**MATHEMATICS STAGE 1**

**TEACHING AND LEARNING OVERVIEW**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| TERM:  | WEEK: 1 | STRAND: Measurement and Geometry | **SUB-STRAND:** Position 1 | **WORKING MATHEMATICALLY:** MA1-16MG |
| OUTCOMES: | **Represents and describes the positions of objects in everyday situations and on maps.** |
| **CONTENT:**  | **Give and follow directions to familiar locations*** Use the terms 'left' and 'right' to describe the positions of objects in relation to themselves and from the perspective of a person facing in the opposite direction, eg 'The ball is on her left' http://syllabus.bos.nsw.edu.au/wsimages/cca/l.png
* Give and follow directions, including directions involving turns to the left and right, to move between familiar locations, eg within the classroom or school.
* Give and follow simple directions using a diagram or description (Communicating) http://syllabus.bos.nsw.edu.au/wsimages/cca/l.png
* Give and follow instructions to position objects in models and drawings, eg 'Draw the bird between the two trees'http://syllabus.bos.nsw.edu.au/wsimages/cca/l.png
* use amounts of turn (full and half) to describe direction (Communicating) http://syllabus.bos.nsw.edu.au/wsimages/cca/l.png
 |
| **ASSESSMENT FOR LEARNING**  **(PRE-ASSESSMENT)** | Students complete a KWL on position.  |
| **WARM UP/ DRILL** | Students participate in left and right concepts. * Kicking a ball left or right foot only.
* Dancing the Hokey Pokey
* Singing songs with left or right body parts.

Eg. Right left kind of day <https://www.youtube.com/watch?v=uY421EKYMjQ>Twist! <https://www.youtube.com/watch?v=uY421EKYMjQ>  |
| TENS ACTIVITYNEWMAN’S PROBLEMINVESTIGATION  | If Michelle had 6 red pencils and Fred had 8 blue pencils. How many pencils did they have altogether? |
| 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
 |
| RESOURCES | Music for heel and toe, felt board, wrist tags or bracelets, grid paper, various pictures |

**TEACHING AND LEARNING EXPERIENCES**

|  |  |
| --- | --- |
| WHOLE CLASS INSTRUCTION MODELLED ACTIVITIES | GUIDED & INDEPENDENT ACTIVITIES |
| * **Explicitly communicate lesson outcomes and work quality.**
* **Teach and review** left and right
* **Discussion:** What are some activities you can do your best with your right hand and what are some activities you can do best with your left hand?
* In groups, students **brainstorm** as many positional words they can think of. Discuss as a whole class.
* Using the **IWB**, students drag pictures of familiar objects to new places described by teacher using positional words.
 | LEARNING SEQUENCERemediationES1  | * Students:
* Review terms of position words eg left and right, next to, behind, inside.
* Students describe in relation to another object using everyday language such as between, next to, behind or inside.
* Students describe in relation to themselves using everyday language such as between, next to, behind or inside.
 |
| LEARNING SEQUENCES1 | * **Ignition Activity**

Working with partner give directions to go to a place without using direction words (to emphasise need for direction words) Variation: Students describe where something is in the room without using direction words. * **Partner left partner right**

In pairs, facing each other, students follow a pattern for clapping eg clap right hands, clap left hands, then clap both hands together. Possible questions include: what do you notice when you both clap left hands together? Students learn some dances involving some clapping sequence with students facing each other in pairs eg Heel and Toe Polka’. Students could also learn other dances involving linking arms and moving right or left.* **Simon says**

Play ‘Simon Says’ using location words. *Simon says jump on your right foot. Simon says next to your seat.** **Find my Special Place**

In pairs, students select a ‘special place’ near the classroom or in the school. They write instructions using left and right turns and include references to special features and landmarks to lead to their special place. Students swap instructions and then try to locate their partner’s special place. * **Partner boards**

Taking turns, students describe to a partner where to place objects on a felt board.* **Moving to the Left or Right**

The teacher identifies situations that are part of normal routine where the students turn left or right to reach a destination. For example, ‘Turn right off the assembly area to go to our room’, ‘Turn right at the corner * **Left Hand, Right Hand**

Students make re-usable wrist tags or bracelets in an identifying colour to use when playing games and dancing eg lemon for left and red for right. Students participate in games and dances involving left and right concepts eg catch and throw a ball using the left or right hand only. * **Creative:**

Cut out pictures and using positional words from the teacher, students stick them into an empty space on the grid. Then answer the questions about the grid.: eg a bird, ball, cat girl on the sheet using positional words such as below the table, above the door, up in the tree and underneath the slide. |
| LEARNING SEQUENCEExtension Early S2 | * Students are asked to describe the location of an object in the classroom

e.g. ‘My picture is fifth from the left and it’s in the second row on the back wall’. Students write a description of the object using positional clues. The teacher collects the clues and reallocates them back to the students. Students read the descriptions and locate the object.* **Extension:** In pairs, Student A hides an object in the room while Student B turns away.

Student A gives Student B directions to find the hidden object. Student B then has a turn at hiding the object. |
| **EVALUATION & REFLECTION** | **Student Engagement: Achievement of Outcomes:****Resources: Follow Up:**  |