REPUBLIC OF TRINIDAD & TOBAGO

MINISTRY OF EDUCATION

REVISED ASSESSMENT FRAMEWORK

FOR THE

SECONDARY ENTRANCE ASSESSMENT

2021 - 2023

Ministry of Education
Education Tower, A St Vincent Street, Port of Spain

September 2020

Foreword

The **Revised Assessment Framework for the Secondary Entrance Assessment (SEA) 2021-2023** specifies the *proposed* purpose, components, format and content of the SEA. The revised guidelines acknowledge the impact of the COVID-19 pandemic measures on the education system and propose several adjustments to the framework in terms of content and/or the number of test items. Briefly, these include:

1. Prior disclosure of the type of text that will be administered for the 2021[1] SEA English Language Arts Writing.
2. Reduction in the number of test items in the Reading Comprehension component of English Language Arts
3. Reduction in the number of test items in Mathematics
4. Adoption of the revised framework for the period 2021 – 2023

Some aspects of SEA are unchanged such as the:

1. The types of thinking skills that will be assessed for both Mathematics and English Language Arts
2. The time for administration of the SEA
3. The scoring of the examination scripts
4. Criteria for placement

The Assessment is based on the English Language Arts and Mathematics Curriculum Guides (2013). The specific English Language Arts skills to be assessed are English Language Arts Writing, Spelling, Grammar, Punctuation, Capitalisation and Reading Comprehension. In Mathematics, Number, Measurement, Geometry and Statistics are assessed.

The main purpose of the Secondary Entrance Assessment is to facilitate the transition from primary to secondary school. The Assessment Framework for SEA 2021 - 2023 is intended to assist teachers and all those involved in the preparation of students for secondary school. It is anticipated that the specifications for each paper will allow teachers to better assist students in understanding the format and requirements of the Secondary Entrance Assessment.

[1] **Note: This is for a specific time and will not be a normal feature of the SEA Administration**

It is hoped that through use of a student-centred approach to teaching, with a focus on the development of a range of skills at different levels of thinking, our students will be better prepared for the opportunities available at the secondary level and life in general.

Components of Secondary Entrance Assessment 2021-2023

The SEA is a public examination that facilitates placement of students in secondary schools in Trinidad and Tobago based on the following criteria:

- Parents' choices
- Students' performance by order of merit
- Principals' 20% selection (Denominational schools)
- Gender
- Residence
- Multiple births

The Secondary Entrance Assessment comprises three papers that all candidates must attempt:

1. English Language Arts Writing
2. Mathematics
3. English Language Arts (Spelling, Punctuation, Capitalisation, Grammar, and Reading Comprehension)

The duration of each paper is indicated in Table 1.

Table 1: Duration of SEA Papers

Paper	**Time Allotment**
English Language Arts Writing	Fifty (50) minutes
Mathematics	Seventy-five (75) minutes
English Language Arts	Seventy-five (75) minutes

Revision to Time and Order of Papers

No revision to the time and order of administration

English Language Arts (ELA) Writing Paper

The English Language Arts Writing paper will contain three items assigned in any one year:

Either (i) Three (3) narrative items

Or (ii) Three (3) expository items

Students will be asked to respond to one item which will be scored by two persons. Each response will be *holistically* scored based on the following criteria:

- Content
- Language Use
- Grammar and Mechanics
- Organisation

General Assessment Objectives for ELA Writing

Students will:

- Demonstrate knowledge of narrative and expository writing
- Write stories and simple reports (expository)
- Use descriptive language and sensory details appropriate to stories
- Use figurative language appropriate to stories
- Use factual details appropriate to reports
- Use formal language and tone appropriate to reports
- Express written ideas clearly and coherently
- Generate a variety of sentence types
- Demonstrate accurate use of grammar, spelling and mechanics
- Demonstrate effective organisation of ideas

Revision to ELA Writing

Narrative Writing will be explicitly declared as the type of writing to be assessed in 2021. This and subsequent types will be indicated via memorandum to schools.

