

### UK Quizalize Fractions Lesson Plan

Teacher:	Term:	Date:
Year: 3	Number of children:	SEN/EAL:
Subject:	Lesson Title: Equivalent Fractions	
<u>Learning Objectives:</u> Students will be able to: <ul style="list-style-type: none"> <li>Understand equivalent fractions</li> <li>Order a set of mixed fractions</li> </ul>		NC: MA2, 3f
<u>Lesson Overview</u> <ul style="list-style-type: none"> <li>Students will use 'pizza' resources to understand equivalent fractions.</li> <li>Students will represent equivalent fractions with denominators of 2, 3, 4, 6, and 8.</li> <li>Students will engage with Quizalize activities to assess their learning outcomes.</li> </ul>		
<u>Resources Needed</u> <ul style="list-style-type: none"> <li><b>Pizza fractions resource per group</b> (3 circles - one in quarters, one in eighths and one in sixteenths)</li> <li><b>Class and individual multiplication squares</b></li> <li><b>Interactive Whiteboard</b></li> <li><b>Mobile Devices</b></li> <li><b>Fraction cards</b> (differentiated for each group)</li> </ul>	<u>Media Needed</u> <ul style="list-style-type: none"> <li><b>Virtual Manipulative!</b> (Free Maths App)</li> <li><b>You Tube Video</b> - Equivalent Fractions  <a href="https://www.youtube.com/watch?v=P056eG02WiM">https://www.youtube.com/watch?v=P056eG02WiM</a></li> <li><b>Quizalize Activities</b> - 3.3A and 3.3F</li> </ul>	<u>Additional Needs</u>
<u>Teacher Preparation</u> <ul style="list-style-type: none"> <li>Locate resources</li> <li>Prepare Media Devices</li> <li>Use Zzish mastery dashboard to set up Quizalize activities for this specific math class (note the code)</li> </ul>		
<u>Introductory Activity</u> <ol style="list-style-type: none"> <li>Give a set of pizzas' to each group.</li> <li>Ask the children to take 1 slice of pizza, which is a quarter of the whole (show the size).</li> <li>Ask the children to look at their pizzas. How many of those slices would be the same size as the quarter?</li> <li>Repeat the activity for the pizza cut into 16 slices. Explain this is an equivalent fraction - write these on the board.</li> <li>Use a multiplication square to show equivalent fractions. e.g. 16/24, using the 16 from the 2 times table row and the 24 from the 3 times table row below. Follow these two numbers to the left to see all the equivalent fractions until you get to the simplest. <math>16/24 = 14/21 = 12/18 = 10/15 = 8/12 = 6/9 = 4/6 = 2/3</math>.</li> <li>Ask the children to use their own multiplication squares to suggest other pairs of fractions that are equivalent.</li> <li>Put a selection of different fractions on the board. Ask the children to reduce them to their lowest equivalent and then put them in ascending order (eg 6/12 is the same as 1/2 so we know it must be smaller than 3/4).</li> </ol>		

### Main Learning Activity

- Watch video on fractions.
- Lower Ability - Use the *Virtual Manipulative!* App to allow the children to manipulate simple equivalent fractions. Use paper to create equivalent fractions using different shapes.
- Middle Ability - Give the children different fraction cards to order in either ascending or descending order (using a multiplication grid to assist).
- Higher Ability - Give the children different fraction cards to order in either ascending or descending order (using the multiplication grid when necessary). Ask them to create more complicated equivalent fractions and test their ideas/theories.

### Evaluation/Assessment

- Ask the children to complete the Quizalize activities on mobile devices.
- Use the Zzish platform on an interactive whiteboard to show the children their achievements in real-time (either 'Team vs Team' to generate competition among the pupils or 'Team vs Computer' to generate collaborative competition). The data is collated on the Zzish dashboard and can be utilised to assess individual student results.

- ★ *The information can be printed via a PDF for physical records.*
- ★ *These activities can be repeated weekly or quarterly to track the children's progress.*
- ★ *As the students engage in the activity the technology will group them according to their understanding of the learning objective to show who needs extra help.*
- ★ *Also the questions will be ordered as the activity progresses to show which concepts the students are struggling with.*
- ★ *The students who require support and any misconceptions can then be addressed at the end of the lesson.*

### Extension

- Repeat the 'pizza' demonstration and ask the lower ability group to show what they found out from their app and creating equivalent fractions with different shapes.
- Encourage the rest of the class to give their suggestions and explain what they learned about ordering fractions.
- Discuss different methods for ordering numbers.
- ★ *Quizalize could also be used at the beginning of the next lesson about fractions, to consolidate the knowledge learned.*