

Mathematics

Foundation Year Satisfactory

WORK SAMPLE PORTFOLIO

Annotated work sample portfolios are provided to support implementation of the Foundation – Year 10 Australian Curriculum.

Each portfolio is an example of evidence of student learning in relation to the achievement standard. Three portfolios are available for each achievement standard, illustrating satisfactory, above satisfactory and below satisfactory student achievement. The set of portfolios assists teachers to make on-balance judgements about the quality of their students' achievement.

Each portfolio comprises a collection of students' work drawn from a range of assessment tasks. There is no pre-determined number of student work samples in a portfolio, nor are they sequenced in any particular order. Each work sample in the portfolio may vary in terms of how much student time was involved in undertaking the task or the degree of support provided by the teacher. The portfolios comprise authentic samples of student work and may contain errors such as spelling mistakes and other inaccuracies. Opinions expressed in student work are those of the student.

The portfolios have been selected, annotated and reviewed by classroom teachers and other curriculum experts. The portfolios will be reviewed over time.

ACARA acknowledges the contribution of Australian teachers in the development of these work sample portfolios.

THIS PORTFOLIO: FOUNDATION YEAR MATHEMATICS

This portfolio provides the following student work samples:

Sample 1	Number: Knowing numbers
Sample 2	Measurement: Long and short snakes
Sample 3	Measurement: My week
Sample 4	Measurement: Our day
Sample 5	Geometry: The lost dog
Sample 6	Number: Count up
Sample 7	Geometry: Sorting shapes and objects
Sample 8	Statistics: Cool café
Sample 9	Number: Munching Molly

This portfolio of student work shows ordering of events and recognition of the days of the week (WS3, WS4, WS5). The student communicates the language of location (WS5) and compares lengths to distinguish between longer and shorter lengths (WS2). The student counts to and from 20 and connects number names, numerals and quantities (WS1, WS6, WS9). The student sorts and classifies shapes and objects using common characteristics (WS7) and answers simple questions to collect information (WS8).

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Mathematics

Foundation Year Satisfactory

Number: Knowing numbers

Foundation Year Mathematics achievement standard

The parts of the achievement standard targeted in the assessment task are highlighted.

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 had used the numbers 1–20 over some time. They had used ten frames, number lines and thinkboards.

Students were asked to choose a number between 1 and 20.

Part 1: Students placed their number on a number line and wrote the numbers above and below their number.

Part 2: Students wrote their number in a rectangle in the centre of a thinkboard and then showed as many possibilities of making or representing their number in the space around it.

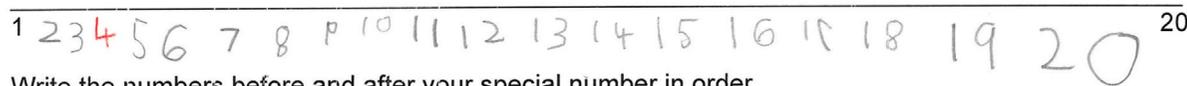
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Foundation Year

Satisfactory

Number: Knowing numbers

Write your special number in red on the number line.



Write the numbers before and after your special number in order.

Why did you place your number in that position on the number line?

4 is a low number so it goes near 1 and 20 is a higher number so 4 doesn't go there.

Where might you see your special number in real life? On a number plate, candle, birthday card, clock, ticket, house number, on my digital clock, the clock in the car.

Annotations

Identifies the number before and after a given number.

Records numbers in sequences and explains reasoning.

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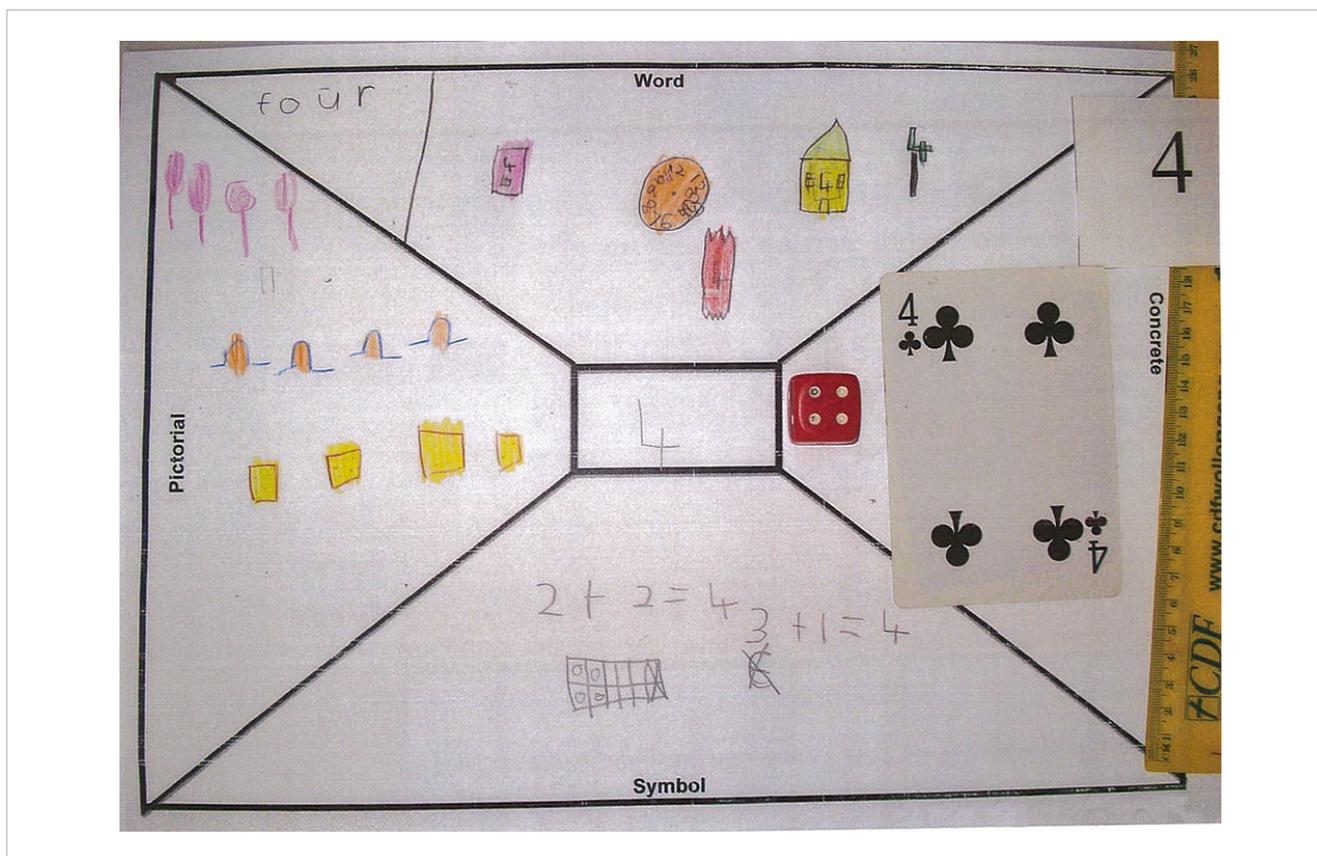
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Foundation Year

Satisfactory

Number: Knowing numbers



Annotations

Represents numbers with a variety of representations including pictures, words, numerals, dots, number sentences, concrete materials.

Recognises numbers in the environment.

Connects number names, numerals and quantities.

Creates, records and recognises combinations of two numbers that add up to 4. N.B. Formal writing of number sentences is not a requirement for Foundation.

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

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Measurement: Long and short snakes

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Summary of task

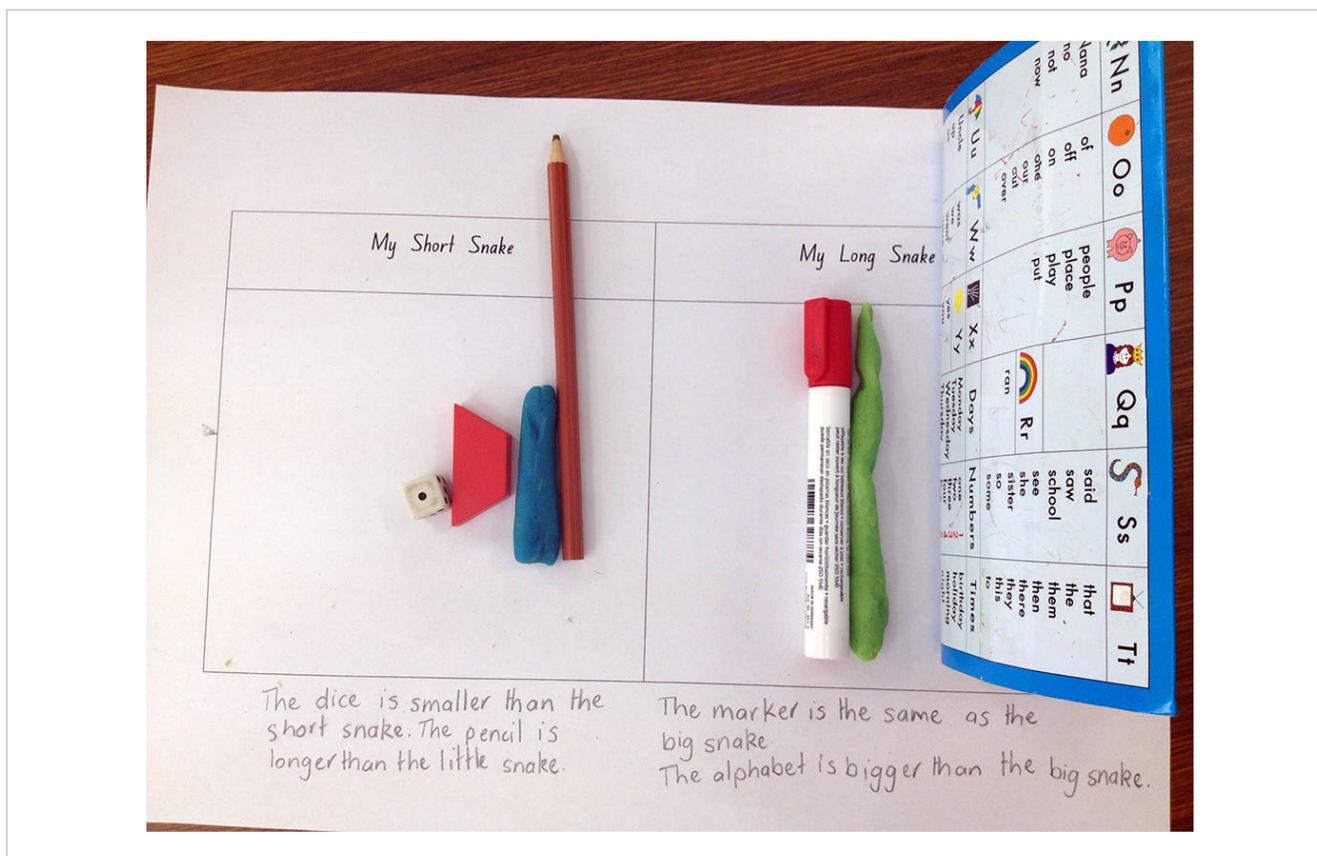
Students were asked to use playdough (or similar) to make 'snakes' which were long and short and then were asked to find something in the room which was longer than each snake and shorter than each snake. Photographs were taken and observations scribed by the teacher, focusing on each student's use of mathematical language.

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Foundation Year

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Measurement: Long and short snakes



Annotations

Creates a long and short snake.

Locates objects which are longer and shorter.

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

Describes length using comparative language.

Explains reasoning using everyday language.

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Foundation Year

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Measurement: My week

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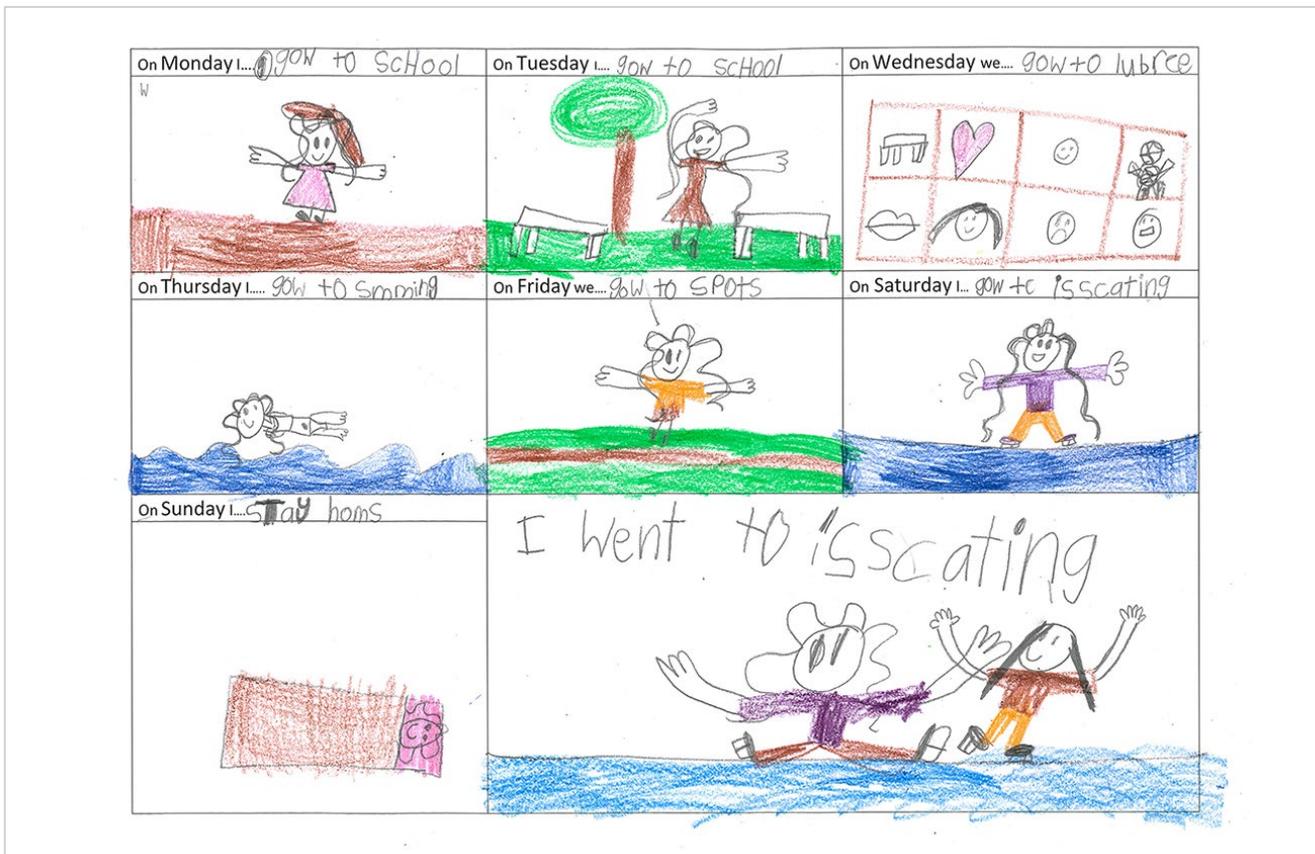
Summary of task

Students participated in class discussions about the class timetable 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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Measurement: My week



Annotations

Connects the days of the week to familiar routines.

Classifies weekends by making connections with everyday family routines.

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Foundation Year

Satisfactory

Measurement: Our day

Foundation Year Mathematics achievement standard

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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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Measurement: Our day

Annotations

Identifies the starting and finishing point of an event to help determine its duration.

Sequences familiar events in time order.

Identifies events that occur every day.



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Mathematics

Foundation Year
Satisfactory**Geometry: The lost dog****Foundation Year Mathematics achievement standard**

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Summary of task

Students had been using the language of position in their mathematics lessons.

Students were given a picture of a house and various objects in its yard, including a tree, a garden bed, a cat, a car, a pot plant and a clothes line. A scenario of a looking for a lost dog was described.

Part 1: Students were asked to draw a pathway on the picture to show six places where they looked for the lost dog.

Part 2: Students were asked to draw and describe, using positional words, each of the six places where they had looked for the lost dog.

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Geometry: The lost dog

Show us the six 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.

1. car behind the	2. Pot next to the	3. tree behind the
4. cat behind the	5. the clothes at the	6. the grass four eyes

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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Number: Count up

Foundation Year Mathematics achievement standard

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Summary of task

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

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Foundation Year

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Number: Count up



Annotations

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Geometry: Sorting shapes and objects

Foundation Year Mathematics achievement standard

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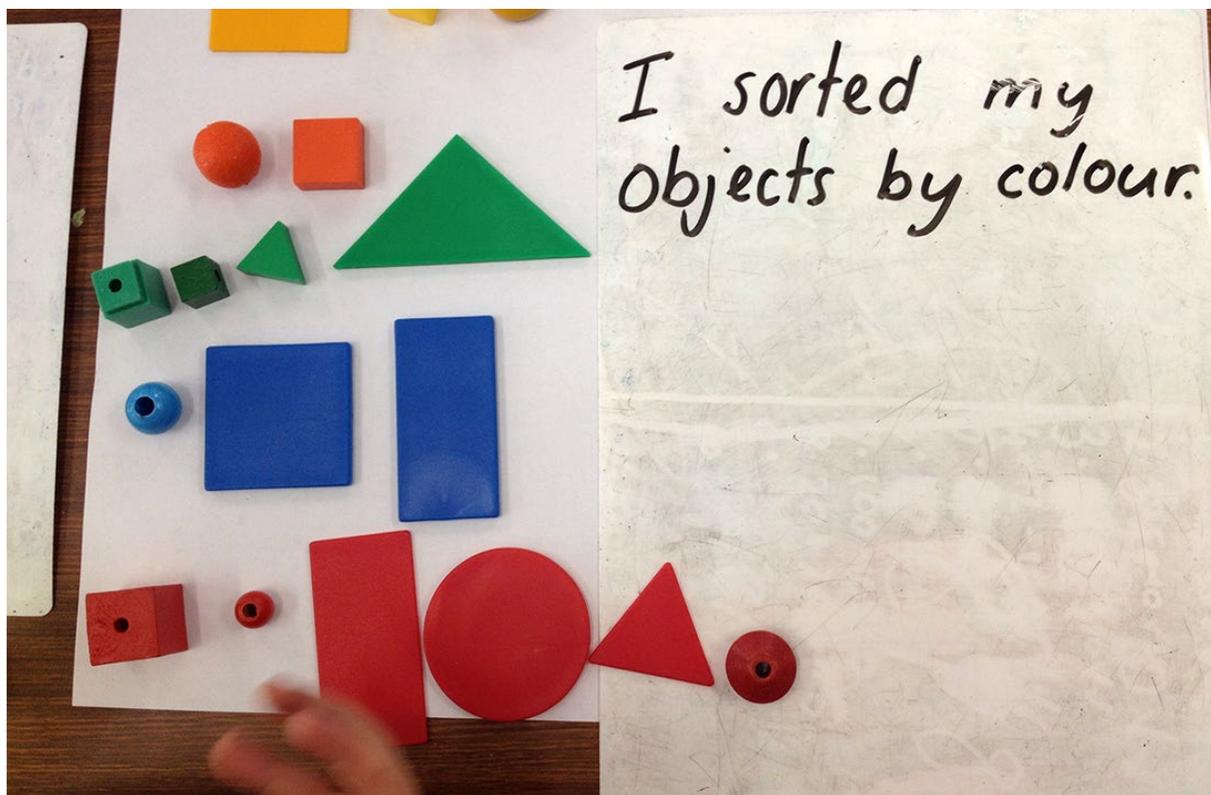
Summary of task

Students were given a bundle of shapes and objects of different colours, sizes and shapes. They were asked to sort them in as many ways as they could and to describe how they had sorted them.

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Geometry: Sorting shapes and objects



Annotations

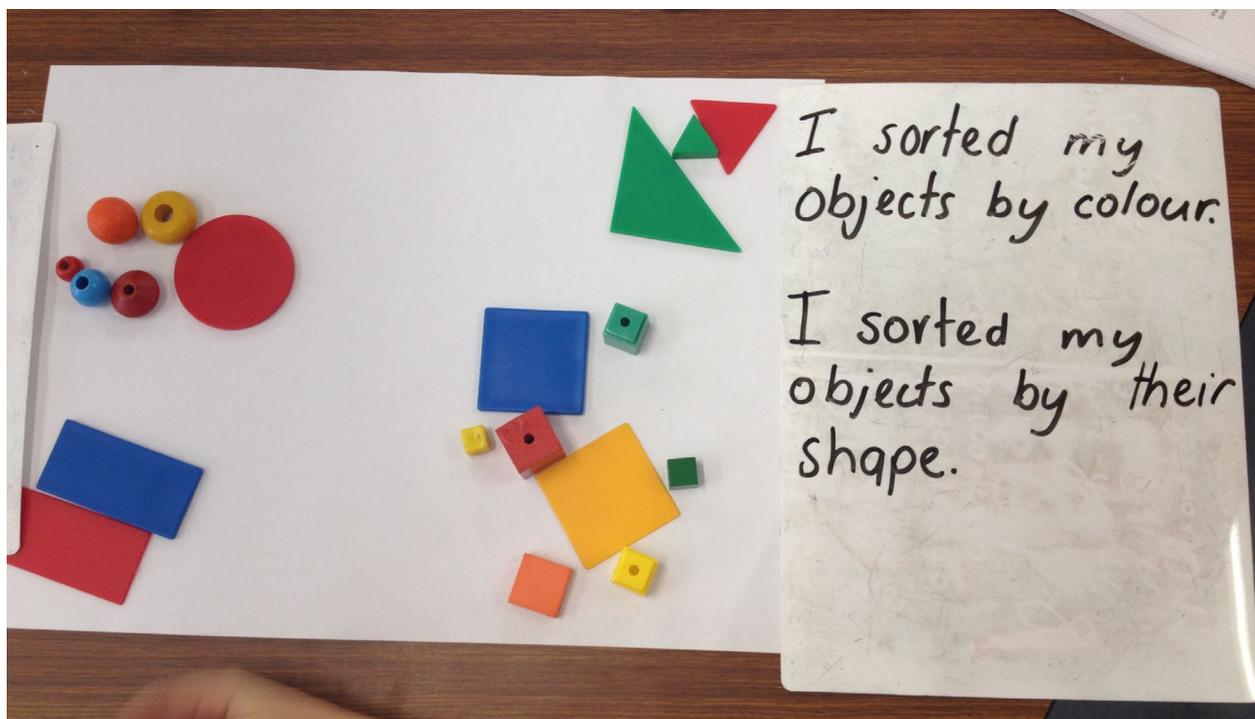
Sorts and classifies familiar objects and explains the basis for these classifications.

Arranges shapes with a horizontal bias.

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Geometry: Sorting shapes and objects



Annotations

Arranges shapes in different orientations.

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

Sorts familiar objects according to more than one attribute.

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Statistics: Cool café

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Summary of task

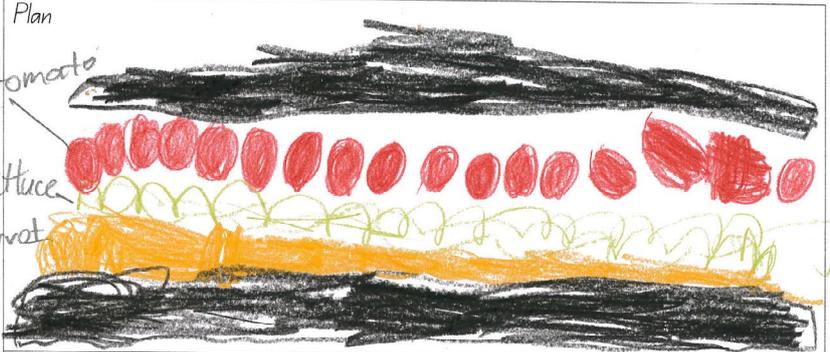
In previous lessons, students had conducted investigations, answered questions and counted totals. For this task, a scene was set where students were asked to set up a café and design a sandwich to sell in their café. Students designed their sandwich with a range of fillings and then predicted if people would like them. Students used a given scaffold to pose a question and collect yes/no answers. They were given the opportunity to reflect on the information they collected.

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Statistics: Cool café

Cool café



Plan

tomato

lettuce

Carrot

Question:
Do you like it?

Prediction:
Yes

Data:

Yes	No
✓ ✓✓	✗

Yes. I asked

Annotations

Poses a yes/no question to investigate.

Collects and records answers to a yes/no question.

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Number: Munching Molly

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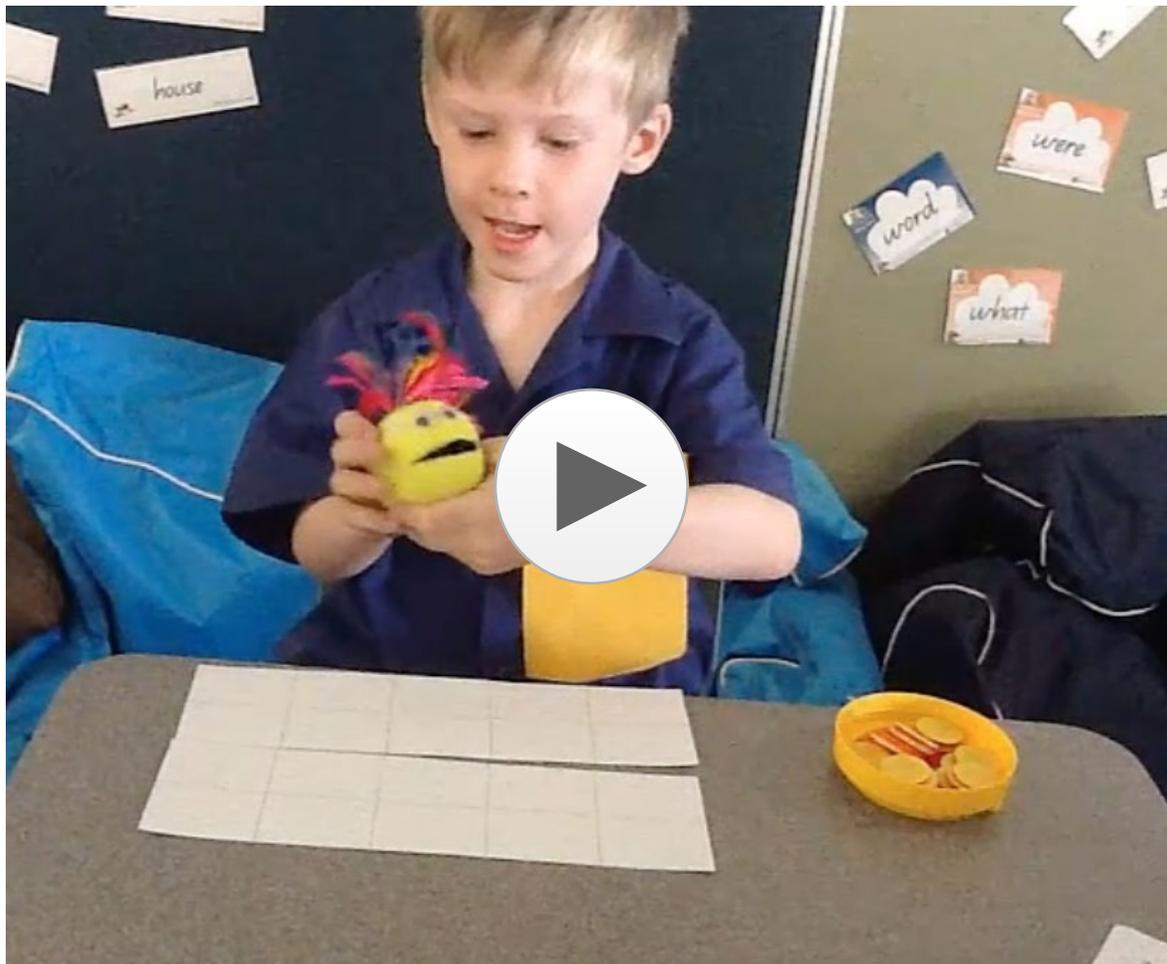
This one-to-one task was carried out at the end of a unit of work on number. The teacher introduced 'Munching Molly' – a tennis ball with a mouth – and explained how Molly liked to eat different types and quantities of food, similar to a character in a book that had been read during class. The teacher then phrased a series of questions and asked the student to count to and from 20 and to make connections between number names, numerals and quantities up to 10.

Mathematics

Foundation Year

Satisfactory

Number: Munching Molly



Annotations

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