

Lesson Plan Template

Teacher Candidate: Kevin Cassidy		Date: 05/01/26 Course for which the Lesson is developed: EDEL-6919
Subject: Math Central Focus: Multiply multi-digit numbers using skip counting Grade Level(s): 4th		Classroom Teacher: Kevin Cassidy Time allotted: 50 min.
Standard(s)/Benchmark(s) to be met in the Lesson: (ILS, Common Core, or Professional Learning Standards) - ILS4.NBT.1 Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that $700 \div 70 = 10$ by applying concepts of place value and division. - ILS4.NBT.5 Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	Learning Objective(s): - I will be able to define mathematical terms associated with the skip counting strategy. - I will be able to interpret that, in a multi-digit whole number, a digit in one place represents ten times the value of the place to its right (for example, $70 \times 80 = 5,600$). - I will be able to use the skip counting method to solve multiplication problems that include two two-digit numbers multiplied together.	Assessment Tool(s) and Procedures: - My students will write the vocabulary in their notebooks. These assignments will be graded for accuracy and thoroughness. I will document in my grade book that they are finished. - My students will complete student interaction assignments. They can solve these problems by writing their answers, using a number line and showing me their answers, role-playing the scenario to me, telling me aloud, or singing me a song and explaining their reasoning. The written assignments will be put in my mathematics bin. These assignments will be graded for accuracy and thoroughness. I will assign a letter grade in my grade book for each child. - My students will complete exit tickets. They can answer these questions by writing, recording with their laptop via video or audio, role-playing the scenario to me, telling me aloud, or singing me a song and explaining their reasoning. The written answers will be put in my mathematics bin. These assessments will be graded for thoroughness. I will document in my grade book that they are finished.

Implemented August 2013, revised 2018 and adopted by the College of Education.

Adapted from Layzell, D., (2013). *Lesson Plan Model*. Illinois State University; Leland Stanford Junior University (2012) *ed-Teacher Performance Assessment*; Tomlinson, C. (2004) pg. 1

How to differentiate in mixed ability classrooms; Worldclass Instructional Design and Assessment (2012) *WIDA 2012 Amplified ELD Standards*.

Pacing (minute markers)	Instructional Sequence: (Label the following elements in your Instructional Sequence: questioning, scaffolding, formative assessment, student interaction, academic language, differentiation)
5 min.	<p>A. Engage Students: (Diagnostic/Pre-Assessment may be included here.)</p> <p>I will play the <i>2-Digit by 2-Digit Multiplication</i> YouTube video on the Smartboard, which introduces multiplying two-digit times two-digit whole numbers.</p>
1 min.	<p>B. Communicate the Purpose of the Lesson to Students (Objectives and Assessment):</p> <p>Teacher: Today I will be teaching an amazing lesson on multiplying multi-digit whole numbers using the skip counting strategy. This is part one of four lessons this week on how to multiply large numbers. I promise that after these four lessons you will be very skilled at multiplying multi-digit whole numbers! We will then play a game and end the lesson with an exit ticket.</p>
14 min.	<p>C. Instructional Sequence</p> <p>Scaffolding: I will pre-teach vocabulary by using modeling to demonstrate how to use the words. Scaffolding: I will activate the students' preexisting vocabulary knowledge. The students will document the vocabulary in their notebooks.</p> <p>Questioning (Scaffolding): Q: What does it mean to skip numbers, such as on a number line? Teacher: Great job! It means to skip certain numbers in order to reach the final one in your answer. Q: If I multiply 10 times 11, how many groups of 10 are there? Q: Can you explain your reasoning on why you reached that conclusion? Teacher: That's right! This is because multiples are groups of numbers.</p> <p>Scaffolding: I will model and think aloud about how to apply this strategy to each of my three examples using a blank number line that I fill in on the Smartboard.</p> <p>Example 1: Your animal shelter had 11 groups of 14 people visit today to adopt dogs. Please demonstrate how you can calculate how many people came to pick up canines today using our new strategy. $11 \times 14 = ?$ 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154 $11 \times 14 = 154$</p>

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Adapted from Layzell, D., (2013). *Lesson Plan Model*. Illinois State University; Leland Stanford Junior University (2012) *ed-Teacher Performance Assessment*; Tomlinson, C. (2004) pg. 2

How to differentiate in mixed ability classrooms; Worldclass Instructional Design and Assessment (2012) *WIDA 2012 Amplified ELD Standards*.

<p>Pacing (minute markers)</p>	<p>Instructional Sequence: (Label the following elements in your Instructional Sequence: questioning, scaffolding, formative assessment, student interaction, academic language, differentiation)</p>
<p>15 min.</p>	<p>Example 2: You are receiving \$17 in donations from 21 people each day. Please demonstrate how you can calculate the amount of money in donations that your shelter gets every day using our new strategy. 17 x 21 = ? 15, 30, 45, 60, 75, 90, 105, 120, 135, 150, 165, 180, 195, 210, 225, 240, 255, 270, 285, 300, 315, 317, 319, 321, 323, 325, 327, 329, 331, 333, 335, 337, 339, 341, 343, 345, 347, 349, 351, 353, 355, 357 17 x 21 = 357</p> <p>Example 3: You have received 38 online inquiries for each of your 12 dogs yesterday. Please demonstrate how you can calculate the amount of people asking about canines yesterday using our new strategy. 38 x 12 = ? 30, 60, 90, 120, 150, 180, 210, 240, 270, 300, 330, 360, 365, 370, 375, 380, 385, 390, 395, 400, 405, 410, 415, 420, 423, 426, 429, 432, 435, 438, 441, 444, 447, 450, 453, 456 38 x 12 = 456</p> <p>Teacher: I'm going to partner you all up and we're going to play a game called "My Animal Shelter" to practice what we've learned.</p> <p>Game ("My Animal Shelter"): Teacher (Student Interaction): All of you will be partnered with your peers according to the alternate ranking method for flexible grouping (Hattie et al., 2016).</p> <p>Teacher/Differentiation: You will solve these problems by writing your answers, using a number line and showing me your answers, acting out the scenario to me, telling me aloud, or singing me a song and explaining your reasoning. For those of you writing your solutions, put them in my mathematics bin.</p> <p>Scaffolding: I will be walking around and providing hints with visual cues and a number line.</p> <p>Student Interaction: You must count how many cats you'll have in 19 days. You're bringing in 13 cats each day. Please demonstrate how you can calculate how many animals you'll have on the 19th day using our new strategy. 13 x 19 = ? 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 193, 196, 199, 202, 205, 208, 211, 214, 217, 220, 223, 226, 229, 232, 235, 238, 241, 244, 247 13 x 19 = 247</p>

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How to differentiate in mixed ability classrooms; Worldclass Instructional Design and Assessment (2012) *WIDA 2012 Amplified ELD Standards*.

