Mathematics		
Kindergarten Mathe	matics	
#	TOPIC	TITLE
1	. Study Plan	Study plan – Kindergarte
2	Basic mathematics part 1	The Numbers 1 to 5
3	Basic mathematics part 1	The Numbers 6 to 9
Ζ	Basic mathematics part 1	Ordinal numbers 1-9
Ę	Basic mathematics part 1	Zero and the Counting Numbers 1 to 9
ć	Basic mathematics part 1	The Number 10
7	'Basic mathematics part 1	The Numbers 11 to 20
8	Basic mathematics part 1	Using Place Value to Ord Numbers up to 20
ç	Basic mathematics part 1	Simple addition up to the number 10
10	Basic mathematics part 1	Simple addition up to the number 20
11	Basic mathematics part 1	Subtraction up to the num 10
12	Basic mathematics part 1	Subtraction: by comparis
13	Basic mathematics part 1	Subtraction up to the nur 20
14	Time	Duration
15	Time	Days of the Week
16	Exam	Exam – Kindergarten
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Grade 1 Mathematic	S	
#	TOPIC	TITLE
1	Study Plan	Study plan – Grade 1
	Basic mathematics part 1	The Numbers 1 to 5

#	TOPIC	TITLE
1	Study Plan	Study plan – Grade 1
2	Basic mathematics part 1	The Numbers 1 to 5
3	Basic mathematics part 1	The Numbers 6 to 9
4	Basic mathematics part 1	Ordinal numbers 1-9
5	Basic mathematics part 1	Zero and the Counting Numbers 1 to 9
6	Basic mathematics part 1	The Number 10
7	Basic mathematics part 1	The Numbers 11 to 20
8	Basic mathematics part 1	Multiples of 10 up to 100
9	Basic mathematics part 1	The numbers 20 to 99

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Grade 2 Mathematics		
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22	Exam	Exam – Grade 1
21	Graphs – Basic	Picture Graphs
20	Measurement – Length	Compare length by using informal units of measurement
19	Time	Months and Seasons of the year
18	Time	Duration
17	Time	Days of the Week
16	Basic mathematics part 1	The number 100
15	Basic mathematics part 1	Subtraction up to the number 20
14	Basic mathematics part 1	Subtraction: by comparison
13	Basic mathematics part 1	Subtraction up to the number 10
12	Basic mathematics part 1	Simple addition up to the number 20
11	Basic mathematics part 1	Simple addition up to the number 10
10	Basic mathematics part 1	Using Place Value to Order Numbers up to 20

#	ΤΟΡΙϹ	TITLE
1	Study Plan	Study plan – Grade 2
2	Basic mathematics part 1	The numbers 20 to 99
3	Basic mathematics part 1	The number 100
4	Basic mathematics part 1	Addition up to the number 99
5	Basic mathematics part 1	Multiples of 10 up to 100
6	Basic mathematics part 1	Subtraction up to the number 20
7	Basic mathematics part 2	Multiples and factors of whole numbers
8	Basic mathematics part 1	Multiplication using equal groups
9	Basic mathematics part 1	Multiplication using repeated addition
10	Basic mathematics part 1	The Multiplication Sign
11	Basic mathematics part 1	Multiplication with important facts
12	Basic mathematics part 1	Strategies for division

13	Basic mathematics part 2	Solve and record division using known facts and sharing
14	Time	Duration
15	Time	Days of the Week
16	Time	Months and Seasons of the year
17	Measurement – Length	Compare length by using informal units of measurement
18	Measurement – Mass	Introducing the concept of mass
19	Graphs – Basic	Picture Graphs
20	Graphs – Basic	Column Graphs
21	Exam	Exam – Grade 2
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Grade 3 Mathematics		
#	TOPIC	TITLE
1	Study Plan	Study plan – Grade 3
2	Basic mathematics part 1	The number 100
3	Basic mathematics part 1	The numbers 100 to 999
4	Basic mathematics part 1	Addition up to the number 99
5	Basic mathematics part 1	Subtraction with Word Problems
6	Basic mathematics part 1	Subtraction up to the number 99
7	Basic mathematics part 1	Subtraction with trading
8	Basic mathematics part 1	Multiplication using equal groups
9	Basic mathematics part 1	Multiplication using repeated addition
10	Basic mathematics part 1	The Multiplication Sign
11	Basic mathematics part 1	Multiplication with important facts
12	Long multiplication	Multiplying 2-digit numbers by multiples of 10
13	Basic mathematics part 2	Multiples and factors of whole numbers
14	Basic mathematics part 1	Strategies for division
15	Basic mathematics part 2	Solve and record division using known facts and sharing
16	Basic mathematics part 2	Division with and without a remainder

17	Basic mathematics part 2	Dividing two and three-digit numbers by a single-digit
17		Days of the Week
19	Time	Months and Seasons of the year
20	Time	O'clock and half past using digital time
21	Time	O'clock and half past on the analogue clock
22	Time	Analogue – Telling time – minutes in the hour
23	Time	Quarter past and quarter to
24	Time	Units of time
25	Time	am and pm time
26	Time	Telling the time – minutes past the hour
27	Time	Telling the time - minutes to the hour
28	Time	Relating analogue and digital time
29	Measurement – Length	Compare length by using informal units of measurement
30	Measurement – Advanced area	Comparing and Ordering Areas
31	Measurement – Mass	Introducing the concept of mass
32	Graphs – Basic	Picture Graphs
33	Graphs – Basic	Column Graphs
34	Graphs – Basic	Line Graphs
35	Fractions	Using fractions 1/2, 1/4, 1/8 to describe part of a whole
36	Fractions	Using fractions 1/2, 1/4, 1/8 to describe parts of a group or collection
37	Fractions	Fractions 1/5, 1/10, 1/100
38	Exam	Exam – Grade 3
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Grade 4 Mathematics		
#	ΤΟΡΙΟ	TITLE
1	Study Plan	Study plan – Grade 4
2	Basic mathematics part 1	The numbers 100 to 999

3	Basic mathematics part 2	The numbers 1000 to 9999
4	Basic mathematics part 2	The Numbers 10 000 to 99 999
5	Basic mathematics part 2	Addition up to the number 999
6	Basic mathematics part 1	Subtraction up to the number 99
7	Basic mathematics part 1	Subtraction with trading
8	Basic mathematics part 1	Subtraction with Word Problems
9	Basic mathematics part 2	Subtraction up to the number 999
10	Basic mathematics part 1	Multiplication with important facts
11	Basic mathematics part 2	Multiples and factors of whole numbers
12	Basic mathematics part 2	Multiplication using extended algorithms
13	Long multiplication	Multiplying 2-digit numbers by multiples of 10
14	Long multiplication	Multiplying 2-digit numbers by 2-digit numbers
15	Long multiplication	Multiplying 3 and 4-digit numbers by multiples of 100
16	Basic mathematics part 2	Solve and record division using known facts and sharing
17	Long division	Repeated subtraction with divisors less than 20 with no remainders
18	Long division	Repeated subtraction by multiples of 10 with divisors less than 20 with no remainders
19	Basic mathematics part 1	Strategies for division
20	Basic mathematics part 2	Division with and without a remainder
21	Basic mathematics part 2	Dividing two and three-digit numbers by a single-digit number
21	Time	Days of the Week
22	Time	Units of time
24	Time	Analogue – Telling time – minutes in the hour
25	Time	am and pm time
26	Time	O'clock and half past using digital time

