Awesomenicity Year 3 Curriculum Guide

Contents

ACARA Year 3 Descriptions

ACARA Year Level Description

The proficiency strands **understanding, fluency, problem-solving and reasoning** are an integral part of mathematics content across the three content strands: number and algebra, measurement and geometry, and statistics and probability. The proficiencies reinforce the significance of working mathematically within the content and describe how the content is explored or developed. They provide the language to build in the developmental aspects of the learning of mathematics. The achievement standards reflect the content and encompass the proficiencies.

At this year level:

- **Understanding** includes connecting number representations with number sequences, partitioning and combining numbers flexibly, representing unit fractions, using appropriate language to communicate times, and identifying environmental symmetry
- **Fluency** includes recalling multiplication facts, using familiar metric units to order and compare objects, identifying and describing outcomes of chance experiments, interpreting maps and communicating positions
- **Problem-solving** includes formulating and modelling authentic situations involving planning methods of data collection and representation, making models of three-dimensional objects and using number properties to continue number patterns
- **Reasoning** includes using generalising from number properties and results of calculations, comparing angles and creating and interpreting variations in the results of data collections and data displays.

Year 3 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.

Descriptions from ACARA V9.0

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Year 3 Overview

Place Value

Recognise, model, represent and order numbers to at least 10,000 (ACMNA052)

Apply place value to partition, rearrange and regroup numbers to at least 10,000 to assist calculations and solve problems (ACMNA053)
**Note, this objective is used in lessons throughout the 4 operations in conjunction with other objectives/strategies.*

Investigate the conditions required for a number to be odd or even and identify odd and even numbers (ACMNA051)
**Note, this objective is integrated in lessons throughout the 4 operations in conjunction with other objectives/strategies.*

Addition & Subtraction

Recognise and explain the connection between addition and subtraction (ACMNA054)

Recall addition facts for single-digit numbers and related subtraction facts to develop increasingly efficient mental strategies for computation (ACMNA055)

Describe, continue, and create number patterns resulting from performing addition or subtraction (ACMNA060)

Investigate the conditions required for a number to be odd or even and identify odd and even numbers (ACMNA051)
**Note, this objective is integrated in lessons throughout the 4 operations in conjunction with other objectives/strategies.*

Multiplication & Division

Recall multiplication facts of two, three, five and ten and related division facts (ACMNA056)

Represent and solve problems involving multiplication using efficient mental and written strategies and appropriate digital technologies (ACMNA057)

Investigate the conditions required for a number to be odd or even and identify odd and even numbers (ACMNA051)
**Note, this objective is integrated in lessons throughout the 4 operations in conjunction with other objectives/strategies.*

Fractions

Model and represent unit fractions including 1/2, 1/4, 1/3, 1/5 and their multiples to a complete whole (ACMNA058)

Measurement

Measure, order and compare objects using familiar metric units of length, mass and capacity (ACMMG061)

Shape and Space

Make models of three-dimensional objects and describe key features (ACMMG063)

Create and interpret simple grid maps to show position and pathways (ACMMG065)

Identify symmetry in the environment (ACMMG066)

Identify angles as measures of turn and compare angle sizes in everyday situations (ACMMG064)

Money

Represent money values in multiple ways and count the change required for simple transactions to the nearest five cents (ACMNA059)

Statistics, Probability & Data

Describe possible everyday events and order their chances of occurring (ACMSP092)

Identify everyday events where one cannot happen if the other happens (ACMSP093)

Identify events where the chance of one will not be affected by the occurrence of the other (ACMSP094)

Conduct chance experiments, identify and describe possible outcomes and recognise variation in results (ACMSP067)

Identify questions or issues for categorical variables. Identify data sources and plan methods of data collection and recording (ACMSP068)

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 (ACMSP069)

Interpret and compare data displays (ACMSP070)

Time

Tell time to the minute and investigate the relationship between units of time (ACMMG062)

