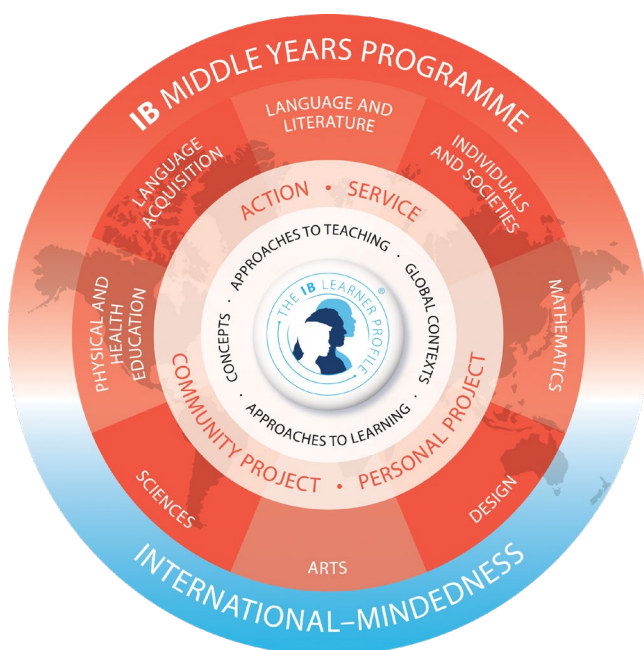


# Grade 8 Curriculum MYP

K International School Tokyo



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## K. International School Tokyo – Mathematics Standard Level Scope and Sequence – Grades 6 – 10

	Grade 6 Key Stage 3 Tier 5-7 Haese Mathematics 7	Grade 7 Key Stage 3 Tier 6-8 Haese Mathematics 8	Grade 8 iLowerSecondary Mathematics Haese Mathematics 9	Grade 9 IGCSE Mathematics B Haese Mathematics 10E	Grade 10 IGCSE Mathematics A Haese Mathematics 10E
<i>Number</i>	<ul style="list-style-type: none"> <li>7.1: Whole Numbers</li> <li>7.3: Positive and Negative Numbers</li> <li>7.5: Fractions</li> <li>7.6: Decimal Numbers</li> <li>7.8: Percentage</li> <li>7.14: Ratio</li> <li>7.20: Rates</li> </ul>	<ul style="list-style-type: none"> <li>8.1: Number</li> <li>8.3: Real Numbers and Ratio</li> <li>8.5: Percentage</li> <li>8.10: Radicals and Pythagoras</li> </ul>	<ul style="list-style-type: none"> <li>9.2: Indices</li> <li>9.24: Proportion</li> </ul>	<ul style="list-style-type: none"> <li>9.12: Financial Mathematics</li> <li>10.1: Indices</li> <li>10.4: Radicals and Surds</li> <li>EA.1.3-1.6: Rounding</li> </ul>	<ul style="list-style-type: none"> <li>10.16: Number Sequences</li> </ul>
<i>Algebra</i>	<ul style="list-style-type: none"> <li>7.7: Algebraic Expressions</li> <li>7.9: Equations</li> <li>8.12: Algebra: Patterns and Formulae</li> <li>8.6: Interpreting Tables and Graphs</li> <li>7.12: Coordinate Geometry</li> </ul>	<ul style="list-style-type: none"> <li>8.4: Algebraic Operations</li> <li>8.7E-H: Laws of Algebra</li> <li>8.8: Equations</li> <li>8.17A-B: Problem Solving</li> <li>8.19A-B: Algebraic Factorisation</li> <li>8.14: Coordinate Geometry</li> </ul>	<ul style="list-style-type: none"> <li>9.4: Algebraic Expansion</li> <li>9.11: Algebraic Fractions</li> <li>9.15: Formulae</li> <li>9.6: Linear Equations and Inequalities</li> <li>9.19A-D: Simultaneous Equations</li> <li>9.9: Quadratic Factorisation</li> <li>9.18A-C: Quadratic Equations</li> <li>9.8: Coordinate Geometry</li> <li>Ø3.U3: Sequences and Graphs</li> </ul>	<ul style="list-style-type: none"> <li>10.3: Algebraic Expansion and Factorisation</li> <li>10.10: Algebraic Fractions</li> <li>10.14: Formulae</li> <li>EB.F2: Simultaneous Equations and Inequalities</li> <li>10.11A-E: Quadratic Equations</li> <li>10.15A-E,G: Relations and Functions</li> <li>EB.F3: Travel Graphs</li> <li>EB.A6: Proportion</li> </ul>	<ul style="list-style-type: none"> <li>EB.F2,4-5,7: Graphs of Quadratic, Cubic and Rational Functions</li> <li>10.20: Quadratic Functions</li> <li>10.22: Inequalities</li> <li>EA.23.6: Algebraic Proofs</li> <li>EA.28: Introduction to Calculus</li> <li>H.MSL.5B-F: Transforming Functions</li> <li>10.18: Exponential and Logarithmic Functions</li> </ul>
<i>Geometry and Trigonometry</i>	<ul style="list-style-type: none"> <li>7.2A-E: Angles and Lines</li> <li>7.10: Polygons</li> <li>7.11: Measurement: Length and Area</li> <li>7.17A-C: Circles</li> </ul>	<ul style="list-style-type: none"> <li>8.9: The Geometry of Polygons</li> <li>8.11: Length and Area</li> <li>7.16: Solids</li> <li>8.13: Further Measurement</li> <li>8.18: Similarity and Congruence</li> <li>7.19: Transformations</li> </ul>	<ul style="list-style-type: none"> <li>9.7: Measurement</li> <li>9.20: Congruence and Similarity</li> <li>9.16: Transformation Geometry</li> <li>9.13: Trigonometry</li> </ul>	<ul style="list-style-type: none"> <li>10.5: Pythagoras' Theorem</li> <li>10.7: Congruence and Similarity</li> <li>10.12: Trigonometry</li> <li>10.19: Deductive Geometry</li> </ul>	<ul style="list-style-type: none"> <li>10.17A-G: Vectors</li> <li>10.21A-H: Advanced Trigonometry</li> </ul>
<i>Statistics &amp; Probability</i>	<ul style="list-style-type: none"> <li>7.15: Probability</li> <li>7.18: Statistics</li> </ul>	<ul style="list-style-type: none"> <li>8.16A-C,F: Probability</li> <li>8.20: Statistics</li> </ul>	<ul style="list-style-type: none"> <li>9.14: Probability</li> <li>Ø3.U8: Statistics</li> </ul>	<ul style="list-style-type: none"> <li>10.2: Sets and Venn Diagrams</li> <li>10.13: Probability</li> </ul>	<ul style="list-style-type: none"> <li>10.9A-G: Statistics</li> </ul>
					<ul style="list-style-type: none"> <li>Review of topics in preparation for the IGCSE Math A exam</li> </ul>

## K. International School Tokyo – Mathematics Extended Level Scope and Sequence – Grades 6 – 10

	Grade 6 Key Stage 3 Tier 6-8 Haese Mathematics 8	Grade 7 iLowerSecondary Mathematics Haese Mathematics 9	Grade 8 IGCSE Mathematics B Haese Mathematics 10E	Grade 9 IGCSE Mathematics B Haese Mathematics 10E	Grade 10 IGCSE Further Pure Mathematics Pearson Edexcel Further
<i>Number (Extended)</i>	<ul style="list-style-type: none"> <li>8.1: Number</li> <li>8.3: Real Numbers and Ratio</li> <li>8.5: Percentage</li> <li>8.10: Radicals and Pythagoras</li> </ul>	<ul style="list-style-type: none"> <li>9.2: Indices</li> <li>9.24: Proportion</li> </ul>	<ul style="list-style-type: none"> <li>9.12: Financial Mathematics</li> <li>10.1: Indices</li> <li>10.4: Radicals and Surds</li> <li>EA.1.3-1.6: Rounding</li> </ul>	<ul style="list-style-type: none"> <li>10.16: Number Sequences</li> </ul>	<ul style="list-style-type: none"> <li>1: Logarithmic Functions and Indices</li> <li>5: Series</li> <li>6: Binomial Series</li> </ul>
<i>Algebra (Extended)</i>	<ul style="list-style-type: none"> <li>7.7: Algebraic Expressions</li> <li>8.4: Algebraic Operations</li> <li>8.7E-H: Laws of Algebra</li> <li>8.8: Equations</li> <li>8.17A-B: Problem Solving</li> <li>8.19A-B: Algebraic Factorisation</li> <li>8.14: Coordinate Geometry</li> </ul>	<ul style="list-style-type: none"> <li>9.4: Algebraic Expansion</li> <li>9.11: Algebraic Fractions</li> <li>9.15: Formulae</li> <li>9.6: Linear Equations and Inequalities</li> <li>9.19A-D: Simultaneous Equations</li> <li>9.9: Quadratic Factorisation</li> <li>9.18A-C: Quadratic Equations</li> <li>9.8: Coordinate Geometry</li> <li>03.U3: Sequences and Graphs</li> </ul>	<ul style="list-style-type: none"> <li>10.3: Algebraic Expansion and Factorisation</li> <li>10.10: Algebraic Fractions</li> <li>10.14: Formulae</li> <li>EB.F2: Simultaneous Equations and Inequalities</li> <li>10.11A-E: Quadratic Equations</li> <li>10.15A-E,G: Relations and Functions</li> <li>EB.F3: Travel Graphs</li> <li>EB.A6: Proportion</li> </ul>	<ul style="list-style-type: none"> <li>EB.F4-5,7: Graphs of Quadratic, Cubic and Rational Functions</li> <li>10.20: Quadratic Functions</li> <li>10.22: Inequalities</li> <li>10.24: Polynomials</li> <li>10.28: Matrices</li> <li>EA.23.6: Algebraic Proofs</li> <li>EB.F8-9: Introduction to Differential Calculus</li> </ul>	<ul style="list-style-type: none"> <li>2: The Quadratic Function</li> <li>3: Identities and Inequalities</li> <li>4: Graphs</li> <li>9: Calculus</li> </ul>
<i>Geometry and Trigonometry (Extended)</i>	<ul style="list-style-type: none"> <li>7.2A-E: Angles and Lines</li> <li>7.17A-C: Circles</li> <li>8.9: The Geometry of Polygons</li> <li>8.11: Length and Area</li> <li>7.16: Solids</li> <li>8.13: Further Measurement</li> </ul>	<ul style="list-style-type: none"> <li>9.7: Measurement</li> <li>9.20: Congruence and Similarity</li> <li>9.16: Transformation Geometry</li> <li>9.13: Trigonometry</li> </ul>	<ul style="list-style-type: none"> <li>10.5: Pythagoras' Theorem</li> <li>10.7: Congruence and Similarity</li> <li>10.12: Trigonometry</li> <li>10.19: Deductive Geometry</li> </ul>	<ul style="list-style-type: none"> <li>10.17: Vectors</li> </ul>	<ul style="list-style-type: none"> <li>7: Scalar and Vector Quantities</li> <li>8: Rectangular Cartesian Coordinates</li> <li>10: Trigonometry</li> </ul>
<i>Statistics &amp; Probability (Extended)</i>	<ul style="list-style-type: none"> <li>8.16A-C,F: Probability</li> <li>8.20: Statistics</li> </ul>	<ul style="list-style-type: none"> <li>9.14: Probability</li> <li>03.U8: Statistics</li> </ul>	<ul style="list-style-type: none"> <li>10.2: Sets and Venn Diagrams</li> <li>10.13: Probability</li> </ul>	<ul style="list-style-type: none"> <li>10.9A-G: Statistics</li> </ul>	<ul style="list-style-type: none"> <li>11: Statistics and Probability</li> </ul>
				<ul style="list-style-type: none"> <li>Review of topics in preparation for the IGCSE Math B exam</li> </ul>	<ul style="list-style-type: none"> <li>Review of topics in preparation for the IGCSE Further Pure exam</li> </ul>