27	Time	O'clock and half past on the analogue clock
28	Time	Quarter past and quarter to
29	Time	Telling the time – minutes past the hour
30	Time	Telling the time - minutes to the hour
31	Time	Relating analogue and digital time
32	Measurement – Length	Compare length by using informal units of measurement
33	Measurement – Length	Using the metre as a formal unit to measure perimeter
34	Measurement – Advanced area	Comparing and Ordering Areas
35	Measurement – Length	Using the formal unit of the centimetre to measure length and perimeter
36	Measurement – Capacity	Using the cubic cm and displacement to measure volume and capacity
37	Measurement – Capacity	Using the Cubic cm as a Standard Unit of measurement for Volume and Capacity
38	Measurement – Capacity	The relationship between the common units of capacity: the litre and the millilitre
39	Measurement – Capacity	Converting between volume and capacity using kiloliters and liters
40	Measurement – Capacity	Estimate, measure and compare the capacity of containers
41	Measurement – Mass	Introducing the concept of mass
42	Measurement – Mass	The Kilogram
43	Measurement – Mass	The Gram
44	Graphs – Basic	Column Graphs
45	Graphs – Basic	Line Graphs
46	Graphs – Basic	Pie and Bar Graphs
47	Fractions	Using fractions 1/2, 1/4, 1/8 to describe part of a whole
48	Fractions	Using fractions 1/2, 1/4, 1/8 to describe parts of a group or collection

49	Fractions	Comparing and ordering fractions
50	Fractions	Fractions 1/5, 1/10, 1/100
51	Decimals	Intro to Decimals
52	Decimals	Comparing and ordering decimals to two decimal places
53	Decimals	Decimals with whole numbers 10th and 100th
54	Decimals	Adding decimals to two decimal places
55	Exam	Exam – Grade 4
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Grade 5 Mathematics		

#	TOPIC	TITLE
1	Study Plan	Study plan – Grade 5
2	Basic mathematics part 2	The numbers 1000 to 9999
3	Basic mathematics part 2	The Numbers 10 000 to 99 999
4	Basic mathematics part 2	Seven digit numbers
5	Basic mathematics part 2	Addition up to the number 999
6	Basic mathematics part 2	Addition to 9999 and beyond
7	Basic mathematics part 2	Subtraction up to the number 999
8	Basic mathematics part 2	Subtraction involving four- digit numbers and beyond
9	Long multiplication	Multiplying 2-digit numbers by multiples of 10
10	Long multiplication	Multiplying 3 and 4-digit numbers by multiples of 100
11	Long multiplication	Multiplying 2-digit numbers by 2-digit numbers
12	Basic mathematics part 2	Multiplication by 2 and 3 Digits
13	Long multiplication	Multiplying 3-digit numbers by 4-digit numbers
14	Basic mathematics part 2	Multiplication using extended algorithms
15	Long division	Repeated subtraction by multiples of 2, 3 and 4 with divisors greater than 20 with no remainders

16	Long division	Repeated subtraction by multiples of 1,2 and 3 with divisors less than 20 with remainders
17	Long division	Repeated subtraction by multiples of 10 with divisors less than 20 with remainders
18	Basic mathematics part 2	Dividing two and three-digit numbers by a single-digit number
19	Basic mathematics part 2	Divide whole numbers by a 2- digit divisor
20	Time	Units of time
21	Time	Analogue – Telling time – minutes in the hour
22	Time	am and pm time
23	Time	Quarter past and quarter to
24	Time	Telling the time – minutes past the hour
25	Time	Telling the time – minutes to the hour
26	Time	Relating analogue and digital time
27	Time	O'clock and half past using digital time
28	Time	O'clock and half past on the analogue clock
29	Time	24-hour time
30	Time	Time Zones
31	Measurement – Length	Using the metre as a formal unit to measure perimeter
32	Measurement – Length	Using the formal unit of the centimetre to measure length and perimeter
33	Measurement – Length	Read and calculate distances on a map using the formal unit kilometre
34	Measurement – Length	Compare and convert formal units of measurement
35	Measurement – Advanced area	Comparing and Ordering Areas
36	Measurement – Area	Introduction to the square centimetre
37	Measurement – Area	Introducing the Rules for Finding the Area of a Rectangle and a Parallelogram

38	Measurement – Area	Finding the Area of a Triangle and Other Composite Shapes
39	Measurement – Volume	Introduction to Volume: using the cubic centimetre as a standard unit
40	Measurement – Volume	Constructing Models
41	Measurement - Volume	Using the Cubic Centimetre to Measure Volume
42	Measurement – Volume	Introducing the Formula for Volume
43	Measurement – Capacity	Using the cubic cm and displacement to measure volume and capacity
44	Measurement – Capacity	Using the Cubic cm as a Standard Unit of measurement for Volume and Capacity
45	Measurement – Capacity	The relationship between the common units of capacity: the litre and the millilitre
46	Measurement – Capacity	Converting between volume and capacity using kiloliters and liters
47	Measurement – Capacity	Estimate, measure and compare the capacity of containers
48	Measurement – Capacity	Converting between volume and capacity using milliliters and liters
49	Measurement – Mass	The Kilogram
50	Measurement – Mass	The Gram
51	Measurement – Mass	The Tonne
52	Fractions	Using fractions 1/2, 1/4, 1/8 to describe part of a whole
53	Fractions	Using fractions 1/2, 1/4, 1/8 to describe parts of a group or collection
54	Fractions	Fractions 1/5, 1/10, 1/100
55	Fractions	Comparing and ordering fractions
56	Fractions	Mixed numerals
57	Fractions	Improper fractions
58	Fractions	Finding equivalent fractions
59	Fractions	Multiplying and dividing to obtain equivalent fractions.

60	Fractions	Reducing fractions to lowest equivalent form
61	Fractions	Comparing and ordering fractions greater than 1
62	Fractions	Subtracting fractions from whole numbers
63	Fractions	Adding and subtracting fractions with the same denominator
64	Fractions	Adding and subtracting fractions with different denominators
65	Fractions	Multiplying fractions by whole numbers
66	Fractions	Fractions of whole numbers
67	Decimals	Intro to Decimals
68	Decimals	Comparing and ordering decimals to two decimal places
69	Decimals	Decimals with whole numbers 10th and 100th
70	Decimals	Adding decimals to two decimal places
71	Decimals	Subtracting decimals to two decimal places
72	Decimals	Using decimals – shopping problems
73	Decimals	Using decimals to record length
74	Decimals	Rounding Decimals
75	Decimals	Decimals to three decimal places
76	Decimals	Adding decimals with a different number of decimal places
77	Decimals	Subtracting decimals with a different number of places
78	Decimals	Multiplying decimals by 10, 100 and 1000
79	Decimals	Multiplying decimals by single- digit numbers
80	Decimals	Multiplication of decimals by decimals to two decimal places
81	Decimals	Dividing decimals by 10, 100 and 1000
82	Decimals	Dividing decimals by whole numbers

