



## 3 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?

### 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

### CONCEPTS

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

### CURRICULUM LINKS

- [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).