## K. International School Tokyo – Mathematics Standard Level Scope & Sequence (Grade 8)

### Textbook: Mathematics for the International Student 9 (MYP 4) (2nd edition)

#### Branch 1 – Number

##### Indices – 9.2

- Simplify simple algebraic expressions involving powers, using the index laws (A8.1A)
  - Round numbers to a given number of significant figures<sup>\*1</sup> (N9.1A)
  - Solve problems where answers are required to a specified number of significant figures<sup>\*1</sup> (N9.1B)
- Use index notation and index laws for positive and negative integer powers, including zero (A9.1F)
- Understand negative and 0 indices (N9.1C)
  - Use powers of 10 and their prefixes (N9.1D)
  - Find upper and lower bounds for discrete data<sup>\*2</sup> (N9.1E)
  - Write large and small numbers using standard form (N9.3A)
  - Enter and read standard-form numbers on a calculator (N9.3B)
  - Order numbers written in standard form (N9.3C)
  - Add, subtract, multiply and divide numbers in standard form and be able to solve problems involving standard-form calculations (N9.3D)

<sup>\*1</sup>Supplement with (KS3 Maths Progress  $\delta$  TWO – Unit 1 Factors and powers 1.4)

<sup>\*2</sup>Supplement with (KS3 Maths Progress  $\delta$  THREE – Unit 7 Accuracy and measures 7.3)

##### Proportion – 9.24

- Calculate an unknown quantity from quantities that vary in direct proportion (N9.4A)
- Identify a proportional relationship between sets of data (N9.4B)
- Solve word problems using ratio and/or proportion (N9.4C)
- Write equations to represent direct proportion (A9.2E)
- Identify a directly proportional relationship from a graph (A8.3E)

#### Branch 2 – Algebra

##### Algebraic Expansion, Algebraic Fractions, Formulae – 9.4, 9.11, 9.15

- Expand brackets by multiplying a single positive number term over a bracket (A7.1E)
- Expand and simplify expressions involving brackets by multiplying a negative number term, or terms involving letters and numbers, over a bracket (A8.1C)
- Expand the product of two linear expressions (where both expressions have  $x$  coefficient 1) (A9.1G)
- Substitute values into a formula and find the value of a variable that is not the subject (A9.1C)
- Change the subject of a simple formula, involving any of the four operations, powers or roots (A9.1D)
- The manipulation of simple algebraic fractions, the denominators being numerical, linear or quadratic (B.3F)

##### Linear Equations and Inequalities, Simultaneous Equations – 9.6, 9.19A-D

- Expand brackets by multiplying a single positive number term over a bracket (A7.1E)
- Find pairs of numbers that satisfy a linear equation with two unknowns (A8.2A)
- Solve 1-step linear equations with integer coefficients, with one unknown, with the unknown on either side of the equation (A8.2B)
- Solve 2-step linear equations (including those with one set of brackets) with integer coefficients, with one unknown, with the unknown on either side of the equation (A8.2C)
- Solve problems by writing and solving linear equations (A8.2D)
- Construct and solve equations with the unknown on both sides (A9.2A)
- Construct and solve equations with the unknown on both sides and including brackets and fractions (A9.2B)
- Solve linear inequalities in one unknown (A9.3A)
- Understand and use symbols relating to inequality (A9.3B)
- Represent solutions to linear inequalities on a number line (A9.3C)
- Solve a pair of simultaneous linear equations (A9.2F)
- Solve problems involving simultaneous linear equations or direct proportion (A9.2G)
- Solve a pair of linear simultaneous equations by drawing graphs (A9.5E)

##### Quadratic Factorisation, Quadratic Equations – 9.9, 9.18A-C

- Factorise expressions (A8.1D)
- Factorise quadratic expressions of the form  $x^2 + bx + c$  (where the squared term has coefficient 1) (A9.1H)
- Solve equations involving an  $x^2$  term and a number (A9.2C)
- Solve quadratic equations of the form  $x^2 + bx + c = 0$  by factorising (where the squared term has coefficient 1) (A9.2D)

##### Coordinate Geometry – 9.8

- Find the distance between two points

- Find the gradient of the line through two points
- Recognise the properties of parallel and perpendicular lines
- Find the midpoint of a line segment, given the coordinates of the end points (A7.3D)
- Solve problems involving coordinates and straight lines (A7.3E)
- Write the equation of a straight-line graph in the form  $y = mx + c$  (A8.3G)
- Recognise that equations of the form  $y = mx + c$  are straight-line graphs, and state their gradient ( $m$ ) and intercept ( $0, c$ ) (A9.5B)
- Compare linear graphs using their equations, including parallel graphs (A9.5C)
- Draw graphs with equations of the form  $y = mx + c$  and  $ax + by = c$  (A9.5D)

## Sequences and Non-Linear Graphs – KS3 Maths Progress $\theta$ THREE – Unit 8 Sequences and Graphs 8.1-8.2, 8.7-8.8

- Describe simple pattern or number sequences (A7.2A)
- Find or generate terms of a sequence using a term-to-term rule (A7.2B)
- Recognise different types of sequence (A7.2C)
- Generate terms of a sequence using a simple position-to-term rule given in words (A7.2D)
- Use linear expressions to describe the  $n$ th term of simple sequences (A7.2E)
- Solve problems involving sequences (A7.2F)
- Use the  $n$ th term to generate a linear or quadratic sequence (A9.4A)
- Find the  $n$ th term of an arithmetic sequence (A9.4B)
- Recognise and continue more complex geometric sequences (A9.4C)
- Solve problems involving sequences (A9.4D)
- Draw graphs of quadratic functions (A9.5F)
- Draw and interpret non-linear graphs for real-life contexts (A8.3D)
- Solve problems by sketching, drawing and interpreting real-life linear and quadratic graphs (A9.5G)

## Branch 3 – Geometry and Trigonometry

### Measurement, Congruence and Similarity – 9.7, 9.20

- Convert between metric units of measures of length, mass and capacity, up to and including three decimal places (G7.1A)
- Solve problems in everyday contexts involving measures and conversions (G7.1B)
- Work out the perimeters of regular and irregular polygons, when not all lengths are given, including compound shapes (G7.1C)
- Calculate the areas of squares and rectangles and shapes made from rectangles (G7.1D)
- Solve perimeter and area problems (G7.1E)
- Derive, know and use the formula for the area of a triangle (G8.1A)
- Calculate the area of compound shapes made from rectangles and triangles (G8.1B)
- Derive, know and use the formula for the area of a parallelogram (G8.1C)
- Know and use the formula for the area of a trapezium (G8.1D)
- Solve problems in everyday contexts involving measures (G8.1K)
- Calculate the circumference of a circle (G9.1E)
- Calculate the area of a circle (G9.1F)
- Calculate the volume of cubes and cuboids and 3D solids made from cuboids (G8.1E)
- Calculate the surface area of cubes and cuboids (G8.1H)
- Solve problems involving area, surface area and volume (G8.1I)
- Convert between metric units of measure of area, volume and capacity (G8.1J)
- Identify a right prism (G9.1G)
- Calculate the volume and surface area of a right prism and a cylinder (G9.1H)
- Solve problems involving circles or prisms (G9.1I)
- Use congruent shapes to solve problems about triangles and quadrilaterals (G9.4A)
- Identify two shapes that are mathematically similar (G9.4B)
- Solve problems involving similar triangles (G9.4C)
- Weights, measures and money, including calculations using standard units of mass, length, area, volume and capacity, time and average speed (B.1G)
- Length, area and volume (B.7A)
- Mensuration of two-dimensional shapes, rectangle, parallelogram, trapezium, triangle, circle (B.7B)
- Mensuration of three-dimensional shapes, right circular cylinder, right circular cone and sphere, cuboid, pyramid, prism (B.7C)
- Length of an arc, area of a sector of a circle (B.7D)

### Transformation Geometry – 9.16

- Translate 2D shapes (G7.5A)
- Recognise and describe rotational symmetry\*<sup>1</sup> (G7.4A)
- Identify and describe all the symmetries of common 2D shapes (reflection and rotation)\*<sup>1</sup> (G7.4B)
- Identify reflection symmetry in common 3D solids\*<sup>1</sup> (G7.4C)
- Recognise and carry out reflections in a mirror line (G7.5B)
- Reflect a shape on a coordinate grid; describe a reflection on a coordinate grid (G7.5B)
- Recognise and draw rotations about a centre of rotation (G7.5C)
- Rotate a shape on a coordinate grid; describe a rotation on a coordinate grid (G7.5D)

- Transform 2D shapes by combinations of rotations, reflections and translations (G7.5E)
- Identify congruent shapes (G7.5F)
- Enlarge shapes using positive-integer scale factors (without a centre of enlargement) (G7.5G)
- Work out the scale factor given an object and its image (G7.5H)
- Work out the scale factor of an enlargement (G9.2A)
- Enlarge shapes using positive and fractional scale factors, about a centre of enlargement (G9.2B)
- Enlarge shapes using negative scale factors, about a centre of enlargement<sup>\*2</sup> (G9.2B)
- Describe an enlargement on a coordinate grid (G9.2C)
- Understand and use column vectors in translations (G9.2D)
- Geometrical properties of Euclidean space (B.6A)
- Symmetry about a point, line or plane (B.6B)
- \*<sup>1</sup>Supplement with (KS3 Maths Progress  $\theta$  ONE – Unit 10 Transformations 10.2)
- \*<sup>2</sup>Supplement with (KS3 Maths Progress  $\delta$  TWO – Unit 5 Transformations 5.4-5.5)

## Trigonometry – 9.13

- **Use and interpret scales on maps and diagrams (G9.1A)**
- **Describe, use and interpret 3-figure bearings (G9.1B)**
- **Solve problems involving 3-figure bearings and/or scale drawings (G9.1C)**
- **Know, understand and use sine, cosine and tangent of acute angles to calculate lengths in a right-angled triangle (G9.5C)**
- **Solve problems involving right-angled triangles (G9.5D)**
- **Use trigonometry to calculate lengths and angles in a right-angled triangle (G9.5E)**
- Solution of problems involving two and three dimensions by calculation and drawing (B.9B)
- Angles of elevation and depreciation (B.9C)