83	Decimals	Dividing numbers by decimals
84	Percentages	Understanding percentages
85	Percentages	Changing fractions and decimals to percentages tenths and hundredths
86	Percentages	Changing percentages to fractions and decimals
87	Percentages	One Quantity as a Percentage of Another
88	Space	Using the prefix to determine polygons
89	Space	Spatial properties of quadrilaterals
90	Space	Measure and classify angles
91	Space	Recognise and name triangles
92	Space	Use grids to enlarge/reduce 2- D shapes
93	Space	Recognise and name prisms according to spatial properties
94	Space	Recognise and name pyramids according to spatial properties
95	Space	Recognise nets for prisms, pyramids, cubes and cones
96	Space	Viewing 3-D Shapes
97	Space	Position
98	Space	Mapping
99	Space	Main and intermediate compass points
100	Space	Informal coordinate system
101	Graphs – Basic	Line Graphs
102	Graphs – Basic	Pie and Bar Graphs
103	Problem solving	Sign Words
104	Problem solving	Problem Solving Strategies
105	Problem solving	Word Problems with Numbers
106	Problem solving	Word Problems with Money
107	Problem solving	Word Problems with Length
108	Problem solving	Word Problems with Mass
109	Problem solving	Word Problems with Area
110	Problem solving	Word Problems with Volume/Capacity
111	Exam	Exam – Grade 5
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Grade 6 Mathematics		
#	TOPIC	TITLE
1	Study Plan	Study plan – Grade 6
2	Basic mathematics part 2	The Numbers 10 000 to 99 999
3	Basic mathematics part 2	Seven digit numbers
4	Basic mathematics part 2	Addition to 9999 and beyond
5	Basic mathematics part 2	Subtraction involving four- digit numbers and beyond
6	Basic mathematics part 2	Multiplication using extended algorithms
7	Long multiplication	Multiplying 3-digit numbers by 4-digit numbers
8	Basic mathematics part 2	Divide whole numbers by a 2- digit divisor
9	Long division	Repeated subtraction with divisors greater than 50 with dividends of 000's and some remainders
10	Long division	Using divide, multiple and subtraction in the bring down method
11	Time	24-hour time
12	Time	Time Zones
13	Measurement – Length	Using the metre as a formal unit to measure perimeter
14	Measurement – Length	Using the formal unit of the centimetre to measure length and perimeter
15	Measurement – Length	Read and calculate distances on a map using the formal unit kilometre
16	Measurement – Length	Compare and convert formal units of measurement
17	Measurement – Area	Introduction to the square centimetre
18	Measurement – Area	Introducing the Rules for Finding the Area of a Rectangle and a Parallelogram
19	Measurement – Area	Finding the Area of a Triangle and Other Composite Shapes
20	Measurement – Area	Larger Areas: Square Metre, Hectare, Square Kilometre

21	Measurement – Advanced area	Area of a Trapezium
22	Measurement – Advanced area	Area of a Rhombus
23	Measurement – Advanced area	Area of a Circle
24	Measurement – Advanced area	Area of Regular Polygons and Composite Figures
25	Measurement – Volume	Introduction to Volume: using the cubic centimetre as a standard unit
26	Measurement – Volume	Constructing Models
27	Measurement – Volume	Using the Cubic Centimetre to Measure Volume
28	Measurement – Volume	Introducing the Formula for Volume
29	Measurement – Volume	Using the Cubic Metre to Measure Volume
30	Measurement – Volume	Solving Problems about Volume Part 1
31	Measurement – Volume	Solving Problems about Volume Part 2
32	Measurement – Advanced volume	Finding the volume of prisms
33	Measurement – Advanced volume	Volume of a Cylinder and Sphere
34	Measurement – Advanced volume	Volume of Pyramids and Cones
35	Measurement – Advanced volume	Composite Solids
36	Measurement – Capacity	Using the cubic cm and displacement to measure volume and capacity
37	Measurement – Capacity	Using the Cubic cm as a Standard Unit of measurement for Volume and Capacity
38	Measurement – Capacity	The relationship between the common units of capacity: the litre and the millilitre
39	Measurement – Capacity	Converting between volume and capacity using kiloliters and liters
40	Measurement – Capacity	Estimate, measure and compare the capacity of containers

41	Measurement – Capacity	Converting between volume and capacity using milliliters and liters
42	Measurement – Mass	The Kilogram
43	Measurement – Mass	The Gram
44	Measurement – Mass	The Tonne
45	Fractions	Comparing and ordering fractions
46	Fractions	Mixed numerals
47	Fractions	Improper fractions
48	Fractions	Finding equivalent fractions
49	Fractions	Multiplying and dividing to obtain equivalent fractions.
50	Fractions	Reducing fractions to lowest equivalent form
51	Fractions	Comparing and ordering fractions greater than 1
52	Fractions	Subtracting fractions from whole numbers
53	Fractions	Adding and subtracting fractions with the same denominator
54	Fractions	Adding and subtracting fractions with different denominators
55	Fractions	Multiplying fractions by whole numbers
56	Fractions	Fractions of whole numbers
57	Fractions	Multiplying fractions
58	Fractions	Multiplying mixed numbers
59	Fractions	Finding reciprocals of fractions and mixed numbers
60	Fractions	Dividing fractions
61	Fractions	Dividing mixed numbers
62	Fractions	BODMAS
63	Percentages	Calculating Percentages and Fractions of Quantities
64	Decimals	Intro to Decimals
65	Decimals	Comparing and ordering decimals to two decimal places
66	Decimals	Decimals with whole numbers 10th and 100th
67	Decimals	Adding decimals to two decimal places

68	Decimals	Subtracting decimals to two decimal places
69	Decimals	Using decimals – shopping problems
70	Decimals	Using decimals to record length
71	Decimals	Rounding Decimals
72	Decimals	Decimals to three decimal places
73	Decimals	Adding decimals with a different number of decimal places
74	Decimals	Subtracting decimals with a different number of places
75	Decimals	Multiplying decimals by 10, 100 and 1000
76	Decimals	Multiplying decimals by single- digit numbers
77	Decimals	Multiplication of decimals by decimals to two decimal places
78	Decimals	Dividing decimals by 10, 100 and 1000
79	Decimals	Dividing decimals by whole numbers
80	Decimals	Dividing numbers by decimals
81	Percentages	Understanding percentages
82	Percentages	Changing fractions and decimals to percentages tenths and hundredths
83	Percentages	Changing percentages to fractions and decimals
84	Percentages	One Quantity as a Percentage of Another
85	Space	Using the prefix to determine polygons
86	Space	Spatial properties of quadrilaterals
87	Space	Measure and classify angles
88	Space	Recognise and name triangles
89	Space	Use grids to enlarge/reduce 2- D shapes
90	Space	Recognise and name prisms according to spatial properties
91	Space	Recognise and name pyramids according to spatial properties

92	Space	Recognise nets for prisms, pyramids, cubes and cones
93	Space	Viewing 3-D Shapes
94	Space	Position
95	Space	Mapping
96	Space	Main and intermediate compass points
97	Space	Informal coordinate system
98	Graphs – Basic	Pie and Bar Graphs
99	Problem solving	Sign Words
100	Problem solving	Problem Solving Strategies
101	Problem solving	Word Problems with Numbers
102	Problem solving	Word Problems with Money
103	Problem solving	Word Problems with Length
104	Problem solving	Word Problems with Mass
105	Problem solving	Word Problems with Area
106	Problem solving	Word Problems with Volume/Capacity
107	Time	Average speed
108	Exam	Exam – Grade 6
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Grade 7 Mathematics		
#	ΤΟΡΙϹ	TITLE
1	Study Plan	Study plan – Grade 7
2	Space	Mapping
3	Space	Recognise nets for prisms, pyramids, cubes and cones
4	Space	Use grids to enlarge/reduce 2- D shapes
5	Space	Viewing 3-D Shapes
6	Space	Informal coordinate system
7	Graphs – Basic	Picture Graphs