ELA - Spelling, Punctuation, Capitalisation, Grammar, and Reading Comprehension

The English Language Arts assessment will comprise Spelling, Punctuation, Capitalisation Grammar, and Reading Comprehension. The assessment objectives are taken from Standards Three, Four and Five as specified in the National Primary School Curriculum (2013). This is built on the understanding that many of the foundation skills developed during Infant and Junior school act as building blocks.

The English Language Arts paper is designed to assess spelling, punctuation, capitalisation and grammar in context. This means that discrete sentences will be replaced by short continuous text to which students will be required to respond. The reading comprehension section will assess different levels of thinking. Passages will be complemented by simple visuals designed to reflect authentic reading material. Additionally, prose material, introduced for the first time, will be alternated with the other type of texts. Vocabulary will be assessed in context; that is, in the Reading Comprehension component of Section II.

Spelling in context

Apply spelling rules when writing.
Discover and correct misspelt words

- plural forms in which ‘y is changed to ‘i’ and ‘f’ to ‘v’ before adding an “es” ending
- words that double the final consonant before adding endings
- words that drop the final ‘e’ before an ending
- ‘ie’ and ‘ei’ words
- words with hard and soft ‘c’ and ‘g’
- words with silent letters
- convert compound words into plural forms
- when a word ends in a silent ‘-e’, drop the ‘-e’ before adding -ing
- for action words that end in ‘-ie’, change the ‘-ie’ to a ‘-y’ before adding ‘ing’
- when the suffix -full is added to the end of a base word, drop one ‘-l’

- double the last letter of words ending in a short vowel followed by a single consonant before adding a '-y' e.g. bag - baggy
- add a '-y' to words ending with two consonants to form describing words e.g. dirt-dirty
- for words ending in a silent '-e', drop the '-e' before adding '-y' e.g. ice-icy

Revision to Spelling

No revision to this section. The number of item (6) and the sub total score (12) are unchanged

Capitalisation and Punctuation in context

Use punctuation marks and capital letters correctly in writing

- use the colon and quotation marks for dialogue, titles and direct speech
- use the following punctuation marks in sentences: full stop, question mark, exclamation mark, apostrophe in contractions and possessives, quotation marks, colons and commas
- use capital letters in sentences for: first word in a quotation; title of books, chapters, poems; title of proper names; important words in headlines, subject heading
- edit capitalisation and punctuation in sentences

Revision to Capitalisation and Punctuation

No revision to this section. The number of item (6) and the sub total score (6) are unchanged

Grammar in context

Use parts of speech with correct verb tense and concord in writing

- ensure noun and pronoun concord
- ensure agreement of subject and verb and subject and pronoun

- use Nouns: common, proper, collective and abstract in sentences
- use Adjectives: comparative and superlative degree
- use Pronouns: Personal, Possessive, Reflexive and Relative Pronoun.
- use Adverbs: comparative and superlative forms
- use Prepositions in context
- use Conjunctions to combine ideas and sentences
- use verbal forms: simple present, past, future, present continuous tense, past perfect tense
- use the correct form of the verb in writing
- use regular and irregular verb forms
- choose verbs to agree with subjects in number
- ensure concord in sentences that contain parenthetical phrases
- recognize the function of prepositions, adverbs, adjectives, nouns, verbal forms and conjunctions in context

Revision to Grammar

No revision to this section. The number of item (6) and the sub total score (12) are unchanged

Assessment Objectives for the English Language Arts Paper: Reading Comprehension

The SEA English Language Arts assessment objectives are embedded in the Republic of Trinidad and Tobago Primary School Curriculum - English Language Arts (2013).

Educators are directed to the English Language Arts programmes for Standards Three, Four and Five. Based on the comprehension purposes and levels, the SEA will assess students' ability to understand the following:

- Non-fiction text or fiction text
- Poetry
- Graphic text

It should be noted that "all texts are not equal and can vary with regard to length, syntactic complexity, abstractness of ideas, and organizational structure" (Mullis, Martin, Sainsbury, 2016, p. 18). However, all passages will be selected based on the appropriate readability levels.

