needed.

Complete 5-10 trials per student. Zero-Second Delay is recommended for students needing moderate to substantial prompting and support. Four-Second Delay is recommended for students needing some prompting and support.

TEACHER SAYS	STUDENT RESPONSE	FEEDBACK
<p>Use the following instructions to target the concepts listed above:</p> <p>For Level 1 students, write 3 on the Magnetic Whiteboard. Point to 3. Say, This is a positive number. Positive numbers come after zero on the number line. Point to three on the number line. Write -2 on the Magnetic Whiteboard. This is a negative number. It has a minus sign in front of it. Point to the negative sign. Negative numbers come before zero on the number line. Who can find negative two on the number line?</p> <p>For Level 2 and 3 students, point to $-6 = _$ on the Magnetic Whiteboard. Say, The absolute value of a number means how far the number is from zero. Absolute value is written with a bar, the number, then another bar. To find out how far a number is from zero, we can use a number line to count the jumps. Point to -6 on the number line. Here is the number negative six. Count how many jumps away negative six is from zero. Move your finger to the left, counting aloud for each jump. 1, 2...6. How many jumps is negative six away from zero?</p> <p>Repeat Level 2 and 3 instruction with other numbers (negative and positive -10 to 10).</p>	<p><i>Zero-Second Delay Round:</i> Teacher immediately models the correct response. Then student provides the correct response.</p> <p><i>Four-Second Delay Round:</i> Student provides the correct response within four seconds.</p> <hr/> <p>Student does not respond.</p> <hr/> <p>Student responds incorrectly.</p>	<p>For Level 1 students, say, Great job! You found negative two on the number line.</p> <p>For Level 2 and 3 students, say, Great work! Negative six is six jumps away from zero. The absolute value of negative six is six. Write 6 in the equation.</p> <p>Use Constant Time Delay (Individual or Group) Data Sheet to collect data on student responses.</p> <hr/> <p>Model the correct response. Your turn. Wait for students to respond. Provide additional prompts or physical guidance as needed.</p>

Concept Building

Materials: *The Secret Garden* Finding Absolute Value Worksheet Lv 2 (per Level 2 student), *The Secret Garden* Finding Absolute Value Worksheet Lv 3 (per Level 3 student), *Classroom Resources* Positive/Negative Number Line (-10 to 10) Worksheet, *Classroom Resources* Positive/Negative Number Line (-20 to 20) Worksheet, *Classroom Resources* Positive/Negative Number Line (-30 to 30) Worksheet, *Classroom Resources* Number Cards Worksheet, *Classroom Resources* Negative Number Cards Worksheet, System of Least Prompts (Individual or Group) Data Sheet, Magnetic Whiteboard, dry erase marker, pencil (per Level 2 and Level 3 student)

Prior to Instruction: For Level 1 students, place Positive/Negative Number Line (-10 to 10) Worksheet on the table and prepare Number Cards. For Level 2 and 3 students, write $|-5| = _$ on the Magnetic Whiteboard. For Level 2 students, place Positive/Negative Number Line (-20 to 20) Worksheet on the table. For Level 3 students, place Positive/Negative Number Line (-30 to 30) Worksheet on the table.

