

# Australian National Curriculum and Maths Wiz (Primary)



**MATHS WIZ**

# Australian National Curriculum and Maths Wiz (Primary)

## CONTENTS

Foundation	Page 2
------------	--------

Year 1	Page 4
--------	--------

Year 2	Page 6
--------	--------

Year 3	Page 10
--------	---------

Year 4	Page 13
--------	---------

Year 5	Page 17
--------	---------

Year 6	Page 21
--------	---------

# Australian National Curriculum and Maths Wiz (Primary)

## FOUNDATION

### AUSTRALIAN NATIONAL CURRICULUM

### KINETIC EDUCATION LESSONS

#### Numbers and Algebra - Number and Place Value

##### ACMNA001

Establish understanding of the language and processes of counting by naming numbers in sequences, initially to and from 20, moving from any starting point.

- Counting Things
- Counting to 9
- Counting Backwards
- Count 1 More
- Add on 1
- Counting Game
- Plus 1 Sums
- How Many?
- Ordinal Numbers

##### ACMNA002

Connect number names, numerals and quantities, include zero, initially up to 10 and then beyond.

- Group of One
- Group of Three
- Group of Five
- Group of Seven
- Group of Nine
- Typing Numbers
- Making Groups
- Memory Game
- Number Words to 19
- Adding Counters
- Adding to 19
- Number Words to 10
- One to Six with Dice
- Number Words to 19
- Group of Two
- Group of Four
- Group of Six
- Group of Eight
- Group of Ten
- How Many?
- Counting Groups
- Zero
- Adding
- More Sums with Counters
- Ordinal Numbers
- Match the Dice
- Numbering Groups

##### ACMNA003

Subitise small collections of objects.

- Counting Things
- Group of Two
- Group of Four
- Group of Six
- Group of Eight
- Group of Ten
- Making Groups
- Zero
- Adding Counters
- Adding to 19
- Match the Dice
- Numbering Groups
- Group of One
- Group of Three
- Group of Five
- Group of Seven
- Group of Nine
- How Many?
- Counting Groups
- Adding
- More Sums with Counters
- Number Words to 10
- One to Six with Dice
- Number Words to 19

##### ACMNA289

Compare, order and make correspondences between collections, initially 7 to 20, and explain reasoning.

- Group of One
- Group of Three
- Group of Five
- Group of Seven
- Group of Nine
- Counting Groups
- Group of Two
- Group of Four
- Group of Six
- Group of Eight
- Group of Ten
- Is it More?

# Australian National Curriculum and Maths Wiz (Primary)

AUSTRALIAN NATIONAL CURRICULUM	KINETIC EDUCATION LESSONS
<b>ACMNA004</b> Representing practical situations to model addition and sharing.	<ul style="list-style-type: none"> <li>- Count 1 More</li> <li>- Plus 1 Sums</li> <li>- Adding Counters</li> <li>- Adding to 19</li> <li>- Add on 1</li> <li>- Adding</li> <li>- More Sums With Counters</li> </ul>
<b>Patterns and Algebra</b>	
<b>ACMNA005</b> Sort and classify familiar objects and explain the basis for these classifications. Copy, continue and create patterns with objects and drawings.	<ul style="list-style-type: none"> <li>- Number Patterns</li> </ul>
<b>Measurements and Geometry – Using Units of Measurement</b>	
<b>ACMMG006</b> Use direct and indirect comparisons to decide which is longer, heavier or holds more, and explain reasoning in everyday language.	<ul style="list-style-type: none"> <li>- Longer and Shorter</li> <li>- Heavy and Light</li> <li>- Bigger and Smaller</li> <li>- Hot and Cold</li> </ul>
<b>ACMMG007</b> Compare and order the duration of events using the everyday language of time.	<ul style="list-style-type: none"> <li>- Time of Day</li> </ul>
<b>ACMMG008</b> Connect days of the week to familiar events and actions.	<ul style="list-style-type: none"> <li>- Calendar</li> </ul>
<b>Shape</b>	
<b>ACMMG009</b> Sort, describe and name familiar two-dimensional shapes and three - dimensional objects in the environment.	<ul style="list-style-type: none"> <li>- Shapes</li> <li>- Timmy Puzzle</li> <li>- Tiger Puzzle</li> <li>- Square Puzzle</li> </ul>

\* under development

# Australian National Curriculum and Maths Wiz (Primary)

AUSTRALIAN NATIONAL CURRICULUM	KINETIC EDUCATION LESSONS
<b>Location and Transformation</b>	
<b>ACMMG010</b> Describe position and movement	- Left and Right
<b>Statistics and Probability - Data Representation and Interpretation</b>	
<b>ACMSP011</b> Answer yes/no questions to collect information.	- Can it Happen?