Reading Comprehension Thinking Processes

The SEA will assess three types of reading comprehension thinking processes within each of the three texts, these are:

- Literal
- Inferential
- Evaluation and appreciation

Table 2 displays the Reading Comprehension and the percent associated with each type of text and thinking processes. **All the objectives as contained in the Assessment Framework for the Secondary Entrance Assessment 2019-2023 are valid for the Revised Framework.**

Table 2: Reading Comprehension Processes by Text and Thinking Processes

Type of Text	No. of Items	Thinking Processes			Total Marks
		Literal	Inferential	Evaluation/ Appreciation	
Fiction/Non-Fiction	**7**	**2**	**3**	**2**	13
Poetry	**7**	**2**	**3**	**2**	13
Graphic	**4**	**1**	**2**	**1**	8
Total	**18**	**5 (28%)**	**8 (44%)**	**5 (28%)**	34

Revision to Reading Comprehension

There is a reduction in the number of test items in each text type:

Fiction/Non-Fiction: from 10 to 7 test items

Poetry: from 10 to 7

Graphic: from 5 to 4

There are alterations in the thinking processes and the marks/scores as a consequence of the reduction in the items.

Mathematics

The **Mathematics paper consists of 40 items** and encompasses the four strands of the syllabus.

- Number
- Measurement
- Geometry
- Statistics

The SEA will assess three types of thinking processes within each of the four strands. These processes – knowing, applying and reasoning – have incorporated those currently used in the Republic of Trinidad and Tobago Primary School Curriculum- Mathematics (2013) and are in conformity with international best practices (Grønmo, Lindquist, Arora, & Mullis, 2015).

Distribution of Marks by Section

The paper is divided into three sections as displayed in Table 3. Details in terms of the allocation of marks and items by strands and thinking processes are identified at Tables 3a. **Section I remains unchanged in terms of the number of items and the score for each. Section II comprises 16 items; some are worth 2 marks and others 3 marks. Section III contains 4 items; each is worth 4 marks.**

Table 3.: Distribution of Mathematics Items and Marks by Section

Section	No. of Items	Marks per Item
Section I	20	1
Section II	16	2 or 3
Section III	4	4

Table 3a.: Number of Items by Strands

Strands	Knowing	Applying	Reasoning	Total Marks
Number	9	6	4	34
Measurement	3	4	2	18
Geometry	3	2	1	11
Statistics	3	2	1	12
Total	**18 (45%)**	**14 (35%)**	**8 (20%)**	75

Revision to Mathematics

Reduction in the number of test items:

Section II: from 20 items to 16

Section III: from 5 item to 4

There are alterations in the thinking processes and the marks/scores because of the reduction in the items. Several objectives have been removed (14), whereas others have been reduced (3) as indicated in the table pertaining to the objectives and thinking processes listed below for the four strands in Mathematics.

NUMBER STRAND

Objectives and Thinking Processes

Objectives	Processes	Revision
Whole Numbers		
1. **Represent any number up to one million using numerals or word names.**	Knowing	None
2. **Represent whole numbers to 1 000 000 using multiple models and connect to numerals and number names.**	Knowing	None
3. **Represent a number up to one million concretely, pictorially, symbolically.**	Applying	None
4. **State the value or place value of a digit in any whole number up to one million.**	Knowing	None
5. **Express a whole number up to one million using expanded notation.**	Knowing	None
6. **Write the numeral represented by a given expanded notation.**	Knowing	None
7. **Order whole numbers to one million.**	Knowing	None
8. **Compare whole numbers to one million**	Knowing	None

