

NEW SIGNPOST Maths

New Signpost Maths correlation charts with the Essential Learnings for Queensland

The following charts align the Essential Learnings with the very successful primary maths series New Signpost Maths, written by nationally renowned mathematics educator and author, Alan McSeveny and his team. At each juncture of Years 3, 5 & 7, student book levels and specific page number references have been listed for each learning statement so that teachers can be assured that they are covering the Essential Learnings in their Mathematics teaching when using New Signpost Maths.

This organiser and conceptual statements describe the focus and essential concepts, or big ideas, of Mathematics in Queensland. It forms the **Knowledge and understanding** component of the Essential Learnings. Detailed concepts, facts and procedures are presented in bulleted text. These elaborate on the core context that is to be the focus of teaching and learning in all schools.

The **Ways of working** describe the essential processes that students use to develop and demonstrate their knowledge and understanding. They include higher order thinking skills that support the development of deep understanding and the capabilities that students need for ongoing learning, now and in the future. These processes develop in complexity across the junctures and are embedded in each and every unit of work in New Signpost Maths.

Mathematics has a **Learning and assessment focus** that emphasises the importance of using the Ways of working with Knowledge and understanding. It also supports active engagement in learning – that is, providing opportunities for students to learn through doing, in contexts that are relevant and meaningful.



For further information regarding the Essential Learnings, please refer to the following web links:

Essential Learnings – Information Statement

www.qsa.qld.edu.au/downloads/assessment/qcar_is_essential_learnings.pdf

Ways of working

www.qsa.qld.edu.au/downloads/assessment/qcar_el_maths_wow.pdf

Learning and assessment focus

www.qsa.qld.edu.au/downloads/assessment/qcar_el_maths_laf.pdf

A sample unit template has been designed for teachers to assist their planning using the Essential Learnings

www.qsa.qld.edu.au/downloads/assessment/qcar_using_el_handout_2.pdf

NEW SIGNPOST Maths Correlation Charts

By the end of Year 3 in Queensland
*SOP - Signs of Progress

Essential Learnings knowledge & understanding

New Signpost Maths Student Book

Number	K (Early Stage 1)	1 (Stage 1)	2 (Stage 1)
<p>Whole numbers, simple fractions and the four operations are used to solve problems.</p> <ul style="list-style-type: none"> Whole numbers (to 999) have position on a number line and each digit has place value 	<p>Pages: 5,7,14,16,18,20-21,24,26-27, 31,33,36,42,45,48,53,56,59,</p>	<p>Pages: 7,28,SOP30,37,41,51,60,62, SOP71,72,83,90,97,104,113,128,</p>	<p>Pages: 1,2,8,13,21,23,30,SOP32, 37,41,50,60,78,94,100,124,</p>
<ul style="list-style-type: none"> Whole numbers (to 999) can be represented in different ways, including the use of concrete materials, pictorial materials, number lines and technologies 	<p>64,71,74,76,81,86,92,122 1,3,5,7,9,12,14,16-17,20-21,24, 26-27,29,31-33,36,39,42,45,48, 53,56,58-59,64,68,71,74,76,86,92</p>	<p>SOP138 1,19,28,SOP30-31,37,41,45, 51,60,SOP71,83,101,124,128, SOP138</p>	<p>SOP74,SOP116,SOP146, 1-2,8,13,23,30,SOP32,39, 45,SOP74,124,SOP146,</p>
<ul style="list-style-type: none"> Simple fractions, including half and quarter, and mixed numbers can be represented in different ways 	<p>17,65,84</p>	<p>9,25,59,SOP71,77,88,106, SOP111,121,130,SOP139</p>	<p>6,18,SOP32,36,57,81,98, SOP116,120,131,SOP146</p>
<ul style="list-style-type: none"> Addition and subtraction involving 2-digit whole numbers can be calculated using concrete materials, mental computation and written strategies 		<p>120,132,135,137,SOP138-139</p>	<p>101,105,115,SOP116,122, 132,137,139-140,142, SOP146</p>
<ul style="list-style-type: none"> Multiplication and division of whole numbers to 10 can be calculated using arrays, skip counting, doubles, double doubles, turnarounds and sharing of concrete materials 	<p>88,96,107,111,116,118</p>	<p>16-17,19,SOP30,33-34,47-48, SOP70,76,105,SOP110-111 112,125,SOP138</p>	<p>22,SOP32,42,55-56,65-66, SOP74,79-80,89-90,95,109- 110,SOP116,127</p>
<ul style="list-style-type: none"> Problems involving operations can be explored using concrete materials, sketches and diagrams 	<p>116,121</p>		<p>7,9,14,31,63,110,115,142</p>
<ul style="list-style-type: none"> Problems using a single operation can be planned and solved 	<p>39,54,72-73,95</p>	<p>6,27,63,80</p>	<p>31,SOP74</p>
<ul style="list-style-type: none"> Money can be used to buy goods and services 	<p>125</p>	<p>78,93,108,132,135,SOP139</p>	<p>7,71,139</p>
<ul style="list-style-type: none"> Transactions for goods and services can use different combinations of notes and coins of equivalent value 	<p>76</p>	<p>78,SOP111</p>	<p>7,21,27,71,126</p>