## YEAR 1

<b>ACMNA012</b> Develop confidence with number sequences to and from 100 by ones from any starting point. Skip count by twos, fives and tens starting from zero.	- Counting in Tens
<b>ACMNA013</b> Recognise, model, read, write and order numbers to at least 100. Locate these numbers on a number line.	<ul style="list-style-type: none"> <li>- Number Words to 99</li> <li>- Read Numbers</li> <li>- Which is Smaller?</li> <li>- Longs and Minis</li> <li>- Which is Larger?</li> <li>- Typing Numbers</li> </ul>
<b>ACMNA014</b> Count collections to 100 by partitioning numbers using place value.	<ul style="list-style-type: none"> <li>- Adding Tens</li> <li>- Longs and Minis</li> <li>- Adding Counters</li> <li>- 10 to 19</li> <li>- Make-a-Number Game</li> <li>- More Sums with Counters</li> </ul>
<b>ACMNA015</b> Represent and solve simple addition and subtraction problems using a range of strategies including counting on, partitioning and rearranging parts.	<ul style="list-style-type: none"> <li>- Fun Sums</li> <li>- Comparing Groups</li> <li>- Adding Counters</li> <li>- Making 10</li> <li>- Adding Dice</li> <li>- More Add-ups</li> <li>- Find the Difference</li> <li>- Take-Aways</li> <li>- Adding Tens</li> <li>- Adding</li> <li>- Subtraction to 10</li> <li>- Junior Addition Challenge</li> <li>- Adding Things</li> <li>- More Sums with Counters</li> <li>- Adding Up</li> <li>- Adding to 19</li> <li>- Adding 3 Numbers</li> <li>- Taking Away Things</li> <li>- 10 to 19</li> <li>- Make-a-Number Game</li> <li>- Add Up to 19</li> </ul>

\* under development

# Australian National Curriculum and Maths Wiz (Primary)

AUSTRALIAN NATIONAL CURRICULUM	KINETIC EDUCATION LESSONS	
<b>ACMNA016</b>  Recognise and describe one-half as one of two equal parts of a whole.	- Shares	
Money and Financial Mathematics		
<b>ACMNA017</b>  Recognise, describe and order Australian coins according to their value.	- Australian Coins	
Patterns and Algebra		
<b>ACMNA018</b>  Investigate and describe number patterns formed by skip counting and patterns with objects.	- Number Patterns	
Measurements and Geometry – Using Units of Measurement		
<b>ACMMG019</b>  Measure and compare the lengths and capacities of pairs of objects using uniform informal units.	- Informal Units*	
<b>ACMMG020</b>  Tell time to the half hour.	- Clocks - Half Past	
<b>ACMMG021</b>  Describe duration using months, weeks, days and hours.	- Months of the Year - O'Clock	- The Calendar
Shape		
<b>ACMMG022</b>  Recognise and classify familiar two-dimensional shapes and three dimensional objects using obvious features.	- Animal Puzzle - Animal Puzzle 1 - Animal Puzzle 2 - Tiger Puzzle - Symmetry	- Square Puzzle - Square Puzzle 1 - Square Puzzle 2 - Shapes - Naming Shapes

\* under development

# Australian National Curriculum and Maths Wiz (Primary)

AUSTRALIAN NATIONAL CURRICULUM	KINETIC EDUCATION LESSONS
<b>Location and Transformation</b>	
<b>ACMMG023</b> Give and follow directions to familiar locations.	- Directions*
<b>Statistics and Probability</b>	
<b>Chance</b>	
<b>ACMSP024</b> Identify outcomes of familiar events involving chance and describe them using everyday language such as 'will happen', 'won't happen' or 'might happen'.	- Not Likely
<b>Data Representation and Interpretation</b>	
<b>ACMSP262</b> Choose simple questions and gather responses.	- Not Likely
<b>ACMSP263</b> Represent data with objects and drawings where one object or drawing represents one data value. Describe the displays.	- Longs and Minis

## YEAR 2

AUSTRALIAN NATIONAL CURRICULUM	KINETIC EDUCATION LESSONS
<b>Number and Place Value</b>	
<b>ACMNA026</b> Investigate number sequences, initially those increasing and decreasing by twos, threes, fives and ten from any starting point, then moving to other sequences.	- Counting in Tens - Skip Counting