Objectives	Processes	Revision
9. **Round whole numbers to the nearest thousand.**	Knowing	None
10. **Solve problems in addition (sum less than 10 000) and subtraction (minuend less than 10 000)**	Applying	None
11. **Multiply two, three and four digit numbers by one or two-digit multipliers.**	Knowing	None
12. **Divide two, three and four digit numbers by one or two digit divisors with and without remainder.**	Knowing	None
13. **Use estimation strategies in problem solving contexts with whole numbers.**	Reasoning	None
14. **Use estimation skills to check solutions to problems and determine reasonableness of answer.**	Reasoning	None
15. **Solve one-step word problems involving any one of the four basic operations on whole numbers.**	Applying	None
16. **Solve multi-step words problems involving any combination of the four basic operations on whole numbers.**	Reasoning	None
17. **Explain or demonstrate how an answer was obtained when solving problems.**	Reasoning	None
18. **Calculate the square of a number.**	Knowing	None
19. **Differentiate between factors and multiples and prime and composite numbers and identify square numbers.**	Applying	None
20. **Calculate the square root of a perfect square.**	Knowing	None
21. **List square numbers up to 144.**	Knowing	None
22. **Explore patterns involving square numbers up to 144.**	Reasoning	None
23. **Explore patterns involving square roots up to 12.**	Reasoning	None
24. **Solve problems involving the use of number patterns.**	Reasoning	None
25. **Explore repeating, increasing and decreasing patterns.**	Reasoning	None
26. **Calculate the unknown in number sentences involving the four operations and explain procedures used.**	Applying	None

Objectives	Processes	Revision
27. **Interpret the remainder in relation to the context of word problems.**	Reasoning	None
28. **Explain why a remainder is obtained for some division problems.**	Reasoning	None
29. **Identify the missing numbers in an ordered sequence or on a number line.**	Reasoning	None
30. **Use a pattern rule to determine missing elements for a given pattern and to extend or predict subsequent elements in patterns.**	Reasoning	None
Fractions		None
31. **Represent a fraction using pictorial and symbolic representations.**	Applying	None
32. **Generate equivalent fractions using a variety of models.**	Applying	None
33. **Order proper fractions with unlike denominators using equivalent forms.**	Reasoning	None
34. **Demonstrate an understanding of proper fractions, improper fractions and mixed numbers.**	Reasoning	None
35. **Express improper fractions as mixed numbers.**	Knowing	None
36. **Express mixed numbers as improper fractions.**	Knowing	None
37. **Add and subtract fractions involving same denominator.**	Knowing	None
38. **Add and subtract fractions involving one denominator as a multiple of the other.**	Knowing	None
39. **Subtract a fraction from a whole number.**	Applying	None
40. **Add a fraction to a whole number.**	Applying	None
41. **Subtract two fractions (including whole/mixed numbers).**	Applying	None
42. **Calculate fractions of a collection or set.**	Knowing	None
43. **Express one quantity as a fraction of another.**	Knowing	None
44. **Calculate the whole given a part as a unit fraction.**	Knowing	None
45. **Solve problems involving the multiplication of a fraction by a whole number.**	Applying	None

Objectives	Processes	Revision
~~46. **Solve problems involving the multiplication of a fraction by a fraction**~~	Applying	Removed
~~47. **Solve problems involving the multiplication of a fraction by mixed numbers.**~~	Applying	Removed
48. **Divide a whole number by a fraction.**	Applying	None
49. **Divide a fraction by a whole number.**	Applying	None
~~50. **Divide a fraction by a fraction.**~~	Applying	Removed
51. **Multiply fractions by whole numbers.**	Applying	None
52. **Solve one-step problems involving fractions.**	Applying	None
53. **Solve multi-step problems involving fractions.**	Reasoning	None
54. **Solve real-life problems involving fractions and using the algorithms developed.**	Reasoning	None
Decimals		
55. **State the place value of digits in decimal fractions up to hundredths.**	Knowing	None
56. **Explore the place value of decimals to hundredths including expanded notation.**	Applying	None
57. **State the value of digits in decimal fractions up to hundredths.**	Knowing	None
58. **Compare and order decimals up to hundredths.**	Applying	None
59. **Express decimal fractions using expanded notation.**	Knowing	None
60. **Convert expanded notation to decimal fractions.**	Knowing	None
61. **Arrange decimal fractions in ascending and descending order (up to hundredths).**	Knowing	None
62. **Round decimals to the nearest whole number and tenths.**	Knowing	None
63. **Solve problems involving the addition and subtraction of decimals including money.**	Reasoning	None
64. **Solve problems involving the multiplication of a decimal by a whole number.**	Applying	None
~~65. **Solve problems involving the multiplication of tenths by tenths.**~~	Applying	Removed
66. **Relate decimals to fractions and money.**	Applying	None

