**MATHEMATICS EARLY STAGE 1**

**TEACHING AND LEARNING OVERVIEW**

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| TERM: | WEEK:4 | STRAND: Statistics and Probability | **SUB-STRAND: Data** | **WORKING MATHEMATICALLY:****MAe1-WM** |
| OUTCOMES: MAe-17SP | **Represents data and interprets data displays made from objects** |
| **CONTENT:**  | **Organise groups into simple data displays and interpret the displays*** Arrange objects in rows and columns according to characteristics to form a data display
* Give a reason why a row of three objects may look bigger than a row of five objects
* Compare the sizes of groups of objects by counting (Reasoning)
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| ASSESSMENT FOR LEARNING(PRE-ASSESSMENT) | * Pre assessment

Worksheet- Classification of groups according to their shape and /or colour |
| WARM UP / DRILL | * **IWB** graph-and-tally.html
* Carry out survey and record observations in tally charts, picture graphs and pictographs
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| TENS ACTIVITYNEWMAN’S PROBLEMINVESTIGATION  | My lunchbox is shaped like a square. Your lunchbox is shaped like a rectangle. Can they be the same length? |
| QUALITY TEACHING ELEMENTS | **INTELLECTUALQUALITY** | **QUALITY LEARNINGENVIRONMENT** | **SIGNIFICANCE** |
| * Deepknowledge
* Deepunderstanding
* Problematicknowledge
* Higher-orderthinking
* Metalanguage
* Substantivecommunication
 | * Explicit quality criteria
* Engagement
* High expectations
* Social support
* Students’ self-regulation
* Student direction
 | * Background knowledge
* Cultural knowledge
* Knowledge integration
* Inclusivity
* Connectedness
* Narrative
 |
| RESOURCES | Metalanguage signs and environmental print. Lunchboxes, cardboard, pictorial representation of a lunchbox, pencils, paper, glue, hoops, data worksheet |

**TEACHING AND LEARNING EXPERIENCES**

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| WHOLE CLASS INSTRUCTIONMODELLED ACTIVITIES | GUIDED &INDEPENDENT ACTIVITIES |
| Explicitly communicate lesson outcomes and work quality* Teach and review 2D shapes
* Define and reinforce language used in the unit eg data, column, row, longest, smallest, equal, unequal
* Class discussion of knowledge of different types of graphs
* IWB [www.turtle](http://www.turtle) diary.com Record number of animals on farm. Make a tally chart using tally marks. Explain that a tally mark is used to record how many.
 | LEARNING SEQUENCEPre Foundation Skills | * Review terms and explore properties of simple 2D shapes
* Revise terms longest/shortest
* Student investigate and identify simple 2D shapes
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| LEARNING SEQUENCEES1 | **Whole class instruction and modelled activities*** Students get their lunchbox and place in front of them in a circle
* With a partner, discuss how we can classify these lunchboxes eg shape/ colour/ length
* Place lunchboxes into hoops labelled with colour names.
* Discuss findings according to number in each hoop. Make a simple tally graph using this information. Colour lunchbox representation using correct colour, emphasising matching skills.
* Using each group, place lunchboxes end to end to make rows
* Discuss the findings eg does the group with the most colour also make the longest group? Why/ why not?
* Make more groups using shapes of lunchbox lids eg square/ rectangular etc. Discuss findings. In a group, make your own tally graph. Compare all findings and discuss.
* Investigation: Find square and rectangular shapes in the environment.
* Assessment: Interprets the picture graph and completes data worksheet.
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| LEARNING SEQUENCEExtension S1 | * Explain interpretations of information presented in data displays.
* Write a simple sentence to describe data in a display.
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| **EVALUATION &REFLECTION** | **Student engagement: Achievement of outcomes:****Resources: Follow up:** |

* All assessment tasks should be written in **red** and planning should be based around developing the skills to complete that task.
* Assessment rubrics or marking scale should be considered.