Strand: Spatial sense and geometric reasoning  
Band: Middle Years  
Standard: 3  
Year Level: 6

Key Idea
Students analyse and understand the uses and purposes of flips (reflections), slides (translations), rotations and dilations to explore geometric relationships and alternative preferred possibilities in the physical world. [F] [T] [KC1] [KC6]

Outcome
3.13 Analyses the result of a series of flips, slides, rotations and reflections and translations and uses scales to undertake reductions of figures and objects. [T] [C] [KC1]

Task/Activities
1. Make a small right-angled triangle on a geoboard. This is the starting position.
2. Move the triangle through 3 moves (rotation, reflection, translation – in any order). This is now the end point for this figure.
3. Write instructions (procedure) for another student to repeat the process, beginning at the starting point and reaching the end point accurately.

Examples of evidence towards achievement of outcomes
Students:
- Generate instructions in clear, precise mathematical language.
- Interpret instructions accurately and move the figure from beginning to end point.

Example on next page
Example:

1. Using horizontal base line of triangle, reflect the shape.
2. Translate the shape 4 pegs to the right.
3. Rotate ½ turn anticlockwise from right-angle corner to reach the end point.