

Lesson Plan – Welcome Scene



Introduction

This scene introduces the student to the beauty of mathematics and places it in the context of its use in everyday life. The scene stars “Kylie the Kangaroo” who is the character who hosts the App taking it from start to finish. She starts by explaining that maths exists in nature and all things we design or create. It is the patterns, connections and relationships that we use to make sense of our world. She goes on to explain that maths is used in every job, every sport, every form of music and art, all types of cooking; and when earning, saving, spending and donating money. This objective of this lesson is to set the context for student to want to learn the times tables and to introduce them to the concept of groups and objects within those groups.

Learning Outcomes

- Each student grasps the concept that learning and understanding maths is important in every aspect of their life.
- To introduce each student to the times tables
- To introduce each student to the concept of real-life times tables questions written as words
- To introduce the students to the concept of objects (or units) and groups with each times tables problem being x groups of y objects or x times y .
- To introduce the concept that a problem with an x and y in it can be solved using either the x times tables or the y times tables.

Resources Required

- The App on a device
- Overhead projector or TV Monitor connected to the device (if teaching in a Group)
- Paper and pens/pencils for students

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Scene

- This activity involves watching the “Welcome” scene. After login, select the “Introduction” button followed by the “Welcome” button.

Lesson

Time	Task
20 mins	<p><u>Key Messages</u></p> <p>Select the “Welcome” Button and watch the video (2 minutes).</p> <p>At the conclusion of the video, ask the student/s:</p> <p>“What were Kylie’s key messages within the video?”</p> <p>Responses should include but not be limited to:</p> <ul style="list-style-type: none">- Math is everywhere around us and in everything we do- Math exists in nature and things we design and create- The application of mathematics is very useful in everyday life- You use maths in your job, sports, music and art, cooking and when earning, saving, spending and donating money (you may want to ask for some examples here)- Maths can be learnt and displayed a number of different ways including the use of your hands, number lines and blocks.- If you make maths visual, then it becomes easier for your brain to absorb and understand- Practicing maths will lead to the times tables concepts being stored in your brain so they can be easily recalled- Headphones are a good way to increase your attention when learning on devices as they block out all the external noise distractions.

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	<p>You may want to watch the video a second time to reinforce these messages before progressing to the next activity.</p>
30 mins	<p><u>Real-Life Examples with Groups and Objects</u></p> <p>This activity can be done as individuals or in groups of up to 4 students.</p> <p>“It’s now time to come up with some real-life examples of where you will use the Times Tables. Kylie has explained that math is used in (Write or display this list):</p> <ul style="list-style-type: none">- Jobs- Sports- Music and art- Cooking and- Money. <p>Your task is to select two of these areas and write one real-life word example in each where you need to use a times tables calculation to work out the answer”. Give the student/s the following 3 examples to help spark their thought processes (change the units to make them country specific).</p> <ul style="list-style-type: none">- You bake 2 cakes using a recipe that requires 3 eggs per cake. How many eggs do you need altogether?- You order 4 pizzas and they cost \$7 each. How many dollars do you need to pay for the pizzas?- You ride your bike 10 miles a day for 6 days. How many miles did you ride, in total? <p>Ask each student or group to present back their examples. With each example ask:</p> <ul style="list-style-type: none">- “Which times tables can be used to solve this one?” (Note: that you can use either times tables in each example to solve. If the example is 5 times 6, you can use either the 6 times tables or 5 times tables to solve. This is covered in more depth later in the “Number Families”

	<p>and “Numbers as Blocks” lessons. You only need to introduce the concept at this stage)</p> <ul style="list-style-type: none"> - “What does the question look like when written with symbols? E.g 10×6 which is 10 groups of 6 objects - “If you were to think of the problems in terms of groups and a number of objects (or units) within those groups, which would be the groups, and which would be the objects in this example”. <p>It is important at these early stages of the learning that each student grasps the concept of x groups of y is the same as x times y. In the pizza example above it is 4 groups of \$7 or 4×7. In the cake example it is 2 groups of 3 eggs or 2×3.</p> <p>Wrap this activity up by asking the student/group if they feel that understanding how to use maths and the times tables would be a useful skill for their everyday lives.</p>
20 mins	<p><u>Creative Activity</u></p> <p>(1) Go back to the start screen of the App which has a picture of Kylie the Kangaroo and ask the students to draw and colour their own version of a Kangaroo. Explain that kangaroos are an Australian marsupial who carries their babies in their pouch so they may even want to put a Joey, which is a baby kangaroo, in their kangaroos’ pouch.</p> <p>And/Or</p> <p>(2) Ask for volunteers to give their best impression of Kylie the Kangaroos voice and accent with the phrase:</p> <p>“Hi, I’m Kylie the Kangaroo. I’m here to help you discover the beauty of mathematics.”</p>