## Branch 4 – Statistics and Probability

### Statistics – KS3 Maths Progress $\theta$ THREE – Unit 3 Dealing with data

- Identify sources of primary and secondary data (S9.1A)
- Choose a suitable sample size and what data to collect (S9.1B)
- Identify factors that might affect data collection and plan to reduce bias (S9.1C)
- Analyse and write questions for a questionnaire (S9.1D)
- Design and use data collection sheets and tables (S9.1E)
- Estimate the range from a grouped frequency table (S9.1F)
- Calculate an estimate of the mean from a grouped frequency table (S9.1G)
- Calculate the mode from a grouped frequency table
- Identify and suggest reasons for outliers in data (S9.1H)
- Solve problems by collecting and analysing data (S9.1I)
- Know and use correct set language and notation (S9.1J)
- Draw and interpret frequency polygons (S9.2B)
- Choose the most appropriate average to use<sup>\*1</sup> (S8.1B)
- Compare two sets of data using statistics or the shape of the graph<sup>\*2</sup> (S8.1C)
- Solve problems involving comparing data<sup>\*2</sup> (S8.1D)
- Explain why a graph or chart is misleading<sup>\*2</sup> (S8.2G)
- Draw and interpret scatter graphs (including correlation)<sup>\*2</sup> (S8.2E)
- Draw a line of best fit by eye on a scatter graph<sup>\*2</sup> (S8.2F)
- Draw and use a line of best fit on a scatter graph, to predict data values<sup>\*2</sup> (S9.2A)
- \*<sup>1</sup>Supplement with (KS3 Maths Progress  $\theta$  ONE – Unit 1 Analysing and displaying data 1.4)
- \*<sup>2</sup>Supplement with (KS3 Maths Progress  $\theta$  TWO – Unit 3 Statistics, graphs and charts 3.4-3.6)

## Probability – 9.14

- Present the possible outcomes of single events, or two successive events (including in lists, tables, Venn diagrams and sample space diagrams)<sup>\*</sup> (S9.3A)
- Calculate probabilities from possible outcomes presented in different ways (S9.3B)
- Identify mutually exclusive events (S9.3C)
- Compare probabilities (S9.3D)
- Compare experimental and theoretical probabilities (S9.3E)
- Calculate the probability of two independent events (S9.3F)
- Use the tree diagrams to calculate the probability of independent events (S9.3G)
- Solve problems involving probability (S9.3H)
- \*<sup>2</sup>Supplement with (KS3 Maths Progress  $\theta$  THREE – Unit 9 Probability, 9.3)

## Review of Topics in Preparation for the iLowerSecondary Mathematics Exam

## K. International School Tokyo – Mathematics Extended Level Scope & Sequence (Grade 8)

### Textbook: Mathematics for the International Student 10 (MYP 5) (3rd edition)

#### Branch 1 – Number

##### Financial Mathematics – 9.12

- Efficient use of a calculator to solve problems involving percentages, for example simple interest and compound interest, including depreciation
- Solve problems involving repeated percentage change

##### Indices, Radicals and Surds – 10.1, 10.4

- Indices, powers and roots including index notation and index laws for multiplication and division involving integers, fractional and negative powers (B.1C)
- Simple manipulation of surds (B.1D)
- Rationalising the denominator (B.1E)
- Natural numbers, integers, rational and irrational numbers (B.1F)
- Numbers in standard form (B.1K)

##### Rounding – Edexcel Mathematics A Chapter 1.3-1.6

- Express numbers to a given degree of accuracy (B.1I)
- **Carry out rounding appropriate to a context**
- **Write terminating and recurring decimals as exact fractions**
- Solve problems using upper and lower bounds where values are given to a degree of accuracy (B.1J)
- **Select and justify appropriate degrees of accuracy**

#### Branch 2 – Algebra

##### Algebraic Expansion and Factorisation, Algebraic Fractions and Formulae – 10.3, 10.10, 10.14

- The basic processes of algebra, including expansion and factorisation (B.3A)
- The construction, interpretation and use of formulae and their manipulation, including change of subject of a formula and substitution (B.3B)
- The factorisation of simple algebraic expressions (B.3C)
- The manipulation of simple algebraic fractions, the denominators being numerical, linear or quadratic (B.3F)

##### Quadratic Equations – 10.11A-E

- Solution of equations of 2<sup>nd</sup> degree containing one unknown quantity (B3.G)
- Solve quadratic equations by factorisation
- Solve quadratic equations by using the quadratic formula
- Set up and solve quadratic equations from data given in a context
- The manipulation of quadratic expressions
- The roots of a quadratic equation

##### Simultaneous Equations and Inequalities – Edexcel Math B – Functions and graphs Unit 2

- Solution of linear simultaneous equations in two unknowns<sup>\*1</sup> (B.3I)
- Setting up and solving problems using simultaneous equations<sup>\*1</sup>
- Solving simultaneous equations by a graphical method (B.3I)
- Solve simultaneous equations in two unknowns, one equation being linear and the other being quadratic<sup>\*2</sup> (B.3I)
- Understanding and using the symbols  $>$ ,  $<$ ,  $\geq$ ,  $\leq$
- Understanding and using the convention for open and closed intervals on a number line
- Solution of linear inequalities, and the representations of solutions on the number line and two-dimensional space<sup>\*3</sup> (B3.J)
- Graphical solution of simultaneous linear inequalities (B3.J)

<sup>\*1</sup>Supplement with (Edexcel Math B – Algebra Unit 3)

<sup>\*2</sup>Supplement with (Edexcel Math A – Advanced algebra Ex. 23.4)

<sup>\*3</sup>Supplement with (Edexcel Math B – Algebra Unit 2 Ex. 41)

##### Relations and Functions – 10.15A-E,G

- The idea of a function of a variable (B.4A)
- Function as a mapping or as a correspondence between the elements of two sets (B.4B)
- Use functional notations of the form  $f(x) = \dots$  and  $f: x \mapsto$  (B.4C)
- Domain and range of a function (B.4D)
- Composite functions (B.4E)
- Inverse functions (B.4F)

##### Travel Graphs – Edexcel Math B – Functions and graphs Unit 3

- Draw and interpret linear graphs representing real-life situations, including speed/time and distance/time graphs (B.4M)
- Draw and interpret non-linear graphs representing real-life situations
- Understand and use the relationship between average speed, distance and time

## Proportion – Edexcel Math B – Algebra Unit 6

- Variation, direct and indirect proportion (B.4G)
- Graphical representation of direct and inverse proportion

## Branch 3 – Geometry and Trigonometry

### Pythagoras' Theorem – 10.5

- Use of Pythagoras' theorem in 2D and 3D (B.6F)

### Congruence and Similarity – 10.7

- Similarity: areas and volumes of similar figures (B.6G)
- Prove the similarity of two triangles (B.6H)
- Congruent shapes (B.6I)
- Understand and use SSS, SAS, ASA and RHS conditions to prove the congruence of triangles (B.6J)

### Trigonometry – 10.12

- Use sine, cosine and tangent of angles up to  $180^\circ$  (B.9A)
- Use the sine rule and the cosine rule for any triangle (B.9B)
- Use  $\frac{1}{2}ab \sin c$  for the area of a triangle (B.9B)
- Angles of elevation and depreciation (B.9C)
- Bearings (B.9D)

### Deductive Geometry – 10.19

- Constructions of bisector of an angle and of perpendicular bisector (mediator) of a straight line<sup>\*1</sup> (B.6N)
- Chord, angle and tangent properties of circles, including the intersecting chord properties (both internal and external) and the alternate segment theorem<sup>\*2</sup> (B.6K)
- Properties of a cyclic quadrilateral (B.6L)
- Loci in two dimensions (B.6M)

<sup>\*1</sup>Supplement with (Edexcel Math B – Mensuration, geometry and trigonometry Unit 1 Ex. 20)

<sup>\*2</sup>Supplement with (Edexcel Math B – Mensuration, geometry and trigonometry Unit 6)

## Branch 4 – Statistics and Probability

### Sets and Venn Diagrams – 10.2

- The idea of a set (B.2A)
- Set language and notation (B.2B)
- Union and intersection of sets (B.2C)
- Number of elements in a set  $n(A)$  (B.2D)
- Complementary sets  $A'$  (B.2E)
- Subsets, including  $\subset$  notation (B.2F)
- Universal set, null set (B.2G)
- Venn diagrams and their use in simple logical problems (B.2H)
- Use of symbols to represent sets (B.2I)

### Probability – 10.13

- Understand the language and basic concepts of probability, including probability scale, sample spaces, relative frequency, probabilities and complements (B.10E)
- Use of addition rule for two or more mutually exclusive events (B.10F)
- Use of product rule for two or more independent events (B.10G)
- Determination of the probability of two or more independent events, including through the use of tree diagrams (B.10H)
- Using simple conditional probability for combined events (B.10I)
- Finding simple conditional probability (B.10J)
- Understand and use the term 'expected frequency' (B.10K)

## KIST Language and Literature English Vertical and Horizontal Plan

	Unit One	Unit Two	Unit Three	Unit Four	Unit Five	Unit Six
Grade 6	<b>The Shape of Our Destiny</b> <b>Global Context:</b> Orientation in Space and Time <b>Key Concept:</b> Communication <b>Text:</b> 'Holes' by Louis Sachar	<b>The Hero's Journey</b> <b>Global Context:</b> Personal and Cultural Expression <b>Key Concept:</b> Creativity <b>Text:</b> Selected myths, legends and folktales of various national origins	<b>Poetry</b> <b>Global Context:</b> Personal and cultural expression <b>Key Concept:</b> Creativity <b>Text:</b> A selection of poems	<b>Friendship and Loss</b> <b>Global Context:</b> Identities and Relationships <b>Key Concept:</b> Connections <b>Text:</b> 'Bridge to Terabithia' by Katherine Patterson	<b>Stories of Freedom and Survival</b> <b>Global Context:</b> Identities and Relationships <b>Key Concept:</b> Creativity <b>Text:</b> 'True Confessions of Charlotte Doyle' by Avi	<b>Speak Up! – The Importance of Rhetoric</b> <b>Global Context:</b> Globalization and Sustainability <b>Key Concept:</b> Communication <b>Texts:</b> A selection of speeches
Grade 7	<b>Vignettes of the Self</b> <b>Global Context:</b> Orientation in time and space <b>Key Concept:</b> Perspective <b>Text:</b> 'The House on Mango Street' by Sandra Cisneros	<b>Timeline of Poetry</b> <b>Global Context:</b> Personal and cultural expression <b>Key Concept:</b> Creativity <b>Text:</b> A selection of poems	<b>Good Things Come in Small Packages</b> <b>Global Context:</b> Personal and Cultural expression <b>Key Concept:</b> Creativity <b>Text:</b> selection of short stories	<b>A Perfect Society</b> <b>Global Context:</b> Identities and Relationships <b>Key Concept:</b> Connections <b>Text:</b> 'The Giver' by Lois Lowry	<b>Film as Text</b> <b>Global Context:</b> Personal and Cultural expression <b>Key Concept:</b> Communication <b>Text:</b> 'Lion' by Garth Davis	<b>Marketing the Magic! Theme Park Project</b> <b>Global Context:</b> Personal and Cultural expression <b>Key Concept:</b> Communication
Grade 8	<b>Welcome Fires – Writing for Community and Empathy</b> <b>Global Context:</b> Identities and Relationships <b>Key Concept:</b> Personal and Cultural Expression <b>Text:</b> 'Orchards' by Holly Thompson	<b>The W(hole) Truth - Language and the News</b> <b>Global Context:</b> Orientation in time and space <b>Key Concept:</b> Communication <b>Text:</b> Online local and global news resources	<b>The Centre Cannot Hold</b> <b>Global Context:</b> Identities and relationships <b>Key Concept:</b> Perspective <b>Text:</b> 'Things Fall Apart' by Chinua Achebe	<b>Tales from Tokyo's Past</b> <b>Global Context:</b> Orientation in time and space <b>Key Concept:</b> Connections <b>Text:</b> selection of 20 <sup>th</sup> cent. Japanese short stories in translation	<b>Violent Delights, Violent Ends</b> <b>Global Context:</b> Personal and cultural expression <b>Key Concept:</b> Perspectives <b>Text:</b> 'Romeo and Juliet' by William Shakespeare	<b>Walls! Film Festival</b> <b>Global Context:</b> Personal and cultural expression <b>Key Concept:</b> Perspective <b>Text:</b> 'October Sky' directed by Joe Johnston

