**EARLY STAGE 1**

**TEACHING AND LEARNING OVERVIEW**

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| TERM:  | WEEK: 4 | STRAND: MEASUREMENT & GEOMETRY | **SUB-STRAND:** AREA | **WORKING MATHEMATICALLY:** MAe-1WM & MAe-3WM |
| OUTCOMES: | **MAe-10MG: Describes and compares areas using everyday language** |
| **CONTENT:**  | **Use direct comparison to decide which shape has a larger area and explain their reasoning using everyday language.*** Demonstrate how one surface is bigger than another by comparing directly
* Predict whether a surface will be larger or smaller than another surface and explain the reasons for this prediction
* Record area comparisons informally by drawing, tracing or cutting and pasting, and by using numerals and words
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| ASSESSMENT FOR LEARNING(PRE-ASSESSMENT) | * Class discussion: Ask a student to choose an area in the classroom (E.g door, window etc(. Then ask the class “Put your hand up if you can see something in the classroom which is ‘smaller than’ the door,”, “Put your hand up if you can see something outside the classroom that is bigger than the door.”
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| WARM UP / DRILL | * IWB – Flashcard notebook of common 2D images. Ask students to call out as a class whether the images are bigger or smaller than a classroom door mat.
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| TENS ACTIVITYNEWMAN’S PROBLEMINVESTIGATION  | Addition with egg carton TENS frames:Students can play independently or as partners. I added a set of numeral cards 0-10 to the centre. Mix up the cards. I had the student choose a numeral card. Explain that the card that chosen will always stand for the first number in the addition sentence. Students will represent the number sentence with manipulatives in the ten frame and then record it on the recording sheet. |
| QUALITY TEACHING ELEMENTS | **INTELLECTUAL QUALITY** | **QUALITY LEARNING ENVIRONMENT** | **SIGNIFICANCE** |
| * Deep knowledge
* Deep understanding
* Problematic knowledge
* Higher-order thinking
* Metalanguage
* Substantive communication
 | * Explicit quality criteria
* Engagement
* High expectations
* Social support
* Students’ self-regulation
* Student direction
 | * Background knowledge
* Cultural knowledge
* Knowledge integration
* Inclusivity
* Connectedness
* Narrative
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| RESOURCES | Egg cartons x 5 ,Manipulatives (counters, unifix cubes etc), IWB flashcard notebook file, Paint, Cardboard, ScissorsNewspaper, Glue, Chip packets, Leaves, Zip lock bags |

**TEACHING AND LEARNING EXPERIENCES**

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| WHOLE CLASS INSTRUCTION MODELLED ACTIVITIES | GUIDED & INDEPENDENT ACTIVITIES |
| * The teacher models comparing by superimposing one shape over another. Students’ responses are listed in a table.
* Teacher models opening a big of shapes. The teacher chooses 2 shapes to compare and predicts whether which shape is larger. The teacher then models superimposing the shapes to find the shape with the largest area. Students are then organised in the 5 small groups.
* Teacher models covering a shape with smaller tessellating shapes.
* Teacher models drawing and painting a large shape on a piece of paper. When dry the shape is cut out.
 | LEARNING SEQUENCEPre Foundation SkillsPre- Kindergarten | **Comparing areas** * In small groups, students draw a shape on paper and are asked to find three areas that are bigger, smaller or about the same size. Students discuss how they compared the areas. The teacher models comparing by superimposing one shape over another. Students’ responses are listed in a table. The responses are used to create a brainstorming chart o language used in area.
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| LEARNING SEQUENCEES1 | 1. **Bag of Shapes – Prediction**
* 5 bags of shapes are prepared. The students are organised into 4 small groups. Each group is given a bag of shapes. In turns, each student randomly selects two of the shapes from the bag, estimates which one is bigger, and superimposes the shapes to test their prediction. They share their observations with the group.

Students are asked to describe how they worked out which shape was bigger and to record their comparisons.* Possible questions include:
* Can you describe what you have done?
* How did you compare these two shapes?
* Was your prediction/guess right?
1. **Cover Up Shape Tessellation**
* Students cover a shape with various tessellating and non-tessellating objects such as thin books, pieces of paper, sheets of newspaper, leaves or chip packets.
* Possible questions include:
* The entire shape covered?
* That other objects could you use so that the entire shape is covered?
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| LEARNING SEQUENCEExtension S1 | **Let’s Compare Shapes*** In pairs, each student is given a piece of paper and asked to draw a large shape. They paint or colour the area of the shape and cut it out. Students compare the size of their shape with their partner’s shape by superimposing. Students glue their shape onto paper and write a statement comparing their shape with their partner’s shape eg ‘Hugo’s shape is bigger than Alexandra’s.’
* Possible questions include:
* What is area?
* Can you show me the area of this shape?
* How do I know which area is bigger? Can you show me?
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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.