<p>Pacing (minute markers)</p>	<p>Instructional Sequence: (Label the following elements in your Instructional Sequence: questioning, scaffolding, formative assessment, student interaction, academic language, differentiation)</p>
<p>10 min.</p> <p>5 min.</p>	<p>Alternative Student Interaction Assignment/Differentiation: One hundred and fifty-six turtles were adopted yesterday. Thirty-two more will be picked up each day for eleven days. Please demonstrate how you can calculate how many animals you'll have eleven days from now using our new strategy. $156 + (32 \times 11) = ?$ 156, 186, 216, 246, 276, 306, 336, 366, 396, 426, 456, 486, 488, 490, 492, 494, 496, 498, 500, 502, 504, 506, 508 $156 + (32 \times 11) = 508$</p> <p>Teacher: I will give you 15 minutes to work on these student interaction assignments.</p> <p>Teacher/Differentiation: I am posting an exit ticket on the Smartboard. You can answer these questions by writing, recording with your laptop via video or audio, acting out the scenario to me, telling me aloud, or singing me a song and explaining your reasoning. For those of you writing your answers, put them in my mathematics bin.</p> <p>Formative Assessment/Exit Ticket: Please explain the steps in skip counting. Why do we take the steps that we do? How does this strategy make multiplication easier?</p> <p>Teacher: I will give you 10 minutes to work on this exit ticket.</p> <p>Closure: Teacher: Today we were able to define key mathematical terms associated with the skip counting strategy. I have ensured you understood that, in a multi-digit whole number, a digit in one place represents ten times the value of the place to its right. For example, $90 \times 10 = 900$. I have also instructed you in how to use the skip counting method for multi-digit whole numbers. We played a game and finished the lesson with an exit ticket. You are now one step closer to mastering the concept of multiplying multi-digit whole numbers! Please pack up your belongings and get ready for recess.</p>

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Adapted from Layzell, D., (2013). *Lesson Plan Model*. Illinois State University; Leland Stanford Junior University (2012) *ed-Teacher Performance Assessment*; Tomlinson, C. (2004) pg. 4

How to differentiate in mixed ability classrooms; Worldclass Instructional Design and Assessment (2012) *WIDA 2012 Amplified ELD Standards*.

Lesson Plan - Details

Instructional Materials:

- Smartboard
- *2-Digit by 2-Digit Multiplication* YouTube video (*2-Digit by 2-Digit Multiplication* | *Math with Mr. J* 2020).
- Math Notebooks
- Pencils
- Markers
- Laptops

Selection and Use of Technology and/or Resources:

The *2-Digit by 2-Digit Multiplication* YouTube video allows my students to start exploring the concept of multiplying by two-digit whole numbers. The teacher will implement the Smartboard to showcase examples, the student interaction assignment, and exit ticket. The children's laptops will record video and audio for their exit tickets.

Safety in the Physical Environment:

I will monitor my students to ensure they are getting along with their partners. They will be told not to run or engage in other reckless behavior while role-playing to me. Those who are sick will be instructed to wear a mask and wash their hands.

Academic Language Demands – the Oral and Written Language used for Academic Purposes in Content Disciplines

Vocabulary

Tier 1: Add, equals, and times

Tier 2: Multiply

Tier 3: Multi-digit numbers, whole number, product, and sum

Explain how the Academic Language is scaffolded in the Lesson using Sensory, Graphic and/or Interactive supports.

Tier 3: The words “multi-digit numbers” and “product” will appear in my introductory video. The vocabulary also will be defined on the Smartboard. The teacher will provide explicit instruction in the form of a lecture and modeling to enable students to comprehend them. Further, he will walk around the room and clarify the terms.

Language Function: The class will document the words in their notebooks. They will use the vocabulary while collaborating for the student interaction assignments and working independently on the exit tickets.

Syntax/Discourse: The teacher will lecture about the skip counting method using these words. The students will be partnered into pairs and work on their student interaction assignments using them.

Assessment

*(Identify the **type(s) of assessment** used in this lesson. Explain **how it provides evidence** that students will meet the objective(s). At least one type of assessment is required in a lesson plan.)*

Diagnostic (Pre-): *(Formal or Informal). Informal.* My students will document the vocabulary in their notebooks. This will provide evidence they have the preexisting knowledge, or comprehend the necessary terms, to learn the lesson.

Formative: *(Formal or Informal). Informal.* My students will complete student interaction assignments. These assignments will consist of the concepts from the lesson. Thus, they will prove the children understand my instruction.

Reflective: *(Formal or Informal). Informal.* The exit tickets will be comprised of reflective questions. They will enable my students to contemplate the lesson through deep learning.

Summative: *(Formal or Informal).*

Lesson Plan - Differentiating Instruction

Identify the Element(s) of the Lesson that is Differentiated: Content Process X Product X

Explain how it is Differentiated for the whole class, groups of students with similar needs, individual students OR students with IEPs or 504 plans.

Partners who are proficient with the concept will be given an alternative student interaction assignment. This assignment implements a higher initial number, contains larger numbers, and is more difficult to count.

The whole class is given the options to write their answers, use a number line, role-play the scenario to me, tell me aloud, or sing me a song and explain their reasoning to complete their student interaction assignments.

The whole class is given the option to write their answers, record them via video or audio, act out the scenario to me, tell me aloud, or sing me a song and explain their reasoning to finish their exit tickets.

Identify the Student Characteristic that you will use to Differentiate: Student Readiness X Student Interest Student Learning Profile X

Explain how it is used to Differentiate for the whole class, groups of students with similar needs, individual students OR students with IEPs or 504 plans.

My student with ADHD will be seated in front of the room away from windows and other distractions (*Classroom Accommodations* 2026). He will have additional time to work on the student interaction assignment while his peers are completing the exit tickets. The child does not need to turn in a ticket. His assignments will be provided to him orally and in writing. I will coach him and verify that he understands the instructions. He is also allowed to take breaks whenever he wants and move around the room. On each day of the learning segment, he will be given a graphic organizer as well.

My student with emotional disturbance will be given frequent breaks with the ability to get up and walk around (Bakken et al., 2016). She is allowed to work on the student interaction assignment until the end of class. She does not need to turn in an exit ticket. The child will be paired with a student who I believe is a good role model. I will remind her of the rules before she works with her partner, and reward her with stickers if she exhibits good behavior throughout the learning segment. She will also be provided with a graphic organizer on each day.

Theoretical Principles and/or Research–Based Best Practices in this Lesson

Why are the learning tasks for this lesson appropriate for your students? Cite a specific theorist and a brief explanation of the theory.

Lev Vygotsky advocated for peer collaboration and interaction in his social learning theory (Creek, Teaching Elementary Math for 21st Century Learners Week 8 Lecture 2026). In this learning segment, my students will partner with their peers to work on student interaction assignments. This practice accelerates the children’s abilities to comprehend the lessons’ concepts.

Common Errors, Developmental Approximations, Misconceptions, Partial Understandings, or Misunderstandings for this Lesson

What are common errors or misunderstandings of students related to the central focus of this lesson?

How will you address them for this group of students?

Some of my students did not know that you can divide the number you're skip counting by into two or more parts. For example, in the "My Animal Shelter" game, a couple of partners skip counted the number thirteen nineteen times instead of counting both ten and three nineteen times.

To address this misconception, I had monitored the students performing the skip counting and demonstrated how to divide up the numbers using a number line and manipulatives.

