Home Learning TV: Junior Maths 

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| **Segment lesson planning details** |  | | | |
| Title for segment: | Tapatoru (Triangle) | | | |
| Year levels *(e.g., Yrs1 – 3)*: | Yr 1-3 | | | |
| NZC learning areas: | Maths | | | |
| Purpose of lesson:  (What learners will learn) | Students will learn to:   * recognise groups of numbers * learn the attributes of a triangle * justify their thinking using *because* * identify triangles around them. | | | |
| Success Criteria – students will be able to:  (how they will know when they have learnt it) | Students will be able to:   * recognise groups of numbers * explain the attributes of a triangle * justify their thinking using the word *because*. | | | |
| **Segment content/context details *(as appropriate)*** | | | | |
| Māori specific content i.e., the learning draws on Mātauranga Māori: | bk Tapatoru (Triangle), Tapawha (Square), Whānau (family), Maori numbers, colours (Whero/Kikorangi) and greetings | Pacific specific content i.e. the learning is focused on Pacific knowledge: | | Tairiiri (Fan), Ngatu/Siapo/Masi (Tapa Cloth), |
| **Segment production details** | | | | |
| Equipment requirements: | PowerPoint | | | |
| Copyright requirements:  Please be specific: Source (*Seven Sizzling Sausages* by Sam Smith –url link to the source), intended use (to demonstrate alliteration), and length (timings for video clips) | <https://www.gettyimages.co.nz/detail/photo/road-junction-milford-sound-royalty-free-image/552459275?adppopup=true>  <https://www.gettyimages.co.nz/detail/photo/close-up-of-bare-tree-against-white-background-royalty-free-image/1032775758?adppopup=true>  <https://www.gettyimages.co.nz/detail/photo/maori-culture-royalty-free-image/186812609?adppopup=true>  <https://www.gettyimages.co.nz/detail/photo/tapa-cloth-ngatu-royalty-free-image/543783191?adppopup=true>  NOTE: photo in slide 10 (Tairiiri) was taken by script writer and gives permission to be used. | | | |
| **Segment links and attachments *(list all links to recordings or attachments, the source and confirm that copyright permissions are granted)*** | | | | |
| Links to recordings /resources |  | | | |
| Attachments |  | | | |
| **Segment plan content** | | | | |
|  | Teaching and learning activities linked to purpose | | High level script (key points/questions) | |
| **Activate**: Activating prior learning, knowledge of contexts and relationships | Greeting and Welcome  Introduce today's learning outcomes  Warm up - quick images  First image slide 2  extending ideas (thinking creatively)  Second quick image for warm up. Extending students  Pressing for justification  Counting in Te Reo  thinking creatively and noticing maths in different ways.  Last warm up image.  Introduction of shapes  Noticing shapes within shapes  Relating to real life situation and linking to home life. | | Greeting and welcome  Today we are going to explore triangles - tapatoru ! (tapa-toru)  If you have a maths book or pen and paper, get that now. If you don’t, you can just follow along in your mind.  Before we do that, let’s warm up our brains by looking at these quick images.  I am going to put an image on the screen for three seconds and then it will disappear. Your job at home is to see what you notice and tell your whānau or maybe you could tell a toy if you have one nearby. You could even talk to yourself about it. You could explain or justify your thinking by using the word *because*.  Here is the first quick image.  Wow! Did you see lots of dots?  Let’s have a look at it.  I can see a group of 4 dots. Can you?  Let’s count - tahi, rua, toru, whā.  Aana!  There is another group of 4 as well.  Did you notice something different?  I can see a group of two.  You might have also seen two dots this way.  You may have seen all of the dots as a group of 8!  Ka rawe!  So much maths in one image!  Let’s have a look at another quick image.  I will show the image on the screen for three seconds and then give you some time to chat about what you noticed.  Did you notice the dots were different colours? Let’s have a look together.  I can see some whero (red) dots and some dots that are kikorangi (blue).  Did you notice that there are six whero dots?  Tahi, rua, toru, whā, rima, ono.  And we can see the same group of dots from the quick image before, so we know that there are four kikorangi dots.  Did anyone see the dots in a different way?  You may have seen two groups of 3  and you may have seen two groups of two in these dots.  You may have also seen two rows of five dots.  That means there are ten dots all together in this quick image.  The next quick image is slightly different. If you have a pen and paper, you may like to draw it. Are you ready?  Wow!  Did you see some shapes?  Let’s have a look.  What is this shape called?  That’s right! it is a square - tapawhā!  I can see three big squares.  Did anyone notice the two smaller squares?  There are shapes all around us! What shapes can you see in your home?  What shape is the screen you are watching this on?  Can you see something in your house that is the shape of a circle? Can you see any triangles around you? | |
