



Multiplying Whole Numbers

Lesson Plan

Lesson Overview: In this lesson, students will represent multiplication and division using arrays, strip diagrams and equations. Students will also solve multiplication problems (up to two digits times one digit) using models, multiplication facts, and the standard algorithm for multiplication. TEKS: 3.4G, **3.4K**, **3.5B**, 3.5C

	Procedures	Facilitation Questions	Advance Preparation
Engage	<ul style="list-style-type: none"> • Arrange students in pairs. • Play the video for the class. • Have students share their answers (correct answer = 112 legs). • Have enough students share their solution strategies to make sure that a variety of strategies are shared (skip counting, grouping, etc.) 	<ul style="list-style-type: none"> • How could you group the animals according to the number of legs each animal has? • What do you think would be faster: counting each leg one at a time, or counting groups of legs? 	<ul style="list-style-type: none"> • Access to Math Journals
Explore	<ul style="list-style-type: none"> • Distribute Explore Activity Sheet to each student. • Play the video for the class. Pause as indicated. • Facilitate as students complete their charts. • Use the video to show two debriefing questions to which students will respond in their Math Journals. 	<ul style="list-style-type: none"> • How could you use skip counting to complete your chart? • Do you see patterns with even and odd numbers? • Do you see a pattern in the 5's and 10's? Do you see a relationship between the 5's and 10's? • Explain why if you know your multiples of 3 then you can easily find the 6's? 	<ul style="list-style-type: none"> • Make one copy of Explore Activity Sheet for each student. • Colored pencils or crayons • Access to Math Journals
Explain	<ul style="list-style-type: none"> • Arrange students in pairs. Provide each pair of students with 30 color tiles. • Provide each student with a blank sheet of paper, and each student pair with scissors, colored pencils or crayons, and glue, tape, or paste. • To differentiate for struggling students, provide one copy of the Mission Support Sheet. • Play the video for the class. Pause the video as needed to construct the foldable. • Continue the video to complete the foldable using the color tiles and arrays. Pause as directed. • Have students affix the completed foldables into their Math Journals. 	<ul style="list-style-type: none"> • Do you see any patterns while you are creating your arrays? • Why is 2 sets of 3 the same answer as 3 sets of 2? • What patterns do you notice in the answers? • How can you use your multiplication chart to help you identify dimensions of each array? 	<ul style="list-style-type: none"> • Color tiles (30 for each student pair) • Scissors (one per pair) • Colored pencils or crayons • Glue, tape, or paste • Access to Math Journals • One copy of Mission Support Sheet for students as needed.
Elaborate	<ul style="list-style-type: none"> • Arrange students in pairs. • Provide each student pair with one set of 2 Fact Family cards, one pair of number cubes, and glue, tape, or paste. • Play the Part 1 video. Pause as directed. • Students will use their number cubes to complete Part 1 of the Elaborate activity. • Provide each student a copy of the Elaborate Activity Sheet. • Play the Part 2 video. Pause as directed. • Facilitate students as they complete the Activity Sheet. • Discuss the debriefing questions. 	<ul style="list-style-type: none"> • What does it mean to be a fact family? • Why are the numbers, 3, 4 and 15 not part of a fact family? • Why do we multiply the ones place first? 	<ul style="list-style-type: none"> • Copy and cut out one set of Fact Family cards from Elaborate Activity Master for each student. • Make one copy of Elaborate Activity Sheet for each student. • Glue, tape, or paste for student pairs. • Pair of number cubes for each student pair • Access to Math Journals
Evaluate	<ul style="list-style-type: none"> • Display the questions or provide a printed copy of the Evaluation Questions for each student. • Have students solve the problems in their Math Journal. 		<ul style="list-style-type: none"> • Access to Math Journals • If desired make a copy of Evaluation Questions for each student.