Teacher Candidate: Kevin Cassidy		Date: 05/01/26 Course for which the Lesson is developed: EDEL-6919
Subject: Math Central Focus: Multiply multi-digit numbers using the arrays method Grade Level(s): 4th		Classroom Teacher: Kevin Cassidy Time allotted: 49 min.
Standard(s)/Benchmark(s) to be met in the Lesson: (ILS, Common Core, or Professional Learning Standards) <ul style="list-style-type: none"> - ILS4.NBT.1 Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that $700 \div 70 = 10$ by applying concepts of place value and division. - ILS4.NBT.5 Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models. 	Learning Objective(s): <ul style="list-style-type: none"> - I will be able to define mathematical terms associated with the arrays strategy. - I will be able to interpret that, in a multi-digit whole number, a digit in one place represents ten times the value of the place to its right (for example, $70 \times 80 = 5,600$). - I will be able to use the arrays method to solve multiplication problems that include a whole number of up to four digits times a one-digit whole number, and two two-digit numbers multiplied together. 	Assessment Tool(s) and Procedures: <ul style="list-style-type: none"> - My students will write the vocabulary in their notebooks. These assignments will be graded for accuracy and thoroughness. I will document in my grade book that they are finished. - My students will complete student interaction assignments. They can solve these problems by writing their answers, drawing circles or squares, using blocks and showing me their answers, role-playing the scenario to me, telling me aloud, or singing me a song and explaining their reasoning. The written assignments will be put in my mathematics bin. These assignments will be graded for accuracy and thoroughness. I will assign a letter grade in my grade book for each child. - My students will complete exit tickets. They can answer these questions by writing, drawing arrays, recording with their laptop via video or audio, role-playing the scenario to me, telling me aloud, or singing me a song and explaining their reasoning. The written answers will be put in my mathematics bin. These assessments will be graded for thoroughness. I will document in my grade book that they are finished.

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How to differentiate in mixed ability classrooms; Worldclass Instructional Design and Assessment (2012) *WIDA 2012 Amplified ELD Standards*.

Lesson Plan Template

Pacing (minute markers)	Instructional Sequence: (Label the following elements in your Instructional Sequence: questioning, scaffolding, formative assessment, student interaction, academic language, differentiation)
4 min.	<p>A. Engage Students: (Diagnostic/Pre-Assessment may be included here.)</p> <p>I will present a carton of eggs and a 24-pack of pop to the class to show them how the arrays method works.</p>
1 min.	<p>B. Communicate the Purpose of the Lesson to Students (Objectives and Assessment):</p> <p>Teacher: Today I will be teaching an exciting lesson on multiplying multi-digit whole numbers using the arrays strategy. This is part two of four lessons this week on how to multiply multi-digit whole numbers. By tomorrow, you will be working with multiplying one digit and three digit numbers! At the end of this lesson, we will then play a game and end the lesson with an exit ticket.</p>
14 min.	<p>C. Instructional Sequence</p> <p>Scaffolding: I will pre-teach vocabulary by using modeling to demonstrate how to use the words. Scaffolding: I will activate the students' preexisting vocabulary knowledge. The students will document the vocabulary in their notebooks.</p> <p>Questioning (Scaffolding): Q: Have you used the arrays strategy before with manipulatives? Teacher: That's right! This is the same method as you learned in your prior schoolwork—except we'll be working with larger numbers. Q: If I multiply 6×7, is that the same as the sum of 2×7 and 4×7? Q: Can you explain your reasoning on why you reached that conclusion? Teacher: Great job! This is because multiples are groups of numbers. As long as all of the multiples are included in the same equation, we will arrive at the same solution.</p> <p>Scaffolding: I will model and think aloud about how to apply this strategy on each of my three examples using manipulatives in the form of arrays models on the Smartboard.</p>

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Pacing (minute markers)	Instructional Sequence: (Label the following elements in your Instructional Sequence: questioning, scaffolding, formative assessment, student interaction, academic language, differentiation)
	<p>Example 1: Your volunteer recycling organization has picked up 85 groups of 62 pieces of garbage from parks this year. Please calculate the total amount of trash that all of you have removed using our new strategy.</p> $62 \times 85 = ?$ $10 \times 85 = 850$ $20 \times 85 = 1,700$ $10 \times 85 = 850$ $20 \times 85 = 1,700$ $2 \times 85 = 170$ $850 + 1,700 + 850 + 1,700 + 170 = 5,270$ $62 \times 85 = 5,270$ <p>Example 2: You have had 22 groups of 57 new members join your organization this year. Please calculate the total number of new members using our new strategy.</p> $22 \times 57 = ?$ $10 \times 57 = 570$ $10 \times 57 = 570$ $2 \times 57 = 114$ $570 + 570 + 114 = 1,254$ $22 \times 57 = 1,254$ <p>Example 3: You have collected 73 groups of 24 one-dollar bills as donations for your efforts. Please calculate the total amount of money using our new strategy.</p> $24 \times 73 = ?$ $10 \times 73 = 730$ $10 \times 73 = 730$ $2 \times 73 = 146$ $2 \times 73 = 146$ $730 + 730 + 146 + 146 = 1,752$ $24 \times 73 = 1,752$

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How to differentiate in mixed ability classrooms; Worldclass Instructional Design and Assessment (2012) *WIDA 2012 Amplified ELD Standards*.

<p>Pacing (minute markers)</p>	<p>Instructional Sequence: (Label the following elements in your Instructional Sequence: questioning, scaffolding, formative assessment, student interaction, academic language, differentiation)</p>
<p>15 min</p>	<p>Game (“My Volunteer Recycling Group”):</p> <p>Teacher/Student Interaction: All of you will be partnered with your three o’clock clock partners (Creek, Teaching Elementary Math for 21st Century Learners Week 5 Lecture 2026).</p> <p>Teacher/Differentiation: You will solve these problems by writing your answers, drawing circles or squares, using blocks and showing me your answers, acting out the scenario to me, telling me aloud, or singing me a song and explaining your reasoning. For those of you writing or drawing your solutions, put them in my mathematics bin.</p> <p>Scaffolding: I will be walking around and providing hints with visual cues and manipulatives.</p> <p>Student Interaction: You have determined that you will likely receive 13 groups of \$82 donations from various organizations next year. Please calculate the total amount of money anticipated for the next year using our new strategy. $13 \times 82 = ?$ $10 \times 82 = 820$ $1 \times 82 = 82$ $2 \times 82 = 164$ $820 + 82 + 164 = 1,066$ $13 \times 82 = 1,066$</p> <p>Alternative Student Interaction Assignment/Differentiation: Your organization has picked up 6 groups of 8,200 cans this year. Please calculate the total amount of cans that all of you have retrieved using our new strategy. $6 \times 8,200 = ?$ $3 \times 8,200 = 24,600$ $3 \times 8,200 = 24,600$ $24,600 + 24,600 = 49,200$ $6 \times 8,200 = 49,200$</p> <p>Teacher: I will give you 15 minutes to work on these student interaction assignments.</p> <p>Teacher/Differentiation: I am posting an exit ticket on the Smartboard. You can answer these questions by writing, drawing arrays, recording with your laptop via video or audio, acting out the scenario to me, telling me aloud, or singing me a song and explaining your reasoning. For those of you writing or drawing your answers, put them in my mathematics bin.</p>