\* under development

# Australian National Curriculum and Maths Wiz (Primary)

AUSTRALIAN NATIONAL CURRICULUM	KINETIC EDUCATION LESSONS
<b>ACMNA027</b> Recognise, model, represent and order numbers to at least 1000.	<ul style="list-style-type: none"> <li>- Read Number</li> <li>- Make-A-Number Game</li> </ul>
<b>ACMNA028</b> Group, partition and rearrange collections up to 1000 in hundreds, tens and ones to facilitate more efficient counting.	<ul style="list-style-type: none"> <li>- 10 to 19</li> <li>- Rounding to 10</li> <li>- Flats, Longs and Minis</li> <li>- Rounding Off to The Nearest 100</li> </ul>
<b>ACMNA029</b> Explore the connection between addition and subtraction.	<ul style="list-style-type: none"> <li>- Find the Difference</li> </ul>
<b>ACMNA030</b> Solve simple addition and subtraction problems using a range of problems using a range of efficient mental and written strategies.	<ul style="list-style-type: none"> <li>- Fun Sums</li> <li>- Comparing Groups</li> <li>- Adding Counters</li> <li>- Making 10</li> <li>- Adding Dice</li> <li>- More Add-ups</li> <li>- Adding Longs and Minis</li> <li>- Take-Aways</li> <li>- Adding Tens</li> <li>- Subtraction to 10</li> <li>- Junior Addition Challenge</li> <li>- Adding Things</li> <li>- More Sums with Counters</li> <li>- Adding Up</li> <li>- Adding to 19</li> <li>- Find the Difference</li> <li>- Taking Away Things</li> <li>- Adding</li> <li>- Make-a-Number Game</li> <li>- Add Up to 19</li> </ul>
<b>ACMNA031</b> Recognise and represent multiplication as repeated addition, groups and arrays.	<ul style="list-style-type: none"> <li>- The "Times Sign"</li> <li>- Multiplying with Blocks</li> <li>- Equal Times Signs</li> </ul>
<b>ACMNA032</b> Recognise and represent division as grouping into equal sets and solve simple problems using these representations.	<ul style="list-style-type: none"> <li>- Shares</li> </ul>
<b>Fractions and Decimals</b>	
<b>ACMNA033</b> Recognise and interpret common uses of halves, quarters and eighths of shapes and collections.	<ul style="list-style-type: none"> <li>- Fractions</li> <li>- Tenths with Flats</li> </ul>
<b>Money and Financial Mathematics</b>	
<b>ACMNA034</b> Count and order small collections of Australian coins and notes according to their value.	<ul style="list-style-type: none"> <li>- Coins</li> <li>- Which Coins?</li> </ul>

\* under development



# Australian National Curriculum and Maths Wiz (Primary)

AUSTRALIAN NATIONAL CURRICULUM	KINETIC EDUCATION LESSONS	
Patterns and Algebra		
<b>ACMNA035</b>  Describe patterns with numbers and identify missing elements.	- Number Patterns	
<b>ACMNA036</b>  Solve problems by using number sentences for addition or subtraction.	- Counting Things - Adding Things	- Comparing Groups
<b>ACMMG037</b>  Compare and order several shapes and objects based on length, area, volume and capacity using appropriate uniform informal units.	- Informal Units*	
<b>ACMMG038</b>  Compare masses of objects using balance scales.	- Mass	
<b>ACMMG039</b>  Tell time to the quarter-hour, using the language of 'past' and 'to'.	- O'Clock - Half-Past	
<b>ACMMG040</b>  Name and order months and seasons.	- Seasons - Months of the Year	
<b>ACMMG041</b>  Use a calendar to identify the date and determine the number of days in each month.	-The Calendar	
Shape		
<b>ACMMG042</b>  Describe and draw two-dimensional shapes, with and without digital technologies.	- Animal Puzzle 1 - Animal Puzzle 2 - Shapes - Naming Shapes - Quadrilaterals	- Square Puzzle 1 - Square Puzzle 2 - Symmetry - Polygons

\* under development

# Australian National Curriculum and Maths Wiz (Primary)

AUSTRALIAN NATIONAL CURRICULUM	KINETIC EDUCATION LESSONS
<b>ACMMG043</b> Describe the features of three-dimensional objects.	- Solid Shapes
<b>Measurement and Geometry – Location and Transformation</b>	
<b>ACMMG044</b> Interpret simple maps of familiar locations and identify the relative positions of key features.	- Maps*
<b>ACMMG045</b> Investigate the effect of one-step slides and flips with and without digital technologies.	- Flip, Side and Turn
<b>ACMMG046</b> Identify and describe half and quarter turns.	- Turns*
<b>Statistics and Probability</b>	
<b>Chance</b>	
<b>ACMSP047</b> Identify practical activities and everyday events that involve chance. Describe outcomes as 'likely' or 'unlikely' and identify some events as 'certain' or 'impossible'.	- Not likely? - Impossible and Unlikely
<b>Data Representation and Interpretation</b>	
<b>ACMSP048</b> Identify a question of interest based on one categorical variable. Gather data relevant to the question.	- Counting Things - Adding Things
<b>ACMSP049</b> Collect, check and classify data.	- Showing Data
<b>ACMSP050</b> Create displays of data using lists, table and picture graphs and interpret them.	- Showing Data

\* under development

# Australian National Curriculum and Maths Wiz (Primary)

## YEAR 3

### AUSTRALIAN NATIONAL CURRICULUM

### KINETIC EDUCATION LESSONS

#### Number and Algebra - Number and Place Value

#### ACMNA051

Investigate the conditions required for a number to be odd or even and identify odd and even numbers.

- Odd and Even Numbers\*

#### ACMNA052

Recognise, model represent and order numbers to at least 10 000.

