Home Learning TV – Lesson Plan – 1 October

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| **Segment lesson planning details** |  |
| Title for segment: | The Prime Minister’s problems |
| Year levels *(e.g. Yrs1 – 3)*: | Y1-3 |
| NZC learning areas/ KCs:  | Mathematics and Statistics: number |
| Purpose of lesson:(What learners will learn based on the above) | Learners will be able to solve simple word problems using a range of additive strategies. |
| Success Criteria – students will be able to:(how they will know when they have learnt it) | Learners will be able to show how they solve one, two, or three of the problems pitched (all varying degrees of difficulty). |
| **Segment content/context details *(describe)*** |
| Māori content/context: | Te reo māori vocab | Pasifika content/context: |  |
| Learning Support content/context: | Multiple representations, different strategies, visuals, using materials, repetition of learning, suggest whānau help. | Other (specify): | Using current events and a video by the Prime Minister |
| **Segment production details** |
| Teacher talking time: | **10 min** | Studio requirements: |  |
| Equipment requirements: | 14 soft toysSomething to use as ‘counters’, for example, pegs10 small paper squares (all same size) and five ‘half squares’ cut diagonally.Paper and marker, or whiteboard, to write out mathematical working. |
| **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** |
| Stage | Teaching strategies linked to purpose  | Learning tasks and activities | High level script (key points/questions for presenter)  |
| **Beginning of lesson:**Activating prior learning and relationships | Situate the context, make link to PM. |  | Greet children.Ask children how it is going for them at home or at school (some/all may have returned by 13 may).Lots of teachers have been doing really cool things to help students learn all over the country. Your teacher might have been doing some funny things to help you learn at home, too. I know one teacher called Matua Laurie from a school in Auckland, Birkdale Primary, even called up the Prime Minister to help with his class’s maths learning! Do you know who the Prime Minister is? You might have seen her on the TV or in the paper, giving us information about this strange time in lockdown.Matua Laurie sent a message to Jacinda Ardern, the Prime Minister, to ask her to read out some fun maths problems for everyone to do during lockdown. And guess what – she did! Isn’t that cool. And we’re going to use these problems for our maths today.Have a look at this video – this is our Prime Minister giving us our maths problems for the day. Don’t worry about remembering all the details because we’ll go over them again together. |
| **Main part of lesson (a) :** Introducing learningReinforce routines, provide multiple exposure to concepts, and strategies. Scaffolding learning  | Many scaffolds and variation of challenge points suggested throughout.Use of visuals and multiple representations of the learning, as well as lots of repetition of the learning going between Matua Laurie and Suzy Cato. | Watch PM’s clip: 1:10Details problems:If you play with 5 of your toys before breakfast and then 9 of your toys after breakfast, how many toys have you played with altogether?If you play your guitar 4 times this week, and each time you play for seven minutes, how many minutes will you have played your guitar for this week?If it takes you 2.5 minutes to walk up your street, how long will it take you to walk up your street 5 times?The segment cuts between Matua Laurie taking us through various solutions and suggesting ways students could be interacting at home, and back to Suzy to repeat some of the learning & strategies herself, with encouragement to follow along at home. | [play PM’s clip]Wow, wasn’t that cool! It’s not every day that the Prime Minister gives us some maths to do! Hmm, well, how should we go about working these out? What do you think?Ooh – I know! Let’s ask XXX to help us!XXX, could you help us to figure out the first problem? It was something about playing with lots of toys…[cut to Laurie clip 1]Wow, I liked how there were so many ways to do that! I especially liked that way called ‘counting on’. I might have a go at that myself. Have you got something you can use at home to practice with me? It doesn’t have to be toys, it could be socks, or cups or anything you can count.Now just to repeat the problem in case you’ve forgotten it, it was ‘If you play with 5 of your toys before breakfast and then 9 of your toys after breakfast, how many toys have you played with altogether?’.I have my five toys here, and my nine toys here. I noticed Matua Laurie started with the big number, the nine, in his head. We already know this is nine, don’t we, so we don’t actually have to count them again.[point to the group of nine and say ‘nine’, and then count on to 14. Can you help me do that again using te reo Māori?Iwa, tekau, tekau mā tahi, tekau mā rua, etc.] What a cool trick! I wonder how the Prime Minister figures that problem out… hmm.Well, shall we have a go at the second problem? This one was about playing the guitar, wasn’t it?[I noticed you have a guitar – feel free to ad lib some guitar playing/show and tell/something fun here!]Matua Laurie, can you take us through this problem? And can you tell us exactly what the problem said again please?