Year 3 Mathematics

Achievement Standard

By the end of Year 3, students recognise the connection between addition and subtraction and solve problems using efficient strategies for multiplication. They model and represent unit fractions. They represent money values in various ways. Students identify symmetry in the environment. They match positions on maps with given information. Students recognise angles in real situations. They interpret and compare data displays.

Students count to and from 10 000. They classify numbers as either odd or even. They recall addition and multiplication facts for single-digit numbers. Students correctly count out change from financial transactions. They continue number patterns involving addition and subtraction. Students use metric units for length, mass and capacity. They tell time to the nearest minute. Students make models of three-dimensional objects. Students conduct chance experiments and list possible outcomes. They conduct simple data investigations for categorical variables.

Assessable Elements

An overall level of achievement in this subject is determined by the teacher's on-balance judgment of the evidence presented in students' summative assessment across the following strands:

- **Number and Algebra**
  Number and place value; Fractions and decimals; Money and financial mathematics; Patterns and algebra.

- **Measurement and Geography**
  Using units of measurement; Shape; Geometric reasoning; Location and transformation.

- **Statistics and probability**
  Chance; Data representation and interpretation.

Delivery (mode, time requirements, lessons)

Students have access to three 1 hour scheduled lessons each week. Lessons are delivered via our Learning Management System. Students are also expected to undertake independent study to complete tasks and assessment in accordance with the Work Rate Calendar.

Student Requirements

Computer, internet access, email, printer, scanner, headset with microphone, stationery, manipulative materials, calculator, whiteboard and whiteboard markers.

Year 3 Mathematics (Semester 1)

Units, Learning Experiences and Summative Assessment

<table>
<tr>
<td rowspan="4">Semester 1</td>
<td rowspan="2">Term 1</td>
<td>
Unit 1
Number and place value
Count to 1 000, investigate the 2s, 3s, 5s and 10s number sequences, identify odd and even numbers, represent three-digit numbers, compare and order three-digit numbers, partition numbers (standard and non-standard place value partitioning), recall addition facts and related subtraction facts, represent and solve addition problems, add two-digit, single-digit and three-digit numbers, subtract two-digit and three- digit numbers, represent multiplication, solve simple problems involving multiplication, recall multiplication number facts.
Using units of measurement
Tell time to five-minute intervals, identify one metre as a standard metric unit, represent a metre, measure with metres.
Data representation and interpretation
Collect simple data, record data in lists and tables, display data in a column graph, interpret and describe outcomes of data investigations.
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Summative Assessment:

Task 1: Representing, adding and subtracting numbers - Students recognise, represent and order numbers, recognise the connection between addition and subtraction, and add and subtract numbers.
Task 2: Conducting a simple chance experiment - Students collect and interpret data from simple chance experiments.

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<td rowspan="2">Term 2</td>
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Number and place value
Compare and order three-digit numbers, partition three-digit numbers into place value parts, investigate 1 000, count to and beyond 1 000, use place value to add and subtract numbers, recall addition number facts, add and subtract three-digit numbers, add and subtract numbers eight and nine, solve addition and subtraction word problems, double and halve multiples of ten.
Fractions and decimals
Describe fractions as equal portions or shares, represent halves, quarters and eighths of shapes and collections, represent thirds of shapes and collections.
Money and financial mathematics
Count collections of coins and notes, make and match equivalent combinations, calculate change from simple transactions, solve a range of simple problems involving money.
Patterns and algebra
Infer pattern rules from familiar number patterns, identify and continue additive number patterns, identify missing elements in number patterns.
Shape
Identify and describe the features of familiar three-dimensional objects, make models of three-dimensional objects.
Geometric reasoning
Identify angles in the environment, construct angles with materials, compare the size of familiar angles in everyday situations.
Location and transformation
Represent positions on a simple grid map, show full, half and quarter turns on a grid map, describe positions in relation to key features, represent movement and pathways on a simple grid map.
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Summative Assessment:

Task 1 - Classifying numbers as odd or even and continuing number patterns
Task 2 - Adding, subtracting and partitioning numbers - Students recall addition and subtraction facts and apply place value understanding to partition, rearrange and regroup numbers. Students classify numbers as odd or even.

