Manaiakalani Class OnAir 2022
Lesson Plan Number 9
Zac Moran - Pt England School

Lesson Topic : How to solve the value of a letter using algebraic equations. (Maths)

Year Group : Year 7/8

Learning Outcome	How to solve the value of a letter using algebraic equations.
Links with the New Zealand Curriculum 	**Maths Level 3 NZ Curriculum** • Know basic multiplication and division facts. **Equations and expressions** • Record and interpret additive and simple multiplicative strategies, using words, diagrams, and symbols, with an understanding of equality.
Key Competencies 	**Managing Self** Stay on task when doing my follow up activity, make sure I get it complete and posted on my blog. **Relating to others** Share my thoughts and learning with the group to get support from others and to support my classmates.
Prior knowledge 	We have worked through the 1st 2 steps of Algebraic equations so my learners have a fairly good understanding on how to solve the equations.
Lesson Sequence 	**Session Outline** 1. Warm Up. 2. Session Outline 3. Quick Recap 4. Learn new strategy 5. Discussion - who needs more support? 6. Learners work in pairs to solve problems 7. Share learning with group. 8. Complete Activity

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	Student Activity	Teacher Activity
	Learn: 1. 3x = 18 2. 4a + 16 = 3a + 14 3. Learn how to solve these problems.	1. What do we already know about Algebraic Equations? 2. What is x, a or b? What do these letters represent? 3. 4a + 16 = 3a + 14 4a - 3a = a 16 - 14 = 2 a = 2 Make sure students understand the steps they need to take to solve these problems. Do multiple questions with them. 4. By watching students as they are solving these problems, I'm able to know who needs extra support. 5. Put students in pairs, give each pair 1 problem to work on, once this is completed, let students know that one person will have the whiteboard marker and the other will tell them what to write on the board, giving each person a job makes everyone stay engaged. 6. Give each group the opportunity to share their understanding, if learners make a mistake try and wait for the children to correct the other learners mistakes. 7. Go over activity with learners. 8. Send students off to complete activities.
	Create: 1. Work alongside students from Ruapotaka to solve problems. 2. Solve questions in your maths book. 3. Share the problem you've solved.	
	Share: 1. Share your problem solving with your group. 2. Post activity on your blog.	
Resources	Activity	

Reflection and Analysis

Lesson Content - Lots to reflect on! After teaching this lesson, I was talking with a colleague and realised a better method of teaching this. By explaining to the students, whatever we add or subtract from one side of the equation we have to do to the other side. I'm thinking this would give them a better understanding of how and why we solve these problems. Another thing was that one of the kids had asked during the session what BEDMAS was and why people are talking about it, I took this opportunity to do a quick lesson on what it was and when we have to use it, especially because the next step of algebraic equations is using brackets.

Lesson Pacing - We ended up spending around the same amount of time sharing as we did for the whole lesson, this was great as we had the time to do so, I found this great as students were able to learn and share with each other. I would have normally done this in my 2nd group rotation with that group, had them share.

Lesson Delivery - My learners are loving algebra so much which makes this a lot of fun to teach, they all were really keen on how to solve the more difficult problems. I found myself correcting the groups sharing at the end of the lesson, I was trying to let students do it, however, the teacher inside got the best of me (facepalm) haha.

Student Understanding- I was really impressed with how well our discussions went, because of this I think my learners gained a really good understanding of how to solve these problems. As you could see during the sharing, they are also becoming more confident!