**MATHEMATICS STAGE 1**

**TEACHING AND LEARNING OVERVIEW**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| TERM: | WEEK: 5 | STRAND: Measurement and Geometry | **SUB-STRAND:** Position 2 | **WORKING MATHEMATICALLY:**  MA1-1WM |
| OUTCOMES: MA1-16MG | | **Represents and describes the positions of objects in everyday situations and on maps** | | |
| **CONTENT:** | | **Interpret simple maps of familiar locations and identify the relative positions of key features**  \* Make simple models from memory, photographs, drawings or descriptions  \* Use knowledge of position in real-world contexts to re-create models  \* Draw a sketch of a simple model | | |
| ASSESSMENT FOR LEARNING (PRE-ASSESSMENT) | |  | | |
| WARM UP / DRILL | | **Positional Concentration**  Students shuffle a pack of cards or part of a pack and place the cards face down in rows. In pairs, students take turns in instructing the other student, using the language of position, which cards to turn over eg turn over the fifth card in the second row. The aim of the game is to turn over two cards  that match. If the two cards turned over match, then the student who gave the instruction wins the cards and has another turn. If the two cards do not match they are turned back over in the same position and the other player has a turn.  The winner is the student who has the most cards when all the cards have been matched. | | |
| TENS ACTIVITYNEWMAN’S PROBLEMINVESTIGATION | |  | | |
| 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 | | Packs of cards for pairs of students, paper, pencils, textas, lego, clay, plasticine, cardboard boxes of various sizes, paints. | | |

**TEACHING AND LEARNING EXPERIENCES**

|  |  |  |
| --- | --- | --- |
| WHOLE CLASS INSTRUCTION MODELLED ACTIVITIES | GUIDED & INDEPENDENT ACTIVITIES | |
| Explicitly communicate lesson outcomes and work quality.  * **Model of a Farm**   In small groups, students make a model of a farm using small toys, pictures and junk materials. Students are asked to describe the position of objects in relation to other objects eg ‘The horses are next to the cows’,  ‘The stable is behind the farmhouse.’  Students make a sketch of their model and plan a path the farmer could take each morning to ensure he feeds all of the animals. Students could act out the path on the model and record the path on the sketch.  *Variation:* In pairs, students work on a computer and use simple shapes from a draw program to draw one of their sketched models. A line tool could be used to trace a route or path.  Possible questions include:  ❚ can you sketch a model a friend has constructed?  ❚ can you describe the position of objects in your model?  ❚ what objects are on the left of the house? right of the house?   * Website :-   TES collection Maths: Position, Direction and Movement - KS1 | LEARNING SEQUENCERemediationES1 | * **Where am I Going?**   In pairs, Student A sketches a known route and describes it to Student B. Student B then guesses the destination from the described route. Student B checks their guess by looking at the route on the sketch. |
| LEARNING SEQUENCES1 | * **Model from memory**   Take students for a walk around the school, encouraging them to observe all the major items. On their return to the classroom, students list what they have seen. Then, in small groups, students use a variety of small and large boxes, and cardboard to represent the objects they have listed. (These can be painted and decorated to look like the objects they represent.) The group can then arrange their pieces appropriately and present their model to the class. Repeat this activity using a variety of locations and construction materials. |
| LEARNING SEQUENCEExtensionEarly S2 |  |
| **EVALUATION & REFLECTION** | Did the children enjoy the activities? Were the outcomes achieved? Were the students given many opportunities and experiences of making models and drawing simple sketches? |

* 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.