

Lesson Plan – 3 Times Table



Introduction

The 3 times table is taught by Mike the Monkey. Mike is an accomplished painter who uses these abilities to demonstrate how best to solve the 3 times tables. He is cast with a New York accent and has the look to match. Mike helps explain to the students in his own unique way that “his favourite way to work out the 3 times tables is by using the numbers that make up 3, being 2 and 1. We’ll calculate 2 times and add 1 times to get the answer to 3 times”.

The 3 times table is sometimes taught by skip counting in 3’s. This is nowhere near as intuitive as skip counting in 2’s which is the same as doubling or counting in pairs. As such, it’s neither fun nor efficient to teach or learn the 3 times table this way. Hence why using number sense is the preferred way to work out the 3 times tables. The students’ brain will very quickly take the concept of “3 times equals 2 times plus 1 times”, compress it and store it for later recall whenever the student needs to solve 3 times.

Mike paints 3 times blocks and then paints 2 times and 1 times blocks over the top to show how number sense can be used to solve 3 times problems. He then solves 2 times by skip counting. Some students will also have the skill of doubling by now and may just use that technique. He then adds 2 times and 1 times together to find the solution to the 3 times problem. It’s that simple.

The other effective strategy for solving 3 times questions is to swap the numbers around and use some of the easier times tables that the students have already learnt. The students, with your guidance, will likely want to solve the 1 times, 2 times, 5 times, 10 times and maybe even the 9 times question this way.

Learning Outcomes

- Each student grasps the concept that number sense can be used to work out the 3 times table
- Each student understands that 3 times can be solved by 2 times plus 1 times and is competent in these calculations
- Each student understands that if you swap the 3 around in the multiplication you get the same product, or answer and that it’s

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more efficient to solve some of 3 times questions this way (commutative property).

- Each student continues to develop their mindset through the feedback provided for correct and incorrect answers.

Resources Required

- The App on a device with 3GB of available memory to download all of the videos
- Overhead projector or TV Monitor connected to the device (if teaching in a Group)
- Paper and pens/pencils for students

Scenes

- This activity involves watching the “Learn” scene, followed by the “Tips” scene and then successfully answering all twelve 3 Times Table questions. After login, select the “Learn the Times Tables” button followed by the “Start” button or “3 Times” tile on the Home Screen. Before commencing the lesson make sure that you have completed this step as it will start the process of downloading the 3 times videos which will take a few minutes.

Lesson

Time	Task
35 mins	<p><u>Key Concepts for 3 Times</u></p> <p>Select the “3 Times” tile on the home screen. Select the “Learn” button and watch the video (2 minutes).</p> <p>At the conclusion of the video, ask the student/s:</p> <p>“What were Mike the Monkey’s key messages within the Learn video?”</p> <p>Responses should include but not be limited to:</p> <ul style="list-style-type: none">- 3 times problems can be solved using number sense- You just split the 3 times into 2 times and 1 times and add these together to get the answer- You can solve all 3 times problems this way or you can also use your knowledge of the other times tables and

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	swap the numbers around to solve using these (commutative property)
20 mins	<p><u>Tips to help with 3 Times</u></p> <p>Select the “Tips” Button and watch the video on the Practice screen (1.5 minutes). You can expand the video to full screen by pushing the expand button on the top right-hand corner of where the video is playing. It will automatically drop back to the practice screen at the end.</p> <p>At the conclusion of the video the first question will play. Wait for it to finish and ask the student/s:</p> <p>“What were Mike the Monkey’s key messages within the Tips video?”</p> <p>Responses should include but not be limited to:</p> <ul style="list-style-type: none"> - You just add 2 times and 1 times together to solve for 3 times - You should look at each question and determine the best strategy to solve it - For some questions, like 10 times, it easier to solve by swapping the numbers around and solving it as a 10 times problem. (commutative property. It is worth exploring which other questions you might want to swap the numbers around for. Answers might include 1 times, 2 times, 5 times and maybe even 9 times)
60 mins	<p><u>Solving the 3 Times Tables</u></p> <p>The objective is to work through the 12 three times questions until all 12 stickers are obtained for the correct answers. You also want to enter some mistakes, firstly so the students can all learn from the mistakes and, secondly so you can listen to Mike and his “Growth Mindset” advice when you do make a mistake.</p> <p>This activity can be done as individuals or in groups of up to 4 students.</p> <p>“For each real-life example, you will need to look at the question and firstly work out the times tables problem that</p>

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you need to solve and write this in the working out space. The numbers are in bold to make it easier. Remember the way to write it is the number of groups multiplied by the objects. I then need you to solve that problem. We will then type it in and check if it is the correct answer.”

