YEAR 8 MATHS

WEEK 3 Coordinate Geometry	**Monday**	TEST: MEASUREMENT Worksheet	Worksheet
	Tuesday	Introduce 12B: Plotting Points from a Table of Values Questions: 12B	12B
	Thursday	Re-Introduce 12A: The Cartesian Plane Questions: 12A	12A
	Friday	Re-Introduce 12B: Plotting Points from a Table of Values Questions: 12B	12B
WEEK 4 Coordinate Geometry	**Monday**	**PROFESSIONAL DEVELOPMENT DAY NO CLASSES**	
	Tuesday	Introduce 12C: Linear Relationships Questions: 12C	12C
	Thursday	Worksheet/Activity	Worksheet
	Friday	Introduce 12D: Plotting Graphs of Linear Equations Questions: 12D	12D
WEEK 5 Coordinate Geometry	**Monday**	Introduce 12E: Horizontal Lines Questions: 12E Introduce 12F: Points on Lines Questions: 12F	12E 12F
	Tuesday	Chapter 12 Revision Questions: RS 12	RS 12
	Thursday	Chapter 12 Revision Coordinate Geometry Worksheet	Worksheet
	Friday	Introduce 7B: Linear Equations Questions: 7B Introduce 7D: Inverse Operations Questions: 7D	7B 7D
WEEK 6 Coordinate Geometry	**Monday**	NAPLAN Preparation/Test 7B and 7D revision worksheet	
	Tuesday	Introduce 7F: Solving Equations Questions: 7F	7F
	Thursday	Introduce 7F: Solving Equations Questions: 7F	7F
	Friday	Introduce 7G: Equations with a Repeated Unknown Questions: 7G	7G

WEEK 7 Coordinate Geometry	**Monday**	Introduce 7G: Equations with a Repeated Unknown Questions: 7G	7G
	Tuesday	Introduce 16A: Writing Problems as Equations Questions: 16A	16A
	Thursday	Introduce 16B: Problem Solving with Algebra Questions: 16B	16B
	Friday	Test Revision Worksheet	Test Notes Revision
WEEK 8 Coordinate Geometry	**Monday**	TEST: COORDINATE GEOMETRY	COORDINATE GEOMETRY TEST
	Tuesday	Introduce 2A: Sets Questions: 2A	2A
	Thursday	Introduce 2B: Complement of a Set Questions: 2B	2B
	Friday	Introduce 2C: Intersection and Union Questions: 2C	2C
WEEK 9 Probability	**Monday**	Introduce 2E: Problem Solving with Venn Diagrams Questions: 2E Revision	2E Revision
	Tuesday	Introduce 15A: Probability Questions: 15A	15A
	Thursday	Introduce 15B: Sample Space Questions: 15B	15B
	Friday	Introduce 15C: Theoretical Probability Questions: 15C	15C
WEEK 10 Probability	**Monday**	Introduce 15D: Complementary Events Questions: 15D	15D
	Tuesday	Introduce 15E: Experimental Probability Questions: 15E	15E
	Thursday	FOLIO TASK: Probability	Folio
	Friday	Games/fun activities?	

YEAR 8 MATHS

TOPIC 1: ALGEBRA AND COORDINATE GEOMETRY

WEEK 3: Monday 7/8/17 Lessons 7 & 8

12A: CARTESIAN PLANES

Intended learning outcomes: *At the conclusion of this lesson, students will be able to:*

- Understand that a Cartesian plane describes all points on a set of x-y axes
- Identify each of the four quadrants of the Cartesian plane
- State coordinates of, and plot various points on the Cartesian plane
- Determine whether a set of points lie in a straight line
- When given a list of rules, determine which (if any) fit a set of points

<table>
<tr><th colspan="2">CONTENT</th><th>LEARNING SUPPORTS</th><th>STUDENT RESOURCES</th></tr>
<tr><td>MEASUREMENT TEST</td><td>40min – 70min</td><td rowspan="2"><u>Worksheet</u>

<u>Individual Reflection</u>

<u>Small Group Discussion</u>
After test only</td><td>Cartesian Plane Worksheet

HAESE Textbook:
Year 8 Maths</td></tr>
<tr><td>Cartesian Plane Worksheet: Distribute to students as they complete the test.</td><td>20min</td><td>TEACHER RESOURCES

Cartesian Plane Worksheet

HAESE Textbook:
Year 8 Maths</td></tr>
<tr><th colspan="2">EXTENSION</th><th>HOMEWORK</th><th>CLASSROOM PREPARATION</th></tr>
<tr><td colspan="2">If students finish early, work on Exercise 12A HAESE Textbook.

