**EARLY STAGE 1**

**TEACHING AND LEARNING OVERVIEW**

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| TERM:  | WEEK: 3 | 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.*** Use comparative language to describe area, e.g. bigger than, smaller than, same as
* Ask questions about area in everyday situations, eg ‘Which book cover is bigger?’
* Compare two areas directly, eg superimposing or super positioning two surfaces
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| ASSESSMENT FOR LEARNING(PRE-ASSESSMENT) | * Class discussion: Ask a student to stand out the front of the classroom. Then ask the class “Put your hand up if you can see something in the classroom which is ‘smaller than’ the student,”, “Put your hand up if you can see something outside the classroom that is bigger than the student.”
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| WARM UP / DRILL | * IWB – Flashcard notebook of common images. Ask students to call out as a class whether the images are bigger or smaller than their teacher’s IWB.
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| TENS ACTIVITYNEWMAN’S PROBLEMINVESTIGATION  | “Building on teens with teddies”:Students use their ten frame cards to build numbers into the teens. They first put out a 10 ten frame. Then they turn over a second card from the pile and add it onto the ten. They then fill up the ten frame trays (Ice cube trays or normal TENS frame) with the teddy bears to show the number on the cards. Once the trays show the number, they record it on their whiteboard. Students continue to turn over a new card to add onto the 10 ten frame and then build with teddy bears. |
| 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 | Paper, Pencils, Various size leaves, Glue sticks, Notebook flashcard of images, Teddies, Ice trays x 4-5 or TENS frames, White boards x 4-5 per group, Whiteboard markers, 1 – 10 set of cards (2 per group = 10) |

**TEACHING AND LEARNING EXPERIENCES**

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| WHOLE CLASS INSTRUCTION MODELLED ACTIVITIES | GUIDED & INDEPENDENT ACTIVITIES |
| Show students 4 different triangles. Model finding the triangle which is the same size, bigger than and smaller than.* The teacher presents the following story: ‘This morning I found a handprint in the classroom. I have made copies of the handprint so that we can find who it belongs to.’ The teacher then models superimposing her/his hand onto the handprint and asks the class if it is the same as, bigger than or smaller than.
* Teacher models comparing by superimposing one shape over another.
 | LEARNING SEQUENCEPre Foundation SkillsPre- Kindergarten | **Match the shape:*** Students are given four small pieces of paper, card or fabric. Two pieces are the same size and shape, and two are the same shape but different sizes. Possible questions include:
* Which shape is the same as this one?
* What shape is bigger than this one?
* Which shape is smaller than this one?
* How do you know they are the same?
* Can you describe how they are the same?

\*Extension: The activity could be repeated for a wider range of shapes in smaller gradations of size. |
| LEARNING SEQUENCEES1 | * **Handprint Detective**

The teacher presents the following story: ‘This morning I found a handprint in the classroom. I have made copies of the handprint so that we can find who it belongs to.’Possible questions include:* Can you work out if your hand is bigger, smaller or about the same area as the handprint?

Students superimpose their hand onto the handprint. Students explain how they checked if their hand was a match, and if not, whether their hand is bigger or smaller than the handprint. (Adapted from CMIM)* **Ordering Leaves**

Students collect or are given a collection of leaves.Possible questions include:* Which leaf is the biggest/smallest?
* How can you tell which leaf has the biggest/smallest area?
* Can you show me a leaf that is smaller/bigger than this one?
* Can you sort the leaves according to their size?

Students are shown an outline of a tree shape and are asked to identify the group of leaves they would use:* If they had to cover the tree shape completely and explain why
* If they had to use as many leaves as possible
* If they weren’t allowed to use many leaves.

Students are then given an outline of a tree shape and are asked to glue leaves onto the shape so it is completely covered. |
| LEARNING SEQUENCEExtension S1 | **Find a Bigger Area*** In pairs, 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.
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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.