- Blocks, Flats, Longs and Minis  
- 1 to 99 in Words  
- One Thousand and?

#### ACMNA053

Apply place value to partition, rearrange and regroup numbers to at least 10 000 to assist calculations and solve problems.

- Place Value  
- Adding and Carrying  
- Tens and Ones  
- Make-a-Number Game  
- What is the Number?  
- Subtracting Tens and Ones With Carrying  
- Adding Terms and Ones  
- Adding 3 Rows of Numbers  
- Subtracting Tens and Ones  
- Adding Longs and Minis  
- Adding hundreds, Tens and Ones

#### ACMNA054

Recognise and explain the connection between addition and subtraction.

- Skip Counting  
- Find the Pattern

#### ACMNA055

Recall addition facts for single single-digit numbers and related subtraction facts to develop increasingly efficient mental strategies for computation.

- Addition  
- Subtraction  
- Rounding  
- Worded Sums  
- Plus and Minus  
- Fun Sums  
- Junior Addition Challenge  
- Junior Subtraction Challenge  
- Fun Sums to 19  
- Mixed Problems

#### ACMNA056

Recall multiplication facts of two, three, five and ten and related division facts.

- Multiplying Numbers  
- Introduction to Division  
- Division  
- Division (Set 2)  
- Division (Set 3)  
- Division Practice  
- Junior Tables Challenge  
- Multiplication Tables (Look and Listen)

\* under development

# Australian National Curriculum and Maths Wiz (Primary)

AUSTRALIAN NATIONAL CURRICULUM	KINETIC EDUCATION LESSONS
<b>ACMNA057</b> Represent and solve problems involving multiplication using efficient mental and written strategies and appropriate digital technologies.	<ul style="list-style-type: none"> <li>- Multiplying Numbers</li> <li>- Extended Multiplication</li> </ul>
<b>Fractions and Decimals</b>	
<b>ACMNA058</b> Model and represent unit fractions including $\frac{1}{2}$ , $\frac{1}{4}$ , $\frac{1}{3}$ , $\frac{1}{5}$ and their multiples to a complete whole.	<ul style="list-style-type: none"> <li>- Halving</li> <li>- Tens with Flats</li> <li>- Fractions</li> <li>- Fractions with more than One Part</li> </ul>
<b>Money and Financial Mathematics</b>	
<b>ACMNA059</b> Represent money values in multiple ways and count the change required for simple transactions to the nearest five cents.	<ul style="list-style-type: none"> <li>- Going Shopping</li> </ul>
<b>Patterns and Algebra</b>	
<b>ACMNA060</b> Describe, continue, and create number patterns resulting from performing addition or subtraction.	<ul style="list-style-type: none"> <li>- Skip Counting in 3s</li> <li>- Find the Pattern</li> <li>- Skip Counting in 4s</li> </ul>
<b>Measurement and Geometry - Using Units of Measurement</b>	
<b>ACMMG061</b> Measure, order and compare objects using familiar metric units of length, mass and capacity.	<ul style="list-style-type: none"> <li>- Length in Decimals</li> <li>- Litres and Millilitres</li> <li>- Perimeter</li> </ul>

\* under development

# Australian National Curriculum and Maths Wiz (Primary)

AUSTRALIAN NATIONAL CURRICULUM	KINETIC EDUCATION LESSONS
<b>ACMMG062</b> Tell time to the minute and investigate the relationship between units of time.	<ul style="list-style-type: none"> <li>- Time Taken</li> <li>- Solid Shapes</li> <li>- Digital Clock</li> <li>- Digital and Analog Time</li> <li>- Analog Clock</li> </ul>
<b>ACMMG063</b> Make models of three-dimensional objects and describe key features.	<ul style="list-style-type: none"> <li>- Solid 1</li> <li>- Corners, Sides and Edges</li> </ul>
<b>Location and Transformation</b>	
<b>ACMMG065</b> Create and interpret simple grid maps to show position and pathways.	<ul style="list-style-type: none"> <li>- Coordinates</li> </ul>
<b>ACMMG066</b> Identify symmetry in the environment.	<ul style="list-style-type: none"> <li>- Symmetry</li> <li>- Axes of Symmetry</li> </ul>
<b>Geometric Reasoning</b>	
<b>ACMMG064</b> Identify angles as measures of turn and compare angle sizes in everyday situations.	<ul style="list-style-type: none"> <li>- Angles</li> </ul>
<b>Statistics and Probability</b>	
<b>Chance</b>	
<b>ACMSP067</b> Conduct chance experiments, identify and describe possible outcomes and recognise variation in results.	<ul style="list-style-type: none"> <li>- Which Will it be?</li> <li>- Impossible and Unlikely</li> </ul>