Place Value

ACARA Content Descriptions	Awesomenicity Lessons
Recognise, model, represent and order numbers to at least 10,000 (ACMNA052) Recognise, model, represent and order numbers to at least 10,000 (ACMNA052) Apply place value to partition, rearrange and regroup numbers to at least 10,000 to assist calculations and solve problems (ACMNA053) **Note, this objective is used in lessons throughout the 4 operations in conjunction with other objectives/strategies.*	Lesson 1: **Let's use place value** Lesson 2: **Let's expand numbers** Lesson 3: **Let's expand 4-digit numbers** Lesson 4: **Let's compare numbers** Lesson 5: **Let's order numbers** Lesson 6: **Let's create and compare numbers** Lesson 7: **Let's read and write numbers** Lesson 8: **Let's read and write more numbers** Lesson 9: **Let's use problem-solving to build numbers** Lesson 10: **Let's regroup amounts** Lesson 11: **Let's regroup across place values**
**Note, rounding is used in addition and subtraction strategies in the future and is an important skill that shows applied knowledge of place value. Hence, we have included it in place value. However, these lessons could be skipped at your discretion as they are not explicitly mentioned in the curriculum. If skipped, you will need to avoid printing questions 10, 11, and 12 on page 6 of the assessment printables.*	Lesson 12: **Let's round numbers to the nearest 10** Lesson 13: **Let's apply rounding to the nearest 10** Lesson 14: **Let's round to the nearest 100** Lesson 15: **Let's apply rounding to the nearest 100 skills**
Investigate the conditions required for a number to be odd or even and identify odd and even numbers (ACMNA051) **Note, this objective is integrated in lessons throughout the 4 operations in conjunction with other objectives/strategies.*	Lessons 1, 5, 6, 9 and 16 incorporate this objective.
Consolidation and assessment.	Lesson 16: **Let's apply place value knowledge** Lesson 17: **Let's show what we know! (Assessment)**

Addition

ACARA Content Descriptions	Awesomenicity Lessons
Recognise and explain the connection between addition and subtraction (ACMNA054) Recall addition facts for single-digit numbers and related subtraction facts to develop increasingly efficient mental strategies for computation (ACMNA055) Describe, continue, and create number patterns resulting from performing addition or subtraction (ACMNA060)	Lesson 1: **Let's make 10** Lesson 2: **Let's find the next multiple of ten** Lesson 3: **Let's add using bridging to ten strategy** Lesson 4: **Let's use doubles to add** Lesson 5: **Let's use jump strategy** Lesson 6: **Let's use split strategy** Lesson 7: **Let's use rounding to problem-solve** Lesson 8: **Let's add like units** Lesson 9: **Let's add like digits up to hundreds** Lesson 10: **Let's use column addition with regrouping**
Apply place value to partition, rearrange and regroup numbers to at least 10,000 to assist calculations and solve problems(ACMNA055) **Note, while this objective is used with 10,000s in PV, the objective of regrouping and justifying choices about partitioning is used explicitly/conceptually in addition and subtraction with smaller amounts.*	Lesson 11: **Let's use column addition to problem-solve** Lesson 12: **Let's practice our addition skills** Lesson 13: **Let's use REPS to solve word problems**
Investigate the conditions required for a number to be odd or even and identify odd and even numbers (ACMNA051) **Note, this objective is integrated in lessons throughout the 4 operations in conjunction with other objectives/strategies.*	Lessons 8 and 12 incorporate this objective.
Consolidation and assessment.	Lesson 14: **Let's use our addition strategies** Lesson 15: **Let's show what we know! (Assessment)**

