# Who’s Number line is it Anyway’s?

# Name: Miss Jessica walker Date: 1 December 2011 Year Level: 2 Topic: Mathematics: Whole number

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

**Knowledge and Understanding:** Number**-** Whole numbers (to 999) can be represented in different ways, including the use of concrete

materials, pictorial materials, number lines and technologies.

**Ways of Working:** identify mathematics in everyday situations; plan activities and investigations to explore mathematical

concepts, questions, issues and problems in familiar situations; pose basic mathematical questions and identify simple

strategies to investigate solutions

**Content Description(s) with corresponding Elaboration(s):**

Students pose basic mathematical questions and identify simple

strategies to investigate solutions.

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

Students need to be able to identify the symbolic representation of numbers 0-9. Students need to know basic attributes to shapes.

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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 count objects to 10 with one to-one correspondence. Students should be able to count small collections in  different arrangements and from different starting points. | 10min | Have the numbers 0-9 cut out and laminated. Ask students to count the numbers with you starting from one. Stick the numbers all over the white board, below a number line. Introduce students to the number line. “This line here is called a number line. And we place our numbers along it (pointing to the corresponding marks that indicate a number) Do you see this arrow at the end?” allow students to predict the purpose of the arrow. “This arrow means that the numbers continue on, so this means that you can count and count and count and you will not come to an end number. Who has heard of the word infinity? Yes that’s right it means something never ends”.  Place cut out numbers on number line. Ask students where to place them as you go along. “I only have the numbers 0-9, but what number would I need to cut out next to place on the number line?Yes that’s correct 10!”Ask students to close their eyes. Take three numbers off the number line. Ask students to open their eyes. “Can you tell me what numbers a missing? How did you know that 7 was missing?”. Repeat until all students have found a missing number. | Students sitting on the mat. | Cut out’s of numbers 0-9. White board with number line on it. |
| **Enhancing Phase / Body** | | | | | |
| Students should be able to respond to familiar language of experientially based measurement attributes, e.g. big,  full, high, small. Students should be able to sort collections by single  attributes such as shape, colour or size of objects. Students should be able to identify and describe similar characteristics and attributes when matching. | 20 | Using a closed large box. Cut out two holes large enough for students to place their hands in. Place the cut out numbers into the box. Ask a student to place their hands into the box and pick out a number with. Ask the student to tell the class what shape it is and why be describing the attributes of the shape. Once the students correctly answer the number as them to correctly place the number onto the number line. Repeat this task until all students have had a turn. | Students sitting on the matt, facing the front. | Cut out of numbers 0-9. Cardboard box.  Number line on butchers paper. |
| **Synthesising Phase / Conclusion** | | | | | |
| Students should be able to investigate and communicating ideas about quantities and their representations, and attributes of objects and collections. Students should be able to identify and order shapes by two attributes using only their sense of touch**.** | **20** | Using the same cardboard box, replace the cut out numbers for different shapes. Make sure some shapes have had bubble wrap on them to act as an attribute. “Ok Class now we are going to do the same activity, except this time we are going to be using these shapes. You will notice that they are not all the same shape, and some have some bubble wrap on them. To make it more difficult, this time you are only allowed to tell the class two clues about the shape you have in your hand!” This will encourage students to press on the bubble wrap, to identify an attribute. When students do not hear a ‘pop’, they will be able to make the assumption that there is no bubble wrap on the shape. The two clues that are allowed to tell their peers, will allow the students to identify the shape. | Students sitting on the matt, facing the front. | Cardboard box. Cut out shapes. |

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| **Assessment Strategies (link to Learning Outcomes):**   * Formative- Students ability to organise symbolic picture of numbers 0-9 * Formative- Students ability to describe attributes of shapes and number shapes. * Formative- students ability to eliminate shapes and numbers, and make predictions. | **What’s next? Where to from this lesson?**  From here students will be explore attributes and patterns in their real world, and will further explore and develop the understanding of a number line and it’s mathematical importance when working with whole numbers. |