	LEVEL 1	LEVEL 2	LEVEL 3
INTRODUCE	<p>Today we are going to work on finding how close a number is to zero. Write 4 on the Magnetic Whiteboard. Point to 4. This is the number four. Four is a positive number. We want to find how far away four is from zero. Point to the number line. We use the number line to help us count the jumps from zero (point to zero on the number line) to four (point to 4 on the number line). We start with our finger on zero. Point to zero. Four is a positive number. We will move up the number line to number four. Let's jump and count! Point to each number as you count aloud. 1, 2...4. Who can show me four? Call on student to point to the Number Card. Present the student with two Number Cards (one correct and one distractor) to discriminate between.</p> <p>Excellent! Four is four jumps away from zero.</p>	<p>Today we are going to learn about absolute value. Absolute value means how far a number is from zero. The absolute value of a number is always written as a positive number. Point to $-5 = _$ on the Magnetic Whiteboard. Let's look at this equation. The bars (point to each bar) mean absolute value. We want to find the absolute value of the number negative five. To find the absolute value, we start at zero. Point to zero on the number line. Now, we count how many jumps we make to the number negative five. Move your finger to the left, counting aloud as you jump to each number. 1, 2...5. Who can show me how many jumps we made? Call on student. For minimally verbal students, provide two Number Cards (one correct and one distractor) for them to choose the number 5.</p> <p>Yes! We made five jumps from zero to negative five. Remember, the absolute value is always a positive number. Point to the equation on the Magnetic Whiteboard. What is the absolute value of negative five? Call on student. For minimally verbal students, provide two Number Cards (one correct and one distractor) for them to choose</p>	<p>Today we are going to learn about absolute value. Absolute value means how far a number is from zero. The absolute value of a number is always written as a positive number. Point to $-5 = _$ on the Magnetic Whiteboard. Let's look at this equation. The bars mean absolute value. We want to find the absolute value of the number negative five. To find the absolute value, we start at zero. Point to zero on the number line. Now, we count how many jumps we make to the number negative five. Move your finger to the left, counting aloud as you jump to each number. 1, 2...5. Who can tell me how many jumps we made? Call on student.</p> <p>Yes! We made five jumps from zero to negative five. Remember, the absolute value is always a positive number. Point to the equation on the Magnetic Whiteboard. What is the absolute value of negative five? Call on student. Yes! The absolute value of negative five is five. Write 5 in the equation.</p>

	LEVEL 1	LEVEL 2	LEVEL 3
		the number 5. Yes! The absolute value of negative five is five. Write 5 in the equation.	
MODEL	<p>Use Positive/Negative Number Line (-10 to 10) Worksheet, Number Cards, Magnetic Whiteboard, and dry erase marker.</p> <p>Place the Positive/Negative Number Line (-10 to 10) Worksheet on the table. Use tape to secure the worksheet to the table if needed.</p> <p>Write -6 on the Magnetic Whiteboard.</p> <p>Let's practice finding how far numbers are away from zero. Point to -6. This number is negative six. Negative numbers move down the number line before zero. I will count as I jump to find out how far negative six is from zero.</p> <p>Point to zero on the number line. I start on zero. Count aloud as you jump to each number on the number line. 1, 2...6. Hold up the 6 Number Card. I jumped six times. Negative six is six jumps away from zero.</p> <p>Repeat with some or all of the following examples: numbers -10 to 10.</p>	<p>Use Positive/Negative Number Line (-20 to 20) Worksheet, Magnetic Whiteboard, and dry erase marker.</p> <p>Place the Positive/Negative Number Line (-20 to 20) Worksheet on the table. Use tape to secure the worksheet to the table if needed.</p> <p>Now that we learned about absolute value, let's practice finding the absolute value of different numbers. Write $13 = _$ on the Magnetic Whiteboard. Point to the equation. I know that these bars (point to the bars) tell me to find the absolute value of the number inside (point to 13). The number inside is 13. I need to find the absolute value of 13. Point to the number line. I start on zero. 13 is a positive number. Positive numbers come after zero and move to the right up the number line. Motion your finger from zero up the number line. I count as I jump to each number up to the number 13. Count aloud as you move your finger to each number. 1, 2...13. The number 13 is 13 jumps away from zero. The absolute value of 13 is 13. Write 13 in the equation.</p> <p>Repeat with some or all of the following examples: numbers -20 to 20.</p>	<p>Use Positive/Negative Number Line (-30 to 30) Worksheet, Magnetic Whiteboard, and dry erase marker.</p> <p>Place the Positive/Negative Number Line (-30 to 30) Worksheet on the table. Use tape to secure the worksheet to the table if needed.</p> <p>Now that we learned about absolute value, let's practice finding the absolute value of different numbers. Write $23 = _$ on the Magnetic Whiteboard. Point to the equation. I know that these bars (point to the bars) tell me to find the absolute value of the number inside (point to 23). The number inside is 23. I need to find the absolute value of 23. Point to the number line. I start on zero. 23 is a positive number. Positive numbers come after zero and move to the right up the number line. Motion your finger from zero up the number line. I count as I jump to each number up to the number 23. Count aloud as you move your finger to each number. 1, 2...23. The number 23 is 23 jumps away from zero. The absolute value of 23 is 23. Write 23 in the equation.</p> <p>Repeat with some or all of the following examples: numbers -30 to 30.</p>