If extra time, summarise Cartesian Plane and do a question on the board (see textbook for options).</td><td>Complete Cartesian Plane Worksheet</td><td><u>Print worksheets</u></td></tr>
</table>

YEAR 8 MATHS

TOPIC 1: ALGEBRA AND COORDINATE GEOMETRY

WEEK 3: Tuesday 8/8/17 Lesson 5

12B: PLOTTING POINTS FROM A TABLE OF VALUES

Intended learning outcomes: *At the conclusion of this lesson, students will be able to:*

- Plot a series of points on a Cartesian plane from a given table of values
- Identify series of points that make straight lines on a Cartesian plane
- Make future pattern predictions about a series of values

CONTENT		LEARNING SUPPORTS	STUDENT RESOURCES
Recap 12A: Cartesian Planes and worksheet - go through worksheet answers and any questions students have - worked example 12B Q. 4, 7 **Introduce 12B: Plotting Points from a Table of Values** - example 12B 1b (?) **Questions:** 12B: 1a,c, 2, 4-6	10min 15min 15min	**Whiteboard** **Individual Reflection** **Small Group Discussion** **Whole Class Discussion**	HAESE Textbook: Year 8 Maths **TEACHER RESOURCES** HAESE Textbook: Year 8 Maths

EXTENSION	HOMEWORK	CLASSROOM PREPARATION
If students finish early (or there is extra time), work on remaining Exercise 12A/12B HAESE Textbook Questions.	Complete 12B: 1a,c, 2, 4-6	Bring whiteboard markers and textbook Bring worksheet answers and notes to worked solutions

YEAR 8 MATHS

TOPIC 1: ALGEBRA AND COORDINATE GEOMETRY

WEEK 3: Thursday 10/8/17 Lesson 2

12A: THE CARTESIAN PLANE

Intended learning outcomes: *At the conclusion of this lesson, students will be able to:*

- Draw a correctly labelled Cartesian plane
- Plot a series of positive and negative points on a Cartesian plane
- Label the origin and quadrants of a Cartesian plane
- Identify regions of positive or negative coordinates, and all coordinates with a specific x or y value

CONTENT		LEARNING SUPPORTS	STUDENT RESOURCES
Introduce 12A - Draw Cartesian plane (LABEL X/Y) - Discuss positive and negative axes and the origin - Show how to plot points (x,y) (on same axes) - Discuss quadrants **Questions:** 12A 1-3 **Discuss 12A q. 4** **Questions:** 12A 4 **Extension:** 12A 6,8, worksheet #1, worksheet #2 **Video:** Plotting Coordinates	10min 15min 15min 3min	**Whiteboard** **Individual Reflection** **Small Group Discussion** **Whole Class Discussion** **Video**	HAESE Textbook: Year 8 Maths **TEACHER RESOURCES** HAESE Textbook: Year 8 Maths Video: **https://tinyurl.com/glct3pt**

EXTENSION	HOMEWORK	CLASSROOM PREPARATION
If students finish early (or there is extra time), work on remaining Exercise 12A/12B HAESE Textbook Questions. Additional worksheets can be distributed.	Complete 12A: 1-4	Bring whiteboard markers and textbook Bring worksheet answers and notes to worked solutions

YEAR 8 MATHS

TOPIC 1: ALGEBRA AND COORDINATE GEOMETRY

WEEK 3: Friday 11/8/17 Lesson 2

12B: PLOTTING POINTS FROM A TABLE OF VALUES
12C: LINEAR RELATIONSHIPS

Intended learning outcomes: *At the conclusion of this lesson, students will be able to:*