\* under development

# Australian National Curriculum and Maths Wiz (Primary)

AUSTRALIAN NATIONAL CURRICULUM	KINETIC EDUCATION LESSONS
<b>Data Representation and Interpretation</b>	
<b>ACMSP068</b> Identify questions or issues for categorical variables. Identify data sources and plan methods of data collection and recording.	- Showing Data
<b>ACMSP069</b> Collect data, organise into categories and create displays using lists, tables, picture graphs and simple column graphs, with and without the use of digital technologies.	- Showing Data
<b>ACMSP070</b> Interpret and compare data displays.	- Showing Data

## YEAR 4

<b>Number and Algebra - Number and Place Value</b>	
<b>ACMNA071</b> Investigate and use the properties of odd and even numbers.	- Odd and Even Numbers*
<b>ACMNA072</b> Recognise, represent and order numbers to at least tens of thousands.	- Write in Digits - What is the Number? - One Thousand and?
<b>ACMNA073</b> Apply place value to partition, rearrange and regroup numbers to at least tens of thousands to assist calculations and solve problems.	- Adding Tens and Ones - How many Hundreds? - Subtracting Tens and Ones - Adding Longs and Minis - Subtraction (Set 4) - Adding Thousands, Hundreds, Tens and Ones - Adding Hundreds, Tens and Ones - Adding and Carrying - Adding 3 Rows of Numbers - Subtraction (3 digits) - Blocks, Flats, Longs and Minis - Place Value - Subtraction from Hundreds and Thousands - Subtracting Tens and Ones with Carrying
<b>ACMNA074</b> Investigate number sequence involving multiples of 3, 4, 6, 7, 8, and 9.	- Skip Counting in 3s - Find the Pattern - Skip Counting in 4s

\* under development

# Australian National Curriculum and Maths Wiz (Primary)

AUSTRALIAN NATIONAL CURRICULUM	KINETIC EDUCATION LESSONS
<b>ACMNA075</b> Recall multiplication facts up to 10 x 10 and related division facts.	<ul style="list-style-type: none"> <li>- Multiplying with Blocks</li> <li>- Equal Times Signs</li> <li>- Junior Tables Challenge</li> <li>- The Times Sign</li> <li>- Times Tables (Look and Listen) with lessons for Tables from 1-12</li> </ul>
<b>ACMNA076</b> Develop efficient mental and written strategies and use appropriate digital technologies for multiplication and for division where there is no remainder.	<ul style="list-style-type: none"> <li>- Shares</li> <li>- Shares and Groups</li> <li>- Mixed Problems</li> </ul>
<b>Fractions and Decimals</b>	
<b>ACMNA077</b> Investigate equivalent fractions used in contexts.	<ul style="list-style-type: none"> <li>- Writing Division as a Fraction</li> <li>- Division and the 1 Times Table</li> </ul>
<b>ACMNA078</b> Count by quarters, halves and thirds, including with mixed numerals. Locate and represent these fractions on a number line.	<ul style="list-style-type: none"> <li>-What is a Fraction?</li> </ul>
<b>ACMNA079</b> Recognise that the place value system can be extended to tenths and hundredths. Make connections between fractions and decimal notation.	<ul style="list-style-type: none"> <li>- Tenths With Flats</li> <li>- Tenths (Place Value)</li> <li>- Decimal Hundredths</li> <li>- Writing Decimal Hundredths</li> <li>- Ones and Hundredths</li> </ul>
<b>Money and Financial Mathematics</b>	
<b>ACMNA080</b> Solve problems involving purchases and the calculation of change to the nearest five cents with and without digital technologies.	<ul style="list-style-type: none"> <li>- Going Shopping</li> <li>- Best Buy</li> </ul>
<b>Patterns and Algebra</b>	
<b>ACMNA081</b> Explore and describe number patterns resulting from performing multiplication.	<ul style="list-style-type: none"> <li>- Square Numbers</li> </ul>

\* under development

# Australian National Curriculum and Maths Wiz (Primary)

AUSTRALIAN NATIONAL CURRICULUM	KINETIC EDUCATION LESSONS
<b>ACMNA082</b> Solve word problems by using number sentences involving multiplication or division where there is no remainder.	<ul style="list-style-type: none"> <li>- Worded Problems</li> <li>- Problems Challenge</li> </ul>
<b>ACMNA083</b> Use equivalent number sentences involving addition and subtraction to find unknown quantities.	<ul style="list-style-type: none"> <li>- Multiplying Numbers</li> <li>- Extended Multiplication</li> <li>- Worded Problems</li> </ul>
<b>Measurement and Geometry – Using Units of Measurement</b>	
<b>ACMMG084</b> Used scaled instruments to measure and compare lengths, masses, capacities and temperatures.	<ul style="list-style-type: none"> <li>- Temperature</li> <li>- Volume of a Solid</li> <li>- Litres and Millilitres</li> <li>- The Square Metre</li> </ul>
<b>ACMMG290</b> Compare objects using familiar metric units of area and volume.	<ul style="list-style-type: none"> <li>- Length in Decimals</li> <li>- The Square Metre</li> <li>- Perimeter</li> <li>- Area</li> <li>- Volume</li> </ul>
<b>ACMMG085</b> Convert between units of time.	<ul style="list-style-type: none"> <li>- Digital and Analog Time</li> <li>- Time Taken</li> </ul>
<b>ACMMG086</b> Use am and pm notation and solve simple time problems.	<ul style="list-style-type: none"> <li>- Time Taken</li> <li>- Time</li> </ul>
<b>Shape</b>	
<b>ACMMG087</b> Compare the areas of regular and irregular shapes by informal means.	<ul style="list-style-type: none"> <li>- Area</li> <li>- The Square Metre</li> <li>- Square Puzzle 2</li> <li>- Square Puzzle 3</li> </ul>
<b>ACMMG088</b> Compare and describe two-dimensional shapes that result from combining and splitting common shapes, with and without the use of digital technologies.	<ul style="list-style-type: none"> <li>- Square Puzzle 2</li> <li>- Square Puzzle 3</li> <li>- Square Puzzle 4</li> <li>- Super Square</li> <li>- Mass</li> <li>- Volume of a Solid</li> <li>- Litres and Millilitres</li> <li>- The Square Metre</li> <li>- Super Square Puzzle</li> <li>- Perimeter</li> </ul>