[cut to Laurie clip 2]Wow! I really liked how Matua Laurie helped us by writing on the board behind him, but he also showed us how we could use materials, like Lego blocks, to help us. I was using my [pegs/lego] while I was watching too, and I liked learning about how I could move the groups around and end up with something a bit easier – something that I could use my two and five times tables for. That was a pretty cool trick, wasn’t it? Did you see it? Let’s do it again now in case you missed it.[copy Laurie’s method and go through very slowly, writing the working on a piece of paper:Set out four groups of sevenThink aloud – well, I don’t quite know my 7 times tables off by heart yet, but I do know my fives – I’m going to split my groups into fives, and well, something else (count) – Oh, twos.Split groups so you have four groups of five in one ‘row’ and four groups of two in another ‘row’.Ok, well I know four times five. That’s 20. Maybe you have been learning to skip count in fives – let’s do that to check. [point to each group as you count] Five, ten, fifteen, twenty! Great.Write 4 x 5 = 20 on board/paper.Next, I know that four groups of two, or four times two, is eight! Let’s skip count in twos to make sure. Two, four, six, eight! Great.Write 4 x 2 = 8 on board/paper.Ok, well if I know that this row here equals 20, and this row here equals 8, then all I need to do is put them together.Write 20 + 8 = \_\_\_\_You might know this straight away. If you don’t, I wonder if we could use that cool ‘counting on’ trick that we learned just before? How did that work? Oh, that’s right. Start with the big number, and count on.Reference the ‘20’ row and say ‘20’, then point to the individuals in the ‘8’ row and count on. 21, 22, 23, etc. to 28.Repeat in te reo Māori: rua tekau, rua tekau mā tahi, rua tekau mā rua, rua tekau mā toru, etc.Wonderful! 28 minutes of guitar playing in the week. |
| **Main part of lesson (b)**Providing opportunities to use and practice  | See above | See above | We’re up to the last one of the Prime Minister’s problems! Can you remember what this one was about? I think it was about walking, and I seem to remember a funny number called 2.5… is that right Matua Laurie?[cut to Laurie clip 3]Wow! I did something similar to help me with this one – but I used squares instead of circles! I think that’s a great way to help me remember what the ‘point 5’ means – it means half. If you don’t feel like you need to use materials for this problem, that’s great. You might just need to write down the numbers and that’s all you need to help you. I’m going to practice this one, would you like to practice with me? If you want to use shapes like I’m doing, you could draw them, couldn’t you?The problem said, ‘If it takes you 2.5 minutes to walk up your street, how long will it take you to walk up your street 5 times?’. That’s a lot of exercise isn’t it?Let’s write down some numbers like Matua Laurie did. [state the problem again and write down 2.5 x 5 = \_\_\_ ]This means five groups of 2.5, or 2 and a half.[Lay out five groups of two and a half squares]I’m going to do what Matua Laurie did – I’m first going to put all the whole squares together. Hmm, I’ve just noticed that the wholes are in groups of two. Will you skip count with me? Rua, wha, ono, waru, tekau! 2, 4, 6, 8, 10! [Write 2 x 5 = 10 on board/paper].Now I’m going to put the halves, or the point-fives, together. I know that a half plus a half makes a whole.[put two halves together, then another two halves together]Ok, I’ve made two wholes, and I have a half left over. What does that makes? Two….. and a half! Or, 2.5.[Write 0.5 x 5 = 2.5 on board and remark that writing 0.5 is how we write half using decimals].Ok, so how many altogether? I have 10 here, and 2.5 here – you might be able to tell the answer from looking, because you know things about adding tens. Perhaps not, and that’s OK – it just means we get to practice our ‘counting on’ again.Let’s start with the big number again (pointing to the squares now): 10 (whole group), 11, 12, …12 and a half! Or, 12.5.[Fill in answer to original multiplication you wrote down].Wow, wasn’t that fun!! We did a lot of practice just now.Thanks Matua Laurie for sharing your awesome story with us, and for helping us figure out the problems that our Prime Minister read to us! That was really special. It’s time to say good bye to Matua Laurie now. Bye, Matua Laurie! Thank you![cut to Laurie clip 4 – note this hasn’t been filmed yet but will be a couple seconds of Laurie saying goodbye and thanks and will be sent directly to Suzy] |
| **End of lesson:**Learner and parent reflection on learning and engagement and what they can do next | Engagement, encouragement to send through learning to Suzy, suggestion of adult in bubble to help. | Suggestions of activities to carry out at home, send through to Suzy. | I love all the photos you’ve been sending me of all the great science and maths learning you’ve been doing at home. Maybe you could send me some photos of you working out problems like these ones at home, I’d love to see them!You could even make up some of your own problems, or ask an adult in your bubble to time your walks up the road and see how long they take you!Ka kite ano tamariki ma. |