

Multiple Locations

A student is guided to four different locations. Place four different coloured markers around the room (or on a grid). Students act as guides by giving instructions that enable another student (follower) to follow a path that takes them to each of the four locations.

Supporting resources include printable grids.

## Options

* Download a ready-made grid.
* Download the dot paper to make your own grid.
* Visit 1, 2, 3 or 4 locations in a specified or random sequence.
* Find the quickest way to multiple locations.
* Give directions to direct a follower to create a regular shape, such as a square, equilateral triangle, regular pentagon.
* Give coordinates to hidden items in the classroom.
* Venture outside to use specific school landmarks.

## Considerations

* Students may work individually, with a partner or in small groups.

## Key Questions

* What is the most efficient path?
* How many different paths are possible?
* Which sequence requires the least number of directions?
* The most efficient directions always show the shortest path. Do you agree with this statement? Justify your response.
* Can you identify any patterns when you give directions to create regular shapes?

## Picture says "Language"

* under, over, between, near, next to, forward, toward, stop, go
* quarter turn, half turn, left, right
* clockwise, anti-clockwise
* compass: North, North East, East, South East, South, South West, West, North West
* angles: 90 degrees, 180 degrees
* paces, metres, centimetres
* coordinates, guide, follower, multiple, regular polygons

## This picture says "Concepts"

* location
* direction
* rotation
* orientation
* sequence
* degree
* formal unit
* distance
* landmark
* angle

### This picture says "Curriculum Links"

* [Key Ideas](http://www.australiancurriculum.edu.au/mathematics/key-ideas) -The proficiency strands are understanding, fluency, problem-solving and reasoning. They describe how content is explored or developed; that is, the thinking and doing of mathematics.
* Describe position and movement (ACMMG010)
* Give and follow directions to familiar locations (ACMMG023)
* Identify and describe half and quarter turns (ACMMG046)
* Identify angles as measures of turn and compare angle sizes in everyday situations (ACMMG064)
* Use a grid reference system to describe locations (ACMMG113)
* Investigate combinations of translations, reflections and rotations, with and without the use of digital technologies (ACMMG142).