8 Graphs – Basic

9 Graphs – Basic

10 Graphs – Basic

11 Long multiplication

Column Graphs

4-digit numbers

Line Graphs

Pie and Bar Graphs

Multiplying 3-digit numbers by

12	Long division	Repeated subtraction by multiples of 2, 3 and 4 with divisors greater than 20 with no remainders
13	Long division	Repeated subtraction by multiples of 1,2 and 3 with divisors less than 20 with remainders
14	Long division	Repeated subtraction with divisors greater then 20 with remainders as fractions
15	Long division	Repeated subtraction with divisors less than 35 with some remainders
16	Long division	Repeated subtraction with divisors less than 55 with dividends of 3 and 4-digits with some remainders
17	Long division	Repeated subtraction with divisors greater than 50 with dividends of 000's and some remainders
18	Long division	Using divide, multiple and subtraction in the bring down method
19	Basic mathematics part 2	Multiples and factors of whole numbers
20	Decimals	Rounding Decimals
21	Decimals	Decimals to three decimal places
22	Decimals	Adding decimals with a different number of decimal places
23	Decimals	Subtracting decimals with a different number of places
24	Decimals	Multiplying decimals by 10, 100 and 1000
25	Decimals	Multiplying decimals by single- digit numbers
26	Decimals	Multiplication of decimals by decimals to two decimal places
27	Decimals	Dividing decimals by 10, 100 and 1000
28	Decimals	Dividing decimals by whole numbers
29	Decimals	Dividing numbers by decimals

30	Percentages	Changing fractions and decimals to percentages tenths and hundredths
31	Percentages	Changing percentages to fractions and decimals
32	Percentages	One Quantity as a Percentage of Another
33	Percentages	Calculating Percentages and Fractions of Quantities
34	Fractions	Mixed numerals
35	Fractions	Adding and subtracting fractions with the same denominator
36	Fractions	Improper fractions
37	Fractions	Comparing and ordering fractions greater than 1
38	Fractions	Adding and subtracting fractions with different denominators
39	Fractions	Multiplying fractions by whole numbers
40	Fractions	Fractions of whole numbers
41	Fractions	Multiplying and dividing to obtain equivalent fractions.
42	Fractions	Reducing fractions to lowest equivalent form
43	Fractions	Multiplying fractions
44	Fractions	Multiplying mixed numbers
45	Fractions	Finding reciprocals of fractions and mixed numbers
46	Fractions	Dividing fractions
47	Fractions	Dividing mixed numbers
48	Fractions	BODMAS
49	Space	Recognise and name prisms according to spatial properties
50	Space	Recognise and name pyramids according to spatial properties
51	Measurement – Area	Introducing the Rules for Finding the Area of a Rectangle and a Parallelogram
52	Measurement – Area	Finding the Area of a Triangle and Other Composite Shapes
53	Measurement - Area	Larger Areas: Square Metre, Hectare, Square Kilometre

54	Measurement – Capacity	The relationship between the common units of capacity: the litre and the millilitre
55	Measurement – Capacity	Converting between volume and capacity using kiloliters and liters
56	Measurement – Capacity	Estimate, measure and compare the capacity of containers
57	Measurement – Volume	Introducing the Formula for Volume
58	Measurement – Volume	Using the Cubic Metre to Measure Volume
59	Measurement – Volume	Solving Problems about Volume Part 1
60	Measurement – Volume	Solving Problems about Volume Part 2
61	Measurement – Capacity	Converting between volume and capacity using milliliters and liters
62	Measurement – Mass	The Tonne
63	Problem solving	Sign Words
64	Problem solving	Problem Solving Strategies
65	Problem solving	Word Problems with Numbers
66	Problem solving	Word Problems with Money
67	Problem solving	Word Problems with Length
68	Problem solving	Word Problems with Mass
69	Problem solving	Word Problems with Area
70	Problem solving	Word Problems with Volume/Capacity
71	Time	Average speed
72	Geometry part 1	Measuring Angles
73	Geometry part 1	Quadrilaterals
74	Indices/Exponents	Adding indices when multiplying terms with the same base
75	Indices/Exponents	Subtracting indices when dividing terms with the same base
76	Indices/Exponents	Terms raised to the power of zero
77	Indices/Exponents	Negative Indices
78	Standard/Scientific notation	Scientific notation with larger numbers

79	Standard/Scientific notation	Scientific notation with small numbers
80	Standard/Scientific notation	Changing scientific notation to numerals
81	Statistics part 1	Frequency distribution table
82	Statistics part 1	Frequency histograms and polygons
83	Statistics part 1	The Range
84	Statistics part 1	The Mode
85	Statistics part 1	The Mean
86	Statistics part 1	The Median
87	Probability	Simple events
88	Probability	Experimental probability
89	Algebra – Basic	Algebraic Expressions
90	Algebra – Basic	Substitution into Algebraic Expressions
91	Algebra – Basic	Directed Numbers: Addition and Subtraction
92	Algebra – Basic	Directed Numbers: Multiplication and Division
93	Algebra – Basic	Simplifying Algebraic Expressions: Adding Like Terms
94	Algebra – Basic	Simplifying Algebraic Expressions: Subtracting Like Terms
95	Algebra – Basic	Simplifying Algebraic Expressions: Combining Addition and Subtraction
96	Algebra – Basic	Simplifying Algebraic Expressions: Multiplication
97	Algebra – Basic	Simplifying Algebraic Expressions: Division
98	Algebra – Basic	Expanding Algebraic Expressions: multiplication
99	Algebra – Basic	Expanding Algebraic Expressions: Negative multiplier
100	Algebra – Basic	Expanding and simplifying algebraic expressions
101	Algebra – Basic	Solving Equations containing Addition and Subtraction
102	Algebra – Basic	Solving Equations containing Multiplication and Division
103	Algebra – Basic	Solving Two-Step Equations

104	Absolute value	Evaluating Absolute Value Expressions
105	Pythagoras	Pythagoras' Theorem: Finding the Hypotenuse
106	Pythagoras	Using Pythagorean Triples to Identify Right Triangles
107	Pythagoras	Calculating the Hypotenuse of a right-angled Triangle
108	Pythagoras	Calculating a Leg of a right- angled Triangle
109	Measurement – Advanced area	Area of a Trapezium
110	Measurement – Advanced area	Area of a Rhombus
111	Measurement – Advanced area	Area of a Circle
112	Measurement – Advanced area	Area of Regular Polygons and Composite Figures
113	Measurement – Advanced volume	Finding the volume of prisms
114	Surface area	Surface Area of a Cube/Rectangular Prism
115	Exam	Exam – Grade 7
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Grade 8 Mathematics		

#	TOPIC	TITLE
1	Study Plan	Study plan – Grade 8
2	Percentages	One Quantity as a Percentage of Another
3	Percentages	Calculating Percentages and Fractions of Quantities
4	Indices/Exponents	Adding indices when multiplying terms with the same base
5	Indices/Exponents	Subtracting indices when dividing terms with the same base
6	Indices/Exponents	Terms raised to the power of zero
7	Indices/Exponents	Negative Indices
8	Indices/Exponents	Fractional Indices
9	Indices/Exponents	Complex fractions as indices

10	Standard/Scientific notation	Scientific notation with larger numbers
11	Standard/Scientific notation	Scientific notation with small numbers
12	Standard/Scientific notation	Changing scientific notation to numerals
13	Algebra – Basic	Simplifying Algebraic Expressions: Combining Addition and Subtraction
14	Algebra – Basic	Simplifying Algebraic Expressions: Multiplication
15	Algebra – Basic	Simplifying Algebraic Expressions: Division
16	Algebra – Basic	Expanding Algebraic Expressions: multiplication
17	Algebra – Basic	Expanding Algebraic Expressions: Negative multiplier
18	Algebra – Basic	Expanding and simplifying algebraic expressions
19	Algebra – Basic	Solving Equations containing Addition and Subtraction
20	Algebra – Basic	Solving Equations containing Multiplication and Division
21	Algebra – Basic	Solving Two-Step Equations
22	Statistics part 1	Frequency distribution table
23	Statistics part 1	Frequency histograms and polygons
24	Statistics part 1	The Range
25	Statistics part 1	The Mode
26	Statistics part 1	The Mean
27	Statistics part 1	The Median
28	Probability	Simple events
29	Probability	Experimental probability
30	Pythagoras	Pythagoras' Theorem: Finding the Hypotenuse
31	Pythagoras	Using Pythagorean Triples to Identify Right Triangles
32	Pythagoras	Calculating the Hypotenuse of a right-angled Triangle
33	Pythagoras	Calculating a Leg of a right- angled Triangle
34	Geometry part 1	Adjacent Angles
35	Geometry part 1	Complementary and Supplementary Angles

36	Geometry part 1	Vertically Opposite Angles
37	Geometry part 1	Angles at a Point
38	Geometry part 1	Parallel Lines
39	Geometry part 1	Additional questions involving parallel lines
40	Geometry part 1	Geometric Constructions
41	Geometry part 3	Angles
42	Geometry part 3	Angle Bisector Construction and its Properties
43	Matrices	Special Transformations: Reflections, Rotations and Enlargements
44	Co-ordinate geometry part 1	The Gradient
45	Co-ordinate geometry part 1	The Gradient Formula
46	Co-ordinate geometry part 1	The Straight Line
47	Co-ordinate geometry part 1	Lines Through the Origin
48	Co-ordinate geometry part 1	General Form of a Line and the x and y Intercepts
49	Co-ordinate geometry part 1	Slope Intercept Form of a Line
50	Co-ordinate geometry part 1	Point Slope Form of a Line
51	Algebra – Basic	Inequalities
52	Co-ordinate geometry part 2	Inequalities on the Number Plane
53	Logic	Inductive and Deductive Reasoning
54	Function	Functions and Relations: domain and range
55	Function	Function Notation
56	Algebra – Products and factors	Binomial Products
57	Algebra – Products and factors	Binomial products with negative multiplier
58	Algebra – Products and factors	Binomial Products (nonmonic)
59	Algebra – Products and factors	Squaring a Binomial (monic)
60	Algebra – Products and factors	Squaring a Binomial (nonmonic)
61	Algebra – Products and factors	Expansions Leading to the Difference of Two Squares
62	Algebra – Products and factors	Products in Simplification of Algebraic Expressions
63	Algebra – Products and factors	Larger Expansions

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79	Exam	Exam – Grade 8
78	Surface area	Surface Area of a Cylinder and Sphere
77	Surface area	Surface Area of a Triangular/Trapezoidal Prism
76	Measurement – Advanced volume	Composite Solids
75	Measurement – Advanced volume	Volume of Pyramids and Cones
74	Measurement – Advanced volume	Volume of a Cylinder and Sphere
73	Algebra – Products and factors	Factorisation of nonmonic quadratic trinomials: Moon method
72	Algebra – Products and factors	Factorisation of nonmonic quadratic trinomials
71	Algebra – Products and factors	Quadratic Trinomials (monic): Case 4
70	Algebra – Products and factors	Quadratic Trinomials (monic): Case 3
69	Algebra – Products and factors	Quadratic Trinomials (monic): Case 2
68	Algebra – Products and factors	Quadratic Trinomials (monic): Case 1
67	Algebra – Products and factors	Common factor and the difference of two squares
66	Algebra – Products and factors	Difference of Two Squares
65	Algebra – Products and factors	Factors by Grouping
64	Algebra – Products and factors	Highest Common Factor

Grade 9/10 -	Integrated	Algebra	Mathematics	

#	ΤΟΡΙϹ	TITLE
1	Study Plan	Study plan – Grades 9/10 – Integrated Algebra
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3	Number sets	Addition and Multiplication Properties for Real Numbers
4	Number sets	Transformations That Produce Equivalent Equations

5	Algebra – Basic	Algebraic Expressions
6	Algebra – Basic	Substitution into Algebraic Expressions
7	Algebra – Basic	Directed Numbers: Addition and Subtraction
8	Algebra – Basic	Directed Numbers: Multiplication and Division
9	Algebra – Basic	Simplifying Algebraic Expressions: Adding Like Terms
10	Algebra – Basic	Simplifying Algebraic Expressions: Subtracting Like Terms
11	Algebra – Basic	Simplifying Algebraic Expressions: Combining Addition and Subtraction
12	Algebra – Basic	Simplifying Algebraic Expressions: Multiplication
13	Algebra – Basic	Simplifying Algebraic Expressions: Division
14	Algebra – Basic	Expanding Algebraic Expressions: multiplication
15	Algebra – Basic	Expanding Algebraic Expressions: Negative multiplier
16	Algebra – Basic	Expanding and simplifying algebraic expressions
17	Algebra – Basic	Solving Equations containing Addition and Subtraction
18	Algebra – Basic	Solving Equations containing Multiplication and Division
19	Algebra – Basic	Solving Two-Step Equations
20	Algebra – Basic	Solving Equations Containing Binomial Expressions
21	Algebra – Basic	Equations involving Grouping Symbols
22	Algebra – Basic	Equations involving fractions
23	Algebra – Basic	Equations Resulting from Substitution into Formulae
24	Algebra – Basic	Changing the Subject of the Formula
25	Algebra – Basic	Inequalities
26	Algebra – Basic	Simplifying easy algebraic fractions
27	Algebra – Basic	Simplifying algebraic fractions using the Index Laws

28	Algebra – Basic	Algebraic fractions resulting in negative Indices
29	Algebra – Basic	Factorisation of algebraic fractions including binomials
30	Algebra – Basic	Cancelling binomial factors in algebraic fractions
31	Absolute value	Evaluating Absolute Value Expressions
32	Absolute value	Solving Absolute Value Equations
33	Absolute value	Solving and Graphing Inequalities
34	Graphs part 1	The parabola: to describe properties of a parabola from its equation
35	Graphs part 1	Quadratic Polynomials of the form $y = ax^2 + bx + c$
36	Graphs part 1	Graphing perfect squares: y= (a-x) squared
37	Surds/Radicals	Introducing surds
38	Surds/Radicals	Some rules for the operations with surds
39	Surds/Radicals	Simplifying Surds
40	Surds/Radicals	Creating entire surds
41	Surds/Radicals	Adding and subtracting like surds
42	Surds/Radicals	Expanding surds
43	Surds/Radicals	Binomial expansions
44	Surds/Radicals	Conjugate binomials with surds
45	Surds/Radicals	Rationalising the denominator
46	Surds/Radicals	Rationalising binomial denominators
47	Indices/Exponents	Adding indices when multiplying terms with the same base
48	Indices/Exponents	Subtracting indices when dividing terms with the same base
49	Indices/Exponents	Multiplying indices when raising a power to a power
50	Indices/Exponents	Multiplying indices when raising to more than one term
51	Indices/Exponents	Terms raised to the power of zero