Subtraction

ACARA Content Descriptions	Awesomenicity Lessons
Recall addition facts for single-digit numbers and related subtraction facts to develop increasingly efficient mental strategies for computation (ACMNA055) Describe, continue, and create number patterns resulting from performing addition or subtraction (ACMNA060)	Lesson 1: **Let's subtract within 10** Lesson 2: **Let's add and subtract 1, 10 and 100** Lesson 3: **Let's use counting on to subtract** Lesson 4: **Let's bridge down to the next ten** Lesson 5: **Let's use patterns to subtract** Lesson 6: **Let's explore related facts** Lesson 7: **Let's use jump & split strategy to subtract** Lesson 8: **Let's apply split/jump strategy to subtract**
Recognise and explain the connection between addition and subtraction (ACMNA054) **Note, this is covered throughout many addition and subtraction lessons, but is explicitly addressed in these lessons.*	Lessons 6 and 13 cover this objective.
Apply place value to partition, rearrange and regroup numbers to at least 10,000 to assist calculations and solve problems(ACMNA055) **Note, while this objective is used with 10,000s in PV, regrouping and justifying choices about partitioning is used explicitly/conceptually in addition and subtraction with smaller amounts.*	Lesson 9: **Let's use column method to subtract** Lesson 10: **Let's subtract up to 3-digit numbers** Lesson 11: **Let's solve word problems** Lesson 12: **Let's use flexible numbers and regrouping**
Investigate the conditions required for a number to be odd or even and identify odd and even numbers (ACMNA051) **Note, this objective is integrated in lessons throughout the 4 operations in conjunction with other objectives/strategies.*	Lesson 12 incorporates this objective.
Consolidation and assessment.	Lesson 13: **Let's apply subtraction strategies to problem-solve** Lesson 14: **Let's show what we know! (Assessment)**

Multiplication

ACARA Content Descriptions	Awesomenicity Lessons
Recall multiplication facts of two, three, five and ten and related division facts (ACMNA056) Represent and solve problems involving multiplication using efficient mental and written strategies and appropriate digital technologies (ACMNA057)	Lesson 1: **Let's explore equal groups** Lesson 2: **Let's use skip counting to multiply** Lesson 3: **Let's keep skip counting to multiply** Lesson 4: **Let's arrays to show multiplication** Lesson 5: **Let's use arrays to show multiplication** Lesson 6: **Let's multiply by 1 and 0** Lesson 7: **Let's multiply by 2** Lesson 8: **Let's multiply by 10** Lesson 9: **Let's multiply by 5** Lesson 10: **Let's multiply by 3** Lesson 11: **Let's multiply by 4** Lesson 12: **Let's multiply by 8** Lesson 13: **Let's solve multiplication word problems** Lesson 14: **Let's apply multiplication to calculate area** Lesson 15: **Let's multiply 2-digit numbers by 1-digit numbers** Lesson 16: **Let's solve 2-digit multiplication problems**
Investigate the conditions required for a number to be odd or even and identify odd and even numbers (ACMNA051) **Note, this objective is integrated in lessons throughout the 4 operations in conjunction with other objectives/strategies.*	Lessons 3 and 7 (listed above) incorporate this objective.
Consolidation and assessment.	Lesson 17: **Let's show what we know! (Assessment)**

Division

ACARA Content Descriptions	Awesomenicity Lessons
Recall multiplication facts of two, three, five and ten and related division facts (ACMNA056)	
Represent and solve problems involving multiplication using efficient mental and written strategies and appropriate digital technologies (ACMNA057) **Note, this objective is included due to the relationship/connection with multiplication and division and the necessity for fractions.*	
Investigate the conditions required for a number to be odd or even and identify odd and even numbers (ACMNA051) **Note, this objective is integrated in lessons throughout the 4 operations in conjunction with other objectives/strategies.*	
Consolidation and assessment.	

Fractions

ACARA Content Descriptions	Awesomenicity Lessons
Model and represent unit fractions including 1/2, 1/4, 1/3, 1/5 and their multiples to a complete whole (ACMNA058)	
Consolidation and assessment.	

