

contributed by Di Ashman and the staff of St Leonards Primary School

Trialling the Australian Curriculum

In 2010, St Leonards Primary School in Tasmania, along with other selected schools throughout Australia, trialled the draft Australian Curriculum: Mathematics. Mathematics had been a whole school focus at St Leonards Primary School for several years, and the school found that the opportunity to be part of the trial strongly connected with their continuing development of a whole School Numeracy Framework. The Hot Ideas for this issue contain examples of the work developed as a result of the trial.

The school decided to focus on the content strand Measurement and Geometry, because it was an area that had been given less prominence previously. The approach was underpinned by a number of through-lines, which included:

- Teachers will explicitly incorporate mathematical proficiencies of understanding, fluency, problem solving and reasoning when planning and assessing mathematics-numeracy
- A structured numeracy block will occur daily in each classroom. This will include a whole class introductory session, opportunities for individual or group focus/investigation on the key mathematical concepts and a reflection phase.

Grade teams collaboratively planned four different units of work:

- Shape detectives (Prep/Year 1)
- Out of the box (Year 1/2)

- Getting an angle on things (Year 3/4)
- Shape of the market (Year 5/6)

Each unit contained the focus content area, reference to the proficiencies and capabilities, understanding goals, vocabulary and resources required, assessment evidence and unit sequence. In the unit, “Getting an angle on things”, for example, activities included:

- investigating corners
- making an “angle eater”
- investigating angles in the playground
- comparing types of angles
- making turns with their bodies
- exploring the idea of “turn”
- grid challenges (giving directions using angles).

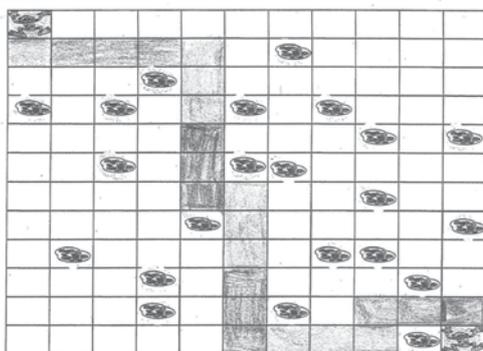
Figure 1 shows a student using her angle eaters and Figure 2 shows a work sample, where the student “successfully created a path from Point A to Point B and articulated how



Figure 1. Using an angle eater.



Work Sample: *Identify, manipulate and describe clockwise and anti-clockwise direction of turn from one point to another.*



Annotations

An appropriate path was made from one frog to the other.

Instructions are clear and accurate using appropriate vocabulary.

Frog Directions

Write directions for the frog to get to the other frog. The frog must not land on the lily pads.

You may use words such as turn, right, left, clockwise, anti-clockwise, straight, squares, 1/4 turn, 1/2 turn, full turn, move 3, 4, 5 etc.

For example: The frog needs to make a 1/4 turn in a clockwise direction then move 3 squares forward.

Start (Make half a turn clockwise then go down 1 space then turn anti-clockwise. Next go 4 squares forward then turn clockwise then go straight 5 squares turn anti-clockwise move 1 space forward go down 5 squares then turn anti-clockwise then go straight 3 boxes now turn anti-clockwise go up 1 box then turn anti-clockwise then go up 1 to turn clockwise then 3 spaces forward. Finish with a turn clockwise.

Annotation Summary

The student was able to successfully create a path from Point A to Point B and articulate how to get there using the appropriate language of clockwise and anti-clockwise, direction and degree of turn.

Figure 2. Angle work sample.

to get there using the appropriate language of clockwise and anti-clockwise, direction and degree of turn”.

The teachers found it particularly beneficial to highlight the proficiencies throughout their planning and to explicitly focus on these aspects which were articulated in relation to the specific content. For example, in Figure 2, the focus for the work sample was on:

Understanding — understanding that angle is a measure of turn

Fluency — recall readily what quarter turns, half turns, full turns, clockwise and anti-clockwise mean

Problem solving — selecting appropriate turns and directions of turn to reach a given point.

Similarly, the 5/6 team identified that they wanted to use their unit of work to develop the following proficiencies:

Understanding — understand the vocabulary associated with triangles and quadrilaterals; classify and reclassify using different criteria; apply knowledge in a real-world situation

Fluency — articulate clearly the attributes of triangles and quadrilaterals; readily recall properties of triangles and quadrilaterals

Problem solving — solving problems that require geometric reasoning

Reasoning — to compare and contrast shapes; to explain and justify thinking; to tackle problems from various perspectives

The process enabled the staff to become familiar with the Australian Curriculum and to draw links with the Tasmanian Curriculum and previous practice. It also gave teachers further opportunities to collaboratively plan and assess and to focus on a content area with which staff were less familiar. The experiences have been with other schools and teachers, and resources, including a 'big book' have been produced which document their journey (see Figures 3 and 4).

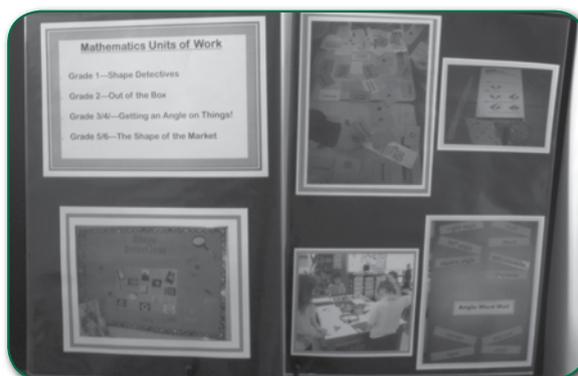


Figure 3. Big book showing trial ideas.

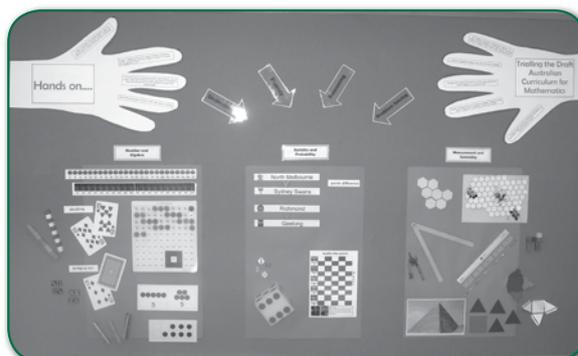


Figure 4. Trial curriculum display board.