## KIST Language and Literature English Objectives (Grade 8)

	In order to:	Students need to understand that:
<b>Objective A: Analysing</b>		
i	<b>Identify</b> and <b>explain</b> the content, context, language, structure, technique and style of text(s) and <b>explain</b> the relationships among texts	Textual analysis involves identifying and explaining the content, context, language, structure, technique and style, and explaining the relationships among texts
ii	<b>Identify</b> and <b>explain</b> the effects of the creator's choices on an audience	Creators can make choices to produce an effect on an audience
iii	<b>Justify</b> opinions and ideas, using examples, explanations and terminology	Opinions and ideas need to be supported with examples and explained using appropriate terminology
iv	<b>Interpret</b> similarities and differences in features within and between genres and texts	Conclusions can be made regarding the similarities and differences in features within and between genres and texts
<b>Objective B: Organising</b>		
i	<b>Employ</b> organizational structures that serve the context and intention	The organizational structure of texts varies according to the genre, purpose and audience
ii	<b>Organize</b> opinions and ideas in a logical manner	When ideas and opinions are ordered in a logical and coherent manner, communication is clear and effective
iii	<b>Use</b> referencing and formatting tools to create a presentation style suitable to the context and intention	Ideas and information gathered from sources need to be referenced and formatted correctly according to the purpose and context
<b>Objective C: Producing Texts</b>		
i	<b>Produce texts</b> that demonstrate thought, imagination and sensitivity while <b>exploring and considering</b> new perspectives and ideas arising from personal engagement with the creative process	Creators of texts can explore and consider ideas in new ways through personal engagement with the creative process
ii	<b>Make stylistic choices</b> in terms of linguistic, literary and visual devices, <b>demonstrating awareness</b> of impact on an audience	The linguistic, literary and visual choices that creators make impact on an audience
iii	<b>Select</b> relevant details and examples to develop ideas	Ideas are developed through the use of relevant details and examples
<b>Objective D: Using language</b>		
i	<b>Use</b> appropriate and varied vocabulary, sentence structures and forms of expression	Effective communication relies on appropriate and varied use of vocabulary, sentence structure and forms of expression
ii	<b>Write</b> and <b>speak</b> in an appropriate register and style	The register and style of writing and speaking needs to suit the audience and purpose
iii	<b>Use</b> correct grammar, syntax and punctuation	Correct grammar, syntax and punctuation are necessary for clear communication
iv	<b>Spell</b> (alphabetic languages), <b>write</b> (character languages) and <b>pronounce</b> with accuracy	Correct spelling, character formation and pronunciation are necessary for clear communication
v	<b>Use</b> appropriate non-verbal communication techniques	The use of appropriate non-verbal techniques can enhance oral communication

## KIST Sciences Vertical and Horizontal Plan 6-8 MYP Structure

	<b>New</b> G6 iLowerSecondary	G7	G8
1	Science skills – Introduction to Science	Structure and function of living organisms and reproduction	Nature of living organisms and structure and function in organisms
2	Structure and function of living organisms and reproduction	Cells and genetics	Ecology and the environment
3	Matter (1)	Matter (2)	Principles of Chemistry
4	Energy	Reactivity of metals	Inorganic Chemistry
5	Fit and healthy	Light, sound and waves	Solids, liquids and gases
6	Earth and atmosphere	Space and Gravity	Energy resources and energy transfers

## Sciences objectives and concepts unit plan (Grade 8)

### Unit 1 – Nature of living organisms and Structure and function in organisms (part 1)

- Understand how living organisms share the following characteristics:
  - they require nutrition
  - they respire
  - they excrete their waste
  - they respond to their surroundings
  - they move
  - they control their internal conditions
  - they reproduce
  - they grow and develop.
- Describe the common features shown by eukaryotic organisms: plants, animals, fungi and protoctists
- Describe the common features shown by prokaryotic organisms such as bacteria
- Understand the term pathogen and know that pathogens may include fungi, bacteria, protoctists or viruses
- Describe the levels of organisation in organisms: organelles, cells, tissues, organs and systems
- Describe cell structures, including the nucleus, cytoplasm, cell membrane, cell wall, mitochondria, chloroplasts, ribosomes and vacuole
- Describe the functions of the nucleus, cytoplasm, cell membrane, cell wall, mitochondria, chloroplasts, ribosomes and vacuole
- Know the similarities and differences in the structure of plant and animal cells
- Identify the chemical elements present in carbohydrates, proteins and lipids (fats and oils)
- Describe the structure of carbohydrates, proteins and lipids as large molecules made up from smaller basic units: starch and glycogen from simple sugars, protein from amino acids, and lipid from fatty acids and glycerol
- *Practical: investigate food samples for the presence of glucose, starch, protein and fat*
- Understand the role of enzymes as biological catalysts in metabolic reactions
- Understand how temperature changes can affect enzyme function, including changes to the shape of active site
- *Practical: investigate how enzyme activity can be affected by changes in temperature*
- Understand how enzyme function can be affected by changes in pH altering the active site
- **Movement of substances into and out of cells**
- Understand the processes of diffusion, osmosis and active transport by which substances move into and out of cells
- Understand how factors affect the rate of movement of substances into and out of cells, including the effects of surface area to volume ratio, distance, temperature and concentration gradient
- *Practical: investigate diffusion and osmosis using living and non-living systems*

### Unit 2 – Ecology and the environment

- Understand the terms population, community, habitat and ecosystem
- Understand how abiotic and biotic factors affect the population size and distribution of organisms
- Understand the names given to different trophic levels, including producers, primary, secondary and tertiary consumers and decomposers
- Understand the concepts of food chains, food webs, pyramids of number, pyramids of biomass and pyramids of energy transfer
- Understand the transfer of substances and energy along a food chain
- Understand why only about 10% of energy is transferred from one trophic level to the next
- Describe the stages in the carbon cycle, including respiration, photosynthesis, decomposition and combustion
- Understand the biological consequences of pollution of air by sulfur dioxide and carbon monoxide
- Understand that water vapour, carbon dioxide, nitrous oxide, methane and CFCs are greenhouse gases
- Understand how human activities contribute to greenhouse gases
- Understand how an increase in greenhouse gases results in an enhanced greenhouse effect and that this may lead to global warming and its consequences
- Understand the biological consequences of pollution of water by sewage
- Understand the biological consequences of eutrophication caused by leached minerals from fertilizer

### Unit 3 – Principles of chemistry (part 1)

- Understand the three states of matter in terms of the arrangement, movement and energy of the particles
- Understand the interconversions between the three states of matter in terms of:
  - the names of the interconversions
  - how they are achieved
  - the changes in arrangement, movement and energy of the particles.
- Understand how the results of experiments involving the dilution of coloured solutions and diffusion of gases can be explained
- Know what is meant by the terms:
  - solvent
  - solute

- solution
- saturated solution.
- Understand how to classify a substance as an element, compound or mixture
- Understand that a pure substance has a fixed melting and boiling point, but that a mixture may melt or boil over a range of temperatures
- Describe these experimental techniques for the separation of mixtures:
  - simple distillation
  - fractional distillation
  - filtration
  - crystallisation
  - paper chromatography.
- Understand how a chromatogram provides information about the composition of a mixture
- Understand how to use the calculation of  $R_f$  values to identify the components of a mixture
- *Practical: investigate paper chromatography using inks/food colourings*
- Know what is meant by the terms atom and molecule
- Know the structure of an atom in terms of the positions, relative masses and relative charges of sub-atomic particles
- Know what is meant by the terms atomic number, mass number, isotopes and relative atomic mass ( $A_r$ )
- Be able to calculate the relative atomic mass of an element ( $A_r$ ) from isotopic abundances
- Understand how elements are arranged in the Periodic Table:
  - in order of atomic number
  - in groups and periods.
- Understand how to deduce the electronic configurations of the first 20 elements from their positions in the Periodic Table
- Understand how to use electrical conductivity and the acid-base character of oxides to classify elements as metals or non-metals
- Identify an element as a metal or a non-metal according to its position in the Periodic Table
- Understand how the electronic configuration of a main group element is related to its position in the Periodic Table
- Understand why elements in the same group of the Periodic Table have similar chemical properties
- Understand why the noble gases (Group 0) do not readily react
- Write word equations and balanced chemical equations (including state symbols):
- Calculate relative formula masses (including relative molecular masses) ( $M_r$ ) from relative atomic masses ( $A_r$ )
- Know that the mole (mol) is the unit for the amount of a substance
- Understand how to carry out calculations involving amount of substance, relative atomic mass ( $A_r$ ) and relative formula mass ( $M_r$ )
- Calculate reacting masses using experimental data and chemical equations
- Calculate percentage yield
- Understand how the formulae of simple compounds can be obtained experimentally, including metal oxides, water and salts containing water of crystallization
- Know what is meant by the terms empirical formula and molecular formula
- Calculate empirical and molecular formulae from experimental data
- *Practical: know how to determine the formula of a metal oxide by combustion (e.g. magnesium oxide) or by reduction (e.g. copper(II) oxide)*