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<p>Pacing (minute markers)</p>	<p>Instructional Sequence: (Label the following elements in your Instructional Sequence: questioning, scaffolding, formative assessment, student interaction, academic language, differentiation)</p>
<p>10 min.</p>	<p>Formative Assessment/Exit Ticket (Pacing: 10 min.): Please explain the steps in the arrays strategy. Were you aware that this method worked before today's lesson? How will you apply this knowledge to real world situations?</p>
<p>5 min.</p>	<p>Teacher: I will give you 10 minutes to work on this exit ticket.</p> <p>Closure: Teacher: Today we were able to define key mathematical terms associated with the arrays strategy. I have ensured you understood that, in a multi-digit whole number, a digit in one place represents ten times the value of the place to its right. For example, $90 \times 10 = 900$. I have also instructed you in how to use the arrays method for multi-digit whole numbers. We played a game and finished the lesson with an exit ticket. Tomorrow we will learn a similar strategy for large numbers which can be easier in certain circumstances, as we'll see. Please pack up your belongings and get ready for recess.</p>

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Lesson Plan - Details

Instructional Materials:

- Smartboard
- Carton of eggs
- 24-pack of pop
- Math notebooks
- Pencils
- Markers
- Laptops
- Manipulatives

Selection and Use of Technology and/or Resources:

The teacher will implement the Smartboard to showcase examples, the student interaction assignments, and exit ticket. The children's laptops will record video and audio for their exit tickets.

Safety in the Physical Environment:

I will monitor my students to ensure they are getting along with their partners. They will be told not to run or engage in other reckless behavior while role-playing to me or using the blocks. Those who are sick will be instructed to wear a mask and wash their hands.

Academic Language Demands – the Oral and Written Language used for Academic Purposes in Content Disciplines

<p>Vocabulary</p> <p>Tier 1: Add, equals, and times</p> <p>Tier 2: Multiply</p> <p>Tier 3: Whole number, multi-digit numbers, multiply, product, and sum</p>	<p>Explain how the Academic Language is scaffolded in the Lesson using Sensory, Graphic and/or Interactive supports.</p> <p>Tier 3: The Smartboard will display the words along with their definitions. The teacher will provide explicit instruction in the form of a lecture and modeling to enable students to comprehend them. Further, he will walk around the room and clarify the terms.</p> <p>Language Function: The class will document the words in their notebooks. They will use the vocabulary while collaborating for the student interaction assignments and working independently on the exit tickets.</p> <p>Syntax/Discourse: The teacher will lecture about the arrays method using these words. The students will be partnered into pairs and work on their student interaction assignments using them.</p>
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Assessment

*(Identify the **type(s) of assessment** used in this lesson. Explain **how it provides evidence** that students will meet the objective(s). At least one type of assessment is required in a lesson plan.)*

Diagnostic (Pre-): *(Formal or Informal). Informal.* My students will document the vocabulary in their notebooks. This will provide evidence they have the preexisting knowledge, or comprehend the necessary terms, to learn the lesson.

Formative: *(Formal or Informal). Informal.* My students will complete student interaction assignments. These assignments will consist of the concepts from the lesson. Thus, they will prove the children understand my instruction.

Reflective: *(Formal or Informal). Informal.* The exit tickets will be comprised of reflective questions. They will enable my students to contemplate the lesson through deep and transfer learning.

Summative: *(Formal or Informal).*

Lesson Plan - Differentiating Instruction

Identify the Element(s) of the Lesson that is Differentiated: Content Process X Product X

Explain how it is Differentiated for the whole class, groups of students with similar needs, individual students OR students with IEPs or 504 plans.

Partners who are proficient with the concept will be given an alternative student interaction assignment. This assignment implements a higher initial number, contains larger numbers, and is more difficult to count.

The whole class will be given the options to write their answers, draw circles or squares, use blocks and show me their answers, role-play the scenario to me, tell me aloud, or sing me a song and explain their reasoning to complete their student interaction assignments.

The whole class is given the option to write their answers, draw arrays, record them via video or audio, role-play the scenario to me, tell me aloud, or sing me a song and explain their reasoning to finish their exit tickets.

Identify the Student Characteristic that you will use to Differentiate: Student Readiness X Student Interest Student Learning Profile X

Explain how it is used to Differentiate for the whole class, groups of students with similar needs, individual students OR students with IEPs or 504 plans.

My student with ADHD will be seated in front of the room away from windows and other distractions (*Classroom Accommodations* 2026). He will have additional time to work on the student interaction assignment while his peers are completing the exit tickets. The child does not need to turn in a ticket. His assignments will be provided to him orally and in writing. I will coach him and verify that he understands the instructions. He is also allowed to take breaks whenever he wants and move around the room. On each day of the learning segment, he will be given a graphic organizer as well.

My student with emotional disturbance will be given frequent breaks with the ability to get up and walk around (Bakken et al., 2016). She is allowed to work on the student interaction assignment until the end of class. She does not need to turn in an exit ticket. The child will be paired with a student who I believe is a good role model. I will remind her of the rules before she works with her partner, and reward her with stickers if she exhibits good behavior throughout the learning segment. She will also be provided with a graphic organizer on each day.

Theoretical Principles and/or Research-Based Best Practices in this Lesson

Why are the learning tasks for this lesson appropriate for your students? Cite a specific theorist and a brief explanation of the theory.

Albert Bandura introduced the concept of peer modeling, or promoting students to collaborate with their peers who excel in academics to improve confidence (Creek, *Teaching Elementary Math for 21st Century Learners* Week 8 Lecture 2026). I am implementing this practice by having my student with emotional disturbance partner with her peer who is a positive role model. The child with emotional disturbance will enhance her learning and develop excellent interpersonal skills.

Common Errors, Developmental Approximations, Misconceptions, Partial Understandings, or Misunderstandings for this Lesson

What are common errors or misunderstandings of students related to the central focus of this lesson?

How will you address them for this group of students?

Some students did not know that you can play with numbers to reach the same answers in multiplication. For instance, in the student interaction game, “My Volunteer Recycling Group,” a couple of partners did not understand the concept that you can split thirteen times eighty-two into ten times eighty-two, one times eighty-two, and two times eighty-two.

I had monitored the students during this game and showed them some examples with manipulatives and questioned them as to the different ways to split the number thirteen. With the children that still do not understand, I’m hoping that it makes more sense in my next lesson about the counting 1s, 2s, and 5s method when we review the concept.