LEVEL 1	LEVEL 2	LEVEL 3
<p>Use Positive/Negative Number Line (-10 to 10) Worksheet, Number Cards, Negative Number Cards, Magnetic Whiteboard, and dry erase marker.</p> <p>Place the Positive/Negative Number Line (-10 to 10) Worksheet on the table. Use tape to secure the worksheet to the table if needed.</p> <p>Write -8 on the Magnetic Whiteboard.</p> <p>Let's work together to find how far away numbers are from zero. Point to -8 on the Magnetic Whiteboard. Who can show me this number? Call on a student. Present the student with two Negative Number Cards (one correct and one distractor) to choose from. Yes! The number is negative eight. Negative numbers come before zero and move down the number line. Motion your finger moving down and away from zero on the number line. Who can show me negative eight on the number line? Call on student to point to -8 on the number line. Correct! We will count how many jumps from zero all the way to negative eight. Point to zero. We start on zero. Let's jump and count! Who can jump and count with me? Call on student to point to each number as you count aloud. 1, 2...8. Great counting! Negative eight</p>	<p>Use Finding Absolute Value Worksheet Lv 2, Positive/Negative Number Line (-20 to 20) Worksheet, Number Cards, Magnetic Whiteboard, dry erase marker, and pencils.</p> <p>Place the Positive/Negative Number Line (-20 to 20) Worksheet on the table. Use tape to secure the worksheet to the table if needed.</p> <p>Pass out Finding Absolute Value Worksheet Lv 2 and a pencil to each student.</p> <p>Let's work together to find the absolute value of numbers. Point to the first problem on your worksheet. Wait for students to respond. Who can tell me our first problem? Call on student. For minimally verbal students, have them point to each math symbol and number while you read it aloud. Correct! Our first problem asks us to find the absolute value of -17. Write $-17 = _$ on the Magnetic Whiteboard. Who can tell me where we start on the number line to find the absolute value? Call on a student. For minimally verbal students, have them point to zero on the number line or present them with two Number Cards (one correct and one distractor) to select zero from. Yes! We start on zero. Put your finger on zero. Model putting your finger on zero on the number line. Is -17 a negative or</p>	<p>Use Finding Absolute Value Worksheet Lv 3, Positive/Negative Number Line (-30 to 30) Worksheet, Magnetic Whiteboard, dry erase marker, and pencils.</p> <p>Place the Positive/Negative Number Line (-30 to 30) Worksheet on the table. Use tape to secure the worksheet to the table if needed.</p> <p>Pass out Finding Absolute Value Worksheet Lv 3 and a pencil to each student.</p> <p>Let's work together to find the absolute value of numbers. Find the first equation on your worksheet. Wait for students to respond. Who can tell me our first problem? Call on student. Correct! Our first problem asks us to find the absolute value of -19. Write $-19 = _$ on the Magnetic Whiteboard. Who can tell me where we start on the number line to find the absolute value? Call on a student. Yes! We start on zero. Put your finger on zero. Model putting your finger on zero on the number line. -19 is a negative number. Do negative numbers come before or after zero on the number line? Call on student. Yes! Negative numbers come before zero on the number line. We move down the number line from zero to find negative numbers.</p>