Objectives	Processes	Revision
67. **Solve problems involving the division of a decimal fraction by a whole number (dividend up to 2 decimal places).**	Reasoning	None
68. **Use a number of strategies to solve routine and non-routine problems involving decimals.**	Reasoning	None
69. **Express decimals as common fractions.**	Knowing	None
70. **Use decimal notation as another form of writing base ten fractions (tenths, hundredths).**	Knowing	None
71. **Solve real-world problems involving the addition and subtraction of decimals to hundredths using the algorithm.**	Reasoning	None
Per cent		
72. **Calculate simple per cent of quantities e.g.10% of $200 = 1/10 of $200 = $20.**	Knowing	None
73. **Express percentages (e.g. 50%, 25%, 20% and 10%) as fractions (e.g. ½, ¼, 1/5, 1/10).**	Knowing	None
74. **Express percentages (e.g. 50%, 25%, 20% and 10%) as decimals (e.g. 0·5, 0·25, 0·2 and 0·1).**	Knowing	None
75. **Order fractions, decimals and percentages.**	Applying	None
76. **Express quantities as percentages of other quantities.**	Applying	None
77. **Solve one – step problems involving percentages (**no gain and loss per cent, no calculation of whole quantities given parts expressed as percent and no calculations of part of quantities given another part expressed as a per cent**).**	Applying	None
78. **Solve multi – step problems involving percentages (**no gain and loss percent, no calculation of whole quantities given parts expressed as per cent and no calculations of part of quantities given another part expressed as a per cent**).**	Reasoning	None
79. **Identify coins, bills, their value and the value of a set of coins/bills (up to 100 cents and $100).**	Knowing	None
80. **Determine the possible combinations of coins/bills, which are equal to given amounts (up to 100 cents and $100).**	Reasoning	None
81. **Record money values using decimals.**	Knowing	None
82. **Calculate total cost and the change in money transactions.**	Applying	None
83. **Solve real-life, one-step problems involving whole numbers, (including profit and loss, best buy, discount, ~~savings, salaries, wages, loans, simple interest, VAT~~).**	Applying	Reduced

Objectives	Processes	Revision
84. **Solve real-life, multi-step problems involving whole numbers, (including profit and loss, best buy, discount, ~~savings, salaries, wages, loans, simple interest, VAT~~).**	Reasoning	Reduced
85. **Solve problems involving direct proportions.**	Reasoning	None
86. **Solve problems involving unequal sharing (**not including the use of ratio**).**	Reasoning	None

MEASUREMENT STRAND

Objectives and Thinking Processes

Objective	Processes	Revision
Linear Measure		
87. **Select and use the most appropriate standard unit for measuring various lengths/distances.**	Knowing	None
88. **Convert linear measure from one form to the other (millimetres, centimetres, metres, kilometres).**	Knowing	None
89. **Apply decimal knowledge to record measurements. e.g. 123cm = 1.23m**	Applying	None
90. **Solve computational problems involving the metre and the centimetre by using the relationship between them.**	Reasoning	None
91. **Write and explain the formulae for finding the perimeter of any given rectangle and square.**	Reasoning	None
92. **Calculate and compare perimeters of squares and rectangles.**	Applying	None
93. **Construct or draw two or more rectangles for a given perimeter in a problem-solving context.**	Reasoning	None
~~94. **Find the perimeters of simple composite figures that may be dissected into rectangles and squares.**~~	Applying	Removed
95. **Solve problems in real-life contexts involving perimeter.**	Reasoning	None
96. **Solve problems involving length.**	Reasoning	None
~~97. **Solve problems involving perimeter of compound shapes.**~~	Reasoning	Removed