Help the students with the first question which will be x times 3. Show the working in the working out space by writing the equation and then highlighting there is x groups each with three objects resulting in the equation x times 3. Then ask,

- “If there are x times 3 objects, then what is going to be the best strategy to solve this. Is it using number sense or it swapping the numbers around and solving with the easier times tables?
- Use the working out space to work out the solution.
- Type the answer and select the “Check” button
- Watch the correct answer video from Mike and discuss any interesting points.
- Select the “I’ve Got This” button to receive your sticker
- Select the “Next” button and the next question will automatically appear on the practice screen
- Ask each student or groups to solve this one using number sense or by swapping the numbers around and using one of the previous times tables they have learnt. Give them a few minutes to report back.
- Ask first if there are any ways you could make a mistake with this question as learning from mistakes is when our brain grows the most. If there is, then show how you could make the mistake, type in the wrong answer and watch the video response from Mike. There are some excellent mindset sayings and examples in each of the incorrect answer videos that are well worth sharing with the students.
- Select the “Watch Again” button and watch the video to show the coaching available if the student answers incorrectly.

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- Ask for someone to come up and show the correct workings to solve the problem. Explore the concept of x groups of 3 object, with them
- Ask them to type in the correct answer and select "Check"
- Select the "I've Got This" button to receive your sticker
- Select the "Next" button to move onto the next question
- Repeat the above sequence until all 12 questions are answered correctly
- Select the "Flashing Mike Sticker" in the middle of the sticker wheel
- The Congratulations video will play, and the Mike Sticker will pop into place on the Home Screen as recognition that you have learnt and understand the 3 Times table.

Give your student/class some applause or other form of recognition.

Wrap this activity up by asking the student/group:

- Do you now feel like can solve 3 times table questions using your number sense and by swapping the numbers around to solve with the easier times table or do you need some more practice?

If they feel like they need more practice, then click on the 3 times tile again which will take you to the Progress Screen where you can select the "Reset" button. It will ask if you want to reset. Select "Yes" and then select the "Next" button to start the first question again.

Once the student/class are comfortable that they understand and can solve the 3 times table, then announce "you are now ready to move onto the 4 Times Table".

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20 mins	<p><u>Creative Activity – “New York Slang”</u></p> <p>This activity can be done as individuals, in groups of up to 4 or as a class.</p> <p>“Throughout his scenes Mike the Monkey uses some words and phrases that are slang. Slang can be described as informal words or phrases whose use is often restricted to a group of people. In the case of Mike, his slang is the type used in New York city.</p> <p>Your task is to try to work out the meaning for the following slang used by Mike;</p> <ul style="list-style-type: none"> - Sweet - Get outa here - Now we’re rockin’ - Epic dude - Yo - Tight <p>You have 10 minutes to get through as many of the slang phrases as you can. At the end of the 15 minutes or after each phrase, search for the word on the internet to find its slang meaning. End the activity by thanking everyone for their contributions. You might want to say in a New York accent, “Epic Dudes, you’re really rockin’ it! Yo makin’ that New York Slang sound tight”.</p>
	<p><u>Follow-Up Activity – 3 Times Worksheet</u></p> <p>The App is designed with the real-life questions as a means of formative assessment to give an indication how each student is learning the material throughout the course. Once the students have demonstrated an understanding of the 3 times tables, there is a worksheet available with 12 different questions to either continue practicing or to use as a means of summative assessment. The worksheets include a space for the students to work out the answers. All worksheets are available for download from the following link:</p> <p>https://educationthroughanimation.com/pages/worksheets</p>