- Use their graphics calculator to plot a series of coordinates and determine if these points lie on a line
- Understand that if a series of points line on a straight line, their relationship is linear
- Identify independent and dependent variables and graph these on their respective axes
- Identify if a relationship between two variables is linear or not, and use this relationship to interpret data and make predictions

CONTENT		LEARNING SUPPORTS	STUDENT RESOURCES
Video: Plotting Coordinates **Introduce 12B** - Explain table of values - Draw example table and plot points - Show how to use GC to plot points **Questions:** 12B 1,2,4,5 (GC), 6 (by hand) **Introduce 12C** - Explain a straight line = linear relationship - Independent/dependent variables - Example: filling petrol over time **Questions:** 12C 1-3 **Extension:** 12C 4 worksheet #1, worksheet #2 **Game:** Buzz, wham, splat	3min 7min 10min 10min 7min 3min	**Whiteboard** **Individual Reflection** **Small Group Discussion** **Whole Class Discussion** **Video** **Game**	HAESE Textbook: Year 8 Maths **TEACHER RESOURCES** HAESE Textbook: Year 8 Maths Video: **https://tinyurl.com/glct3pt**

EXTENSION	HOMEWORK	CLASSROOM PREPARATION
If students finish early (or there is extra time), work on extension questions or worksheet.	Complete 12B: 1,2,4,5	Bring whiteboard markers, GC and textbook Bring lesson notes

YEAR 8 MATHS

TOPIC 1: ALGEBRA AND COORDINATE GEOMETRY

WEEK 4: Thursday 17/8/17 Lesson 2

12D: PLOTTING GRAPHS OF LINEAR EQUATIONS

Intended learning outcomes: *At the conclusion of this lesson, students will be able to:*

- Identify independent and dependent variables and graph these on their respective axes
- Identify patterns in tables of values and write a linear equation representative of those same values
- Graph equations using a table of values

CONTENT		LEARNING SUPPORTS	STUDENT RESOURCES
Homework: Go through 12C 3 – examples of independent and dependent variables **Introduce 12D** - Explain patterns in tables of values (find equation) - Reference equations from earlier in the year **Questions:** 12D 1 odd **Extension:** 12D 1 even worksheet #1, worksheet #2	10min 10min 15min	**Whiteboard** **Individual Reflection** **Small Group Discussion** **Whole Class Discussion**	HAESE Textbook: Year 8 Maths **TEACHER RESOURCES** HAESE Textbook: Year 8 Maths
EXTENSION		**HOMEWORK**	**CLASSROOM PREPARATION**
If students finish early (or there is extra time), show students how to graph equations on their graphics calculators.		Complete 12D: 1 odd	Bring whiteboard markers, GC and textbook Bring lesson notes

YEAR 8 MATHS

TOPIC 1: ALGEBRA AND COORDINATE GEOMETRY

WEEK 4: Friday 18/8/17 Lesson 5

12D: PLOTTING GRAPHS OF LINEAR EQUATIONS

Intended learning outcomes: *At the conclusion of this lesson, students will be able to:*

- Graph linear equations using a table of values
- Graph linear equations using a graphics calculator

CONTENT		LEARNING SUPPORTS	STUDENT RESOURCES
Worksheet: Graphing Linear Equations **12D: Graphics Calculators** - Explain how to graph equations on graphics calculators - Example Questions **Game**: Counting to 20 or Buzz, Wham, Splat!	20min 10min 5min	**Whiteboard** **Individual Reflection** **Small Group Discussion** **Whole Class Discussion** **Game**	HAESE Textbook: Year 8 Maths Graphics Calculators Worksheet: *"Graphing Linear Equations"*
			TEACHER RESOURCES
			HAESE Textbook: Year 8 Maths Worksheet: *"Graphing Linear Equations"*