\* under development



# Australian National Curriculum and Maths Wiz (Primary)

AUSTRALIAN NATIONAL CURRICULUM	KINETIC EDUCATION LESSONS
<b>Location and Transformation</b>	
<b>ACMMG090</b> Use simple scales, legends and directions to interpret information contained in basic maps.	- Maps*
<b>ACMMG091</b> Create symmetrical patterns, pictures and shapes with and without digital technologies.	- Symmetry - Axes of Symmetry
<b>Geometric Reasoning</b>	
<b>ACMMG089</b> Compare angles and classify them as equal to, greater than or less than a right angle.	- Angles
<b>Statistics and Probability</b>	
<b>Chance</b>	
<b>ACMSP092</b> Describe possible everyday events and order their chances of occurring.	- Impossible and Unlikely - Which Will it Be?
<b>ACMSP093</b> Identify everyday events where one cannot happen if the other happens.	- Showing Data
<b>ACMSP094</b> Identify events where the chance of one will not be affected by the occurrence of the other.	- Independent Events*
<b>Data Representation and Interpretation</b>	
<b>ACMSP095</b> Select and trial methods for data collection, including survey questions and recording sheets.	- Showing Data

\* under development

# Australian National Curriculum and Maths Wiz (Primary)

AUSTRALIAN NATIONAL CURRICULUM	KINETIC EDUCATION LESSONS
<b>ACMSP097</b>  Evaluate the effectiveness of different displays in illustrating data features including variability.	- Showing Data

## YEAR 5

### Number and Algebra - Number and Place Value

<b>ACMNA098</b>  Identify and describe factors and multiples of whole numbers and use them to solve problems.	- Multiples - Factors and Multiples - The Factor Tree - HCF and LCM for Large Numbers	- Highest Common Factor - Lowest Common Multiple
<b>ACMNA099</b>  Use estimation and rounding to check the reasonableness of answers to calculations.	- Rounding - Estimating Subtractions - Estimating Quotients - Estimation	- Estimating Additions - Estimating Products - Rounding off to the Nearest 100
<b>ACMNA100</b>  Solve problems involving multiplication of large numbers by one-or two digit numbers using efficient mental, written strategies and appropriate digital technologies.	- Multiplying Numbers - Extended Multiplication - Long Multiplication - Groups and Shares - Mixed Problems	- Introduction to Division - Division Practice - Division with Remainder - Division into Hundreds - Junior Division Challenge - Multiplying by Tens, Hundreds and Thousands
<b>ACMNA101</b>  Solve problems involving division by a one-digit number, including those that result in a remainder.	- Groups and Shares - Division with Remainder - Mixed Problems - Multiplication and Division	- Tables Test 1 (Simple Division) - Tables Test 2 (Simple Division)
<b>ACMNA291</b>  Use efficient mental and written strategies and apply appropriate digital technologies to solve problems.	- Worded Sums - Problems 4 - Problems 5	

\* under development

# Australian National Curriculum and Maths Wiz (Primary)

AUSTRALIAN NATIONAL CURRICULUM	KINETIC EDUCATION LESSONS
<b>Fractions and Decimals</b>	
<b>ACMNA102</b> Compare and order common unit fractions and locate and represent them on a number line.	- Tenths (Number Line)
<b>ACMNA103</b> Investigate strategies to solve problems involving addition and subtraction of fractions with the same denominator.	- Fraction & Decimals
<b>ACMNA104</b> Recognise that the number system can be extended beyond hundredths.	- Thousandths*
<b>ACMNA105</b> Compare, order and represent decimals.	- Decimal Hundredths      - Writing Decimal Hundredths - Ones and Hundredths
<b>Money and Financial Mathematics</b>	
<b>ACMNA106</b> Create simple financial plans.	- Going Shopping - Best Buy
<b>Patterns and Algebra</b>	
<b>ACMNA107</b> Describe, continue and create patterns with fractions, decimals and whole numbers resulting from addition and subtraction.	- Changing a Mixed Number to an Improper Fraction - Changing an Improper Fraction into a Mixed Number
<b>ACMNA121</b> Use equivalent number sentences involving multiplication and division to find unknown quantities.	- Problems - Multiplication and Division