Measurement

ACARA Content Descriptions	Awesomenicity Lessons
Measure, order and compare objects using familiar metric units of length, mass and capacity (ACMMG061)	
Consolidation and assessment.	

Shape and Space

ACARA Content Descriptions	Awesomenicity Lessons
Create and interpret simple grid maps to show position and pathways (ACMMG065)	
Identify angles as measures of turn and compare angle sizes in everyday situations (ACMMG064)	
Make models of three-dimensional objects and describe key features (ACMMG063) Identify symmetry in the environment (ACMMG066)	
Consolidation and assessment.	

Statistics, Probability and Data

ACARA Content Descriptions	Awesomenicity Lessons
Interpret and compare data displays (ACMSP070) 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 (ACMSP069) Identify questions or issues for categorical variables. Identify data sources and plan methods of data collection and recording (ACMSP068)	
Identify events where the chance of one will not be affected by the occurrence of the other (ACMSP094) Identify everyday events where one cannot happen if the other happens (ACMSP093) Describe possible everyday events and order their chances of occurring (ACMSP092) Conduct chance experiments, identify and describe possible outcomes and recognise variation in results (ACMSP067)	
Consolidation and assessment.	

Time

ACARA Content Descriptions	Awesomenicity Lessons
Tell time to the minute and investigate the relationship between units of time (ACMMG062)	
Consolidation and assessment.	

Money

ACARA Content Descriptions	Awesomenicity Lessons
Represent money values in multiple ways and count the change required for simple transactions to the nearest five cents (ACMNA059)	
Consolidation and assessment.	

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Year 3 Checklist

Number, Patterns & Algebra

Objective	✓
Recognise, model, represent and order numbers to at least 10,000 (ACMNA052)	
Apply place value to partition, rearrange and regroup numbers to at least 10,000 to assist calculations and solve problems (ACMNA053)	
Investigate the conditions required for a number to be odd or even and identify odd and even numbers (ACMNA051)	
Recognise and explain the connection between addition and subtraction (ACMNA054)	
Recall addition facts for single-digit numbers and related subtraction facts to develop increasingly efficient mental strategies for computation (ACMNA055)	
Describe, continue, and create number patterns resulting from performing addition or subtraction (ACMNA060)	
Recall multiplication facts of two, three, five and ten and related division facts (ACMNA056)	
Represent and solve problems involving multiplication using efficient mental and written strategies and appropriate digital technologies (ACMNA057)	

Fractions and Decimals

Objective	✓
Model and represent unit fractions including 1/2, 1/4, 1/3, 1/5 and their multiples to a complete whole (ACMNA058)	

Measurement

Objective	✓
Measure, order and compare objects using familiar metric units of length, mass and capacity (ACMMG061)	

Year 3 Checklist

Money

Objective	✓
Represent money values in multiple ways and count the change required for simple transactions to the nearest five cents (ACMNA059)	

Time

Objective	✓
Tell time to the minute and investigate the relationship between units of time (ACMMG062)	

Shape and Space

Objective	✓
Make models of three-dimensional objects and describe key features (ACMMG063)	
Location and transformation Create and interpret simple grid maps to show position and pathways (ACMMG065)	
Identify symmetry in the environment (ACMMG066)	
Identify angles as measures of turn and compare angle sizes in everyday situations (ACMMG064)	

Year 3 Checklist

Statistics, Probability and Data Handling

Objective	✓
Describe possible everyday events and order their chances of occurring (ACMSP092)	
Identify everyday events where one cannot happen if the other happens (ACMSP093)	
Identify events where the chance of one will not be affected by the occurrence of the other (ACMSP094)	
Conduct chance experiments, identify and describe possible outcomes and recognise variation in results (ACMSP067)	
Identify questions or issues for categorical variables. Identify data sources and plan methods of data collection and recording (ACMSP068)	
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 (ACMSP069)	
Interpret and compare data displays (ACMSP070)	

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