Home Learning TV: Junior Maths – Day 18

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| **Segment lesson planning details** |  |
| Title for segment: | Helping at Home |
| Year levels *(e.g. Yrs1 – 3)*: | Yr 1-3 |
| NZC learning areas:  | Maths - Probability  |
| Purpose of lesson:(What learners will learn) | Learners will discuss the chances of events and justify their reasons for their choice of likelihood. Learners will investigate the probability of an event occurring.Learners will explore possible combinations of events.  |
| Success Criteria – students will be able to:(how they will know when they have learnt it) |  Learners will be able to explain the chance of an event occurring come up with outcomes for different situations.  |
| **Segment content/context details *(as appropriate)*** |
| Māori specific content i.e. the learning draws on Mātauranga Māori: |  | Pacific specific content i.e. the learning is focused on Pacific knowledge: |  Niue – Value of collectivism, reciprocity, and family. Helping out with jobs around the house, it is not just one person’s job to do all the work. Look at probability and the jobs that children can help with around the house. |
| **Segment production details** |
| Equipment requirements: | Continuum and pictures to print or display on whiteboard or use the powerpoint. |
| Copyright requirements: |   |
| **Segment links and attachments *(list all links to recordings or attachments, the source and confirm that copyright permissions are granted)*** |
| Links to recordings /resources | Images: * <https://commons.wikimedia.org/w/index.php?search=taniwha&title=Special%3ASearch&go=Go&ns0=1&ns6=1&ns12=1&ns14=1&ns100=1&ns106=1#/media/File:He_Purapura_-_Te_Taniwha_Me_Te_Poraka_(28006983045).jpg>
* <https://www.nzgeo.com/?s=night+sky>
* <https://collections.tepapa.govt.nz/object/91664>
* <https://collections.tepapa.govt.nz/object/85970>
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| Attachments  | Powerpoint  |
| **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 |  Connecting to prior learning related to the equals sign Presenter has equation on the boardUses the word **because**Presenter writes 7 = 4 + 3 on the board and uses a Think Aloud to explain how she determines they are the same. Uses the word **because**Presenter writes 9 = 4 + 4 on the boardThe presenter could draw dots to show that 8 is smaller than 9 Presenter models the changes on the board as she speaksPresenter reiterates the criteria for the = sign-both sides are equal/balanced | Presenter to greet and welcome children to maths today.Let’s get started with our warm up. See if you can remember what we did last time to help you.Have a look at this equation. Remember that the equals sign here [gesture] means that whatever is on one side needs to be the same value as the other side.…… = 66 is the same as 6.Do you agree with this equation or not? Talk to someone at home and tell them what you think. Can you use the word **because** to explain why you agree or disagree? (Pause 10 secs)Ka pai tamariki ma. This equation is true **because** on each side of the equals sign there is 6. Ok, let’s try another one. (to demonstrate that can be the other way around. Ensures they don’t think that the answer always comes after the = sign)7 = 4 + 3?What about 9= 4 + 4?This equation says that 9 is the same as 4 plus 4.Do you agree with this equation or not? Talk to someone at home and tell them what you think. Can you use the word **because** to explain?Tino Pai tamariki ma.- I can't trick you! This equation is false and the sides are not equal because 4 plus 4 makes 8, not 9. Here’s a tricky question - what do we need to do to make this equation true and equal? Talk to someone at home about what you think!Amazing, you are right, there are two things we could do to make this statement true. We could change the 9 into an **8**. Now our statement reads 8 = 4+4 which is true. Or we could change 9 = 4 + 4 to 9 = 4 + **5**, this statement is now true because both sides are equal and balanced.  |
| **Learn**: Introducing learningReinforce routines, provide multiple exposure to concepts, and strategies. Scaffolding learning  | Introduce focus of the lesson Introduce the idea of a continuum for possibility of different events. Model how to use the continuum for different events. This connects to the first learning intention Presenter points to where on the continuumPresenter explains what each category means as she justifies putting it on the continuum**Challenge for transfer of the learning** | We are going to talk about chance and make some predictions about the day ahead. WOW! We will use what we know to predict what we think will be true.