Lesson Plan Template

Teacher Candidate: Kevin Cassidy		Date: 05/01/26 Course for which the Lesson is developed: EDEL-6919	
Subject: Math Central Focus: Multiply multi-digit numbers using the counting 1s, 2s, and 5s method Grade Level(s): 4th		Classroom Teacher: Kevin Cassidy Time allotted: 50 min.	
Standard(s)/Benchmark(s) to be met in the Lesson: (ILS, Common Core, or Professional Learning Standards) - ILS4.NBT.1 Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that $700 \div 70 = 10$ by applying concepts of place value and division. - ILS4.NBT.5 Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	Learning Objective(s): - I will be able to define mathematical terms associated with the counting 1s, 2s, and 5s strategy. - I will be able to interpret that, in a multi-digit whole number, a digit in one place represents ten times the value of the place to its right (for example, $70 \times 80 = 5,600$). - I will be able to use the counting 1s, 2s, and 5s method to solve multiplication problems that include a whole number of up to three digits times a one-digit whole number, and a whole number of up to four digits times a one-digit whole number.	Assessment Tool(s) and Procedures: - My students will write the vocabulary in their notebooks. These assignments will be graded for accuracy and thoroughness. I will document in my grade book that they are finished. - My students will complete student interaction assignments. They can solve these problems by writing their answers, drawing circles or squares, using blocks and showing me their answers, role-playing the scenario to me, telling me aloud, or singing me a song and explaining their reasoning. The written assignments will be put in my mathematics bin. These assignments will be graded for accuracy and thoroughness. I will assign a letter grade in my grade book for each child. - My students will complete exit tickets. They can answer these questions by writing, recording with their laptop via video or audio, role-playing the scenario to me, telling me aloud, or singing me a song and explaining their reasoning. The written answers will be put in my mathematics bin. These assessments will be graded for thoroughness. I will document in my grade book that they are finished.	

Implemented August 2013, revised 2018 and adopted by the College of Education.

Adapted from Layzell, D., (2013). *Lesson Plan Model*. Illinois State University; Leland Stanford Junior University (2012) *ed-Teacher Performance Assessment*; Tomlinson, C. (2004) pg. 19

How to differentiate in mixed ability classrooms; Worldclass Instructional Design and Assessment (2012) *WIDA 2012 Amplified ELD Standards*.

<p>Pacing (minute markers)</p>	<p>Instructional Sequence: (Label the following elements in your Instructional Sequence: questioning, scaffolding, formative assessment, student interaction, academic language, differentiation)</p>
<p>5 min.</p>	<p>A. Engage Students: (Diagnostic/Pre-Assessment may be included here.)</p> <p>I will demonstrate how I learned mental math when I acquired knowledge in the counting 1s, 2s, and 5s strategy. I will explain to them that some day they will be able to use this method for that purpose as well.</p>
<p>1 min.</p>	<p>B. Communicate the Purpose of the Lesson to Students (Objectives and Assessment):</p> <p>Teacher: Today I will be demonstrating to you a method of multiplying multi-digit whole numbers called the counting 1s, 2s, and 5s strategy. At the end of these lessons, you will have a variety of ways to multiply large numbers—which many adults do not have! We will then play a game and end the lesson with an exit ticket.</p>
<p>14 min.</p>	<p>C. Instructional Sequence</p> <p>Scaffolding: I will pre-teach vocabulary by using modeling to demonstrate how to use the words. Scaffolding: I will activate the students' preexisting vocabulary knowledge. The students will document the vocabulary in their notebooks.</p> <p>Questioning (Scaffolding): Q: Why do we use 1s, 2s, and 5s to count multiples? Teacher: Great job! It's because these numbers are easy to multiply a number by. Q: If I multiply 7 times 6, and use the sum of 5 x 6 and 2 x 6 to reach my conclusion, will my answer be correct? Q: Can you explain your reasoning on why you reached that conclusion? Teacher: That's right! The multiplication principles with the arrays method still apply here.</p> <p>Scaffolding: I will model and think aloud about how to apply this strategy to each of my three examples using manipulatives on the Smartboard.</p> <p>Example 1: You've time traveled to the year 3026. You're in a spaceship traveling and are viewing 1,200 groups of 8 planets today. Please calculate how will you figure out how many of them you'll see today using our new strategy. $1,200 \times 8 = ?$ $1,200 \times 5 = 6,000$ $1,200 \times 3 = 3,600$ $6,000 + 3,600 = 9,600$ $1,200 \times 8 = 9,600$</p>

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Adapted from Layzell, D., (2013). *Lesson Plan Model*. Illinois State University; Leland Stanford Junior University (2012) *ed-Teacher Performance Assessment*; Tomlinson, C. (2004) pg. 20

How to differentiate in mixed ability classrooms; Worldclass Instructional Design and Assessment (2012) *WIDA 2012 Amplified ELD Standards*.

<p>Pacing (minute markers)</p>	<p>Instructional Sequence: (Label the following elements in your Instructional Sequence: questioning, scaffolding, formative assessment, student interaction, academic language, differentiation)</p>
<p>15 min.</p>	<p>Example 2: You're in a spaceship traveling 320 light years an hour. Please calculate how will you figure out how far you will have traveled in 8 hours using our new strategy. $320 \times 8 = ?$ $320 \times 3 = 960$ $320 \times 5 = 1,600$ $960 + 1,600 = 2,560$ $320 \times 8 = 2,560$</p> <p>Example 3: You're in a spaceship traveling and are going to view two groups of 8,678 planets today. Please calculate how will you figure out how many of them you'll see today using our new strategy. $2 \times 8,678 = ?$ $1 \times 8,678 = 8,678$ $1 \times 8,678 = 8,678$ $8,678 + 8,678 = 17,356$ $2 \times 8,678 = 17,356$</p> <p>Teacher: I'm going to partner you all up and we're going to play a game called "The Galaxy Adventure" to practice what we've learned.</p> <p>Game ("The Galaxy Adventure"): Teacher (Student Interaction): All of you will be partnered with your peers according to the alternate ranking method for flexible grouping (Hattie et al., 2016).</p> <p>Teacher/Differentiation: You will solve these problems by writing your answers, drawing circles or squares, using blocks and showing me your answers, acting out the scenario to me, telling me aloud, or singing me a song and explaining your reasoning. For those of you writing or drawing your solutions, put your answers in my mathematics bin.</p> <p>Scaffolding: I will be walking around and providing hints with visual cues and manipulatives.</p>

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Adapted from Layzell, D., (2013). *Lesson Plan Model*. Illinois State University; Leland Stanford Junior University (2012) *ed-Teacher Performance Assessment*; Tomlinson, C. (2004) pg. 21

How to differentiate in mixed ability classrooms; Worldclass Instructional Design and Assessment (2012) *WIDA 2012 Amplified ELD Standards*.

Pacing (minute markers)	Instructional Sequence: (Label the following elements in your Instructional Sequence: questioning, scaffolding, formative assessment, student interaction, academic language, differentiation)
	<p>Student Interaction: You've landed on a planet with your spaceship and are going to navigate the planet with a futuristic car and travel 4,500 miles each day for three days. Please calculate how you will figure out how many miles you'll travel after three days using our new strategy.</p> $4,500 \times 3 = ?$ $4,500 \times 2 = 9,000$ $4,500 \times 1 = 4,500$ $9,000 + 4,500 = 13,500$ $4,500 \times 3 = 13,500$ <p>Alternative Student Interaction Assignment/Differentiation: You've landed on a planet and encountered eight groups of 7,600 extraterrestrials. Please calculate the number of aliens you saw using our new strategy.</p> $8 \times 7,600 = ?$ $5 \times 7,600 = 38,000$ $3 \times 7,600 = 22,800$ $38,000 + 22,800 = 60,800$ $8 \times 7,600 = 60,800$ <p>Teacher: I will give you 15 minutes to work on these student interaction assignments.</p> <p>Teacher/Differentiation: I am posting an exit ticket on the Smartboard. You can answer these questions by writing, recording with your laptop via video or audio, acting out the scenario to me, telling me aloud, or singing me a song and explaining your reasoning. For those of you writing your answers, put them in my mathematics bin.</p>
10 min.	<p>Formative Assessment/Exit Ticket: Please explain the steps in counting 1s, 2s, and 5s. Do you think you could one day use this strategy for mental math? Please explain why or why not.</p> <p>Teacher: I will give you 10 minutes to work on this exit ticket.</p>
5 min.	<p>Closure: Teacher: Today we were able to define key mathematical terms associated with the counting 1s, 2s, and 5 strategy. I have ensured you understood that, in a multi-digit whole number, a digit in one place represents ten times the value of the place to its right. For example, $90 \times 10 = 900$. Further, I have also instructed you how to use the counting 1s, 2s, and 5s method for multi-digit numbers. We played a game and finished the lesson with an exit ticket. Tomorrow we will learn a similar strategy for multiplication which can be easier in certain circumstances, as we'll see. Please pack up your belongings and get ready for recess.</p>