### Unit 4 – Inorganic chemistry (part 1)

- Understand how the similarities in the reactions of these elements with water provide evidence for their recognition as a family of group 1 elements
- Understand how the differences between the reactions of these elements with air and water provide evidence for the trend in reactivity in Group 1
- Use knowledge of trends in Group 1 to predict the properties of other alkali metals
- Know the colours, physical states (at room temperature) and trends in physical properties of Group 7
- Use knowledge of trends in Group 7 to predict the properties of other halogens
- Understand how displacement reactions involving halogens and halides provide evidence for the trend in reactivity in Group 7
- Know the approximate percentages by volume of the four most abundant gases in dry air
- Understand how to determine the percentage by volume of oxygen in air using experiments involving the reactions of metals (e.g. iron) and non-metals (e.g. phosphorus) with air
- Describe the combustion of elements in oxygen, including magnesium, hydrogen and Sulfur
- Describe the formation of carbon dioxide from the thermal decomposition of metal carbonates, including copper(II) carbonate
- Know that carbon dioxide is a greenhouse gas and that increasing amounts in the atmosphere may contribute to climate change
- *Practical: determine the approximate percentage by volume of oxygen in air using a metal or a non-metal*
- Understand how metals can be arranged in a reactivity series based on their reactions with:
  - water
  - dilute hydrochloric or sulfuric acid.
- Understand how metals can be arranged in a reactivity series based on their displacement reactions between:
  - metals and metal oxides
  - metals and aqueous solutions of metal salts.
- Know the order of reactivity of these metals: potassium, sodium, lithium, calcium, magnesium, aluminium, zinc, iron, copper, silver, gold
- Know the conditions under which iron rusts
- Understand how the rusting of iron may be prevented by:

- barrier methods
- galvanising
- sacrificial protection.
- Understand the terms:
  - oxidation
  - reduction
  - redox
  - oxidising agent
  - reducing agent
- in terms of gain or loss of oxygen and loss or gain of electrons.
- *Practical: investigate reactions between dilute hydrochloric and sulfuric acids and metals (e.g. magnesium, zinc and iron)*

### **Unit 5 – Solids, liquids and gases**

- Use the following units: degree Celsius (°C), Kelvin (K), joule (J), kilogram (kg), kilogram/metre<sup>3</sup> (kg/m<sup>3</sup>), metre (m), metre<sup>2</sup> (m<sup>2</sup>), metre<sup>3</sup> (m<sup>3</sup>), metre/second (m/s), metre/second<sup>2</sup> (m/s<sup>2</sup>), newton (N) and pascal (Pa)
- Know and use the relationship between density, mass and volume
- *Practical: investigate density using direct measurements of mass and volume*
- Know and use the relationship between pressure, force and area:
- Understand how the pressure at a point in a gas or liquid at rest acts equally in all directions
- Know and use the relationship for pressure difference:
- Explain how molecules in a gas have random motion and that they exert a force and hence a pressure on the walls of a container
- Understand why there is an absolute zero of temperature which is  $-273^{\circ}\text{C}$
- Describe the Kelvin scale of temperature and be able to convert between the Kelvin and Celsius scales
- Understand why an increase in temperature results in an increase in the average speed of gas molecules
- Know that the Kelvin temperature of a gas is proportional to the average kinetic energy of its molecules
- Explain, for a fixed amount of gas, the qualitative relationship between:
  - pressure and volume at constant temperature
  - pressure and Kelvin temperature at constant volume.
- Use the relationship between the pressure and Kelvin temperature of a fixed mass of gas at constant volume:
- Use the relationship between the pressure and volume of a fixed mass of gas at constant temperature:

### **Unit 6 – Energy resources and energy transfers**

- Use the following units: kilogram (kg), joule (J), metre (m), metre/second (m/s), metre/second<sup>2</sup> (m/s<sup>2</sup>), newton (N), second (s) and watt (W)
- Describe energy transfers involving energy stores:
  - energy stores: chemical, kinetic, gravitational, elastic, thermal, magnetic, electrostatic, nuclear
  - energy transfers: mechanically, electrically, by heating, by radiation (light and sound)
- Use the principle of conservation of energy
- Know and use the relationship between efficiency, useful energy output and total energy output:
- Describe a variety of everyday and scientific devices and situations, explaining the transfer of the input energy in terms of the above relationship, including their representation by Sankey diagrams
- Describe how thermal energy transfer may take place by conduction, convection and radiation
- Explain the role of convection in everyday phenomena
- Explain how emission and absorption of radiation are related to surface and temperature
- *Practical: investigate thermal energy transfer by conduction, convection and radiation*
- Explain ways of reducing unwanted energy transfer, such as insulation
- Know and use the relationship between work done, force and distance moved in the direction of the force
- Know that work done is equal to energy transferred
- Know and use the relationship between gravitational potential energy, mass, gravitational field strength and height
- Know and use the relationship:
  - Kinetic energy =  $\frac{1}{2} \times \text{mass} \times \text{speed}^2$
- Understand how conservation of energy produces a link between gravitational potential energy, Kinetic energy and work
- Describe power as the rate of transfer of energy or the rate of doing work
- Use the relationship between power, work done (energy transferred) and time taken

## K. International School Tokyo – Individuals and Societies Scope and Sequence Grades 6-8

	Grade 6	Grade 7	Grade 8
Unit 1	<b>Subject:</b> Geography <b>Topic:</b> Global Citizen <b>Key Concept:</b> Global Interactions <b>Related Concepts:</b> Power, Choice <b>Global Context:</b> Globalization & Sustainability	<b>Subject:</b> Geography <b>Topic:</b> Globalization <b>Key Concept:</b> Change <b>Related Concepts:</b> Globalization; Processes <b>Global Context:</b> Globalization & Sustainability	<b>Subject:</b> Global Politics <b>Topic:</b> How are societies governed? <b>Key Concept:</b> Systems <b>Related Concepts:</b> Power <b>Global Context:</b> Fairness and Development
Unit 2	<b>Subject:</b> Geography <b>Topic:</b> What is Geography? <b>Key Concept:</b> Time, Place, and Space <b>Related Concepts:</b> Scale and Patterns <b>Global Context:</b> Orientation in Space & Time	<b>Subject:</b> Geography <b>Topic:</b> Environmental Conservation <b>Key Concept:</b> Systems <b>Related Concepts:</b> Causality, Management and Intervention, Sustainability <b>Global Context:</b> Globalization & Sustainability	<b>Subject:</b> ITGS <b>Topic:</b> Technology <b>Key Concept:</b> Global Interactions <b>Related Concepts:</b> Perspective, Innovation, Revolution <b>Global Context:</b> Identities and Relationships
Unit 3	<b>Subject:</b> History <b>Topic:</b> What is History? (What can we learn from different civilizations) <b>Key Concept:</b> Time, Place, and Space <b>Related Concepts:</b> Significance, Innovation, Revolution <b>Global Context:</b> Scientific & Technical Innovation	<b>Subject:</b> History <b>Topic:</b> Middle Ages <b>Key Concept:</b> Time, Place, and Space <b>Related Concepts:</b> Perspective, Identity <b>Global Context:</b> Fairness & Development	<b>Subject:</b> Geography <b>Topic:</b> Urban Environments <b>Key Concept:</b> Systems <b>Related Concepts:</b> Patterns and Trends <b>Global Context:</b> Fairness & Development
Unit 4	<b>Subject:</b> Geography <b>Topic:</b> Settlements <b>Key Concept:</b> Change <b>Related Concepts:</b> Processes, Sustainability <b>Global Context:</b> Identities and Relationships	<b>Subject:</b> History <b>Topic:</b> Age of Exploration <b>Key Concept:</b> Global Interactions <b>Related Concepts:</b> Causality <b>Global Context:</b> Orientation in Space & Time	<b>Subject:</b> Sociology <b>Topic:</b> What is Culture? <b>Key Concept:</b> Time, Place, and Space <b>Related Concepts:</b> Culture, Identity <b>Global Context:</b> Personal and Cultural Expression
Unit 5	<b>Subject:</b> History <b>Topic:</b> Diseases that changed History <b>Key Concept:</b> Change <b>Related Concepts:</b> Causality, Significance <b>Global Context:</b> Scientific & Technical Innovation	<b>Subject:</b> Geography <b>Topic:</b> Sustainable Energy <b>Key Concept:</b> Time, Place, and Space <b>Related Concepts:</b> Resources <b>Global Context:</b> Scientific and Technical Innovation	<b>Subject:</b> History <b>Topic:</b> Why do societies experience revolution? <b>Key Concept:</b> Change <b>Related Concepts:</b> Causality, Significance <b>Global Context:</b> Orientation in Space & Time
Unit 6	<b>Subject:</b> Geography <b>Topic:</b> Plate tectonics, earthquakes, and volcanoes <b>Key Concept:</b> Systems <b>Related Concepts:</b> Causality, Networks, Processes <b>Global Context:</b> Orientation in Space & Time <b>IDU with Science</b>	<b>Subject:</b> History <b>Topic:</b> Ideas and Innovations <b>Key Concept:</b> Change <b>Related Concepts:</b> Causality, Innovation, Revolution <b>Global Context:</b> Personal and Cultural expression <b>IDU with English</b>	<b>Subject:</b> Business Management <b>Topic:</b> What is Business? <b>Key Concept:</b> Change <b>Related Concepts:</b> Perspective, Strategy, Structure <b>Global Context:</b> Identities and relationships

## Prescribed Learning Outcomes (Grade 8)

### Unit 1 – How are societies governed?

- *Describe* the features of a monarchy.
- *Explain* how a democracy functions.
- *Explain* how modern democracies have developed.
- *Describe* the features of a totalitarian state.

### Unit 2 – How can new technologies affect our identities and relationships?

- *Describe* some of the major technological breakthroughs in history.
- *Explain* how television has shaped society.
- *Explain* how computers have changed the way we live and work.
- *Discuss* how technology affects our relationships with others.

### Unit 3 – Urban Environments

- *Describe* the basic elements of Human Geography and settlements.
- *Use* photographs to analyse settlements.
- *Explain* how settlements change with time.
- *Identify* and *explain* urbanization trends and patterns.
- *Explain* the reasons for the development of megacities.
- *Explain* the key features of a sustainable city.

### Unit 4 – What is Culture?

- *Demonstrate* an understanding of what culture is.
- *Describe* what is multiculturalism.
- *Describe* how different organizations create their own culture.
- *Demonstrate* an understanding on how culture depends on time, place and space.
- *Discuss* how conflict can threaten culture.
- *Evaluate* whether it is possible to define culture.

### Unit 5 – Why do societies experience revolution?

- *Describe* the features of a revolution.
- *Describe* the different types of a revolution.
- *Describe* the causes and consequences of both the Chinese and Russian Revolution.
- *Explain* the role that propaganda plays in revolutions.
- *Discuss* the factors that determine the significance of an event.
- *Discuss* whether revolutions lead to progress.

### Unit 6 – Business Environment

- *Describe* the main features of the following types of for-profit organizations: sole traders, partnerships, and corporations.
- *Explain* the interests of internal and external stakeholders.
- *Explain* the need for organizations to change objectives and innovate in response to changes in internal and external environments.

