

Area/Skill - Mathematics	Cognitive Skill Level - Comprehension	Correlation to Framework - 05.01/05.02	Lesson Number - 35
<p>Activity Title - Pie</p> <p>Goal/Objective</p> <p>To understand the basic concept of fractional parts.</p> <p>Lesson Outline Introduction</p> <p>Fractions are often a difficult concept for students to understand. For many adult students, the addition, subtraction, multiplication, and division of fractions is where their math skills ended.</p> <p>Activity</p> <p>Provide students with a pie (circle) cut into multiple pieces. Use this manipulative to teach students fractional parts of a whole and how to use these pieces to perform basic calculations. An example would be to add $\frac{2}{7} + \frac{3}{7}$. Students would “cut” the pie into seven pieces and take out two pieces and then three pieces to equal five of the seven in the whole pie. To multiply $\frac{3}{7} \times \frac{3}{7}$, students would take nine pieces and place them together. Because the pie parts are in sevenths, the students will notice that they have a whole pie or one, plus two of the seven pieces they need for the next pie or $\frac{2}{7}$. Therefore the answer is $1 \frac{2}{7}$. Continue working different types of fraction problems using the concept of the pie chart.</p> <p>Debriefing/Evaluation Activity</p> <p>Have students create their own fraction problems and demonstrate to the class how to solve the problems using the pie pieces.</p>		<p>Materials/Texts/Realia/Handouts</p> <ul style="list-style-type: none"> • Cut out pie pieces • Paper and pencil • Sample fraction problems 	
<p>Real-Life Connection</p> <p>Brainstorm different ways that students use fractions in their daily lives. Examples may include: cooking and baking, sewing, carpentry work, lawn maintenance, etc.</p>		<p>Extension Activity</p> <p>Have students identify different fractional equivalents using pie pieces, such as $\frac{1}{2} = \frac{2}{4} = \frac{3}{6} = \frac{4}{8} = \frac{5}{10}$, etc.</p> <p>ESE/ESOL Accommodations</p> <p>Have different colored manipulative for students, such as a pie cut in fourths is red, whereas a pie cut in sevenths is green, etc.</p> <p>Allow the use of manipulative for solving fractional problems on tests.</p> <p>Use real-life examples, such as measuring, to reinforce the use of fractions.</p>	

GED 2002 Teachers' Handbook of Lesson Plans

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Activity Title - Pie			
Introduction			
<i>Ask:</i> Has anyone ever baked a pie or a cake and had to cut it evenly into a certain number of pieces. Into how many pieces can you cut a pie?			
<i>Say:</i> Regardless of how many pieces you cut a pie into, you still continue to have one pie. A pie cut into four pieces continues to be one whole pie, just like a pie cut into ten pieces.			
Main Activity			
<i>Say:</i> When we work with fractions, it's like cutting that whole pie into different pieces. A fraction is part of the whole. If I have a whole pie and cut it into seven pieces, then each piece is 1 part of the whole or $1/7$. Today, we are going to use pie charts that are cut into different size pieces. Some of the pies are cut into seven pieces; some are cut into ten pieces, etc. Using these different pies, we will solve all kinds of fraction problems.			
Provide students with a pie (circle) cut into multiple pieces. Use this manipulative to teach students fractional parts of a whole and how to use these pieces to perform basic calculations. An example would be to add $2/7 + 3/7$. Students would "cut" the pie into seven pieces and take out two pieces and then three pieces to equal five of the seven in the whole pie. To multiply $3/7 \times 3/7$, students would take nine pieces and place them together. Because the pie parts are in sevenths, the students will notice that they have a whole pie or one, plus two of the seven pieces they need for the next pie or $2/7$. Therefore the answer is $1 \frac{2}{7}$. Continue working different types of fraction problems using the concept of the pie chart.			
Debriefing/Evaluation Activity			
<i>Say:</i> As you can see, fraction problems are easy to solve when you think about how many parts of a whole each fraction represents. Now it's your turn. Write down a fraction problem to solve. Create pie charts to help you solve the problem. When you have finished, share your equation with the class and show them how you used your pie charts to solve the problem.			
Follow-up Lessons/Activities			
Show students a chocolate bar that is divided into equal squares. Discuss how the chocolate bar is equal to one whole or the number one. Have the students brainstorm all of the different fractional parts of the bar. Write the students' answers on the board. Make sure that students also include different equivalencies. If the chocolate bar is subdivided into ten smaller squares, students could use the fraction $1/2$ or $5/10$.			