# Name: Miss Jessica walker Date: 1 December 2011 Year Level: 1 Topic: Mathematics: Fractions

**Content strand(s) with corresponding Sub-Strand(s):**

 Identify a “whole” and a “half” as one of two equal parts of whole collections and lengths

**Students’ Prerequisite knowledge / understanding / concepts / skills:**

Students can count and recognise whole numbers from 0-10.

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| Specific Learning Outcomes for this Lesson | **Time Req.** | **Teaching / Learning Strategies** | **Organisation** | **Resources** |
|  **Orientating Phase / Introduction** |
| Students should be able to identify and describe symmetrical object that they have came across in their real world that they have equally shared. | 10min | The teacher makes 2 different coloured pizza’s out playdough and sticks them onto the white board for all students to see. Under the first pizza write ‘ I need to share this pizza between two people and they each need to have the same amount of pizza’. Under the other pizza write ‘ I need to share this pizza between 4 people and they each need to have the same amount of pizza’. Ask students if they can think of something that they have had to share. Accept all answers and encourage students to take part in an enquiry of common items students of their age encounter in the real world. | Students sitting at their desk facing the white board | A large circle cutter. Playdough. White board and white board ruler.  |
|  **Enhancing Phase / Body**  |
| With teacher assistance, students should be able to demonstrate and understand the meaning of halves.  | 15min | Discuss with students they ways objects in their world were shared, who shared the object? Did it work? Were all the pieces the same size?Ask students; “how can we share the first pizza between two people?”Using the white board ruler place it off centre on the first pizza, so that it is clearly uneven. Ask students1. If I cut the pizza like this, would this be sharing? Why?

Continue to place the ruler at different off centre positions, horizontally and vertically and ask students if it would be a fair share between two people. “That’s right, if I cut the pizza this way the two slices will not be equal” Ask a student to come up to the board to show how the pizza can be cut into to parts that are the same size. Ask students:1. 1) If I cut the pizza like this, would this be equal? Why?

Using the ruler to cut the pizza in half. (By placing pressure on the ruler the playdough will separate, but stay in the white board). Re-read the question and ask random students if we have answered the question correctly and explain how we are correct.  Next to the pizza write “the pizza has been cut into 2 parts that are the same size, they are equal”. | Students sitting at their desk facing the white board | A large circle cutter. Playdough. White board and white board ruler |
| **Synthesising Phase / Conclusion**  |
| With teacher assistance,students should be able to demonstrate and understand the meaning of halves and quarters and length.  | 15min | Repeat the task with the second pizza that needs to be separated in to four parts that are of equal size. Ensure that you discuss with students the importance of having equal parts and reflect on the first pizza if students become confused. Next to the second pizza write “The pizza has been cut into 4 parts that are the same size”. Using the White board ruler, now make a meter long strip of Playdough onto the White board. “This time I have a skipping rope to share between two people” Explain and show the students that the strip is the same length of the ruler. Fold the strip in half and ask students if the string is equal. We know that the sting is folded in half equally because the string is straight along the ruler and both ends of the strip meet each other. Cut the skipping rope in half. “What can we use to see if the parts are the same?” Try student’s suggestions, and discuss with students. Get two students to come up to the board and stand next to the two equal parts of the first skipping rope.“Now Josh has this part of the skipping rope and Kate has the other part of the skipping rope. What would happen if James asked to share Josh’s skipping rope, and if I asked Kate if she would share her part of the skipping rope?”Repeat the process of cutting the Two equal parts in two parts ¼.“Now how many parts of the skipping rope do we have?”Answer 4.  “Are they all the same size? “Let’s check. Answer: Yes.“Has the size of the skipping rope changed?, let’s check. Answer. No it is the same size when we put it back together.  | Students sitting at their desk facing the white board | A large circle cutter. Playdough. White board and white board ruler |

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| **Assessment Strategies (link to Learning Outcomes):*** Formative- students identifying real world symmetrical objects
* Formative- students identify uneven portions
* Formative- observing students discuss ways of finding an equal part.
 | **What’s next? Where to from this lesson?**From here students will need to continue to practice and reinforcing the concept of halves and quarters at the students materials stage. This is because fractions are a difficult concept to introduce to student that needs to be done in simple and clear steps. Rushing to the next stage of the language model at this stage will most likely cause confusion, although it could be beneficial for those students who develop the concept early to be introduced to some concepts/skills at the materials language stage. During this lesson, some mathematical language was used, such as equal and part, but this is because it is a clear and correct language that most students would have experienced in their everyday.  |