Objective	Processes	Revision
Area		
98. **Select the appropriate unit of measure when measuring surfaces of varying sizes and explain the suitability of the unit.**	Knowing	None
99. **Write and explain the formula for finding the area of squares and rectangles.**	Reasoning	None
100. **Compare and order area of surfaces and explain reasoning using appropriate vocabulary.**	Reasoning	None
101. **Approximate the area of surfaces to the nearest square metre or square centimetre**	Reasoning	None
102. **Estimate and verify the area of shapes using square metres and centimetres, and determine reasonableness of answer.**	Reasoning	None
~~103. **Develop and use formula to calculate the area of squares and rectangles.**~~	Reasoning	Removed
104. **Draw different shapes of a given area on grids.**	Reasoning	None
105. **Calculate area of shapes drawn on a grid with unit squares.**	Applying	None
~~106. **Calculate the areas of compound shapes that may be dissected into rectangles and squares.**~~	Applying	Removed
107. **Solve problems involving area and perimeter of plane shapes**	Reasoning	None
108. **Solve problems in real-life contexts involving area.**	Reasoning	None
Volume and Capacity		
109. **State the relationship between the litre and millilitre and convert from one to the other.**	Knowing	None
~~110. **Identify the cubic centimetre and cubic metre (cm^3 and m^3) as the standard units for measuring volume.**~~	Knowing	Removed
111. **Measure the volume of boxes by stacking and packing cubic blocks into them and counting to determine the volume.**	Reasoning	None

Objective	Processes	Revision
~~112. **Calculate the volume of cubes and cuboids.**~~	Applying	Removed
~~113. **State the relationship between the metric units of volume and capacity (e. g.1L = 1000 cm^3).**~~	Knowing	Removed
114. **Solve problems involving capacity, number and money.**	Reasoning	None
~~115. **Solve problems involving volume/capacity.**~~	Reasoning	Removed
Mass		
116. **Measure and compare the masses/weights of objects in kilograms and grams using a set of scales.**	Knowing	None
117. **Convert kilograms to grams and vice versa.**	Knowing	None
118. **State the relationship between the kilogram and gram**	Knowing	None
119. **Determine the most appropriate standard unit for measuring mass/weight.**	Knowing	None
~~120. **Calculate unknown mass/weight on a balance (including the use of algebraic reasoning).**~~	Reasoning	Removed
121. **Solve problems involving different units of mass/weight (e.g. Find the total mass/weight of three items weighing 50g, 750g and 2.5kg).**	Reasoning	None
122. **Solve computational and real-life problems involving grams and kilograms**	Reasoning	None
123. **Solve real-life problems involving mass/weight, number and money.**	Reasoning	None
Time		
124. **Tell time in five minute intervals using the digital and analog clocks.**	Knowing	None
125. **State the time after given intervals on analog and digital clocks.**	Knowing	None
126. **Match times shown on standard digital clocks, ~~24 hour digital~~ clocks and analog clocks to the minute, and record the time.**	Knowing	Reduced

Objective	Processes	Revision
127. **Calculate the duration of events using starting and finishing times (elapsed time).**	Applying	None
128. **Convert minutes to hours.**	Knowing	None
129. **Convert hours to minutes.**	Knowing	None
130. **Interpret simple time schedules (e.g. the calendar).**	Knowing	None
131. **Solve computational and real-life problems involving hours and minutes.**	Reasoning	None
~~132. **Solve problems involving time and other related concepts (using proportional reasoning).**~~	Reasoning	Removed

