

Topic/Theme: Mathematics for living - Module 1

Class/Year Group: LCA year 5 (Year 11)

Subject(s): Element 3 - working with the circle

Outline

<p>What is the challenge your students will tackle?</p> <p>Given a certain budget, the teams are given the challenge of finding out how much is the maximum quantity of pizza they could afford.</p> <p>Resources are available here</p>	<p>Why is this meaningful to the students - what's the hook?</p> <p>Students like pizza and this gets shows them how to get the most pizza for their money, using maths!</p>	<p>What are the key ideas that the students will remember?</p> <p><i>The relationship between radius and area of a circle; how to calculate the area of a circle given the diameter; how to calculate the circumference of a circle (crust length!) given a diameter.</i></p> <p><i>Maths can be practical!</i></p>
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Learning Objectives

<p>What curriculum content will be addressed?</p> <p>Radius, Diameter, circumference, area of circle. Budgeting</p> <p>By the end of this activity students <i>will be able to</i>:</p> <p>Calculate the circumference and area of a circle and compare circle areas to find best value (pizza)</p>	<p>How are four key 21st Century Skills addressed?</p> <p><i>Creativity</i> What is the best solution for the preferences of the team? More crust? More area? How could this be achieved?</p> <p><i>Communication</i> Discussion within teams and Final Presentation and discussion.</p> <p><i>Collaboration</i> Teams need to work together to come up with an answer.</p> <p><i>Critical Thinking</i> Comparison of prices, areas and value</p>
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Reflection

<p>How will you know that they are learning?</p> <p>Reasonable solutions will indicate that the students have grasped the relevant mathematical concepts.</p> <p>21st Century skills development can be monitored through observation and assessment of final presentations.</p>	<p>In what ways will students reflect on progress?</p> <p>Through presentation, discussion and debate.</p>
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Possible Aspects	Description	Time
	Set up: Welcome, settling and Human pizza game for team formation	15 min
	Warm up: Team Name, Team Leader, 3 Golden rules.	5 min
	Investigate: Introduce task - You have a budget of €XX to feed your team. How can you get the most margherita pizza. What if someone prefers crust?	5 min
	Plan: What info do you need? (radius, cost per pizza, formulae)	10 min
	Plan: Discussion	5 min
	Plan: Online Research - actual costs of pizzas, Suggested website: www.just-eat.ie menus for Fourstar pizza, Pizza hut.	15 min
	Create: Calculations and develop presentation.	10 min
	Present: Teams present their findings including the total area of pizza they can afford.	10 min
	Reflect: Discuss and order Pizza!	5 min