52	Indices/Exponents	Negative Indices
53	Indices/Exponents	Fractional Indices
54	Indices/Exponents	Complex fractions as indices
55	Standard/Scientific notation	Scientific notation with larger numbers
56	Standard/Scientific notation	Scientific notation with small numbers
57	Standard/Scientific notation	Changing scientific notation to numerals
58	Standard/Scientific notation	Significant Figures
59	Fractions	Multiplying fractions
60	Fractions	Multiplying mixed numbers
61	Fractions	Finding reciprocals of fractions and mixed numbers
62	Fractions	Dividing fractions
63	Fractions	Dividing mixed numbers
64	Fractions	BODMAS
65	Percentages	Calculating Percentages and Fractions of Quantities
66	Percentages	Understanding percentages
67	Percentages	Changing fractions and decimals to percentages tenths and hundredths
68	Percentages	Changing percentages to fractions and decimals
69	Percentages	One Quantity as a Percentage of Another
70	Probability	Simple events
71	Probability	Rolling a pair of dice
72	Probability	Experimental probability
73	Probability	Experimental probability
74	Probability	Tree diagrams: depending on previous outcomes
75	Probability	The Complementary Result
76	Probability	P[A or B] When A and B are NOT mutually exclusive
77	Probability	The Binomial Theorem and Binomial Coefficients
78	Probability	Binomial probabilities using the Binomial Theorem
79	Probability	Counting techniques and ordered selections
80	Simultaneous equations	Simultaneous Equations
81	Simultaneous equations	Elimination method

82	Simultaneous equations	Elimination method part 2
83	Simultaneous equations	Applications of simultaneous equations
84	Graphs part 1	Graphing irrational roots
85	Graphs part 1	Solving Simultaneous Equations graphically
86	Algebra – Products and factors	Binomial Products
87	Algebra – Products and factors	Binomial products with negative multiplier
88	Algebra – Products and factors	Binomial Products (nonmonic)
89	Algebra – Products and factors	Squaring a Binomial (monic)
90	Algebra – Products and factors	Squaring a Binomial (nonmonic)
91	Algebra – Products and factors	Expansions Leading to the Difference of Two Squares
92	Algebra – Products and factors	Products in Simplification of Algebraic Expressions
93	Algebra – Products and factors	Larger Expansions
94	Algebra – Products and factors	Highest Common Factor
95	Algebra – Products and factors	Factors by Grouping
96	Algebra – Products and factors	Difference of Two Squares
97	Algebra – Products and factors	Common factor and the difference of two squares
98	Algebra – Products and factors	Quadratic Trinomials (monic): Case 1
99	Algebra – Products and factors	Quadratic Trinomials (monic): Case 2
100	Algebra – Products and factors	Quadratic Trinomials (monic): Case 3
101	Algebra – Products and factors	Quadratic Trinomials (monic): Case 4
102	Algebra – Products and factors	Factorisation of nonmonic quadratic trinomials
103	Algebra – Products and factors	Factorisation of nonmonic quadratic trinomials: Moon method
104	Algebra – Quadratic equations	Introduction to Quadratic Equations

105	Algebra – Quadratic equations	Solving Quadratic Equations with Factorisation
106	Algebra – Quadratic equations	Solving Quadratic Equations
107	Algebra – Quadratic equations	Completing the square
108	Algebra – Quadratic equations	Solving Quadratic Equations by Completing the Square
109	Algebra – Quadratic equations	The Quadratic Formula
110	Algebra – Quadratic equations	Problem solving with quadratic equations
111	Algebra – Quadratic equations	Solving Simultaneous Quadratic Equations Graphically
112	Logarithms	Powers of 2
113	Graphs part 2	The Exponential Function
114	Function	Functions and Relations: domain and range
115	Function	Function Notation
116	Function	Selecting Appropriate Domain and Range
117	Function	Domain and Range from Graphical Representations
118	Function	Evaluating and Graphing Piecewise Functions
119	Function	Combining Functions
120	Function	Simplifying Composite Functions
121	Function	Inverse Functions
122	Function	Graphing Rational Functions Part 1
123	Function	Graphing Rational Functions Part 2
124	Function	Polynomial Addition: in Combining and Simplifying Functions
125	Co-ordinate geometry part 1	The Distance Formula
126	Co-ordinate geometry part 1	The Mid-Point Formula
127	Co-ordinate geometry part 1	The Gradient
128	Co-ordinate geometry part 1	The Gradient Formula
129	Co-ordinate geometry part 1	The Straight Line
130	Co-ordinate geometry part 1	Lines Through the Origin
131	Co-ordinate geometry part 1	General Form of a Line and the x and y Intercepts
132	Co-ordinate geometry part 1	Slope Intercept Form of a Line
133	Co-ordinate geometry part 1	Point Slope Form of a Line

134	Co-ordinate geometry part 2	Two Point Formula: equation of a line which joins a pair of points
135	Co-ordinate geometry part 2	Intercept form of a straight line: find the equation when given x and y
136	Co-ordinate geometry part 2	Parallel Lines: identify equation of a line parallel to another
137	Co-ordinate geometry part 2	Perpendicular Lines
138	Co-ordinate geometry part 2	Inequalities on the Number Plane
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140	Pythagoras	Using Pythagorean Triples to Identify Right Triangles
141	Pythagoras	Calculating the Hypotenuse of a right-angled Triangle
142	Pythagoras	Calculating a Leg of a right- angled Triangle
143	Pythagoras	Proofs of Pythagoras' Theorem
144	Trigonometry part 1	Trigonometric Ratios
145	Trigonometry part 1	Using the Calculator
146	Trigonometry part 1	Using the Trigonometric Ratios to find unknown length [Case 1 Sin]
147	Trigonometry part 1	Using the Trigonometric Ratios to find unknown length [Case 2 Cosine]
148	Trigonometry part 1	Using the Trigonometric Ratios to find unknown length [Case 3 Tangent Ratio]
149	Trigonometry part 1	Unknown in the Denominator [Case 4]
150	Trigonometry part 1	Bearings: The Compass
151	Trigonometry part 1	Angles of Elevation and Depression
152	Trigonometry part 1	Trigonometric Ratios in Practical Situations
153	Trigonometry part 1	Using the Calculator to Find an Angle Given a Trigonometric Ratio
154	Trigonometry part 1	Using the Trigonometric Ratios to Find an Angle in a Right-Angled Triangle

155	Trigonometry part 1	Trigonometric Ratios of 30, 45 and 60 Degrees: Exact Ratios
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157	Measurement – Advanced area	Area of a Rhombus
158	Measurement – Advanced area	Area of a Circle
159	Measurement – Advanced area	Area of Regular Polygons and Composite Figures
160	Surface area	Surface Area of a Cube/Rectangular Prism
161	Surface area	Surface Area of a Triangular/Trapezoidal Prism
162	Surface area	Surface Area of a Cylinder and Sphere
163	Surface area	Surface Area of Pyramids
164	Surface area	Surface Area of Composite Solids
165	Surface area	Surface area of composite solids
166	Measurement – Advanced volume	Volume of a Cylinder and Sphere
167	Measurement – Advanced volume	Volume of Pyramids and Cones
168	Measurement – Advanced volume	Composite Solids
169	Graphs part 2	Graphing complex polynomials: quadratics with no real roots
170	Graphs part 2	General equation of a circle: determine and graph the equation
171	Graphs part 2	Graphing cubic curves
172	Graphs part 2	Absolute Value Equations
173	Graphs part 2	The Rectangular Hyperbola
174	Graphs part 2	Logarithmic Functions
175	Geometry part 3	The Triangle Inequality Theorem
176	Uniform motion	The Speed Formula
177	Uniform motion	Using Subscripted Variables
178	Uniform motion	Uniform Motion With Equal Distances
179	Uniform motion	Uniform Motion Adding the Distances

180	Uniform motion	Uniform Motion With Unequal Distances or Time
181	Uniform motion	Uniform Motion Problems Where the Rate is Constant
182	Statistics part 1	Frequency distribution table
183	Statistics part 1	Frequency histograms and polygons
184	Statistics part 1	Relative Frequency
185	Statistics part 1	The Range
186	Statistics part 1	The Mode
187	Statistics part 1	The Mean
188	Statistics part 1	The Median
189	Statistics part 1	Cumulative Frequency
190	Statistics part 1	Calculating the Mean from a Frequency Distribution
191	Matrices	Vectors
192	Matrices – Linear systems	Number of Solutions
193	Matrices – Linear systems	Vector Addition in 2 and 3D
194	Matrices – Linear systems	Optimal Solutions
195	Statistics part 2	Calculating mean, mode and median from grouped data
196	Statistics part 2	Using the Calculator for Statistics
197	Statistics part 2	Measures of Spread
198	Statistics part 2	Standard deviation applications
199	Statistics part 2	Applications of Standard Deviation
200	Statistics part 2	The Normal Distribution
201	Statistics part 2	Measures of Spread: the interquartile range
202	Statistics part 1	Stem and Leaf Plots along with Box and Whisker Plots
203	Statistics part 1	The Scatter plot
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3	Measurement – Advanced area	Area of a Rhombus
4	Measurement – Advanced area	Area of a Circle
5	Measurement – Advanced area	Area of Regular Polygons and Composite Figures
6	Measurement – Advanced volume	Finding the volume of prisms
7	Measurement – Advanced volume	Volume of a Cylinder and Sphere
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13	Surface area	Surface Area of Pyramids
14	Surface area	Surface Area of Composite Solids
15	Surface area	Surface area of composite solids
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17	Algebra – Basic	Changing the Subject of the Formula
18	Geometry part 1	Measuring Angles
19	Geometry part 1	Adjacent Angles
20	Geometry part 1	Complementary and Supplementary Angles
21	Geometry part 1	Vertically Opposite Angles
22	Geometry part 1	Angles at a Point
23	Geometry part 1	Parallel Lines
24	Geometry part 1	Additional questions involving parallel lines
25	Geometry part 1	Angle Sum of a Triangle
26	Geometry part 1	Exterior angle theorem
27	Geometry part 1	Special triangles
28	Geometry part 1	Quadrilaterals

29	Geometry part 1	Geometric Constructions
30	Geometry part 3	Points, Lines and Planes
31	Geometry part 3	Angles
32	Geometry part 3	Angle Bisector Construction and its Properties
33	Geometry part 3	Circumcenter and Incenter
34	Geometry part 3	Orthocentre and Centroids
35	Geometry part 3	Midsegments
36	Quadrilaterals	Quadrilaterals 1
37	Quadrilaterals	Properties of Parallelograms – Opposite Angles Equal
38	Quadrilaterals	Properties of Parallelograms – Diagonals, Sides and Angles
39	Quadrilaterals	The Parallelogram Umbrella
40	Quadrilaterals	Properties of Trapezoids
41	Quadrilaterals	Quadrilaterals 6
42	Locus	Constructions and Loci 1: Transformations
43	Locus	Constructions and Loci 2
44	Geometry part 2	More difficult exercises involving parallel lines
45	Geometry part 2	Further difficult exercises involving formal reasoning
46	Geometry part 2	Angles of regular polygons
47	Geometry part 2	Congruent triangles: Tests 1 and 2
48	Geometry part 2	Congruent triangles: Tests 3 and 4
49	Geometry part 2	Proofs and Congruent Triangles
50	Geometry part 2	Similar Triangles
51	Geometry part 2	Using Similar Triangles to Calculate Lengths
52	Geometry part 2	Examples involving overlapping triangles
53	Geometry part 3	The Triangle Inequality Theorem
54	Logic	Inductive and Deductive Reasoning
55	Logic	Disproof of Counter Example
56	Logic	Proof by Disproof of a Contradictory Statement
57	Logic	Mathematical induction

58	Logic	Conditional statements (converse, inverse and contrapositive) (Stage 2)
59	Matrices	Vectors
60	Matrices – Linear systems	Number of Solutions
61	Matrices – Linear systems	Vector Addition in 2 and 3D
62	Matrices – Linear systems	Optimal Solutions
63	Measurement – Volume	Solving Problems about Volume Part 1
64	Measurement - Volume	Solving Problems about Volume Part 2
65	Uniform motion	The Speed Formula
66	Uniform motion	Using Subscripted Variables
67	Uniform motion	Uniform Motion With Equal Distances
68	Uniform motion	Uniform Motion Adding the Distances
69	Uniform motion	Uniform Motion With Unequal Distances or Time
70	Uniform motion	Uniform Motion Problems Where the Rate is Constant
71	Uniform motion	Vertical Motion under gravity: Object Dropped from Rest
72	Uniform motion	Vertical Motion under gravity: Initial Velocity not Zero
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74	Pythagoras	Using Pythagorean Triples to Identify Right Triangles
75	Pythagoras	Calculating the Hypotenuse of a right-angled Triangle
76	Pythagoras	Calculating a Leg of a right- angled Triangle
77	Pythagoras	Proofs of Pythagoras' Theorem
78	Circle geometry part 1	Theorem – Equal arcs subtend equal angles at the centre
79	Circle geometry part 1	Theorem – The perpendicular from the centre to a chord bisects the chord
80	Circle geometry part 1	Theorem – Equal chords in a circle are equidistant from the centre
81	Circle geometry part 1	Theorem – The angle at the centre is double the angle at the circumference

82	Circle geometry part 1	Theorem: Angles in the same segment of a circle are equal
83	Circle geometry part 1	Theorem: The angle of a semi- circle is a right angle
84	Circle geometry part 1	Theorem: The opposite angles of a cyclic quadrilateral are supplementary
85	Circle geometry part 1	Theorem – Exterior angle of cyclic quadrilateral equals interior opposite angles
86	Circle geometry part 2	Theorem: The products of the intercepts of two intersecting chords are equal
87	Circle geometry part 2	Theorem – The relationship between the tangent and secant from the same point
88	Circle geometry part 2	Theorem – If the opposite angles in a quadrilateral are supplementary then the quadrilateral is cyclic.
89	Circle geometry part 2	Theorem – If an interval subtends equal angles at two points on the same side of it, then the end points of the interval and the two points are concyclic.
90	Circle geometry part 2	Theorem – When circles touch, the line of the centres passes through the point of contact.
91	Circle geometry part 2	Theorem – Any three non- collinear points lie on a unique circle whose centre is the point of concurrency of the perpendicular bisectors of the intervals joining these points.
92	Co-ordinate geometry part 2	Transformations: Reflections
93	Geometry transformations	Geometry Transformations without Matrices: Translation
94	Geometry transformations	Geometry Transformations without Matrices: Rotation
95	Geometry transformations	Geometry Transformations without Matrices: Dilation or Enlargement
96	Geometry transformations	Geometry Transformations without Matrices: Mixed and Combined Transformations

