



## Adding and Subtracting Fractions and Decimals

### Lesson Plan

**Lesson Overview:** In this lesson, students will use addition and subtraction to solve problems involving fractions, decimals, and models. Students will also estimate to approximate reasonable results with addition and subtraction. TEKS: 5.3A, 5.3H, 5.3K.

	Procedures	Facilitation Questions	Advance Preparation
<b>Engage</b>	<ul style="list-style-type: none"> <li>• Arrange students in pairs.</li> <li>• Play the video for the class.</li> <li>• Have students complete the <b>Engage Activity Sheet</b>.</li> <li>• Facilitate students as needed.</li> <li>• Have students share their methods for solving the problem. The <b>Engage Activity Sheet Answer Key</b> includes two possible solutions to use in the student discussion.</li> </ul>	<ul style="list-style-type: none"> <li>• Is there another way to find out how much pizza was left?</li> <li>• How much pizza was eaten?</li> <li>• How could you use addition to help you find a solution?</li> <li>• How could you use subtraction to help you find a solution?</li> </ul>	<ul style="list-style-type: none"> <li>• Make one copy for each student of the <b>Engage Activity Sheet</b>.</li> <li>• Colored pencils (optional)</li> <li>• Access to Math Journals</li> </ul>
<b>Explore</b>	<ul style="list-style-type: none"> <li>• Give each student in the student pairs one <b>Explore Activity Sheet</b>.</li> <li>• Give student pairs about 25 color tiles.</li> <li>• Play the video for the class. Have students follow the video and create models with their color tiles.</li> <li>• Have students create the models with the color tiles and then shade the models on the Activity Sheet with colored pencils.</li> <li>• Facilitate the students as needed.</li> </ul>	<ul style="list-style-type: none"> <li>• What is an array?</li> <li>• Does it matter which denominator is the length and which is the width?</li> <li>• When you add two fractions together, what should you do with the tiles representing the numerator of each fraction?</li> <li>• When you subtract two fractions, what should you do with the tiles representing the numerator of each fraction?</li> </ul>	<ul style="list-style-type: none"> <li>• Make one copy for each student of the <b>Explore Activity Sheet</b>.</li> <li>• Student pairs will need about 25 color tiles each.</li> <li>• Colored pencils</li> </ul>
<b>Explain</b>	<ul style="list-style-type: none"> <li>• Play the video for the class.</li> <li>• Provide students math journals to take notes as needed.</li> <li>• Play the video to show the Journal Entry.</li> <li>• To differentiate, provide the struggling learner with the <b>Mission Support Sheet</b>.</li> </ul>	<ul style="list-style-type: none"> <li>• Why is it important to find a common denominator?</li> <li>• How does adding and subtracting fractions by finding a common denominator relate to creating an array with a model?</li> <li>• What operation do you use to determine the number of squares in the array, and how does that relate to the denominators of the fractions?</li> </ul>	<ul style="list-style-type: none"> <li>• Access to Math Journals</li> <li>• Make copies of the <b>Mission Support Sheet</b> as needed.</li> </ul>
<b>Elaborate</b>	<ul style="list-style-type: none"> <li>• Play the video for the class.</li> <li>• Have students give other examples of when they would need to estimate.</li> <li>• Provide each student with <b>Elaborate Activity Sheet</b>.</li> <li>• Walk through the first problem with students and stress the importance of writing out an expression before estimating or solving any problem.</li> <li>• To differentiate for the struggling learner provide copies of the <b>Mission Support Sheet</b>.</li> <li>• Facilitate students as needed.</li> </ul>	<ul style="list-style-type: none"> <li>• Why is it important to write an expression before solving a problem?</li> <li>• When you have a problem with fractions and decimals, what do you need to do before solving the problem?</li> <li>• What words in the problems tell you to estimate?</li> <li>• What are some benchmark fractions or decimals that you can use to help you estimate?</li> </ul>	<ul style="list-style-type: none"> <li>• Make one copy for each student of the <b>Elaborate Activity</b>.</li> <li>• Make copies of the <b>Mission Support Sheet</b> as needed.</li> </ul>
<b>Evaluate</b>	<ul style="list-style-type: none"> <li>• Display the questions or provide a printed copy of the <b>Evaluation Questions</b> for each student.</li> <li>• Have students solve the problems in their <b>Math Journal</b>.</li> </ul>		<ul style="list-style-type: none"> <li>• Access to Math Journals</li> <li>• If desired make a copy of the <b>Evaluation Questions</b> for each student.</li> </ul>

