## Position 2

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Teaching and Learning Activities</th>
<th>Notes/ Future Directions/Evaluation</th>
<th>Language / Date</th>
</tr>
</thead>
</table>
| **A student:**  
› describes mathematical situations and methods using everyday and some mathematical language, actions, materials, diagrams and symbols **MA1-1WM**  
› represents and describes the positions of objects in everyday situations and on maps **MA1-16MG** | **Background Information**  
Making models and drawing simple sketches of their models is the focus for students in Stage 1. Students usually concentrate on the relative positions of objects in their sketches. Representing the relative size of objects is difficult and will be refined over time, leading to the development of scale drawings in later stages. Accepting students' representations in models and sketches is important. | Position, location, map, path. |  

**AC Syllabus reference:**  
Hard copy Page: 117  
Digital: 120

### Activity

**Explicit Mathematical Teaching**

Interpret simple maps of familiar locations and identify the relative positions of key features (ACMMG044)

- interpret simple maps by identifying objects in different locations, eg find a classroom on a school plan map
- describe the positions of objects in models, photographs and drawings
- give reasons when answering questions about the positions of objects (Communicating, Reasoning)
- make simple models from memory, photographs, drawings or descriptions, eg students make a model of their classroom
- use knowledge of positions in real-world contexts to re-create models
**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.

**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.

**On the Left, On the Right**
The teacher and students identify a variety of situations where ‘left’ and ‘right’ always apply.
Possible situations include:
- when entering our toilets, girls are on the left and boys are on the right.
- on the left side of the chalkboard are reading groups and on the right side of the chalkboard is mathematics.
- the left-hand door goes to the office, the right-hand door goes to the staffroom.

**Treasure maps:**
Have a pre-made treasure map on grid paper, student work in pairs and one student hides the treasure somewhere on the map and then they give instructions to their partner so that they place their treasure in the same location on their map.
**Extension:** Write instructions to find the treasure and give them to partner to find.

**Model from a Photograph or Map**
The teacher accesses an aerial photograph or a tourist-style map eg a map of the zoo, a local town. Students make a simple model from the photograph or map using small toys, blocks and junk materials. Students discuss the position of objects in relation to other objects.
Possible questions include:
- can you plan a route that takes you from one location to another? Discuss the differences and similarities between various routes.
- what difficulties did you encounter when you built your model?

**Memory Model**
Students walk around the school observing the main buildings, landmarks and pathways.
In small groups, students use blocks, small boxes and junk materials to reconstruct a model of the school from memory.
Students are asked to identify the main features of their model eg ‘This is the play equipment.’
Possible questions include:
- can you describe the position of features in relation to other features? eg ‘The toilets are next to the play equipment.’
- can you demonstrate and describe the route taken to get to particular parts of the school?
- can you sketch your model and mark special routes onto your sketch in different colours?

**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?