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Adapted from Layzell, D., (2013). *Lesson Plan Model*. Illinois State University; Leland Stanford Junior University (2012) *ed-Teacher Performance Assessment*; Tomlinson, C. (2004) pg. 22

How to differentiate in mixed ability classrooms; Worldclass Instructional Design and Assessment (2012) *WIDA 2012 Amplified ELD Standards*.

Lesson Plan - Details

Instructional Materials:

- Smartboard
- Math notebooks
- Pencils
- Laptops
- Manipulatives

Selection and Use of Technology and/or Resources:

The teacher will implement the Smartboard to showcase examples, the student interaction assignments, and exit ticket. The children's laptops will record video and audio for their exit tickets.

Safety in the Physical Environment:

I will monitor my students to ensure they are getting along with their partners. They will be told not to run or engage in other reckless behavior while role-playing to me. Those who are sick will be instructed to wear a mask and wash their hands.

Academic Language Demands – the Oral and Written Language used for Academic Purposes in Content Disciplines

Vocabulary

Tier 1: Add, equals, and times

Tier 2: Multiply

Tier 3: Whole numbers, multi-digit numbers, multiply, product, and sum

Explain how the Academic Language is scaffolded in the Lesson using Sensory, Graphic and/or Interactive supports.

Tier 3: The Smartboard will display the words along with their definitions. The teacher will provide explicit instruction in the form of a lecture and modeling to enable students to comprehend them. Further, he will walk around the room and clarify the terms.

Language Function: The class will document the words in their notebooks. They will use the vocabulary while collaborating for the student interaction assignments and working independently on the exit tickets.

Syntax/Discourse: The teacher will lecture about the counting 1s, 2s, and 5s method using these words. The students will be partnered into pairs and work on their student interaction assignments using them.

Assessment

*(Identify the **type(s) of assessment** used in this lesson. Explain **how it provides evidence** that students will meet the objective(s). At least one type of assessment is required in a lesson plan.)*

Diagnostic (Pre-): *(Formal or Informal). Informal.* My students will document the vocabulary in their notebooks. This will provide evidence they have the preexisting knowledge, or comprehend the necessary terms, to learn the lesson.

Formative: *(Formal or Informal). Informal.* My students will complete student interaction assignments. These assignments will consist of the concepts from the lesson. Thus, they will prove the children understand my instruction.

Reflective: *(Formal or Informal). Informal.* The exit tickets will be comprised of reflective questions. They will enable my students to contemplate the lesson through deep learning.

Summative: *(Formal or Informal).*

Lesson Plan - Differentiating Instruction

Identify the Element(s) of the Lesson that is Differentiated: Content Process X Product X

Explain how it is Differentiated for the whole class, groups of students with similar needs, individual students OR students with IEPs or 504 plans.

Partners who are proficient with the concept will be given an alternative student interaction assignment. This assignment implements a higher initial number, contains larger numbers, and is more difficult to count.

The whole class will be given the options to write their answers, draw circles or squares, use blocks and show me their answers, role-play the scenario to me, tell me aloud, or sing me a song and explain their reasoning to complete their student interaction assignments.

The whole class will be given the options to write their answers, record them with their laptops via video or audio, role-play the scenario to me, tell me aloud, or sing me a song and explain their reasoning to finish their exit tickets.

Identify the Student Characteristic that you will use to Differentiate: Student Readiness X Student Interest Student Learning Profile X

Explain how it is used to Differentiate for the whole class, groups of students with similar needs, individual students OR students with IEPs or 504 plans.

My student with ADHD will be seated in front of the room away from windows and other distractions (*Classroom Accommodations* 2026). He will have additional time to work on the student interaction assignment while his peers are completing the exit tickets. The child does not need to turn in a ticket. His assignments will be provided to him orally and in writing. I will coach him and verify that he understands the instructions. He is also allowed to take breaks whenever he wants and move around the room. On each day of the learning segment, he will be given a graphic organizer as well.

My student with emotional disturbance will be given frequent breaks with the ability to get up and walk around (Bakken et al., 2016). She is allowed to work on the student interaction assignment until the end of class. She does not need to turn in an exit ticket. The child will be paired with a student who I believe is a good role model. I will remind her of the rules before she works with her partner, and reward her with stickers if she exhibits good behavior throughout the learning segment. She will also be provided with a graphic organizer on each day.

Theoretical Principles and/or Research–Based Best Practices in this Lesson

Why are the learning tasks for this lesson appropriate for your students? Cite a specific theorist and a brief explanation of the theory.

Dr. Katherine McKnight has promoted the theory of students using graphic organizers to organize lesson concepts (Creek, Teaching Elementary Math for 21st Century Learners Week 8 Lecture 2026). In this learning segment, I will incorporate the use of graphic organizers for the children with ADHD and emotional disturbance. This will allow them to streamline their thoughts in a way that is orderly.

Common Errors, Developmental Approximations, Misconceptions, Partial Understandings, or Misunderstandings for this Lesson

What are common errors or misunderstandings of students related to the central focus of this lesson?

How will you address them for this group of students?

In this lesson, all of my students began to comprehend that they can play with multiplication problems by splitting numbers and still reach the same conclusion. We worked with single-digit times four-digit numbers, which confused some children. This was as a result of them being larger numbers. I had to remind them about place value, specifically how the thousands and ten thousands places work.

Lesson Plan Template

Teacher Candidate: Kevin Cassidy		Date: 05/01/26 Course for which the Lesson is developed: EDEL-6919	
Subject: Math Central Focus: Multiplying multi-digit numbers using the take away a group strategy Grade Level(s): 4th		Classroom Teacher: Kevin Cassidy Time allotted: 49 min.	
Standard(s)/Benchmark(s) to be met in the Lesson: (ILS, Common Core, or Professional Learning Standards) - ILS4.NBT.1 Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that $700 \div 70 = 10$ by applying concepts of place value and division. - ILS4.NBT.5 Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	Learning Objective(s): - I will be able to define mathematical terms associated with the take away a group strategy. - I will be able to interpret that, in a multi-digit whole number, a digit in one place represents ten times the value of the place to its right (for example, $70 \times 80 = 5,600$). - I will be able to use the take away a group method to solve multiplication problems that include a whole number of up to four digits times a one-digit whole number, and two two-digit numbers multiplied together.	Assessment Tool(s) and Procedures: - My students will write the vocabulary in their notebooks. These assignments will be graded for accuracy and thoroughness. I will document in my grade book that they are finished. - My students will complete student interaction assignments. They can solve these problems by writing their answers, drawing circles or squares, using blocks and showing me their answers, role-playing the scenario to me, telling me aloud, or singing me a song and explaining their reasoning. The written assignments will be put in my mathematics bin. These assignments will be graded for accuracy and thoroughness. I will assign a letter grade in my grade book for each child. - My students will complete exit tickets. They can answer these questions by writing, recording with their laptop via video or audio, role-playing the scenario to me, telling me aloud, or singing me a song and explaining their reasoning. The written answers will be put in my mathematics bin. These assessments will be graded for thoroughness. I will document in my grade that they are finished.	