| **Learn**: Introducing learning  Reinforce routines, provide multiple exposure to concepts, and strategies. Scaffolding learning | Introduction of task and activating prior knowledge.  Launch of task  Resources: triangle and slideshow  definition of a triangle. introducing new concept and mathematical justification  linking to real day life  Justification  Student to solve  Presenter to justify  Thinking creatively to find another triangle.  Justification (students)  Introducing Cook island culture  Link to community  Students to solve | | We are going to explore the shape of a triangle.  In te reo, the word for a triangle is tapatoru. Tapa means edge and toru means three.  Do you know why this shape is a triangle or tapatoru?  That’s right, it is a triangle because it has three straight sides and three vertices.  Do you know what a vertex is?  Ka pai- it is the name for the point where two lines join.  You might call it a corner.  And when there is more than one vertex, we call them vertices.  So, for a shape to be a triangle it must have three straight lines and three vertices.  We are going to look at some photos of everyday items or pictures from our community. Let’s see if we can find a triangle in the photos.  Remember a good mathematician justifies their thinking by using the word *because*.  Have a look at this photo. Discuss with your whānau. Can you see any triangles, how do you know?  This photo is in the Milford Sounds in Aotearoa New Zealand.  I can see two triangle shapes.  Let’s have a look at the road sign first.  Do you agree that it is a triangle?  Yes, that’s right, it is a triangle because it has three straight sides and three vertices.  You might think that it is an upside-down triangle - but triangles can be rotated or turned around and still just be triangles.  Did you notice another triangle in this photo? Look closely in the background  Ka Pai - the mountain (maunga) it is also like a triangle shape. Can you justify why?  That's right, it has three sides and three vertices.  Let’s look at another picture. This is a fan.  In the Cook Islands it is called a tairiiri (ta-iri-iri) - these are used anywhere it is hot! A festival, church, wedding, anywhere! What name do you use for a fan at home?  Is this fan a triangle? Discuss this with your whānau or explain it out loud to yourself.  Yes, I agree too, it is not a triangle because the sides are not straight. | |
| **Respond**: Providing opportunities to use and practice | Linking to the environment around us.  Making the connection between nature and shapes  Mathematical justification  Introduction to Pasifika culture.  Children to solve  Presenter to solve. | | There really are shapes all around us.  Have a look at this photo of a tree. Can you see a triangle?  There are many branches on this tree that have two sides that could represent the start of a triangle. But we know for it to be a triangle, it must have three straight sides. It looks like the letter V, rather than a completed triangle. [gesture to image]  Is there a tree near your house that has branches like a triangle?  This next photo is of a Ngatu. Which is a tapa cloth. You might have a special cloth like this at home. They can also be called Siapo and Masi.  This cloth has a pattern with lots of triangles on it. Can you find them all? Remember to explain why they are triangles.    So many triangles. Some are short and fat and some are long and skinny.  What do they all have in common?  That’s right they all have THREE straight lines and three vertices. | |
| **Share**: Learner and parent reflection on learning and engagement and what they can do next | Recap on the lesson    What have we learnt              Challenge for home      Farewell | | Gosh. What a fun session.  Today we looked at some quick images and we saw so many different groups of dots and some squares.  We have explored what makes a tapatoru, a triangle.  Did you realise there were so many triangles around you?  Your challenge: have a look around your home or community when out and about, what triangles can you find? Do you think that other cultures also have lots of triangles in their buildings, or in their clothes? Can you think of any?  See you next time. | |