## KIST Language Acquisition Japanese Curriculum Content

	Unit One	Unit Two	Unit Three	Unit Four
<b>Grade 6 Japanese</b>	Unit 1: Myself & the Others <b>Global Context:</b> Identities & Relationships <b>Key Concept:</b> Connection <b>Related Concepts:</b> Audience, Convention, Empathy	Unit 2: Family <b>Global Context:</b> Identities & Relationships <b>Key Concept:</b> Connection <b>Related Concepts:</b> Audience, Convention, Empathy	Unit 3: School <b>Global Context:</b> Fairness & Development <b>Key Concept:</b> Culture <b>Related Concepts:</b> Structure, Message, Purpose	Unit 4: Sports and Leisure <b>Global Context:</b> Identities & Relationships <b>Key Concept:</b> Culture <b>Related Concepts:</b> Audience, Patterns, Theme
<b>Grade 7 Intensive English</b>	Unit 1: My Town <b>Global Context:</b> Globalization & Sustainability <b>Key Concept:</b> Connection <b>Related Concepts:</b> Context, Point of view, Purpose	Unit 2: Daily Routine <b>Global Context:</b> Orientation in time & space <b>Key Concept:</b> Communication <b>Related Concepts:</b> Message, Idiom, Purpose	Unit 3: Weather & Seasons <b>Global Context:</b> Globalization & Sustainability <b>Key Concept:</b> Change <b>Related Concepts:</b> Word choice, Context, Idiom	Unit 4: Health <b>Global Context:</b> Identities & Relationships <b>Key Concept:</b> Identity <b>Related Concepts:</b> Purpose, Function, Empathy
<b>Grade 8 Intensive English</b>	Unit 1: Food <b>Global Context:</b> Globalization & Sustainability <b>Key Concept:</b> Culture <b>Related Concepts:</b> Accent, Conventions, Themes	Unit 2: Holidays <b>Global Context:</b> Identities & Relationships <b>Key Concept:</b> Culture <b>Related Concepts:</b> Form, Purpose, Stylistic choices	Unit 3: Entertainment <b>Global Context:</b> Personal & Cultural Expression <b>Key Concept:</b> Creativity <b>Related Concepts:</b> Meaning, Message, Theme	Unit 4: Personal Relationships <b>Global Context:</b> Fairness & Development <b>Key Concept:</b> Communication <b>Related Concepts:</b> Message, Word choice, Voice
<b>Grade 9 Language Acquisition</b>	Unit 1: Career <b>Global Context:</b> Identities & Relationships <b>Key Concept:</b> Connection <b>Related Concepts:</b> Concept, Function, Purpose	Unit 2: Traveling <b>Global Context:</b> Orientation in time & space <b>Key Concept:</b> Creativity <b>Related Concepts:</b> Audience, Structure, Purpose	Unit 3: Short Stories <b>Global Context:</b> Personal & Cultural Expression <b>Key Concept:</b> Creativity <b>Related Concepts:</b> Context, Theme, Form	Unit 4: Japanese Modern Culture <b>Global Context:</b> Personal & Cultural Expression <b>Key Concept:</b> Culture <b>Related Concepts:</b> Function, Audience, Stylistic choice
<b>Grade 10 Language Acquisition</b>	Unit 1: Environment <b>Global Context:</b> Globalization & Sustainability <b>Key Concept:</b> Connection <b>Related Concepts:</b> Message, Point of view, Argument	Unit 2: Media & Technology <b>Global Context:</b> Scientific & Technical Innovation <b>Key Concept:</b> Communication <b>Related Concepts:</b> Meaning, Audience, Bias	Unit 3: Social Issues <b>Global Context:</b> Fairness & Development <b>Key Concept:</b> Connection <b>Related Concepts:</b> Form, Point of view, Argument	Unit 4: Festival <b>Global Context:</b> Personal & Cultural Expression <b>Key Concept:</b> Culture <b>Related Concepts:</b> Patterns, Conventions, Purpose
<b>Grade 11 Language Acquisition (HL Only)</b>	Unit 1: Communication and the media	Unit 2: Global issues	Unit 3: Literature Text: “Bocchan” by Soseki Natsume	Unit 4: Literature Text: “Tasebune” by Ogai Mori.
<b>Grade 12 Language Acquisition (HL Only)</b>	Unit 1: Social relationships	Unit 2: Science & Technology	Unit 3: Customs and Traditions	Unit 4: Leisure

## **Prescribed Learning Outcomes (Grade 8)**

### **Unit 1 – Food**

- Awareness and understanding aspects of the food culture, the cultural significance of food in the local context.
- Reflection on how food is viewed and understood to fulfill the cultural needs of the local society and the various cultures the students represent.
- Analyze the significance of food to the local economy.
- Taking action to introduce their own favorite food to Japanese society .

### **Unit 2 - Holidays**

- Students will learn what kind of Japanese holiday.
- Student will comprehend the origin of Japanese holiday.
- Student will create their own holiday and present in the class.
- Student will consider how Japanese holidays influence to Japanese society.

### **Unit 3 - TV and Entertainment**

- Students will be able to sing at least one J-pop song, understanding the lyrics.
- Student will comprehend TV animation in Japanese and explain why it may be fun.
- Student will examine their favorite Manga as a group project, and present what they found out.
- Student will consider how entertainment influence to Japanese society.

### **Unit 4 - Personal Relationships**

- Discuss the importance of friendships.
- Recognize how to solve the problems in relationships with their friends.
- Learn various expressions for better oral interaction.

## KIST Language and Literature Japanese Vertical and Horizontal Plan

	Unit One	Unit Two	Unit Three	Unit Four
Grade 6	<b>Ikenbun</b> <b>Global Context:</b> Personal & Cultural Expression <b>Key Concept:</b> Communication <b>Related Concepts:</b> Purpose, Point of view, Self-expression, Audience imperative	<b>Yamanashi (Miyasawa Kenji)</b> <b>Global Context:</b> Globalization & Sustainability <b>Key Concept:</b> Perspective <b>Related Concepts:</b> Intertextuality, Point of view, Style	<b>Shinbun - Koukoku</b> <b>Global Context:</b> Fairness & Development <b>Key Concept:</b> Communication <b>Related Concepts:</b> Structure, Point of view, Purpose	<b>Haiku</b> <b>Global Context:</b> Personal & Cultural Expression <b>Key Concept:</b> Creativity <b>Related Concepts:</b> Style, Self-expression, Theme
Grade 7	<b>Senden</b> <b>Global Context:</b> Personal & Cultural Expression <b>Key Concept:</b> Communication <b>Related Concepts:</b> Purpose, Style	<b>Taketori Monogatari</b> <b>Global Context:</b> Orientation in time & space <b>Key Concept:</b> Connection <b>Related Concepts:</b> Character, Point of view, Setting	<b>Edo kara no message</b> <b>Global Context:</b> Personal & Cultural Expression <b>Key Concept:</b> Connection <b>Related Concepts:</b> Theme, Point of view, Setting	<b>Shi</b> <b>Global Context:</b> Identities & Relationships <b>Key Concept:</b> Creativity <b>Related Concepts:</b> Theme, Style, Self-expression
Grade 8	<b>Hyouonbun</b> <b>Global Context:</b> Personal & Cultural Expression <b>Key Concept:</b> Perspective <b>Related Concepts:</b> Genre, Point of view, Context	<b>Tanka</b> <b>Global Context:</b> Personal & Cultural Expression <b>Key Concept:</b> Creativity <b>Related Concepts:</b> Style, Theme, Intertextuality	<b>Media ron</b> <b>Global Context:</b> Personal & Cultural Expression <b>Key Concept:</b> Communication <b>Related Concepts:</b> Purpose, Style, Audience imperative	<b>Dazai Osamu</b> <b>Global Context:</b> Identities & Relationships <b>Key Concept:</b> Perspective <b>Related Concepts:</b> Point of view, Intertextuality, Context
Grade 9	<b>Media ron</b> <b>Global Context:</b> Personal & Cultural Expression <b>Key Concept:</b> Communication <b>Related Concepts:</b> Purpose, Theme, Audience imperative	<b>(Takasebune) Mori Ougai</b> <b>Global Context:</b> Personal & Cultural Expression <b>Key Concept:</b> Perspective	<b>Koten – Tanka - Zuihitsu</b> <b>Global Context:</b> Identities & Relationships <b>Key Concept:</b> Connection <b>Related Concepts:</b> Intertextuality, Genre, Setting	<b>Shi no bunseki</b> <b>Global Context:</b> Personal & Cultural Expression <b>Key Concept:</b> Perspective <b>Related Concepts:</b> Audience imperative, Context, Purpose
Grade 10	<b>Gengo to bunka (shouronbun)</b> <b>Global Context:</b> Personal & Cultural Expression <b>Key Concept:</b> Communication <b>Related Concepts:</b> Setting, Structure, Purpose	<b>Hyouonbun</b> <b>Global Context:</b> Orientation in time & space <b>Key Concept:</b> Perspective <b>Related Concepts:</b> Style, Point of view, Purpose	<b>Zuihitsu</b> <b>Global Context:</b> Personal & Cultural Expression <b>Key Concept:</b> Connection <b>Related Concepts:</b> Point of view, Setting, Theme	<b>Souseki</b> <b>Global Context:</b> Personal & Cultural Expression <b>Key Concept:</b> Perspective <b>Related Concepts:</b> Character, Theme, Self-expression
Grade 11	<b>Part One: Language and cultural Context</b> <b>Learning Outcomes:</b> <ul style="list-style-type: none"> <li>- Analyse how audience and purpose affect the structure and content of texts.</li> <li>- Analyse the impact of language change.</li> <li>- Demonstrate an awareness of how language and meaning are shaped by culture and Context.</li> </ul> <b>Topics:</b> History and Evolution, Language and Gender, Language and the individual, Language and Power <b>Texts:</b> various non-fiction and literary texts. 'Nihongo to Gaikokugo' by Takao Suzuki		<b>Part Four: Literature Critical Study</b> <b>Learning Outcomes:</b> <ul style="list-style-type: none"> <li>- Explore literary works in detail</li> <li>- Analyse elements such as theme and the ethical stance or moral values of literary texts.</li> <li>- Understand and make appropriate use of literary terms.</li> </ul> <b>Texts:</b> 'Okuno Hosomichi' by Basho Matsuo (SL and HL), 'Kokoro' by Souseki Natsume (SL and HL) 'Short Stories: Rashoumon, Hana, Imogayu, Kumono ito'(HL only)	
Grade 12	<b>Part One: Language and cultural Context</b> <b>Learning Outcomes:</b> <ul style="list-style-type: none"> <li>- Analyse how audience and purpose affect the structure and content of texts.</li> <li>- Analyse the impact of language change.</li> <li>- Demonstrate an awareness of how language and meaning are shaped by culture and Context.</li> </ul> <b>Topics:</b> History and Evolution, Language and Gender, Language and the individual, Language and Power <b>Texts:</b> various non-fiction and literary texts. 'Nihongo to Gaikokugo' by Takao Suzuki		<b>Part Four: Literature Critical Study</b> <b>Learning Outcomes:</b> <ul style="list-style-type: none"> <li>- Explore literary works in detail</li> <li>- Analyse elements such as theme and the ethical stance or moral values of literary texts.</li> <li>- Understand and make appropriate use of literary terms.</li> </ul> <b>Texts:</b> 'Okuno Hosomichi' by Basho Matsuo (SL and HL), 'Kokoro' by Souseki Natsume (SL and HL) 'Short Stories: Rashoumon, Hana, Imogayu, Kumono ito'(HL only)	