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Adapted from Layzell, D., (2013). *Lesson Plan Model*. Illinois State University; Leland Stanford Junior University (2012) *ed-Teacher Performance Assessment*; Tomlinson, C. (2004) pg. 27

How to differentiate in mixed ability classrooms; Worldclass Instructional Design and Assessment (2012) *WIDA 2012 Amplified ELD Standards*.

<p>Pacing (minute markers)</p>	<p>Instructional Sequence: (Label the following elements in your Instructional Sequence: questioning, scaffolding, formative assessment, student interaction, academic language, differentiation)</p>
<p>4 min.</p>	<p>A. Engage Students: (Diagnostic/Pre-Assessment may be included here.)</p>
<p>1 min.</p>	<p>I will play the <i>4th Grade Math Multiplication Strategies</i> YouTube video on the Smartboard, which reviews multiplying two-digit times two-digit numbers and introduces single-digit times four-digit multiplication.</p> <p>B. Communicate the Purpose of the Lesson to Students (Objectives and Assessment):</p> <p>Teacher: Today I will be teaching a fun lesson on multiplying multi-digit numbers by taking away a group. As you will see, this method is very cool since it is similar to the arrays and solving for 1s, 2s, and 5s strategies but it involves subtraction! Then we will play a game and conclude the lesson with an exit ticket.</p>
<p>14 min.</p>	<p>C. Instructional Sequence</p> <p>Scaffolding: I will pre-teach vocabulary by using modeling to demonstrate how to use the words. Scaffolding: I will activate the students' preexisting vocabulary knowledge. The students will document the vocabulary in their notebooks.</p> <p>Questioning (Scaffolding): Q: What does it mean to take away a group of something? Teacher: Great job! It means to subtract a group of something and figure out the difference. Q: If I multiply 8×10, and then take away 8×1, is that the same answer as 8×9? Q: Can you explain your reasoning on why you reached that conclusion? Teacher: That's right, this is the same concept you learned when using the arrays and solving using 1s, 2s, and 5s strategies, but instead of adding numbers you're subtracting!</p> <p>Scaffolding: I will model and think aloud about how to apply this strategy to each of my three examples. I will use manipulatives and a number line to demonstrate examples 1–3 on the Smartboard.</p> <p>Example 1: You own a lemonade business. You must set up 69 sets of 80 stands for your lemonade franchise today. How can you figure out how many stands must you assemble today using our new strategy? $69 \times 80 = ?$ $70 \times 80 = 5,600$ $80 \times 1 = 80$ $5,600 - 80 = 5,520$ $69 \times 80 = 5,520$</p>

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How to differentiate in mixed ability classrooms; Worldclass Instructional Design and Assessment (2012) *WIDA 2012 Amplified ELD Standards*.

<p>Pacing (minute markers)</p>	<p>Instructional Sequence: (Label the following elements in your Instructional Sequence: questioning, scaffolding, formative assessment, student interaction, academic language, differentiation)</p>
<p>15 min.</p>	<p>Example 2: You have 4,500 customers in groups of 9 visit your lemonade business today. How can you figure out how customers came by today using our new strategy? $4,500 \times 9 = ?$ $4,500 \times 10 = 45,000$ $4,500 \times 1 = 4,500$ $45,000 - 4,500 = 40,500$ $4,500 \times 9 = 40,500$</p> <p>Example 3: You are thinking about selling pink lemonade at your business, but you would need 3,700 sets of 7 cups per day. How can you figure out how many pink lemonade drinks would you need per day using our new strategy? $3,700 \times 7 = ?$ $4,000 \times 7 = 28,000$ $300 \times 7 = 2,100$ $28,000 - 2,100 = 25,900$ $3,700 \times 7 = 25,900$</p> <p>Teacher: I'm going to partner you all up and we're going to play a game called "My Lemonade Business" to practice what we've learned.</p> <p>Game ("My Lemonade Business"): Teacher/Student interaction: All of you will be partnered with peers you haven't worked with before that I feel you should get to know.</p> <p>Teacher/Differentiation: You will solve these problems by writing your answers, drawing circles or squares, using blocks and showing me your answers, acting out the scenario to me, telling me aloud, or singing me a song and explaining your reasoning. For those of you writing or drawing your solutions, put them in my mathematics bin.</p> <p>Scaffolding: I will be walking around and providing hints with visual cues and manipulatives.</p>

Pacing (minute markers)	Instructional Sequence: (Label the following elements in your Instructional Sequence: questioning, scaffolding, formative assessment, student interaction, academic language, differentiation)
	<p>Problem # 1 You have sold 8,500 groups of 7 lemonade cups at your franchise today. How can you figure out how many drinks were purchased using our new strategy? $8,500 \times 7 = ?$ $8,500 \times 10 = 85,000$ $8,500 \times 3 = 25,500$ $85,000 - 25,500 = 59,500$ $8,500 \times 7 = 59,500$</p> <p>Problem # 2 You have earned 860 groups of 4 one-dollar bills at your franchise today. How can you figure out how much money you have using our new strategy? $860 \times 4 = ?$ $900 \times 4 = 3,600$ $40 \times 4 = 160$ $3,600 - 160 = 3,440$ $860 \times 4 = 3,440$</p> <p>Alternative Student Interaction Assignment/Differentiation (Switch Problem # 2 for this one): Nine thousand, four hundred and eighty-eight people bought lemonade from your franchise today in seven different groups. How can you figure out how many people bought drinks today using our new strategy? $9,488 \times 7 = ?$ $9,488 \times 10 = 94,880$ $9,488 \times 3 = 28,464$ $94,880 - 28,464 = 66,416$ $9,488 \times 7 = 66,416$</p> <p>Teacher: I will give you 15 minutes to work on these student interaction assignments.</p> <p>Teacher/Differentiation: I am posting an exit ticket to the Smartboard. You can answer these questions by writing, recording with your laptop via video or audio, acting out the scenario to me, telling me aloud, or singing me a song and explaining your reasoning. For those of you writing your answers, put them in my mathematics bin.</p>

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Adapted from Layzell, D., (2013). *Lesson Plan Model*. Illinois State University; Leland Stanford Junior University (2012) *ed-Teacher Performance Assessment*; Tomlinson, C. (2004) pg. 30

How to differentiate in mixed ability classrooms; Worldclass Instructional Design and Assessment (2012) *WIDA 2012 Amplified ELD Standards*.