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Year 3 Mathematics (Semester 2)

Units, Learning Experiences and Summative Assessment

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<tr><td rowspan="6">Semester 2</td><td rowspan="4">Term 3</td><td>

Unit 3
Number and place value
Count in sequences beyond 1 000, represent, combine and partition three-digit and four-digit numbers flexibly, use place value to add (written strategy), represent multiplication as arrays and repeated addition, identify part–part–whole relationships in multiplication and division situations, add and subtract two-digit numbers and three-digit numbers, recall multiplication number facts, identify related division number facts, make models and use number sentences that represent problem situations, recall addition and subtraction facts, identify and describe the relationship between addition and subtraction, choose appropriate mental strategies to add and subtract.
Fractions and decimals
Represent and compare unit fractions, represent and compare unit fractions of shapes and collections, represent familiar unit fractions symbolically, solve simple problems involving halves, thirds, quarters and eighths.
Money and financial mathematics
Represent money amounts in different ways, compare values, count collections of coins and notes accurately and efficiently, choose appropriate coins and notes for shopping situations, calculate change and simple totals.
Patterns and algebra
Identify number patterns to 10 000, connect number representations with number patterns, use number properties to continue number patterns, identify pattern rules to find missing elements in patterns.
Units of measurement
Use familiar metric units to order, compare and measure objects, measure and record using metric units, explain measurement choices, measure length using part units and centimetres, represent time to the minute on digital and analogue clocks, telling time to five minutes and minute, transfer knowledge of time to real-life contexts.
Location and transformation
Describe and identify examples of symmetry in the environment, fold shapes and images to show symmetry, classify shapes as symmetrical and non-symmetrical.

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Summative Assessment:
- **Task 1 Money -** Students represent money values in various ways and correctly count change from financial transactions.
- **Task 2 Multiplication -** Students represent multiplication and solve multiplication problems using a range of strategies.
- **Task 3 Measuring length, mass and capacity using metric units -** Students use metric units to measure and compare length, mass and capacity.
- **Task 4 Telling time to the nearest minute -** Students tell time to the nearest minute and solve problems involving time.

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<tr><td>Term 4</td><td>

Unit 4
Number and place value
Recall addition and related subtraction number facts, use number facts to add and subtract larger numbers, use part–part–whole thinking to interpret and solve addition and subtraction word problems, add and subtract using a written place value strategy, recall multiplication and related division facts, multiply two-digit numbers by single-digit multipliers, interpret and solve multiplication and division word problems.
Fractions and decimals
Identify, represent and compare familiar unit fractions and their multiples (shapes, objects and collections), record fractions symbolically, recognise key equivalent fractions, solve simple problems involving fractions.
Money and financial mathematics
Count the change required for simple transactions to the nearest five cents.
Using units of measurement
Measure, order and compare objects using familiar metric units of length, mass and capacity.
Shape
Make models of three-dimensional objects.
Geometric reasoning
Identify angles as measures of turn, compare angle sizes in everyday situations.
Location and transformation
Represent symmetry, interpret simple maps and plans.
Chance
Conduct chance experiments, make predictions based on data displays.
Data representation and interpretation
Identify questions of interest based on one categorical variable, gather data relevant to a question, organise and represent data, interpret data displays.

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Summative Assessment:

- **Task 1 Unit fractions and multiplication -** Students recall multiplication facts for single-digit numbers, solve problems using efficient strategies for multiplication, and model and represent unit fractions.
- **Task 2 Interpreting grid maps, and identifying symmetry, three-dimensional objects and angles -** Students match positions on maps with given information and identify symmetry in the environment. Students make a model of a three-dimensional object and recognise angles in real situations.

Disclaimer   All of the above information is accurate at the time of development