## Prescribed Learning Outcomes (Grade 8)

### G8 ユニット1： 評論文「神奈川沖浪裏」

- 評論文の書き方を学ぶ。
- 評論文にふさわしい言葉遣いをこころがける。
- 読み手を引き付けるタイトルや見出しをつける。
- 視点の移動、オノマトペ、比喻、擬人法などに気を付ける。

### G8 ユニット2： 短歌の基礎知識

- 日本の伝統的な和歌のリズムを体験し、言葉の響きを味わう
- 短歌を鑑賞し、感想を述べる。
- 近代短歌を詠み、生徒がオリジナルの短歌を創作する。
- 短歌に詠まれている作者の気持ちを考える。
- 作者の時代背景を歴史の教科書やインターネットで調べる。
- フォーマルな手紙の書き方を学び、作者に手紙を書く。

### G8 ユニット3： メディア概論

- 文章中に述べられている事実や根拠を確かめながら、筆者の意見を読み取る。
- 段落に着目し文章の構成をとらえる。
- 自分の立場を明確にして意見をもつ。
- \*意見 を明確に伝えるための根拠を示す。
- わかりやすい構成の仕方を考えて意見文を書く。
- 正式な形態でレポートを書く。

### G8 ユニット4： 文学「走れメロス」

- 人物の考え方や生き方について自分の考えを持つ。
- 未知の言葉を理解し、書かれている内容を理解し要約する。
- 劇に必要な台詞とナレーションを考え脚本を作る。
- 劇に必要な小道具を考え製作する。
- 配役を決め演技の練習をする。
- 声の出し方・体を使った表現の工夫を学ぶ。
- 観客の前で発表することにより、生徒一人一人が自信を持ちクラス全員で一つのものを作り上げたという達成感を味わう。
- グループ活動を通し、責任感と協調性を養う。

## K. International School Tokyo – Design Scope and Sequence Grade 8

Grade 8	<p><i>Playing the Market</i></p> <p><u>Global Context:</u> <b>Globalization and Sustainability</b></p> <p><u>Key Concept:</u> <b>Systems</b></p> <p><u>Related Concept:</u> <b>Markets and Trends, Resources</b></p> <p><u>Program(s) used:</u> <b>Microsoft Excel</b></p> <p>Students will use real-life stock market information to program and maintain a stock portfolio using Spreadsheets and Formulas.</p>	<p><i>Coding is an Art!</i></p> <p><u>Global Context:</u> <b>Scientific and Technical Innovation</b></p> <p><u>Key Concept:</u> <b>Systems</b></p> <p><u>Related Concept:</u> <b>Function, Innovation</b></p> <p><u>Program(s) used:</u> <b>Processing, GIMP 2, Photoshop Elements, Pixlr, MS Paint</b></p> <p>Students will research the effect that Photoshop culture can have on our daily lives, and program their own image editing program.</p>	<p><i>Design your Future</i></p> <p><u>Global Context:</u> <b>Scientific and Technical Innovation</b></p> <p><u>Key Concept:</u> <b>Development</b></p> <p><u>Related Concept:</u> <b>Resources</b></p> <p><u>Program(s) used:</u> <b>Internet, Destiny Discover, Email</b></p> <p>Students will look ahead to how Design classes will help them in the future, with an emphasis on their upcoming Personal Project, and the relevance of the Design Cycle.</p>	N/A
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## Prescribed Learning Outcomes

### Grade 8

Research	<p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• Explain the need for their Stock Portfolio (unit I)/Image Editing Software (unit II), based on the design situation, and justify the explanation</li> <li>• Analyze existing Stock Portfolio (unit I)/Image Editing Software (unit II), and describe how it will help their own work</li> <li>• Create a list of research questions about Stock Portfolios (unit I)/Image Editing Software (unit II), in order of importance, and use that list to guide research</li> <li>• Research ways in which Design can help students with their upcoming Personal Projects and future interests (Unit III)</li> <li>• Identify proper resources for research, and justify their selection as proper resources</li> <li>• Distinguish the difference between primary and secondary resources, and the benefits of each</li> <li>• Organize data from research, based on level of importance</li> </ul>
Planning	<p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• Create a list of specifications, based on their research, which outlines the requirements for a Stock Portfolio (unit I)/Image Editing Software (unit II),</li> <li>• Be able to create digital sketches to present their various design ideas (unit I)/be able to create storyboards to present their various ideas (unit II)</li> <li>• Be able to use their specifications to identify their best idea</li> <li>• Create a detailed digital sketch for their final Stock Portfolio (unit I)/Image Editing Software (unit II),</li> </ul>
Creating	<p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• Create a step-by-step plan for creating their Stock Portfolio (unit I)/Image Editing Software (unit II), including information on time and resources needed for each task</li> <li>• Demonstrate specific skills with Formulae, Charts, Tables, Macros, Validation, Cell Formatting for their Stock Portfolio (Unit I)</li> <li>• Demonstrate specific skills in Processing including creating tools, allocating areas for drawing/editing and menus, opening images, saving images (Unit II)</li> </ul>
Evaluating	<ul style="list-style-type: none"> <li>• Know how to use various testing methods (surveys, questionnaires, tests/quizzes) to determine if their Stock Portfolio (unit I)/Image Editing Software (unit II), was successful</li> <li>• Be able to interpret data collected from testing methods and use data to explain the level of success of their Stock Portfolio (unit I)/Image Editing Software (unit II),</li> </ul>

## Digital Citizenship Outcomes

### Grade 8 Digital Citizenship Outcomes

Privacy and Security	<p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• Learn about joining and staying secure when using social media</li> <li>• Learn the importance of creating a secure password for all their accounts</li> <li>• Learn to keep their password private from everyone but their parents</li> <li>• Learn about scams and false information and how to recognize them</li> <li>• Learn common passwords to avoid using</li> </ul>
The Internet and You	<p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• Learn how to use the advanced features of Google and other search engines to more effectively find information</li> <li>• Discuss our Photoshop culture and Digital Image Editing Society</li> <li>• Learn to use various features of technology to help keep themselves organized in school and beyond</li> <li>• Learn and recognize the impact their digital footprints can have on their physical lives now and in the future</li> <li>• Discuss Internet and Technology Addiction</li> </ul>
Creative Credit & Copyright	<p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• Learn how to avoid falling into the Copy &amp; Paste culture</li> <li>• Learn how to properly give credit to creators of work and information</li> <li>• Discuss their own rights as creators of content</li> <li>• Discover resources to help them find and use copyright-free material</li> <li>• Learn the differences between international Copyright law and Fair-Use</li> </ul>
Internet Safety	<p><i>Students will:</i></p> <ul style="list-style-type: none"> <li>• Learn how to stay safe online, what to do if they see/hear something that makes them uncomfortable</li> <li>• Learn how to judge the reliability of information they find on the internet</li> <li>• Discuss Cyberbullying, how their actions may be interpreted by others online</li> <li>• Be able to recognize and avoid Internet Vigilantism</li> </ul>

## K. International School Tokyo – Visual Art Scope and Sequence Grades 6-8

	Grade 6	Grade 7	Grade 8
<b>Unit 1</b>	<b>Self-Image</b>  Global Context: Key Concept: Personal and Cultural Expression Focus Artists/Forms: Van Gogh, Frida Kahlo, Portraiture, Visual Recording. Media: Graphite, Watercolour, Pencil Crayon	<b>Fashion Fusion Kimono</b>  Global Context: Globalization and Culture Key Concept: aesthetic Focus Artists/Forms: Kimono, Ka mon, European heraldry. Media: pencil, paint, print	<b>Graphic packaging</b>  Global Context: sustainability Key Concept: Change Focus Artists/Forms: Cubism, Keith Haring, Jon Burgerman. Media: Watercolour, acrylic, 3D paper construction.
<b>Unit 2</b>	<b>Finder Keepers Objects and Collections</b>  Global Context: identities and relationships Key Concept: aesthetics Focus Artists/Forms: Curiosity cabinets, Michael Craig Martin Media: Graphite, Water colour, Acrylic, Clay Relief.	<b>Pop Graphics - Diorama</b>  Global Context: personal and cultural expression. Key Concept: Narrative Focus Artists/Forms: Quentin Blake, Stan Lee, Lichtenstein, perspective, Graphic novels, manga, comic books. Media: Mixed media, Aerosol paint, ink.	<b>Printed People</b>  Global Context: Aesthetics Key Concept: Personal and cultural expression Focus Artists/Forms: Matt Ward, German Expressionism. Kirchner, Munch Media: Lino printing, Paper printing, Graphite, Ink.
<b>Unit 3</b>  <i>Optional Unit may be substituted for unit 1 or 2.</i>	<b>Fantasy Landscapes</b>  Global Context: Orientation in time and space Key Concept: Change Focus Artists/Forms: David Hockney Turner, Monet and Serat. Media: Pastel, collage, watercolour, Raised surface.	<b>ID Collage</b>  Global Context: Identities and Relationships Key Concept: Identity Focus Artists/Forms: Pollock, Hoch and Collage Media: Mixed media, paper, digital.	

## Prescribed Learning Outcomes

Grade 8 (MYP YEAR 3)

	In order to:	Students need to understand that:	What will students do in the classroom to help them arrive at the understandings and practise the skills necessary to meet the objectives?
A	Knowing and Understanding		
i.	Demonstrate knowledge of the art form studied, including concepts, processes, and the use of appropriate language.	Describing and analysing art forms using specific terminologies and language help to convey artistic ideas.	<ul style="list-style-type: none"> <li>Use the visual elements and principles of art and design in written and visual forms.</li> <li>Use the visual elements terminologies when writing about their own work and others.</li> </ul>
ii.	Demonstrate knowledge of the role of the art form in original or displaced contexts.	Social attitudes and historical happenings reflect and involve art forms of the time and age they are made.	<ul style="list-style-type: none"> <li>Explore and evaluate the artwork of artists in different time periods and cultures.</li> </ul>
iii.	Use the acquired knowledge to inform their artwork.	Use of specific terminology and utilisation of artistic techniques can inform and inspire personal visual work.	<ul style="list-style-type: none"> <li>Outline and present their own artwork and interpret their intentions using specific terminology.</li> </ul>

	In order to:	Students need to understand that:	What will students do in the classroom to help them arrive at the understandings and practise the skills necessary to meet the objectives?
B	Developing Skills		
i.	Demonstrate the acquisition and development of the skills and techniques of the art form studied.	Repeated, ongoing practise and experimentation with targeted practical media will enable development of skills.	<ul style="list-style-type: none"> <li>Explore different materials in a practical setting and experiment with materials more than once to refine the process.</li> </ul>
ii.	Demonstrate the application of skills and techniques to create, perform and/or present art.	A wide range of tested media and experimental artistic practice can refine and develop skills.	<ul style="list-style-type: none"> <li>Explore different two dimensional and three dimensional materials in different combinations and experiment with varied practical outcomes.</li> </ul>