GEOMETRY STRAND

Objectives and Thinking Processes

Objective	Processes	Revision
Solids and Plane Shapes		
133. **Recognize solids from pictorial representations.**	Knowing	None
134. **Draw the faces of solids and explore their properties.**	Applying	None
135. **Describe the properties of solids in relation to number and types of faces, edges and vertices.**	Knowing	None
136. **Name the solids with uniform cross-sections.**	Knowing	None
137. **Solve problems involving solids.**	Reasoning	None
138. **Recognize plane shapes from pictorial representations.**	Knowing	None
139. **Investigate the properties of solids by examining their cross-sections, base, height and angles.**	Applying	None
140. **Solve problems involving plane shapes.**	Applying	None
141. **Construct and draw regular and irregular polygons given their properties using the principles of parallel and perpendicular lines, angles and number of sides.**	Applying	None
142. **Differentiate between regular and irregular polygons (triangles, quadrilaterals, pentagons, hexagons, octagons).**	Knowing	None
143. **Describe the properties of specific quadrilaterals (rectangle, square, trapezium, parallelogram and rhombus)**	Knowing	None
144. **Describe a given pattern (repeating, increasing or decreasing)**	Applying	None
145. **Determine the pattern rule and extend the pattern using concrete materials or pictorial representation.**	Applying	None
146. **Classify and compare quadrilaterals according to their attributes (no. of sides and angles, no. of equal sides, no. of pairs of parallel sides, no. of perpendicular sides).**	Applying	None
147. **Classify triangles (same, similar or different) based on properties of sides and angles.**	Applying	None
148. Identify and name triangles as scalene, right angled, isosceles and equilateral.	Knowing	None
149. Compare and describe the properties of the sides and angles of the scalene, right angled, isosceles and equilateral triangles.	Applying	None

Objective	Processes	Revision
150. Create repeating, increasing and decreasing patterns using solids or plane shapes (concrete and pictorial) and explain the pattern rule.	Reasoning	None
151. Insert the missing elements in given patterns (concrete or pictorial) and explain the reasoning.	Reasoning	None
Symmetry		
152. Determine whether plane shapes, letters and numerals are symmetrical.	Knowing	None
153. Complete a symmetrical shape given half of the shape and a line of symmetry.	Applying	None
154. Determine the number of lines of symmetry in plane shapes – (regular, irregular and curved) and in numerals and letters.	Applying	None
155. Create symmetrical shapes	Reasoning	None
156. Solve problems involving line symmetry.	Reasoning	None
Angles		
157. Describe an amount of turn (e.g. whole turn, three quarter turn, half turn or quarter turn).	Applying	None
158. Recognize an angle as an amount of turn.	Knowing	None
159. Identify angles on faces of solids or plane shapes that are right angles, greater than right angles or smaller than right angles.	Knowing	None
160. Investigate angles (right angles, angles greater than and smaller than right angles) in regular and irregular polygons and faces of solids.	Applying	None
161. Describe an angle as a measure of turn and name the quarter turn as a right angle or the angle formed when perpendicular lines meet	Knowing	None
162. Draw shapes with angles of various sizes and describe the angles.	Reasoning	None

STATISTICS STRAND

Objectives and Thinking Processes

Objective	Processes	Revision
163. Represent data using tally charts, frequency tables and graphs (pictographs, block graphs, bar graphs) using various scale factors	Applying	None
164. Interpret the findings displayed in the tables, charts (including tally charts, no pie charts) and graphs (pictographs, block graphs, bar graphs).	Reasoning	None

165. Compare the effectiveness of different representations of the same data.	Reasoning	None
166. Determine a suitable scale for data and record the scale in a key.	Reasoning	None
167. Use analysed data to solve problems, draw conclusions and make decisions.	Reasoning	None
168. Communicate findings and decisions made using appropriate vocabulary associated with statistics.	Reasoning	None
169. Determine the mode of a given set of data.	Knowing	None
170. Apply findings from analysis of data to solve problems.	Applying	None
171. Evaluate decisions made based on analysis of data represented in tables, charts and graphs.	Reasoning	None
172. Calculate the mean of a given set of data.	Knowing	None
173. Solve problems involving mean/average.	Reasoning	None

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