<p>Pacing (minute markers)</p>	<p>Instructional Sequence: (Label the following elements in your Instructional Sequence: questioning, scaffolding, formative assessment, student interaction, academic language, differentiation)</p>
<p>10 min.</p>	<p>Formative Assessment/Exit Ticket: Is the skip counting, arrays, counting 1s, 2s, and 5s, or take away a group strategy the one you prefer to work with for multiplying numbers? Please explain why you favor the method that you do.</p> <p>Teacher: I will give you 10 minutes to work on this exit ticket.</p>
<p>5 min.</p>	<p>Closure: Teacher: Today we were able to define key mathematical terms associated with the take away a group strategy. I have instructed you in how multi-digit numbers represent ten times the value of the place to its right. We have learned how to multiply multi-digit numbers using the take away a group method. We played a game and finished the lesson with an exit ticket. With all of the new strategies that I taught this week, you are now able to multiply multi-digit numbers in ways that many adults do not know. How very exciting! Please pack up your belongings and get ready for recess.</p>

Lesson Plan - Details

Instructional Materials:

- Smartboard
- *4th Grade Multiplication Strategies* YouTube video (*4th Grade - Math - Multiplication Strategies - Topic Overview* 2019)
- Math notebooks
- Pencils
- Laptops
- Manipulatives

Selection and Use of Technology and/or Resources:

The *4th Grade Multiplication Strategies* YouTube video allows my students to start exploring the concept of multiplying by four-digit by one-digit numbers. The teacher will implement the Smartboard to showcase examples, the student interaction assignments, and exit ticket. The children's laptops will record video and audio for their exit tickets.

Safety in the Physical Environment:

I will monitor my students to ensure they are getting along with their partners. They will be told not to run or engage in other reckless behavior while role-playing to me. Those who are sick will be instructed to wear a mask and wash their hands.

Academic Language Demands – the Oral and Written Language used for Academic Purposes in Content Disciplines

Vocabulary

Tier 1: Take away, minus, equals, and times

Tier 2: Multiply

Tier 3: Whole number, multi-digit numbers, subtraction, difference, multiply, product, factors, and sum

Explain how the Academic Language is scaffolded in the Lesson using Sensory, Graphic and/or Interactive supports.

Tier 3: The Smartboard will display the words along with their definitions. The teacher will provide explicit instruction in the form of a lecture and modeling to enable students to comprehend them. Further, he will walk around the room and clarify the terms.

Language Function: The class will document the words in their notebooks. They will use the vocabulary while collaborating for the student interaction assignments and working independently on the exit tickets.

Syntax/Discourse: The teacher will lecture about the take away a group method using these words. The students will be partnered into pairs and work on their student interaction assignments using them.

Assessment

*(Identify the **type(s) of assessment** used in this lesson. Explain **how it provides evidence** that students will meet the objective(s). At least one type of assessment is required in a lesson plan.)*

Diagnostic (Pre-): *(Formal or Informal). Informal.* My students will document the vocabulary in their notebooks. This will provide evidence they have the preexisting knowledge, or comprehend the necessary terms, to learn the lesson.

Formative: *(Formal or Informal). Informal.* My students will complete student interaction assignments. These assignments will consist of the concepts from the lesson. Thus, they will prove the children understand my instruction.

Reflective: *(Formal or Informal). Informal.* The exit tickets will be comprised of reflective questions. They will enable my students to contemplate the lesson through deep learning.

Summative: *(Formal or Informal).*

Lesson Plan - Differentiating Instruction

Identify the Element(s) of the Lesson that is Differentiated: Content Process X Product X

Explain how it is Differentiated for the whole class, groups of students with similar needs, individual students OR students with IEPs or 504 plans.

Partners who are proficient with the concept will be given an alternative student interaction assignment. This assignment implements a higher initial number, contains larger numbers, and is more difficult to count.

The whole class will be given the options to write their answers, draw circles or squares, use blocks and show me their answers, role-play the scenario to me, tell me aloud, or sing me a song and explain their reasoning to complete their student interaction assignments.

The whole class will be given the options to write their answers, record them with their laptops via video or audio, role-play the scenario to me, tell me aloud, or sing me a song and explain their reasoning to finish their exit tickets.

Identify the Student Characteristic that you will use to Differentiate: Student Readiness X Student Interest Student Learning Profile X

Explain how it is used to Differentiate for the whole class, groups of students with similar needs, individual students OR students with IEPs or 504 plans.

My student with ADHD will be seated in front of the room away from windows and other distractions (*Classroom Accommodations* 2026). He will have additional time to work on the student interaction assignment while his peers are completing the exit tickets. The child does not need to turn in a ticket. His assignments will be provided to him orally and in writing. I will coach him and verify that he understands the instructions. He is also allowed to take breaks whenever he wants and move around the room. On each day of the learning segment, he will be given a graphic organizer as well.

My student with emotional disturbance will be given frequent breaks with the ability to get up and walk around (Bakken et al., 2016). She is allowed to work on the student interaction assignment until the end of class. She does not need to turn in an exit ticket. The child will be paired with a student who I believe is a good role model. I will remind her of the rules before she works with her partner, and reward her with stickers if she exhibits good behavior throughout the learning segment. She will also be provided with a graphic organizer on each day.

Theoretical Principles and/or Research–Based Best Practices in this Lesson

Why are the learning tasks for this lesson appropriate for your students? Cite a specific theorist and a brief explanation of the theory.

Howard Gardner's theory states that human beings learn through multiple intelligences. Specifically, people can acquire knowledge through eight types of intelligences, including verbal-linguistic, logical-mathematical, spatial-visual, bodily-kinesthetic, musical, interpersonal, intrapersonal, naturalistic, and existential (*Howard Gardner's Theory of Multiple Intelligences* 2026). In my student interaction assignments, the students will use spatial-intelligence, bodily-kinesthetic, musical, and interpersonal skills to solve the problems. With the exit tickets, I let the children use verbal-linguistic, bodily-kinesthetic, musical, interpersonal, and intrapersonal skills to answer the questions.

Implemented August 2013, revised 2018 and adopted by the College of Education.

Adapted from Layzell, D., (2013). *Lesson Plan Model*. Illinois State University; Leland Stanford Junior University (2012) *ed-Teacher Performance Assessment*; Tomlinson, C. (2004) pg. 34

How to differentiate in mixed ability classrooms; Worldclass Instructional Design and Assessment (2012) *WIDA 2012 Amplified ELD Standards*.

Common Errors, Developmental Approximations, Misconceptions, Partial Understandings, or Misunderstandings for this Lesson

What are common errors or misunderstandings of students related to the central focus of this lesson?

How will you address them for this group of students?

My students are beginning to understand the idea of multiplying single-digit times four-digit numbers in this lesson. However, I instructed them in the procedures several times with number lines and manipulatives, as the removing a group method confused them. Some children, when playing the “My Lemonade Business” game, would initiate the process by rounding down instead of rounding up. For instance, a couple of partners took the problem eight thousand, five hundred times seven and started by rounding the seven down to five. They were then curious why they could not complete the next steps in the strategy.

To help the partners experiencing difficulties, I modeled the strategy to them and showed them why it works with manipulatives again. Most of them understood the concept after that.

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