Algebra	K (Early Stage 1)	1 (Stage 1)	2 (Stage 1)
<p>Relationships between objects or numbers can be described using patterns and simple rules</p> <ul style="list-style-type: none"> Simple relationships between objects or numbers can be described in terms of order, sequence and arrangement 	<p>Pages: 4,8,22,25,38,51,56,60-61,79,94,112</p>	<p>Pages: 46</p>	<p>Pages: 45,107</p>
<ul style="list-style-type: none"> Simple relationships between objects or numbers, including equivalence, can be represented using concrete and pictorial materials 	<p>29,32,34,36,46,50,54,58,61-62,67-68,70,72-73,85,90,95,103,109,121,124,126</p>	<p>2-3,6,11,13,20,27,SOP30-31,38,42,53-54,56,63,68,SOP71,84,89,117,137,</p>	<p>3,5,9,14,20,29,SOP32,44,49,62-63,70,72-73,84,99,SOP116</p>
<ul style="list-style-type: none"> Inverse relationships between addition and subtraction can be applied to find unknowns and maintain equivalence in equations 	<p>105</p>	<p>96,99,122,127,SOP138</p>	<p>SOP74,87,SOP116</p>
<ul style="list-style-type: none"> Number patterns and sequences based on simple rules involve repetition, order and regular increases or decreases 	<p>99</p>	<p>28,51,60,72,79,94,SOP110,116,124,128,SOP138</p>	<p>15,39,69,78,SOP116</p>
Measurement			
<p>Unique attributes of shapes, objects and time can be identified and described using standard and nonstandard units</p> <ul style="list-style-type: none"> Hour, half-hour and quarter-hour times and five-minute intervals are read using analogue clocks and all times are read using digital clocks 	<p>108,113</p>	<p>4,43,58,SOP71,73,103,SOP111,119,SOP138</p>	<p>4,17,SOP33,34,68,SOP75,88,125,SOP147</p>
<ul style="list-style-type: none"> Calendars can be used to identify specific information about days and dates 		<p>12,26,SOP31,66,SOP71,87</p>	<p>45,107,SOP116,</p>
<ul style="list-style-type: none"> Standard units, including centimetre, metre, kilogram (half and quarter) and litre (half and quarter), and non-standard units of measurement can be used to measure attributes of shapes and objects 	<p>6,15,17,30,37,69,104</p>	<p>10,16,23,32,49,52,69,75,81-82,91,SOP110,114,115,133,136</p>	<p>12,16,19,28,SOP33,35,40,46,51,53,64,SOP75,82,86,108,114,SOP117,135,141,143,SOP147</p>
<ul style="list-style-type: none"> Measurements of length, area, volume and mass of shapes and objects are compared and ordered, using instruments 	<p>15,23,35,47,57,69,77,80,87,89,97,100-101,106,114,120</p>	<p>10,18,SOP30-31,35,39,49,64,69,SOP70,75,81,85,95,100,SOP110-111,114,131,133,136,SOP139</p>	<p>16,28,46,58,76,86,91,96,104,112,SOP117,118,133,141,143,145,SOP147</p>

Chance and Data	K (Early Stage 1)	1 (Stage 1)	2 (Stage 1)
<p>Chance events can be explored using predictions and statements. Data can be collected, organised and explored.</p> <ul style="list-style-type: none"> • Predictions about chance events can be made using simple statements 	Pages:	Pages: 67,118	Pages: 54,121,SOP146
<ul style="list-style-type: none"> • Data can be collected using simple surveys and observations to respond to questions 	40,78,93,102,115	92,109,123	48,67,SOP75,93,113
<ul style="list-style-type: none"> • Data can be organised in lists, tables, picture graphs and bar graphs 	2,40,55,78,93,102	22,65,92,109,SOP111,123	25,SOP33,48,67,93,113,134,SOP147
<ul style="list-style-type: none"> • Data can be explored for variation and adequacy 		92	
Space			
<p>Geometric properties can be used to describe, sort and explore 2D shapes and 3D objects. Maps and plans provide information about an environment.</p> <ul style="list-style-type: none"> • Geometric names and properties are used to sort, describe and construct common 2D shapes, including squares, rectangles, triangles and circles, and 3D objects, including prisms, pyramids, cones, cylinders and spheres 	11,13,19,28,43-44,49,51,63,83,89,91,98,100,110,117	5,24,29,SOP31,36,44,50,61,SOP70,74,86,98,107,SOP110-111,126,129,134,SOP138-139	10-11,24,SOP33,38,43,47,52,SOP75,77,92,97,106,111,SOP117,119,138
<ul style="list-style-type: none"> • Flips, slides and turns are particular ways of moving shapes to explore symmetry 		8,55,57,SOP70	59,61,SOP75,83,85,SOP147
<ul style="list-style-type: none"> • Obvious features in everyday environments can be represented and located on simple maps and plans 	10,119		
<ul style="list-style-type: none"> • Directions can be given for moving and for locating features within an environment 	10,41,75,82	14,40,102	26,102,SOP117,123,130



NEW SIGNPOST Maths Correlation Charts

By the end of Year 5 in Queensland
*DT - Diagnostic Test

Essential Learnings knowledge & understanding

New Signpost Maths Student Book

Number	3 (Stage 2)	4 (Stage 2)
Whole numbers, simple and decimal fractions and a range of strategies are used to solve problems <ul style="list-style-type: none"> Whole numbers (to 9999), decimal fractions (to at least hundredths), and common and mixed fractions have positions on a number line 	Pages: 1,4-5,7,10-16,18-21,23-25,27,29-31,33,35,159, DT164,DT166,DT168,DT170,DT172,DT174, DT176	Pages: 1,4,6,8-9,12-16,19-23,26-35,162,DT163,DT165, DT167,DT169,DT171,DT173,DT175,DT177
<ul style="list-style-type: none"> Place value of digits in whole numbers and decimal fractions changes when they are multiplied and divided by 10 and 100 	32	11,35,85,DT167
<ul style="list-style-type: none"> Common and mixed fractions involving denominators to tenths can be represented as a collection of objects, on number lines and as parts of measure to solve problems 	2-3,6,15,28,DT162	2-3,5,DT165
<ul style="list-style-type: none"> Equivalent fractions have easily related denominators that are used to assist mental calculations 	11,28,DT166	2-3,5,DT163
<ul style="list-style-type: none"> Whole numbers (to thousands) and decimal fractions (to hundredths) can be calculated using addition and subtraction 	31,33,46-48,53-54,56-57,59-60,63-64, 67-69,73-74,78-79,82,84,156-157,160,DT162, DT166,DT168,DT170,DT172,DT174	8-9,37-39,41-42,45,47-48,54-57,61-62,66-68,71- 72,75-76,79-80,82-84,158-159,162,DT163,DT165, DT167,DT169,DT171,DT173,DT175-177
<ul style="list-style-type: none"> Whole numbers can be multiplied and divided by whole numbers to 10 	37-38,40-41,43-45,49-50,52,55,58,61-62,65-68, 70-72,75-77,80-81,83,85,161,DT162,DT164, DT166,DT168,DT170,DT172,DT174,DT176	40,43-44,51-53,59-60,65,70,73,78,DT163,DT167, DT171,DT173,DT175
<ul style="list-style-type: none"> Whole numbers have factors, prime numbers have only two distinct factors and composite numbers have more than two factors 		58,64,74
<ul style="list-style-type: none"> Problems can be made manageable by using strategies involving estimation, inverse operations, doubles, double doubles and halving 	39,54,83-84,156-159,DT164	41,45,62-63,69,160-162
<ul style="list-style-type: none"> Financial records and simple spending and saving plans are ways to check on available money and income 	54,57,63-64,67,73-74,78	37-39,76,DT177
<ul style="list-style-type: none"> Money can be saved and borrowed, and interest and fees may apply 	80	72

Algebra	3 (Stage 2)	4 (Stage 2)
<p>Patterns and relationships can be identified, described and applied with the conventions of the four operations</p> <ul style="list-style-type: none"> Simple relationships are used to predict results of change 	<p>Pages: 120,147,150,DT163</p>	<p>Pages: 113,120</p>
<ul style="list-style-type: none"> Patterns in space and number, and relationships between quantities, including equivalence, can be represented using concrete and pictorial materials, lists, tables and graphs 	<p>59</p>	<p>24,46,156,DT165</p>
<ul style="list-style-type: none"> Rules can be developed to interpret a pattern and predict further elements 	<p>8,22,32,42,51,DT164,DT166,DT174</p>	<p>7,18,25,46,49-50,DT165,DT169,DT173</p>
<ul style="list-style-type: none"> Generalisations associated with the four operations are built upon commutative, associative and distributive properties and inverse operations 	<p>36,39,46-48,53-54,59,70,73,77,79,83-84,156-157,DT164,DT168,DT176</p>	<p>41-42,45,53,74,81,86,DT163,DT173,DT175,DT177</p>
Measurement		
<p>Length, area, volume, mass, time and angles can be estimated, measured and ordered, using standard and non-standard units of measure</p> <ul style="list-style-type: none"> Analogue and digital clocks can be used to read time to the nearest minute 	<p>111,113,118,122,125,133,139,DT163,DT165,DT167,DT169,DT173,DT175</p>	<p>114,119,122,127,131,137,143,DT164,DT166,DT168,DT170,DT172,DT174,DT178</p>
<ul style="list-style-type: none"> Timelines, clocks, calendars and timetables are used to sequence, schedule and calculate timed events 	<p>127,144,DT169</p>	<p>116,133,141,DT172,DT176</p>
<ul style="list-style-type: none"> Standard units, including centimetre, metre, square centimetre, square metre, gram, kilogram, minute, degree, millilitre and litre, and a range of instruments are used to measure and order attributes of objects, including length, area, volume, mass, time, and angles 	<p>90-91,94,112,114,116-117,119-121,123-124,126,128-132,134-138,140-143,DT163,DT165,DT167,DT169,DT171,DT173,DT175,DT177</p>	<p>88,96,117-118,120-121,123-126,128-130,132,134,136,138-140,142,144,DT164,DT166,DT168,DT170,DT172,DT174,DT176</p>
<ul style="list-style-type: none"> Links exist between different ways of recording the same measurement 	<p>120,123,128,130-131,140,DT171</p>	<p>120,123,126,128-129,134-135,138-139,144,DT166,DT168,DT170,DT176,DT178</p>
<ul style="list-style-type: none"> Reasonable estimates can be made using strategies that suit the situation 	<p>112,114-117,120-121,128,130,138-139,141,145</p>	<p>115,123-124,142</p>

Chance and Data	3 (Stage 2)	4 (Stage 2)
<p>Chance events have a range of possible outcomes that can be described using predictions. Data can be collected to support or adjust predictions</p> <ul style="list-style-type: none"> The likelihood of outcomes of events involving chance can be described using terms including “likely”, “more likely”, “most unlikely” and “never” 	<p>Pages: 9,17,DT164,DT168</p>	<p>Pages: 10,17,24,26,34,36,DT167,DT169</p>
<ul style="list-style-type: none"> Data collected from experiments or observations can be organised in tables and graphs and used to respond to questions about likelihood of possible outcomes of events 	<p>26,34,146-149,151-155,DT165,DT173</p>	<p>36,146-157,DT166,DT174,DT176,DT178</p>
<ul style="list-style-type: none"> Collected data can be used to justify statements and predictions 	<p>9,17,26,146-147,149-151,155,DT163,DT167,DT169,DT171,DT175</p>	<p>36,147,150,157,DT164,DT168,DT170,DT172,DT174</p>
<ul style="list-style-type: none"> Sets of data may contain expected or unexpected variation, and this may mean that additional data are needed 		<p>150,157</p>
Space		
<p>Geometric features are used to group shapes and guide the accuracy of representation of 2D shapes and 3D objects. Mapping conventions apply to the structure and use of maps and plans</p> <ul style="list-style-type: none"> Geometric features, including parallel and perpendicular lines, acute, right, obtuse and reflex angles, and vertex, edge and base, can be used to sort shapes and objects into broad family groups 	<p>88-89,92-93,95-99,102,104-106,DT165,DT167,DT169,DT171,DT173,DT175</p>	<p>87,90-92,100-102,104-107,112-113,DT166,DT168,DT172,DT176,DT178</p>
<ul style="list-style-type: none"> Defining features, including edges, angle sizes and parallel lines, are used to make accurate representations of 2D shapes and 3D objects 	<p>93,96-98,104-106</p>	<p>87,91,101-102,104-105,107-110,DT174,DT178</p>
<ul style="list-style-type: none"> 3D objects can be visualised or constructed using nets 	<p>98</p>	<p>92,108-110,DT176</p>
<ul style="list-style-type: none"> Symmetry and transformations involving flips, slides, turns, enlargements and reductions provide a basis for creating patterns, designs and tessellations 	<p>86,103,108-109,DT163,DT177</p>	<p>89-90,97-99,111,DT164,DT170</p>
<ul style="list-style-type: none"> Mapping conventions, eg. symbols, scales, legends and alphanumeric grids, are used to represent and interpret movements and to identify locations on maps and plans 	<p>87,100-101,110,DT171</p>	<p>93-94,101,103-104,DT168,DT174</p>
<ul style="list-style-type: none"> Mapping conventions, including the four major compass points, are used to give direction and movement and can be linked to turns 	<p>100,107,110,DT163,DT173,DT175</p>	<p>95,103,110</p>



Essential Learnings knowledge & understanding

New Signpost Maths Student Book

Number	5 (Stage 3)	6 (Stage 3)
<p>Numbers, key percentages, common and decimal fractions and a range of strategies are used to generate and solve problems</p> <ul style="list-style-type: none"> Whole numbers, including positive and negative numbers, and common and decimal fractions can be ordered and compared using a number line 	<p>Pages: 1-4,8-10,13-14,16-18,20,24,26,28,30,35, DT166,DT168,DT170,DT172,DT174,DT176, DT178</p>	<p>Pages: 1,4,6-7,9,14,28,62,DT165,DT167,DT169,DT175</p>
<ul style="list-style-type: none"> Common fractions can be represented as equivalent fractions, decimals and percentages for different purposes 	<p>9,12,15,21-22,29,DT168,DT170,DT172,DT174, DT176</p>	<p>2-3,6,10,12,24,27,31-32,37,DT167,DT169, DT173,DT177,DT179</p>
<ul style="list-style-type: none"> Percentages, rate, ratio and proportion can be used to describe relationships between quantities and to solve problems in practical situations involving money, time and other measures 	<p>7,133,DT168,DT177</p>	<p>13,19,26,33,55,136,152,164,DT166,DT168, DT171,DT175,DT177</p>
<ul style="list-style-type: none"> Estimation strategies including rounding, and estimates based on powers of 10, assist in checking for reasonableness of calculations involving whole numbers and common and decimal fractions 	<p>47,51,70,163,DT170</p>	<p>19,39,46,62,DT173</p>
<ul style="list-style-type: none"> Problems can be interpreted and solved by selecting from the four operations and mental, written and technology assisted strategies 	<p>21,23,27,30-31,33,36,38-39,41-59,61,63,65-69, 71-73,75-80,150,158,160,164-165,DT166,DT168, DT170,DT172,DT174,DT176-177,DT180</p>	<p>16-17,20,23,29,34,41-46,48-49,52-53,56-65, 67-75,79,124,147,153,156,161-163,DT165,DT167, DT169,DT171,DT173,DT175-177,DT179</p>
<ul style="list-style-type: none"> Financial decisions and transactions are influenced by a range of factors, including value for money, discounts, method of payment, and available income or savings 	<p>40</p>	<p>33,39-40,DT175,DT179</p>
<ul style="list-style-type: none"> Budgets and financial records are used to monitor savings and spending 	<p>31,69,150</p>	<p>20,23,28,39-40,72,147,158</p>
<ul style="list-style-type: none"> Cashless transactions include the use of cheques, EFTPOS, credit and debit cards, and money orders 		<p>39</p>

Algebra	5 (Stage 3)	6 (Stage 3)
<p>Algebraic expressions and equations can be applied to describe equivalence and solve problems</p> <ul style="list-style-type: none"> Expressions and relationships, including formulas and simple equations, can be demonstrated using words, diagrams, materials and symbols to represent variables 	<p>Pages: 62,160</p>	<p>Pages: 8,21,25,30,47,111,113,115,117,122,125,128, 134-135,142-143,145</p>
<ul style="list-style-type: none"> Equations and expressions involving addition, subtraction and multiplication can be solved to establish equivalence 	<p>7,15,74,164,DT179</p>	<p>45,54,66,76-77,DT169,DT172,DT175,DT177</p>
<ul style="list-style-type: none"> The order of operations identifies the appropriate sequence of operations used in calculations to obtain solutions 	<p>60,DT172</p>	<p>50-51,DT167,DT169</p>
<ul style="list-style-type: none"> Tables of values for functions using input–output rules can be constructed and the resulting ordered pairs graphed 	<p>6,25,34,37,DT168,DT174,DT178,DT180</p>	<p>21,25,DT167,DT173,DT175</p>
Measurement		
<p>Relationships between units of measure & the attributes of length, area, volume, mass, time and angles are used to calculate measures that may contain some error</p> <ul style="list-style-type: none"> Timetables and duration of events involving both 12- and 24-hour time cycles and Australian time zones can be calculated 	<p>113,118,123,126,132,135,144,DT167,DT169, DT171,DT173,DT177</p>	<p>114,116,129,132,137,139,146,DT166,DT174, DT176,DT178</p>
<ul style="list-style-type: none"> Appropriate instruments, technologies and scale are used when exploring measurement of length, area, volume, mass, time and angles where not all of the graduations are numbered 	<p>84,87-88,112</p>	<p>82,92,95,110,119,121,DT172</p>
<ul style="list-style-type: none"> Relationships between attributes of regular 2D shapes and 3D objects can be used to develop rules that allow perimeter, area and volume to be calculated 	<p>115-116,120-121,124-125,127,130-131,134, 138-139,141-142,DT167,DT169,DT171,DT173, DT175,DT177,DT179,DT181</p>	<p>111,113,115,117,122,125,128,134-135,142-143, 145,DT166,DT168,DT170,DT172,DT176,DT180</p>
<ul style="list-style-type: none"> Measurement involves error, which can be reduced through the selection and use of appropriate instruments and technologies 	<p>88,93-96,106,112,DT173</p>	<p>86-87,93,137,DT168</p>
<ul style="list-style-type: none"> Estimation strategies are used to identify a reasonable range of values for a measurement 	<p>117,136,139</p>	<p>123,128</p>

Chance and Data	5 (Stage 3)	6 (Stage 3)
<p>Probability of events can be calculated from experimental data. Data can be summarised and represented to support inferences and conclusions</p> <ul style="list-style-type: none"> • Events have different likelihoods of occurrence and estimates of probability can be expressed as percentages, common fractions or decimal fractions between 0 and 1 	<p>Pages: 5,11,19,32,DT166,DT170,DT172,DT178</p>	<p>Pages: 5,11,17,22,DT165,DT169</p>
<ul style="list-style-type: none"> • Experimental data for chance events can be compared with theoretical probability 	<p>5,32,151,162</p>	
<ul style="list-style-type: none"> • Data may be discrete and can be allocated to categories or numbered 	<p>145-149,151,155-156,161,DT169,DT171,DT181</p>	<p>22,35,148-152,154,DT166,DT168,DT170,DT172,DT174</p>
<ul style="list-style-type: none"> • Data may be continuous and described as distributions of quantities 	<p>152-153,159,DT173,DT177,</p>	<p>154</p>
<ul style="list-style-type: none"> • Sample data drawn from a given population can be summarised, compared and represented in a variety of ways 	<p>5,145-149,151-153,155-156,159,162,DT167,DT169,DT171,DT173,DT175,DT177,DT181</p>	<p>17,22,148-152,154-155,159-160,DT170,DT180</p>
<ul style="list-style-type: none"> • Measures of location such as mean, median and mode, and frequency and relative frequency, can be used to explore distributions of sample data 	<p>64,DT172,DT174</p>	<p>157,DT159,DT169,DT178</p>
<ul style="list-style-type: none"> • Variation and possible causes of bias can be identified in data collections 	<p>149</p>	<p>149</p>
Space		
<p>Geometric conventions can be used to classify, represent and manipulate geometric shapes. Mapping conventions can be applied in the construction and use of maps and plans.</p> <ul style="list-style-type: none"> • Geometric conventions, including length, angle size and relationships between faces, are used to classify 2D shapes and 3D objects, including part and composite shapes 		
<ul style="list-style-type: none"> • 2D shapes can be sketched or accurately represented, using drawing instruments and software, to reflect their geometric properties 	<p>81-84,89,91-92,96-98,100,102-106,108,DT167,DT171,DT173,DT175,DT177</p>	<p>80-81,84-85,90-91,97-98,109,DT166-DT167,DT170,DT174,DT180</p>
	<p>85,91,98,100,105-106</p>	<p>90,103-104,107-108,112</p>
		<p>Continued over page</p>

Space (continued)	5 (Stage 3)	6 (Stage 3)
<ul style="list-style-type: none"> • 3D objects can be constructed from plans, nets and isometric diagrams 	Pages: 82,86,92,DT167	Pages: 80,DT166
<ul style="list-style-type: none"> • Congruent shapes are the same shape and size and can be superimposed on one another through a sequence of transformations, involving reflections, rotations and translations 	103	94,96,101,108,DT176,DT178
<ul style="list-style-type: none"> • Points, lines and planes of symmetry can be identified in shapes and objects and can be related to transformations and tessellations of suitable shapes in the plane 	80,DT179	101-102,104
<ul style="list-style-type: none"> • Maps and plans can be constructed and interpreted to identify a specific location, to plan movement from one location to another, and to calculate distance between locations 	90,99-100,110,119,147,157,DT179,DT181	82,89,105,140
<ul style="list-style-type: none"> • Mapping conventions, including coordinates, compass points and scale, are used to specify and identify locations on maps and plans 	81,90,99-100,107,109-110,DT171,DT175,DT179,DT181	82-83,88-89,99-100,105-106,146,DT166,DT169-170,DT174,D176,DT178