97	Geometry transformations	The definition and concept of combined transformations resulting in an equivalent single transformation
98	Matrices	Matrices: basic concepts
99	Matrices	Addition and Subtraction of Matrices
100	Matrices	Scalar matrix: multiplication
101	Matrices	Multiplication of one matrix by another matrix
102	Matrices	Translation in the number plane
103	Matrices	Translation by matrix multiplication
104	Matrices	Special Transformations: Reflections, Rotations and Enlargements
105	Co-ordinate geometry part 1	The Distance Formula
106	Co-ordinate geometry part 1	The Mid-Point Formula
107	Co-ordinate geometry part 1	The Gradient
108	Co-ordinate geometry part 1	The Gradient Formula
109	Co-ordinate geometry part 1	The Straight Line
110	Co-ordinate geometry part 1	Lines Through the Origin
111	Co-ordinate geometry part 1	General Form of a Line and the x and y Intercepts
112	Co-ordinate geometry part 1	Slope Intercept Form of a Line
113	Co-ordinate geometry part 1	Point Slope Form of a Line
114	Co-ordinate geometry part 2	Two Point Formula: equation of a line which joins a pair of points
115	Co-ordinate geometry part 2	Intercept form of a straight line: find the equation when given x and y
116	Co-ordinate geometry part 2	Parallel Lines: identify equation of a line parallel to another
117	Co-ordinate geometry part 2	Perpendicular Lines
118	Co-ordinate geometry part 2	Inequalities on the Number Plane
119	Co-ordinate geometry part 2	Perpendicular Distance
120	Co-ordinate geometry part 2	Line through the intersection of two given lines
121	Co-ordinate geometry part 2	Angles between two lines
122	Co-ordinate geometry part 2	Internal and external division of an interval

123	Graphs part 1	The Circle: to find radii of circles
124	Graphs part 1	The semicircle: to select the equation given the semicircle and vice versa
125	Graphs part 1	The parabola: to describe properties of a parabola from its equation
126	Graphs part 1	Quadratic Polynomials of the form $y = ax^2 + bx + c$
127	Graphs part 1	Graphing perfect squares: y= (a-x) squared
128	Graphs part 1	Graphing irrational roots
129	Graphs part 1	Solving Simultaneous Equations graphically
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101	Algebra Quadratic equations	Solving Quadratic Equations
101	Algebra – Quadratic equations	Solving Quedratic Equations
102	Algebra – Quadratic equations	Completing the square
100	Algebra - Quadratic equations	Solving Quadratic Equations
134	Algebra – Quadratic equations	by Completing the Square
135	Algebra – Quadratic equations	The Quadratic Formula
136	Algebra – Quadratic equations	Problem solving with quadratic equations
137	Algebra – Quadratic equations	Solving Simultaneous Quadratic Equations Graphically
138	Graphs part 2	General equation of a circle: determine and graph the equation
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Grade 11/12 - Algebra II and Trigonometry Mathematics

#	ΤΟΡΙϹ	TITLE
1	Study Plan	Study plan – Year 10/11 – Algebra II and Trigonometry
2	Decimals	Rounding Decimals
3	Decimals	Decimals to three decimal places

4	Standard/Scientific notation	Scientific notation with larger numbers
5	Standard/Scientific notation	Scientific notation with small numbers
6	Standard/Scientific notation	Changing scientific notation to numerals
7	Standard/Scientific notation	Significant Figures
8	Logic	Inductive and Deductive Reasoning
9	Logic	Disproof of Counter Example
10	Logic	Proof by Disproof of a Contradictory Statement
11	Logic	Mathematical induction
12	Logic	Conditional statements (converse, inverse and contrapositive) (Stage 2)
13	Algebra – Basic	Solving Equations Containing Binomial Expressions
14	Algebra – Basic	Equations involving Grouping Symbols
15	Algebra – Basic	Equations involving fractions
16	Algebra – Basic	Equations Resulting from Substitution into Formulae
17	Algebra – Basic	Changing the Subject of the Formula
18	Algebra – Basic	Inequalities
19	Algebra – Basic	Simplifying easy algebraic fractions
20	Algebra – Basic	Simplifying algebraic fractions using the Index Laws
21	Algebra – Basic	Algebraic fractions resulting in negative Indices
22	Algebra – Basic	Factorisation of algebraic fractions including binomials
23	Algebra – Basic	Cancelling binomial factors in algebraic fractions
24	Absolute value	Evaluating Absolute Value Expressions
25	Absolute value	Solving Absolute Value Equations
26	Absolute value	Solving and Graphing Inequalities
27	Trigonometry part 1	Trigonometric Ratios
28	Trigonometry part 1	Using the Calculator

29	Trigonometry part 1	Using the Trigonometric Ratios to find unknown length [Case 1 Sin]
30	Trigonometry part 1	Using the Trigonometric Ratios to find unknown length [Case 2 Cosine]
31	Trigonometry part 1	Using the Trigonometric Ratios to find unknown length [Case 3 Tangent Ratio]
32	Trigonometry part 1	Unknown in the Denominator [Case 4]
33	Trigonometry part 1	Bearings: The Compass
34	Trigonometry part 1	Angles of Elevation and Depression
35	Trigonometry part 1	Trigonometric Ratios in Practical Situations
36	Trigonometry part 1	Using the Calculator to Find an Angle Given a Trigonometric Ratio
37	Trigonometry part 1	Using the Trigonometric Ratios to Find an Angle in a Right-Angled Triangle
38	Trigonometry part 1	Trigonometric Ratios of 30, 45 and 60 Degrees: Exact Ratios
39	Trigonometry part 2	Angles of Any Magnitude
40	Trigonometry part 2	Trigonometric ratios of 0°, 90°, 180°, 270° and 360°
41	Trigonometry part 2	Graphing the Trigonometric Ratios I: Sine Curve
42	Trigonometry part 2	Graphing the Trigonometric Ratios II: Cosine Curve
43	Trigonometry part 2	Graphing the Trigonometric Ratios III: Tangent Curve
44	Statistics part 1	Frequency distribution table
45	Statistics part 1	Frequency histograms and polygons
46	Statistics part 1	Relative Frequency
47	Statistics part 1	The Range
48	Statistics part 1	The Mode
49	Statistics part 1	The Mean
50	Statistics part 1	The Median
51	Statistics part 1	Cumulative Frequency
52	Statistics part 1	Calculating the Mean from a Frequency Distribution
53	Probability	Simple events

54	Probability	Rolling a pair of dice
55	Probability	Experimental probability
56	Probability	Experimental probability
57	Probability	Tree diagrams: depending on previous outcomes
58	Probability	The Complementary Result
59	Indices/Exponents	Multiplying indices when raising to more than one term
60	Indices/Exponents	Terms raised to the power of zero
61	Indices/Exponents	Negative Indices
62	Indices/Exponents	Fractional Indices
63	Indices/Exponents	Complex fractions as indices
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65	Surds/Radicals	Some rules for the operations with surds
66	Surds/Radicals	Simplifying Surds
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91	Trigonometry part 2	Complementary Angle Results
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134	Calculus part 1	Differentiation of y = x to the power of n
135	Calculus part 1	Meaning of dy over dx – Equations of Tangents and Normals
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137	Calculus part 1	Increasing, Decreasing and Stationary Functions.
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149	Calculus part 2	Practical Applications of Maxima and Minima.
150	Calculus part 2	Antidifferentiation – Primitive Function.
151	Calculus part 2	Computation of Areas.
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153	Calculus part 2	The Trapezoidal rule and Simpson's rule
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