EXTENSION	HOMEWORK	CLASSROOM PREPARATION
If students finish early (or there is extra time), distribute coordinate revision worksheet, or play the game for a longer time (see how they behave)	Complete Worksheet: Graphing Linear Equations	Bring whiteboard markers, GC and textbook Bring lesson notes

YEAR 8 MATHS

TOPIC 1: ALGEBRA AND COORDINATE GEOMETRY

WEEK 5: Monday 21/8/17 Lessons 7 & 8

12E: HORIZONTAL AND VERTICAL LINES
12F: POINTS ON A LINE

Intended learning outcomes: *At the conclusion of this lesson, students will be able to:*

- Graph linear equations using a graphics calculator
- Graph horizontal and vertical lines when given their equation
- Identify the equation of given horizontal or vertical lines
- Determine whether a point lies on a line when given the linear equation

CONTENT		LEARNING SUPPORTS	STUDENT RESOURCES
12D: Graphics Calculators - Explain how to graph equations on graphics calculators - Practice questions	15min	**Whiteboard**	HAESE Textbook: Year 8 Maths Graphics Calculators
Introduce 12E: **Horizontal and Vertical Lines** - Example: graph y=2, graph x=-4	10min	**Individual Reflection**	
Questions: 12E 1 odd, 2	10min	**Small Group Discussion**	**TEACHER RESOURCES**
Introduce 12F: **Points on a Line** - Worked examples	15min	**Whole Class Discussion**	
Questions: 12F 1a, 2, 3 odd	15min	**Game**	HAESE Textbook: Year 8 Maths
Game: Counting to 20 or Buzz, Wham, Splat! (*depending on behaviour*)	5min		

EXTENSION	HOMEWORK	CLASSROOM PREPARATION
If students finish early (or there is extra time), revise coordinate geometry so far	Complete 12E 1 odd, 2 Complete 12F 1a, 2, 3 odd	Bring whiteboard markers, GC and textbook Bring lesson notes

YEAR 8 MATHS

TOPIC 1: ALGEBRA AND COORDINATE GEOMETRY

WEEK 5: Tuesday 22/8/17 Lesson 5

12: REVISION

Intended learning outcomes: *At the conclusion of this lesson, students will be able to:*

- Confidently answer a series of review questions on all coordinate geometry content learned so far

<table>
<tr><th colspan="2">CONTENT</th><th>LEARNING SUPPORTS</th><th>STUDENT RESOURCES</th></tr>
<tr><td colspan="2" rowspan="2">Revision: Review Set 12

35min</td><td rowspan="2"><u>Whiteboard</u>

<u>Individual Revision</u>

<u>Small Group Discussion</u></td><td>HAESE Textbook:
Year 8 Maths

Graphics Calculators</td></tr>
<tr><td>TEACHER RESOURCES</td></tr>
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<tr><th colspan="2">EXTENSION</th><th>HOMEWORK</th><th>CLASSROOM PREPARATION</th></tr>
<tr><td colspan="2">If students finish early (or there is extra time), begin working on Chapter 12 Practice Tests</td><td>Complete Review Set 12</td><td>Bring whiteboard markers, GC and textbook</td></tr>
</table>

YEAR 8 MATHS

TOPIC 1: ALGEBRA AND COORDINATE GEOMETRY

WEEK 5: Thursday 24/8/17 Lesson 2

12: REVISION

Intended learning outcomes: *At the conclusion of this lesson, students will be able to:*

- Confidently answer a series of review questions on all coordinate geometry content learned so far

CONTENT		LEARNING SUPPORTS	STUDENT RESOURCES
Revision: Revision Worksheet, Practice Tests 12B and 12C	35min	**Whiteboard** **Individual Revision** **Small Group Discussion**	HAESE Textbook: Year 8 Maths Worksheet: "*Linear Relationships"* Graphics Calculators **TEACHER RESOURCES** HAESE Textbook: Year 8 Maths Worksheet: "*Linear Relationships"*

EXTENSION	HOMEWORK	CLASSROOM PREPARATION
If students finish early (or there is extra time), begin writing some revision notes for the upcoming test.	Complete Revision Worksheet	Bring whiteboard markers, GC and textbook