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| **Student(s) Name(s)/ ARCOTS Code**: | | | |
| **Date :** | | | |
| **Developmental Domain** | **Progression of Numeracy**  **Strand: Number** | | |
| **Developmental Level & Nutshell Statement** | **Level E:**  **Use properties of operations as strategies to multiply and divide. Round numbers using the knowledge of place value. Represent whole numbers on the number line, find segment length and understand concept of unit segment. Recognise unit fractions in both numerical and geometrical form (express area of a part of a shape as a fraction). Compare fractions with same denominator or numerator. Describe and extend geometric and numeric patterns.** | | |
| **Evidence for this level?** (What makes you say this? | ARCOTS testing student ZPD was Level E. Analysis of work samples against the progression confirmed this. | | |
| ***What is the student ready to learn?*** | ***What are the expected outcomes and evidence?*** | ***What interventions has the teacher planned?*** | ***What worked? What next?*** |

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| **Learning Intention/s**  (Specific **skill** or concept or part thereof to be learned) | **Evidence** (What the students will be able to do, say, make or write): | **Teaching Strategy** (What the *teacher* says, does, makes or writes) | **Learning Activity**  (Describes what the students are actually going to do) | **Resources** (People, place or things used in the activity to realise the learning strategy) | **Review & Reflection** |
| Students will be able to understand the meaning attached to the numerator and denominator. | Students name simple fractions.  Students use the mathematical vocabulary of denominator and numerator to describe the parts of the fractions.  Students generate a verbal/visual/physical model which demonstrates the meaning of denominator and numerator.  Students write fractions in numerical form. | ***JUNIOR YEARS***  ***Expositive***  • Teacher will write a fraction on the board in written and numerical form and introduces proper names for ‘top’ – numerator and ‘bottom’ – denominator (‘d for down’) of fractions.  • Teacher will illustrate the meaning of denominator and numerator using concrete materials.  ***Individualistic/Interrogative***  • Teacher will ask students to work in groups using pre-cut ‘tiles’ to explore the concept of denominator and numerator. | ***JUNIOR YEARS***  • Students will explore the meaning of numerator and denominator using:  - Paper folding activities  - Make me 3/4  - Sticky numbers  • Students use pre-cut ‘tiles’ (ex cut into 3,4,8 & 10 equal pieces) They are asked to pick up 1 of the pieces and name the piece. (Extend to multiple pieces). | • Pencil, paper, colouring pencils, scissors.  •Pre-cut tiles. | **Review Date:**  **Reflection:** |
| ***MIDDLE YEARS***  ***Expositive***  • Teacher will illustrate the meaning of denominator and numerator using concrete materials.  ***Individualistic/Interrogative***  • Teacher will ask students to investigate around the school environment where fractions are displayed or can be used, analysing the meaning of numerator and denominator. | ***MIDDLE YEARS***  • Students will explore the meaning of numerator and denominator using:  - Paper folding activities  - Make me 3/4  - Sticky numbers  • Students look around the school environment to see where fractions are displayed or can be used, to then present these examples explaining the meaning of numerator and denominator. | • Pencil, paper, colouring pencils, scissors.  •Pre-cut tiles. | **Review Date:**  **Reflection:** |
| ***UPPER YEARS***  ***Expositive***  • Teacher will lead paper folding activity emphasising the number of equal parts as naming the parts (denominator from the Latin meaning name).  • Teacher then will use paper folding outcomes to have students colour designated numbers of parts, the numerator (from Latin meaning count).  ***Individualistic/Interrogative***  • Teacher will challenge students to create a model of a chosen fraction, naming the parts and explaining what they represent within the model. | ***UPPER YEARS***  Students will:  • complete paper folding activities with an emphasis on how many equal parts are produced by the activity and how this is recorded.  • complete designated colour parts activity with an emphasis on the number of equal parts coloured and how that is recorded.  • choose a fraction and model it by paper folding and present it to a partner who has to describe how to create the name, in words and symbolically. | • Pencil, paper, colouring pencils, scissors.  •Pre-cut tiles. | **Review Date:**  **Reflection:** |
| **Rationale:** | Differentiated context, the activities proposed on the first line can be more suitable for junior years’ students. In turn, the activities on the second and third line can be more suitable for middle and upper years’ students, respectively. | | | | |