\* under development

# Australian National Curriculum and Maths Wiz (Primary)

AUSTRALIAN NATIONAL CURRICULUM	KINETIC EDUCATION LESSONS
<b>Measurement and Geometry - Using Units of Measurement</b>	
<b>ACMMG108</b> Choose appropriate units of measurement for length, area, volume, capacity and mass.	<ul style="list-style-type: none"> <li>- Mass</li> <li>- Litres and Millilitre</li> <li>- Length in Decimals</li> <li>- Units of Length</li> <li>- Unit Conversions (Distance)</li> <li>- Unit Conversions (Weight)</li> </ul>
<b>ACMMG109</b> Calculate the perimeter and area of rectangles using familiar metric units.	<ul style="list-style-type: none"> <li>- Perimeter</li> <li>- Area</li> <li>- Area of a rectangle</li> </ul>
<b>ACMMG110</b> Compare 12- and 24- hour systems and convert between them.	
<b>ACMMG111</b> Connect three-dimensional objects with their nets and other two-dimensional representations.	<ul style="list-style-type: none"> <li>- Corners, Sides and Edges</li> </ul>
<b>Location and Transformation</b>	
<b>ACMMG113</b> Use a grid reference system to describe locations. Describe routes using landmarks and directional language.	<ul style="list-style-type: none"> <li>- Points of the Compass</li> <li>- Coordinates</li> </ul>
<b>ACMMG114</b> Describe translations, reflections and rotations of two-dimensional shapes. Identify line and rotational symmetries.	<ul style="list-style-type: none"> <li>- Flip, Side and Turn</li> <li>- Axes of Symmetry</li> </ul>
<b>ACMMG115</b> Apply the enlargement transformations to familiar two-dimensional shapes and explore the properties of the resulting image compared with the original.	<ul style="list-style-type: none"> <li>- Enlarged Image*</li> </ul>

\* under development

# Australian National Curriculum and Maths Wiz (Primary)

AUSTRALIAN NATIONAL CURRICULUM	KINETIC EDUCATION LESSONS
<b>Geometric Reasoning</b>	
<b>ACMMG112</b> Estimate, measure and compare angles using degrees. Construct angles using a protractor.	- Angles
<b>Statistics and Probability</b>	
<b>Chance</b>	
<b>ACMSP116</b> List outcomes of chance experiments involving equally likely outcomes and represent probabilities of those outcomes using fractions.	- Probability (Chance) - Which will it be?
<b>ACMSP117</b> Recognise that probabilities range from 0 to 1.	- Impossible or Unlikely
<b>Data Representation and Interpretation</b>	
<b>ACMSP118</b> Pose questions and collect categorical or numerical data by observation or survey.	- Data and Graphs
<b>ACMSP119</b> Construct displays, including column graphs, dot plots and tables, appropriate for data type, with and without the use of digital technologies.	- Pictographs - Pie Graphs - Data and Graphs
<b>ACMSP120</b> Describe and interpret data sets in context.	- Pie Graphs - Data and Graphs

\* under development

# Australian National Curriculum and Maths Wiz (Primary)

## YEAR 6

### AUSTRALIAN NATIONAL CURRICULUM

### KINETIC EDUCATION LESSONS

#### Number and Algebra - Number and Place Value

##### ACMNA122

Identify and describe properties of prime, composite, square and triangle numbers.

- Prime Numbers
- Prime and Composite Numbers

##### ACMNA123

Select and apply efficient mental and written strategies and appropriate digital technologies to solve problems involving all four operations with whole numbers.

- Average (Means)
- Missing Signs
- Comparing Numbers
- Order of Operations
- Inequalities
- Plus and Minus (Set 1)
- Plus and Minus (Set 2)
- Groups and Shares (Set 1)
- Groups and Shares (Set 2)
- Mixed Problems
- Problems 1
- Problems 2
- Problems 3
- Problems 4
- Problems 5
- Multiplication and Division
- Worded Sums
- Division Revision
- Times Tables Challenge
- Addition Challenge
- Subtraction Challenge
- Division Challenge
- Addition and Subtraction Challenge
- Multiplication challenge

##### ACMNA124

Investigate everyday situations that use positive and negative whole numbers and zero. Locate and represent these numbers on a number line.

- Tenths (Number Line)

#### Fractions and Decimals

##### ACMNA125

Compare fractions with related denominators and locate and represent them on a number line.

- Changing a Mixed to an Improper Fraction
- Changing an Improper Fraction into a Mixed number
- Equivalent Fractions
- Tenths (Number Line)

##### ACMNA126

Compare fractions with related denominators and locate and represent them on a number line.