(Show slide 2). Here we have a continuum - at the start we have the word impossible, then unlikely, in the middle we have equal chance, then likely and at the other end we have certain. Let’s use this continuum to think about some things that might happen to us today. Have a think. What is the chance that you will see a real taniwha today? [show Slide 3]. Pause 5 secsI agree tamariki ma it is unlikely that we will see a taniwha today. Unlikely means that something probably won’t happen so let’s put the picture of the taniwha here on our continuum [show slide 4]Okay tamariki ma, here’s another one. What is the chance that it will get dark tonight? (Show slide 5)Ka Pai - it is certain that it will get dark tonight. Certain means that something will definitely happen. I love looking at the beautiful stars in the sky at night time. I will put this picture here [show slide 6]This next question might have a different answer depending on where you are in New Zealand. What is the chance of it raining today? [show slide 7]Have a think with your whānau. I think that the chance of rain is an equal chance. Equal chance means that it might/might not happen. So I am going to put rain in the middle of the continuum here. That might be different depending on where you are right now. Let’s put our picture here [show slide 8]Now here’s a challenge for you. Can you think of some things that are unlikely, certain and have an equal chance of happening today? Maybe you could make your own continuum to put them on. Talk to your family and see what they think. |
| **Respond**: Providing opportunities to use and practice  | Directly relevant to learning intentionInvolves student participation – with options about how it can be doneBrainstorm to activate prior knowledge.Reference back to social justice and values.Introduction of task - Niuean context.Students to solve.Presenter share back and model examples using images from powerpoint.Point to letters beneath the imagePresenter refers to the continuumPresenter writes on the boardModelling how to represent probability using fractions to extend the focus. Connecting back to the continuum representation Presenter writes on the boardExtension activity - Independent task/follow up.  | Today we are going to think about the jobs we do at home to help our magafaoa [family in Niuean, prounced mangafaoa]. It is important that we all help out at home so that not one person is doing all the work. That is equal and fair. Think about some of the jobs that you do to help at home Pause 5 secs You’re so helpful! Some of you make your beds, others help with the dishes, and I’m sure some of you help look after other people in your family. How does it make you feel when you help out at home? How does it make your family feel too? Pause 5 secsYou’re right. Helping at home makes us feel like we’re all working together. That’s a good feeling. Now, let me tell you about my friend Letoafa who was helping out her nana at home. Nana told Letoafa that there were three jobs that she could help with. They were painting some of her iliili [show slide 9], making a tafi [show slide 10) and making a kahoa hihi [show slide 11]. Nana said that Letoafa can only help with two jobs. What two jobs could Letoafa choose to help her Nana with? Is there more than one combination of jobs? Have a think and maybe talk to someone at home. Pause 10 secsWell done tamariki ma. Did you know there’s not one, not two, but three ways that Letoafa could have chosen to help Nana at home. Did you find them all? Let’s explore them now.Two jobs Letoafa could pick could be painting the ili ili and making a tafi. [Show slide 12]. We can label those as I and T for short Two more jobs Letoafa could pick could be making a tafi and making a kahoa hihi. [Show slide 13] Two more jobs she could pick are painting the ili ili and making a kahoa hihi [Show slide 14] Wow-wee. So many options. Which two would you choose?Now I wonder what would the chance be of Letoafa choosing to make a tafi? I’m going to give you some time to think about this. Pause 5 secs[Show slide 15] Hmmmm…. if we think back to our continuum [gesture] what is the chance that Letoafa will choose a combination with the tafi? Is it impossible, unlikely, equal chance, likely, or certain [think time]I agree tamariki ma, it is likely that Letoafa will choose to make a tafi because two out of the three combinations include it [Show slide 16]We can record this as 2/3. This means that the chance that Letoafa will choose the tafi in a combination is two out of three. See how what we’ve written looks like a fraction, and that’s because it is. The mathematical probability of Letoafa choosing the tafi is two thirds.What is the chance that Letoafa will choose to paint the ili ili and make a kahoa hihi? Let’s look at our combinations. I’ll give you some time to think and chat to someone at home. Pause 5 secsLook! We can see that there is only one combination that has both the ili ili and the kahoa hihi. I wonder how we can record it? Pause 5 secsYou’re right tamariki ma. We can write it as a fraction 1/3 This means that the chance that Letoafa will choose this combination is one out of three or 1/3.Here’s a challenge for you to think about after. Nana thinks of some more jobs that Letoafa could help with. They are setting the table and folding the washing. Now there are five jobs, what are all the possible combinations that Letoafa could choose? How many are there? |
| **Share**: Learner and parent reflection on learning and engagement and what they can do next | *Recap the lesson*  | Today we explored the chances of something happening. Some things are likely and some are unlikely. Some things might happen, or they might not. We explored the different ways that Letoafa helps her Nana. Who would have thought that there were so many different ways to help?Remember, helping out at home is important. It would be unfair for one person to do all the work. So what can you do to help your whanau today?If you would like to share your learning with me please text 5811 or email info@hltv.co.nzkeyword: Suzy (on screen: text 5811 or email info@hltv.co.nz)Ka kite ano, see you next time.  |