	LEVEL 1	LEVEL 2	LEVEL 3
	<p>is eight jumps away from zero. Show me eight. Have student point to the Number Card with 8 on it (present two Number Cards, one correct and one distractor).</p> <p>Use System of Least Prompts Data Sheet (Individual or Group) to collect data as needed.</p>	<p>positive number? Call on student. For minimally verbal students, have them point to the negative sign before the number. Correct! -17 is a negative number. Negative numbers come before zero on the number line. We move down the number line from zero to find negative numbers.</p> <p>Now, who can count the jumps as we move our finger down the number line to -17? Call on student. For minimally verbal students, have them point to each jump as you count aloud. 1, 2...17. Yes! We jumped 17 times from zero to -17. Who can tell me the absolute value of -17? Call on student. For minimally verbal students, present them with two Number Cards (one correct and one distractor) to select 17 from. Correct! The absolute value of -17 is 17. Write 17 in the equation on the Magnetic Whiteboard. Write 17 as the answer for the first problem on your worksheet.</p>	<p>Now, who can count the jumps as we move our finger down the number line to -19? Call on student. Model moving your finger down the number line as the student counts aloud. Great counting! We jumped 19 times from zero to -19. Who can write the absolute value of -19 for me? Call on student to write 19 on the Magnetic Whiteboard. Correct! The absolute value of -19 is 19. Write 19 as the answer for the first equation on your worksheet.</p>
INDEPENDENT PRACTICE	<p>Use Positive/Negative Number Line (-10 to 10) Worksheet, Number Cards, Negative Number Cards, Magnetic Whiteboard, and dry erase marker.</p> <p>Place the Positive/Negative Number Line (-10 to 10) Worksheet on the table. Use tape to secure the worksheet to the table if needed.</p> <p style="text-align: center;"><i>(continued)</i></p>	<p>Your turn. Find the absolute values for the numbers on your worksheet. Use your number line for help. Give students support with staying on task and provide prompts as needed. If the completed worksheet will not provide enough data, use System of Least Prompts Data Sheet (Individual or Group) to collect additional data as needed.</p>	<p>Your turn. Find the absolute values for the numbers on your worksheet. Use your number line for help. Give students support with staying on task and provide prompts as needed. If the completed worksheet will not provide enough data, use System of Least Prompts Data Sheet (Individual or Group) to collect additional data as needed.</p>

LEVEL 1	LEVEL 2	LEVEL 3
<p>Write -4 on the Magnetic Whiteboard.</p> <p>Your turn to find how far away numbers are from zero. Point to -4 on the Magnetic Whiteboard. Show me this number. Present the student with two Negative Number Cards (one correct and one distractor) to choose from. Yes! The number is negative four. Negative numbers come before zero and move down the number line. Motion your finger moving down and away from zero on the number line. Point to negative four on the number line. Wait for student to respond. Correct! You will count how many jumps from zero to negative four. Point to zero. Point to zero. Now, jump and count to negative four. Have student point to each number as you count aloud. 1, 2, 3, 4. Great counting! Negative four is four jumps away from zero. Show me four. Wait for student to respond. Show the student two Number Cards, one correct and one distractor. Yes! That is the number four.</p> <p>Repeat across all students with numbers -10 to 10.</p>		

	LEVEL 1	LEVEL 2	LEVEL 3
PROMPTING AND ERROR CORRECTION	<p>Verbal Prompt: Put your finger on zero. Count how many jumps you make to [#].</p> <p>Model Prompt: Watch me count the number of jumps to [#]. Count aloud while moving your finger up/down the number line to [#]. Your turn.</p> <p>Physical Prompt: Start on zero. Count how many jumps to [#] with me. Use hand-over-hand guidance and physically prompt the student to point to zero and then move their finger up/down the number line while you count aloud with or for the student.</p>	<p>Verbal Prompt: Start at zero and count the jumps to [#].</p> <p>Model Prompt: Watch me. I start at zero and count the jumps to [#].</p> <p>Physical Prompt: Start on zero. Count the jumps as you move your finger [up/down] the number line to [#]. Use hand-over-hand guidance to physically prompt the student to start on zero and jump to the number [#] while you count aloud.</p>	<p>Verbal Prompt: Start at zero and count the jumps to [#].</p> <p>Model Prompt: Watch me. I start at zero and count the jumps to [#].</p> <p>Physical Prompt: Start on zero. Count the jumps as you move your finger [up/down] the number line to [#]. Use hand-over-hand guidance to physically prompt the student to start on zero and jump to the number [#] while you count aloud.</p>
REINFORCE	<p>Great work counting jumps on the number line!</p>	<p>Excellent work finding absolute value!</p>	