- Fraction & Decimals

# Australian National Curriculum and Maths Wiz (Primary)

AUSTRALIAN NATIONAL CURRICULUM	KINETIC EDUCATION LESSONS
<b>ACMNA127</b> Find a simple fraction of a quantity where the result is a whole number, with and without digital technologies.	- Fraction Of
<b>ACMNA128</b> Add and subtract decimals, with and without digital technologies, and use estimation and rounding to check the reasonableness of answers.	- Decimal Addition - Decimal Subtraction - Adding and Subtracting - Fraction & Decimals - Adding Decimals - Subtraction of Decimals - Calculator: Plus and Minus
<b>ACMNA129</b> Multiply decimals by whole numbers and perform divisions that result in terminating decimals, with and without digital technologies.	- Multiplication of Decimals - Multiplication and Division
<b>ACMNA130</b> Multiply and divide decimals by powers of 10.	
<b>ACMNA131</b> Make connections between equivalent fractions, decimals and percentages.	- Percentage - Equivalent Fractions - Tenths (Number Line) - Tenths (Place Value) - Tenths with Flats - Decimal Hundredths - Ones and Hundredths - Writing Decimal Hundredths
<b>Money and Financial Mathematics</b>	
<b>ACMNA132</b> Investigate and calculate percentage discounts of 10%, 25% and 50% on sale items, with and without digital technologies.	- Percentage Of
<b>Patterns and Algebra</b>	
<b>ACMNA133</b> Continue and create sequences involving whole numbers, fractions and decimals. Describe the rule to create the sequence.	- Find The Pattern
<b>ACMNA134</b> Explore the use of brackets and order of operations to write number sentences.	- Problems 4 - Problems 5 - Order of Operations

\* under development

# Australian National Curriculum and Maths Wiz (Primary)

AUSTRALIAN NATIONAL CURRICULUM	KINETIC EDUCATION LESSONS
<b>Measurement and Geometry - Using Units of Measurement</b>	
<b>ACMMG135</b> Connect decimal representations to the metric system.	<ul style="list-style-type: none"> <li>- Length in Decimals</li> <li>- Litres and Millilitres</li> </ul>
<b>ACMMG136</b> Convert between common metric units of length, mass and capacity.	<ul style="list-style-type: none"> <li>- Units of Length</li> <li>- Units of Conversion (Distance)</li> <li>- Units of Conversion (Weight)</li> <li>- Litres and Millilitres</li> </ul>
<b>ACMMG137</b> Solve problems involving the comparison of lengths and areas using appropriate units.	<ul style="list-style-type: none"> <li>- Units of Length</li> <li>- Square Metre</li> <li>- Area of a Rectangle</li> <li>- Length in Decimals</li> </ul>
<b>ACMMG138</b> Connect volume and capacity and their units of measurement.	<ul style="list-style-type: none"> <li>- Litres and Millilitres</li> </ul>
<b>ACMMG139</b> Interpret and use Timetables.	<ul style="list-style-type: none"> <li>- Timestables*</li> </ul>
<b>Shape</b>	
<b>ACMMG140</b> Construct simple prisms and pyramids.	<ul style="list-style-type: none"> <li>- Solid Shapes</li> </ul>
<b>Location and Transformation</b>	
<b>ACMMG142</b> Investigate combinations of translations, reflections and rotations, with and without the use of digital technologies.	<ul style="list-style-type: none"> <li>- Flip, Slide and Turn</li> </ul>
<b>ACMMG143</b> Introduce the Cartesian coordinate system using all four quadrants.	<ul style="list-style-type: none"> <li>- Cartesian Coordinates*</li> </ul>

\* under development



# Australian National Curriculum and Maths Wiz (Primary)

AUSTRALIAN NATIONAL CURRICULUM	KINETIC EDUCATION LESSONS
<b>Geometric Reasoning</b>	
<b>ACMMG141</b> Investigate, with and without digital technologies, angles on a straight line, angles at a point and vertically opposite angles. Use results to find unknown angles.	- Angles - Angle Rules
<b>Statistics and Probability</b>	
<b>Chance</b>	
<b>ACMSP144</b> Describe probabilities using fractions, decimals and percentages.	- What are the Chances?*
<b>ACMSP145</b> Conduct chance experiments with both small and large numbers of trials using appropriate digital technologies.	-N/A
<b>Data Representation and Interpretation</b>	
<b>ACMSP147</b> Interpret and compare a range of data displays, including side by side column graphs for two categorical variables.	- Pictographs - Piegraphs - Data and Graphs
<b>ACMSP148</b> Interpret secondary data presented in digital media and elsewhere.	- N/A
<b>Number and Algebra - Number and Place Value</b>	
<b>ACMNA149</b> Investigate index notation and represent whole numbers as products of powers of prime numbers.	- Prime Numbers - Multiples

\* under development