## K. International School Tokyo – G8 MYP Curriculum Guide

	In order to:	Students need to understand that:	What will students do in the classroom to help them arrive at the understandings and practise the skills necessary to meet the objectives?
C	Thinking Creatively		
i.	Outline clear and feasible artistic intentions.	Identifying a clear and workable idea is fundamental to the creative process.	<ul style="list-style-type: none"> <li>Identify and formulate a clear idea that reflects a personal intention of the student based on the selected brief.</li> </ul>
ii.	Outline alternatives, perspectives, and imaginative solutions.	Trying a range of possibilities before establishing a final outcome produces more creative and feasible solutions.	<ul style="list-style-type: none"> <li>Develop a range of different samples of possible visual outcomes using different material combinations and assess their success.</li> <li>Demonstrate working with more than one material and individual experimentation.</li> </ul>
iii.	Demonstrate the exploration of ideas through the developmental process to a point of realisation.	Identifying cyclical theoretical and practical experimentation and exploration of ideas help to realise a creative solution.	<ul style="list-style-type: none"> <li>Evaluate and present their own outcomes with self and others to then refine and develop their ideas further.</li> </ul>

	In order to:	Students need to understand that:	What will students do in the classroom to help them arrive at the understandings and practise the skills necessary to meet the objectives?
D	Responding		
i.	Outline connections and transfer learning to new settings.	Identifying connections of ideas help to widen personal understanding and apply them to new ones.	<ul style="list-style-type: none"> <li>Use identified connections and ideas in groups and class to create a personal response guided by the studied art form.</li> <li>Demonstrate these connections in written tasks.</li> </ul>
ii.	Create an artistic response inspired by the world around them.	Artists and designers gain inspiration from everyday settings and the world around them.	<ul style="list-style-type: none"> <li>Explore different sources of inspiration in visual and written forms.</li> <li>Identify and evaluate selected artists and art forms sources of inspiration to understand the visual process.</li> </ul>
iii.	Evaluate the artwork of self and others.	Evaluating and assessing their work and others is helpful to the progression of skills and ideas.	<ul style="list-style-type: none"> <li>Critique and outline their finished product and that of others, using ongoing reflective processes.</li> </ul>

## K. International School Tokyo – Music Scope and Sequence Grades 6-8

Grade	Unit 1	Unit 2
Grade 6	<p><b>Title: Elements of Music</b></p> <p>Through the activities of composing, improvising, performing, listening and appraising, students will understand what features make a satisfying melody. They will be able to compose their own melodies. Students will apply their knowledge and understandings of the elements of music to each of these activities.</p> <p><b>Statement of Inquiry:</b> <i>Music is a language with universal appeal, but to think about and express our own interpretations, we must know and understand musical terminology.</i></p> <p><b>Key Concept:</b> Communication</p> <p><b>Related Concepts:</b> Structure/Interpretation</p> <p><b>Global Context:</b> Orientation in Space and Time</p>	<p><b>Title: One Man's Legacy – The Story of Wolfgang Amadeus Mozart</b></p> <p>Through watching some scenes from the movie Amadeus and the activities of listening and appraising, students will understand main features and genres of Classical Era. They will be able to operate with subject-specific terminology related to the features and genres common for Classical era. Students will apply their knowledge and understandings of the elements of music studied in Unit 1 to each of these activities.</p> <p><b>Statement of Inquiry:</b> <i>Expressing our own artistic intentions in innovative ways changes artistic boundaries.</i></p> <p><b>Key Concept:</b> Aesthetics</p> <p><b>Related Concepts:</b> Innovation/Boundaries</p> <p><b>Global Context:</b> Identities and Relationships</p>
Grade 7	<p><b>Title: Instruments of Western Symphonic Orchestra</b></p> <p><b>1 unit per semester (Part 1: DIY Instrument)</b></p> <p>Through the activity of making musical instruments, students will gain knowledge of acoustics, understand how the materials they use will affect the sound, and experience the joy of invention. When this activity is completed, students will play their own instruments and experience being in an orchestra as a class together for the first time.</p> <p><b>Statement of Inquiry:</b> <i>Instrumental tone-color is a powerful tool which reflects cultural identities and can be used for expression.</i></p> <p><b>Key Concept:</b> Communication</p> <p><b>Related Concepts:</b> Presentation/Audience</p> <p><b>Global Context:</b> Personal and Cultural Expression</p>	<p><b>Title: Instruments of Western Symphonic Orchestra</b></p> <p><b>1 unit per semester (Part 2)</b></p> <p>Through the activities of active listening and appraising, improvising and performing, each student will demonstrate knowledge and an understanding of different musical instruments. By the end of the unit students should be able to differentiate musical instruments of a symphonic orchestra acoustically and visually as well as describe and identify most common types of instrumental ensembles (e.g. symphony orchestra, chamber orchestra quartet, trio etc.)</p> <p><b>Statement of Inquiry:</b> <i>Instrumental tone-color is a powerful tool which reflects cultural identities and can be used for expression.</i></p> <p><b>Key Concept:</b> Communication</p> <p><b>Related Concepts:</b> Presentation/Audience</p> <p><b>Global Context:</b> Personal and Cultural Expression</p>

<p><b>Grade 8</b></p>	<p><b>Title: Graphic Notation</b></p> <p>Through the activities of composing, performing, listening and appraising, students will understand how to operate with graphic notation. They will be able to compose, record and perform their own music pieces based on the notation created by themselves.</p> <p><b>Statement of Inquiry:</b> <i>Music is a universal communicating tool but to store it for future performances, different methods might be used.</i></p> <p><b>Key Concept:</b> Aesthetics</p> <p><b>Related Concepts:</b> Interpretation//Expression</p> <p><b>Global Context:</b> Personal and Cultural Expression</p>	<p><b>Title: Human Voice</b></p> <p><b>Through the activities of researching, ensemble performing, active listening and appraising, students will get to know the possibilities of their own voices, various operatic and pop voices, as well as different vocal and vocal-instrumental music examples representing the variety of vocal music genres.</b></p> <p><b>Statement of Inquiry:</b> <i>Human voice is the most powerful tool in communicating ideas and expressing opinions.</i></p> <p><b>Key Concept:</b> Communication</p> <p><b>Related Concepts:</b> Expression/Presentation</p> <p><b>Global Context:</b> Personal and Cultural Expression</p>
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## Prescribed Learning Outcomes in MYP Music

### Grade 8

Criteria A	In order to:	Students will understand	Students will be able to
i.	Demonstrate knowledge of the art form studied, including concepts, processes, and the use of appropriate language.	The different purposes, values, and meanings of music composition, and techniques for classifying musical compositions according to structure and performance type.	Apply appropriate terminology to show aesthetic and critical awareness necessary for analyzing music compositions in terms of their cultural context, structure, mood, type of performance/voice and elements of musical expression (Unit 2).
ii.	Demonstrate knowledge of the role of the art form in original or displaced contexts.	How the classification of musical compositions through listening is not a static process, but a dynamic one that involves a close consideration of the societal, cultural, historical and personal contexts in which music is composed.	Research, formulate and describe their personal impressions of musical qualities, as they are reflected in certain compositions, performance types, and vocal styles (Unit 2).  Articulate their findings using subject-specific vocabulary (Unit 1-2).
iii.	Use the acquired knowledge to inform their artwork.	The subject - specific terminology necessary to approach description of different compositional styles and playing techniques in the multifaceted world of music.	Demonstrate knowledge of vocal styles throughout the world of music (Unit 1).  Discuss some of the cultural reasons for the variation in musical style and technique, and the role of culture in uniqueness and variation in different musics (Unit 1-2).

Criteria B	In order to:	Students will understand	Students will be able to
i.	Demonstrate the acquisition and development of the skills and techniques of the art form studied.	The value of incorporating aesthetic considerations into the critical analysis and evaluation of music from various contexts.  The necessity of describing aesthetic parameters in terms of compositional structure, and fundamental musical elements, and of describing these parameters with specific terminology.  The possibility of extending this analysis to the less specific parameters of mood and cultural meaning.	Apply developed technical and analytical skills, to the process of composition, description, and analysis of a piece of music (Unit 1-2).  Demonstrate ensemble skills (e.g. balance, intonation, rhythmic unity, appropriate dynamics and expression) and contribute to a group performance (Unit 1-2).
ii.	Demonstrate the application of skills and techniques to create, perform and/or present art.	What it takes to communicate their artistic intentions through their own musical compositions.	Communicate their artistic intentions through the composition and performance of a piece of music, in a simple binary or ternary form (Unit 1).

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Criteria C	In order to:	Students will understand	Students will be able to
i.	Outline clear and feasible artistic intentions.	That identifying a clear and feasible goal is crucial to the successful creative process.	Identify and formulate a clear idea that reflects a personal choice of research topic or creative method (Unit 2).
ii.	Outline alternatives, perspectives, and imaginative solutions.	That exploring several alternative ideas before establishing a final goal helps in finding successful creative solutions, and in producing a product of a good quality.	Try and develop several possible methods of graphic notation using different shapes and colors (Unit 1).
iii.	Demonstrate the exploration of ideas through the developmental process to a point of realization.	That identifying and exploring a broad range of creative ideas helps in leading to successful creative solutions.	Expand upon their perception of musical possibilities, as well as notational possibilities, through the thorough documentation of their own creative process (Unit 1).  Evaluate this process and the changes it has brought about in their perception of music, in their Process Journals (Unit 1).

Criteria D	In order to:	Students will understand	Students will be able to
i.	Outline connections and transfer learning to new settings.	How to identify connections between different types of graphic notations, while considering the technical, personal, and cultural imperatives behind these different systems.  How to use this new knowledge to assist in their notational ventures.	Apply existing knowledge of music theory and practice to create a unique graphic notation (Unit 1).  Demonstrate and justify the connections between their notations and the sounds they represent, through research-based tasks (Unit 1).
ii.	Create an artistic response inspired by the world around them.	That artistic methods and creative solutions are affected by the everyday life of the creator.	Explore different ideas of their own in order to compose, notate, rehearse and perform their own compositions (Unit 1).
iii.	Evaluate the artwork of self and others.	How to critique their own personal work and the work of others, using appropriate subject-specific vocabulary.	Evaluate personal product/performances and the work of others, by using appropriate subject-specific vocabulary and providing constructive feedback (Unit 1-2).

## K. International School Tokyo – Physical and Health Education Overview – Scope and Sequence - Grades 6 – 8

Grade	Unit 1 - Team and International Pursuits	Unit 2 – Individual Pursuits
6	<b>Fundamentals of Sending, Receiving and Moving through Small Group Games, Indoor Target Games, Striking and Fielding</b> Global Context – Globalization and Sustainability Key Concepts – Form and Connection Related Concept(s) – Movement, Function and Refinement	<b>Fundamentals of Sending, Receiving and Moving through Athletics, Badminton and Tennis</b> