

Mathematics

Foundation Year

Above Satisfactory

WORK SAMPLE PORTFOLIO

The 2012 portfolios are a resource to support teachers in planning and implementation of the Foundation to Year 10 Australian Curriculum in the learning area. Each portfolio comprises a collection of student work illustrating evidence of student learning in relation to the achievement standard. At every year level there are three portfolios illustrating satisfactory, above satisfactory and below satisfactory achievement in relation to the standard.

Each portfolio comprises a collection of different student work selected by state and territory nominees, and annotated and reviewed by classroom teachers and other curriculum experts. Each work sample in the portfolio varies in terms of how much time was available to complete the task and/or the degree of scaffolding provided by the teacher.

There is no pre-determined number of student work samples in a portfolio nor are they sequenced in any particular order. Together as a portfolio, the samples provide evidence of all aspects of the achievement standard unless otherwise specified.

As the Australian Curriculum is progressively implemented in schools, the portfolios will continue to be reviewed and enhanced in relation to their comprehensiveness in coverage of the achievement standard and their representation of the diversity of student work that can be used to highlight evidence of student learning.

THIS PORTFOLIO – Foundation Mathematics

This portfolio comprises a number of work samples drawn from a range of assessment tasks, namely:

Sample 1	Number - Knowing numbers
Sample 2	Measurement - Long and short snakes
Sample 3	Measurement - My week
Sample 4	Measurement - Our day
Sample 5	Location - The lost dog
Sample 6	Number - Count up
Sample 7	Geometry - Sorting shapes and objects

In this portfolio, the student orders events and recognises the days of the week (WS3). The student communicates the language of location (WS5) and compares to distinguish between longer and shorter (WS2). The student relates the number names to the correct numeral, (WS1) sorts and classifies shapes using common characteristics (WS7) and answers simple questions to collect information (WS4). The student counts to and from 20 and orders collections (WS6, WS1).

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Knowing numbers

Relevant parts of the achievement standard

By the end of the Foundation year, students make connections between number names, numerals and quantities up to 10. They compare objects using mass, length and capacity. Students connect events and the days of the week. They explain the order and duration of events. They use appropriate language to describe location.

Students count to and from 20 and order small collections. They group objects based on common characteristics and sort shapes and objects. Students answer simple questions to collect information.

Summary of task:

Students have used the numbers 1 -20 over some time. They have used ten frames, number lines and thinkboards.

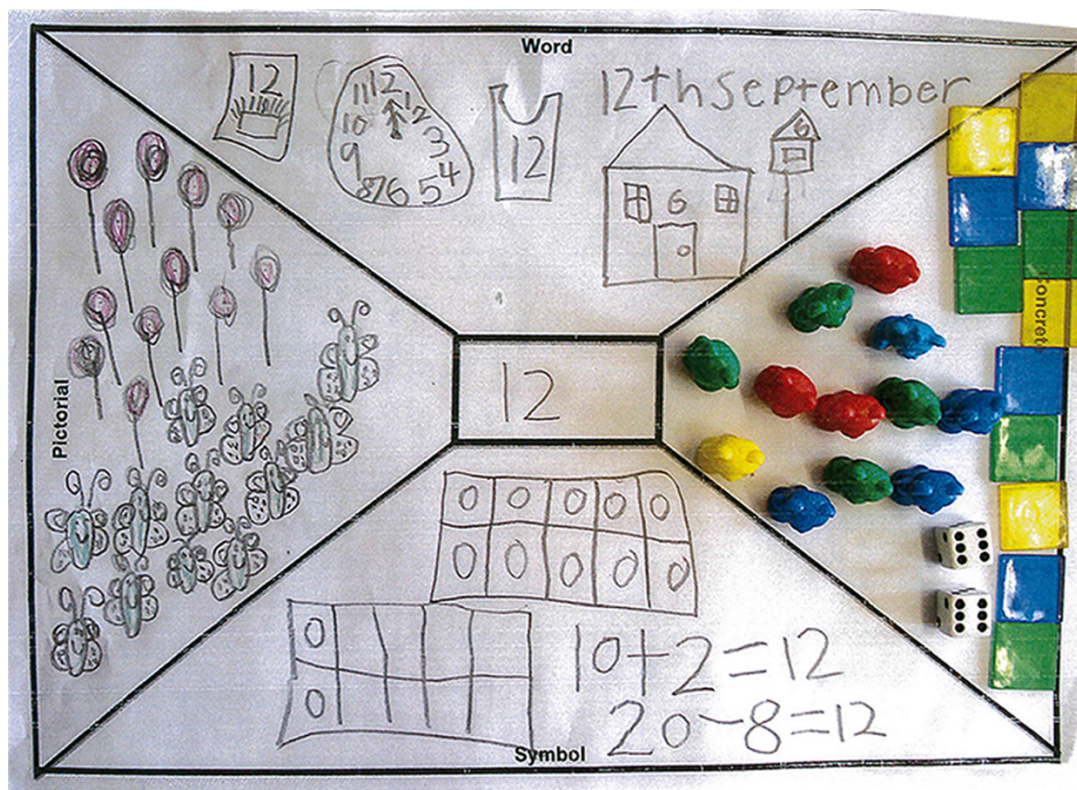
Students were asked to choose a number between 1 and 20. They wrote their number in the centre rectangle and then created a thinkboard showing as many possibilities of making or showing the chosen number.

Students placed their number on a number line and wrote the numbers above and below the number.

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Knowing numbers



Annotations

Recognises numbers in the environment

Represents numbers beyond 10 with a variety of representations including pictures, numerals, dots, number sentences, concrete material

Connects number names, numerals and quantities beyond 10

Recognises numbers in a variety of visual arrangements including dice dot patterns and tens frames

Creates and records addition and subtraction number sentences for the numeral 12

Acknowledgement

ACARA acknowledges the contribution of Australian teachers and education authorities in providing the tasks and work samples. The annotations are referenced to the Australian Curriculum achievement standards.

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Long and short snakes

Relevant parts of the achievement standard

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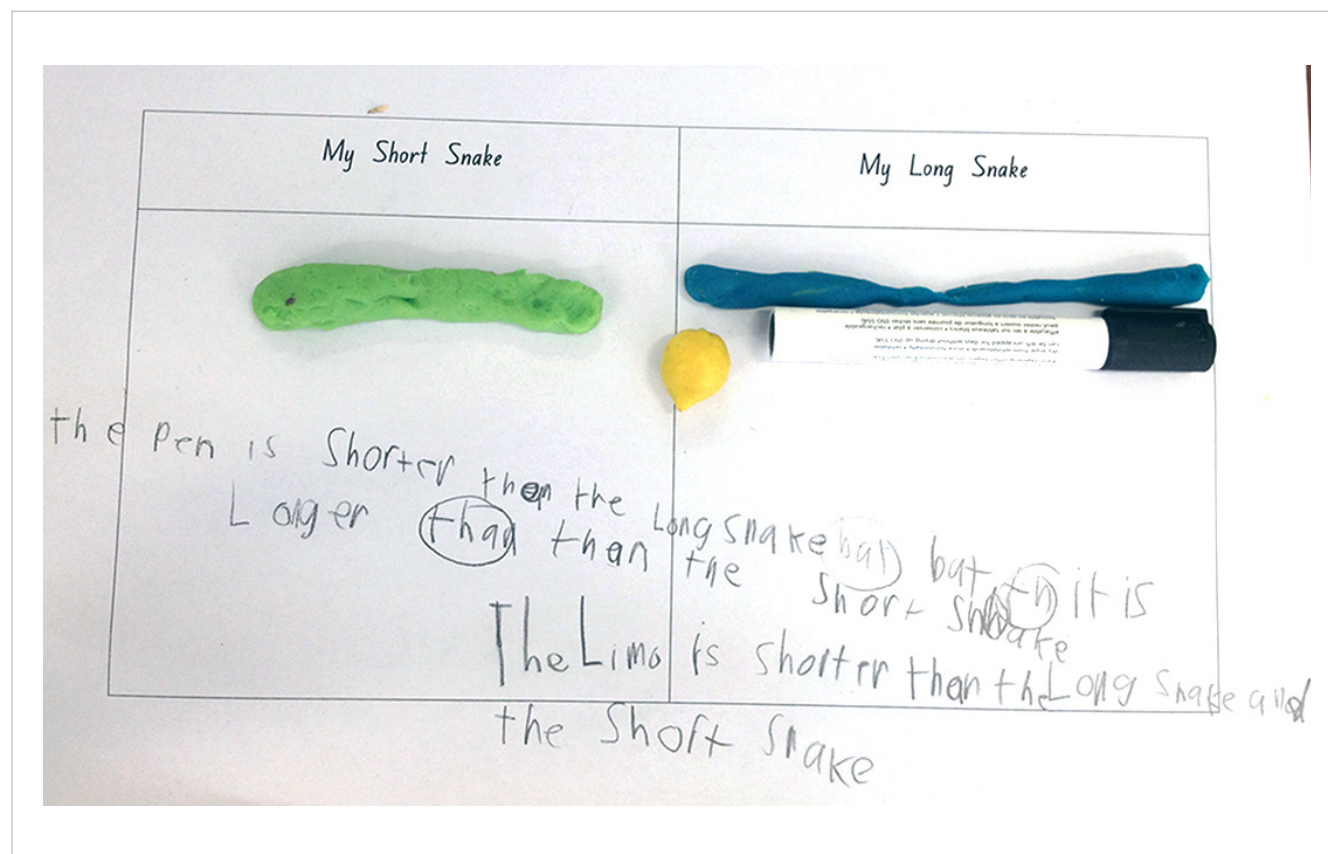
Summary of task

Students were asked to use playdough (or similar) to make “snakes” which were long and short and then asked to find something in the room which was longer than each snake and shorter than each snake. Photographs were taken and observations scribed by students focusing on using mathematical language.

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Long and short snakes



Annotations

Compares objects directly by placing one against another and aligning ends.

Locates objects which are longer and shorter.

Creates a long and short snake.

Describes length using comparative language.

Compares and orders three or more lengths.

Explains reasoning using everyday language.

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My Week

Relevant parts of the achievement standard

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Students count to and from 20 and order small collections. They group objects based on common characteristics and sort shapes and objects. Students answer simple questions to collect information.







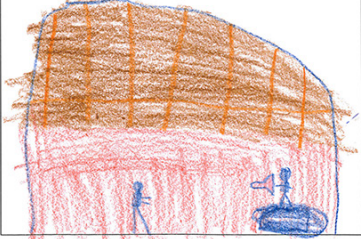
Summary of task

Students participated in class discussions about the class time table and key events. Students were given the task sheet and asked to draw or write about key events for each of the days of the week.

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My Week

<p>On Monday I... go to school. We do sport.</p> <p>Mrs Costigan is my teacher.</p> 	<p>On Tuesday I... go to school.</p> 	<p>On Wednesday we... go to Music and P.E.</p> 
<p>On Thursday I... go to school. After school I am going to the library with my grandmother.</p> 	<p>On Friday we... go to sport and our teacher is Mrs Bets.</p> 	<p>On Saturday I... don't go to school. I go to swimming.</p> 
<p>On Sunday I... stay home and play with my brother.</p> 	<p>I Love Saturday the Best because I go swimming Saturday and Sunday are the weekends.</p>	

Annotations

Connects each school day to familiar school routines.

Recall that there are seven days in a week.

Classifies weekends by making connections with everyday family routines.

Gives reasons and personal opinions about which is the best day of the week.

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Our Day

Relevant parts of the achievement standard

By the end of the Foundation year, students make connections between number names, numerals and quantities up to 10. They compare objects using mass, length and capacity. Students connect events and the days of the week. They explain the order and duration of events. They use appropriate language to describe location.

Students count to and from 20 and order small collections. They group objects based on common characteristics and sort shapes and objects. Students answer simple questions to collect information.

Summary of task

Students were asked to discuss what they did in their day at school. They were asked to explain the order of events and these were recorded by the teacher. Students viewed photographs of typical activities and were asked to explain and order the events using the physical prompts.

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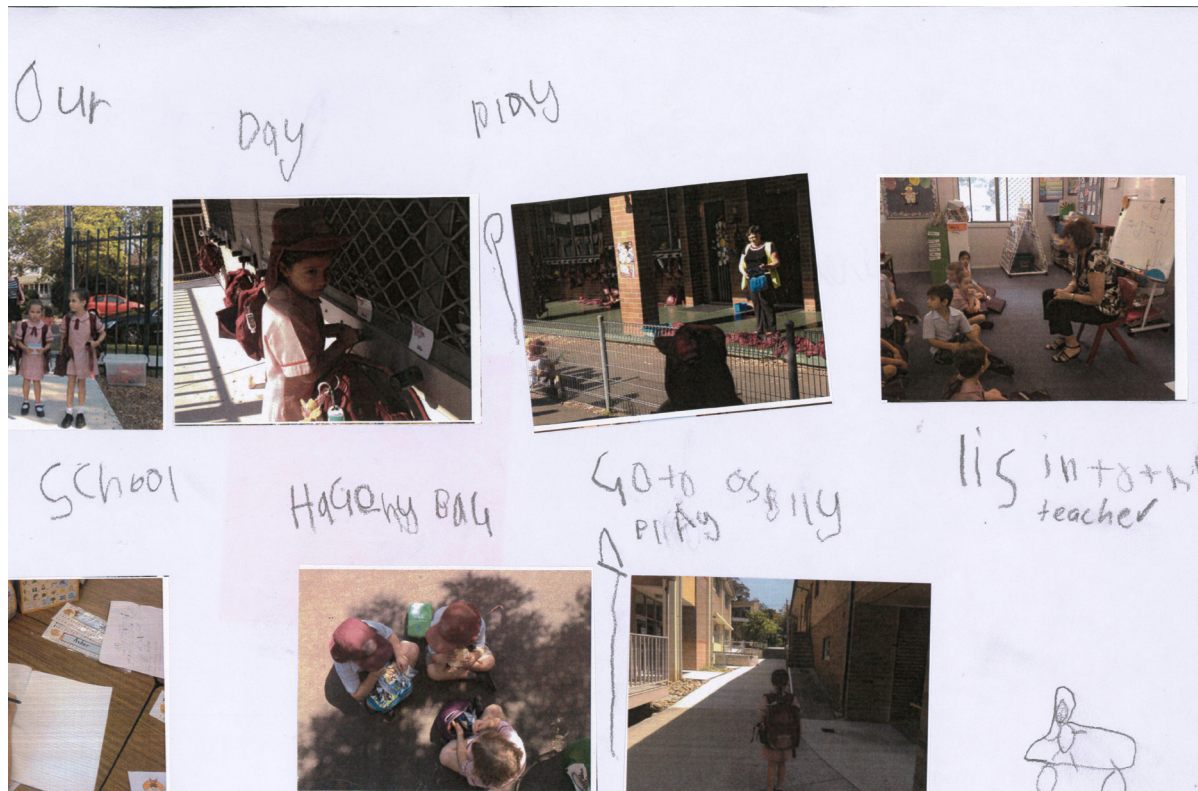
Our Day

Annotations

Identifies the starting and finishing point of an event helping to determine it's duration.

Sequences familiar events in time order.

Identifies events that occur every day.



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The lost dog

Relevant parts of the achievement standard

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Summary of task

Students have been using the language of direction in their mathematics lessons. They were given a picture to show position and pathways. Students were asked to draw pictures to describe a position and then asked to describe the position using words.

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The lost dog

Show us the four places you looked for your dog. Draw yourself at the first place and draw your dog where you found it. Use a coloured line to trace your search path.



Draw and write or tell, using positional words, where you looked for your lost dog.



Annotations

Draws a pathway indicating route taken.

Interprets a two-dimensional representation.

Uses drawings to represent personal locations along a path.

Uses everyday language of location to describe the route taken.

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Count up

Relevant parts of the achievement standard

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Summary of task

Students were given a series of objects and were asked to sort the objects into three groups (based on colour or shape). Students were asked a series of questions;

- Which group has the most objects? How do you know?
- Which group has the smallest number of objects? How do you know?
- How many objects do you have in each group?
- How can you make the groups have the same amount of objects? How do you know that they are the same?
- Can you tell me which shape is first and second in the yellow collection? How do you know?

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Count up



Annotations

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Sorting shapes and objects

Relevant parts of the achievement standard

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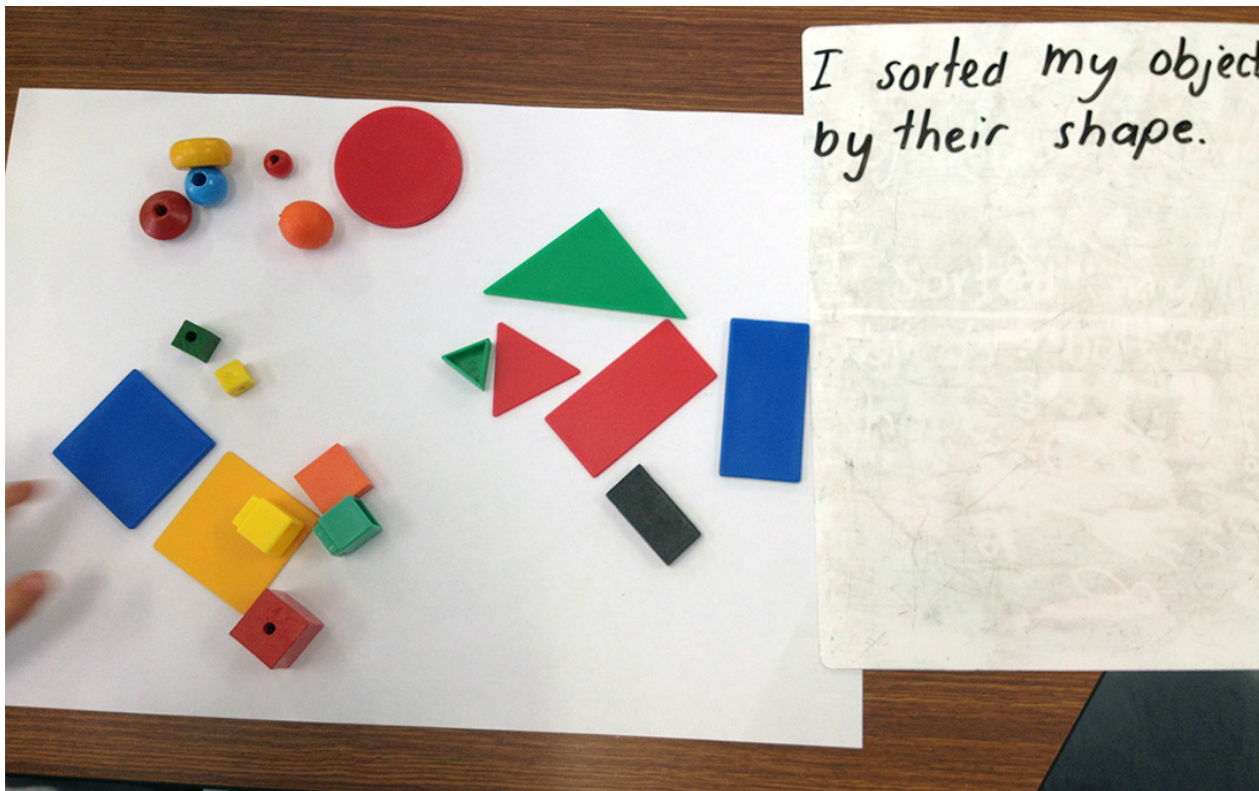
Summary of task

Students were given a bundle of shapes and objects. They were asked to group them in various ways.

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Sorting shapes and objects



Annotations

Sorts and classifies familiar objects and explains the basis for these classifications.

Recognises shapes in different orientations.

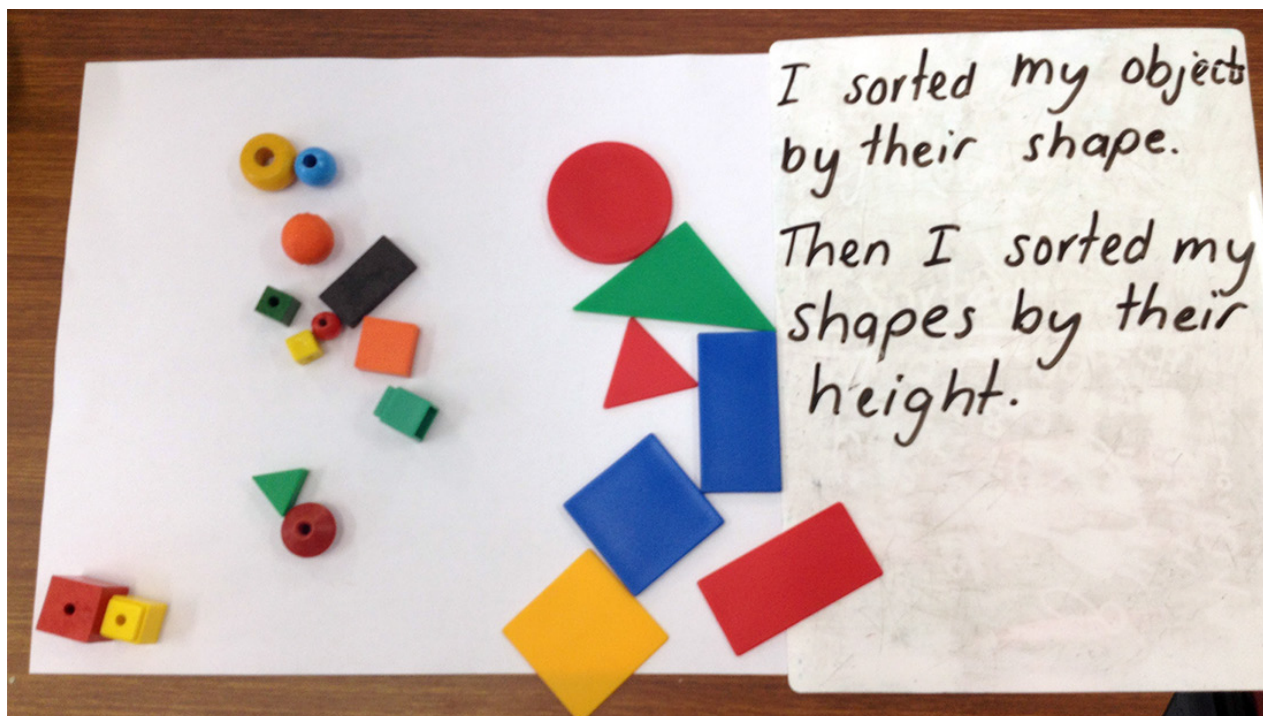
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Sorting shapes and objects



Annotations

Compares objects using direct comparisons.

Sorts and classifies familiar objects and explains the basis for these classifications.

Uses language associated with measurement attributes.

Sort familiar objects according to more than one attribute.

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