

Sample program

Woodcarting unit

Overview

Moruya Public School has a K–6 Scope and Sequence in Mathematics in line with syllabus requirements. The Mathematics in Context units supplement work taking place in classrooms. It is suggested that the woodcarting unit could be better implemented during either of the colder terms. Teachers who have the flexibility to incorporate the lessons into their weekly planning have opted to teach it one lesson a week, with the remaining mathematics lessons being used to reinforce the strand covered in these lessons and to cover the other content elements as outlined in the Stage 1 scope and sequence.

Excerpt from the woodcarting unit

EARLY STAGE ONE	STAGE ONE
<p>NES1.1 Whole Numbers <i>Counts to 30, and orders, reads and represents numbers in the range 0–20.</i></p>	<p>NS1.1 Whole Numbers <i>Counts, orders, reads and represents two-digit and three-digit numbers.</i></p>
<p>KNOWLEDGE AND SKILLS Counting forwards to 30, from a given number, with one-to-one correspondence. Identifying the number before and after a given number. Reading and using the ordinal names to at least ‘tenth.’ Recognising a dot pattern instantly for numbers up to seven (subitising). <i>(Syllabus page 41)</i></p>	<p>KNOWLEDGE AND SKILLS Using the terms ‘is more than’, ‘is less than’. Identifying the number before and after two-digit and three-digit numbers. Representing two-digit and three-digit numbers using numerals, words and objects. Combining materials into tens to model two-digit and three-digit numbers. <i>(Syllabus page 43)</i></p>
<p>WORKING MATHEMATICALLY Applying counting strategies to solve simple everyday problems. Justifying answers by demonstrating the process used. Recognising numbers in a variety of contexts.</p>	<p>WORKING MATHEMATICALLY Giving reasons for placing a set of numbers in a particular order. Asking questions involving two-digit and three-digit numbers. Using mental grouping to count and to assist with estimating the number of items in large groups.</p>
<p>LANGUAGE Number names, ordinal number names, before, after.</p>	<p>LANGUAGE Estimate, measure, metre, length, centimetre, end-to-end without gaps, comparison, longest, as long as, shortest, shorter than, equal.</p>
<p>RESOURCES Kindling, counters, buckets, Tree Climbing Race Board Game, number cards (1–30), Learning Journal.</p>	<p>RESOURCES Kindling, string, cardboard, glue, sticky tape, elastic bands or cable twisters, Cuisenaire Rods, Learning Journal.</p>

EARLY STAGE ONE	STAGE ONE
<p>NES1.2 Addition and Subtraction <i>Combines, separates and compares collections of objects, describes using everyday language and records using informal methods.</i></p>	<p>NS1.2 Addition and Subtraction <i>Uses a range of mental strategies and informal recording methods for addition and subtraction involving one- and two-digit numbers.</i></p>
<p>KNOWLEDGE AND SKILLS Combining two or more groups to model addition. Separating and taking part of a group of objects away to model subtraction. Describing the action of combining, separating or comparing using everyday language. <i>(Syllabus page 46)</i></p>	<p>KNOWLEDGE AND SKILLS Using concrete materials to model addition and subtraction number facts to at least 20. Recording number sentences using drawings, numerals, symbols and words. <i>(Syllabus page 47)</i></p>
<p>WORKING MATHEMATICALLY Using concrete materials to model and solve simple addition and subtraction problems.</p>	<p>WORKING MATHEMATICALLY Selecting and using a variety of strategies to solve addition and subtraction problems. Using a variety of own recording strategies. Checking solutions using a variety of strategies.</p>
<p>LANGUAGE Number names, how many more, difference, take away, add, how many 'left'.</p>	<p>LANGUAGE Add, plus, equals, is equal to, take away, minus, the difference between, number names.</p>
<p>RESOURCES Kindling, counters, dice, Race to the Forest Board Game, Tree Branches Board Game, Learning Journal.</p>	<p>RESOURCES Kindling, counters, dice, Race to the Forest Board Game, Learning Journal.</p>

EARLY STAGE ONE	STAGE ONE
<p>NES1.3 Multiplication and Division <i>Groups, shares and counts collections of objects, describes using everyday language and records using informal methods.</i></p>	<p>NS1.3 Multiplication and Division <i>Uses a range of mental strategies and concrete materials for multiplication and division.</i></p>
<p>KNOWLEDGE AND SKILLS Using the term 'group' to describe a collection of objects. Using the term 'sharing' to describe the distribution of a collection of objects. Grouping and sharing using concrete materials. Modelling equal groups or rows. Recording grouping and sharing using pictures, numerals and words. <i>(Syllabus page 52)</i></p>	<p>KNOWLEDGE AND SKILLS Describing collections of objects as 'rows of' and 'groups of'. Recording multiplication and division problems using drawings, numerals, symbols and words. Modelling multiplication and division using concrete materials. <i>(Syllabus page 53)</i></p>
<p>WORKING MATHEMATICALLY Respond to grouping and sharing questions by drawing, making, acting, guessing and checking, and retelling. Describe grouping and</p>	<p>WORKING MATHEMATICALLY Answering mathematical problems using objects, diagrams, imagery, actions or trial and error. Supporting answers to multiplication and</p>

sharing of objects using everyday language. Explain or demonstrate how an answer was obtained.	division problems by explaining or demonstrating how the answer was obtained.
LANGUAGE Number names, groups of, rows of, share, equal.	LANGUAGE Groups of, rows of, NOT 'lots of' (as this is confusing), number names, equal share.
RESOURCES Kindling, Forests Placemats, plastic trees or counters, dice, Learning Journal.	RESOURCES Kindling, split wood, counters, Learning Journal.

Early Stage 1 and Stage 1 Lesson plans

The lessons outlined below relate to the woodcarting unit. Students work in groups and participate in a range of activities including board games.

Sample activities and board games:

EARLY STAGE ONE	STAGE ONE
Whole Numbers Counting into Buckets Where's the Number? Tree Climbing Race Leaves on the Tree	Whole Numbers Kindling Cards Tree Ring (The growth of a tree) Writing about Tree Growth Gathering Kindling Kindling Relay
EARLY STAGE ONE	STAGE ONE
Addition and Subtraction Tree Branches Hidden Sticks Taking Away Sticks Nim Race to the Forest	Addition and Subtraction Hidden sticks Mapping Game Trailer Game Race to the Forest Campfire
EARLY STAGE ONE	STAGE ONE
Multiplication and Division Sharing Sticks Rows Tree Stories Even Number Fair Share Forests	Multiplication and Division Arrays Wood Trailers Planting Trees Hidden Trees Tree Felling Game Number Problems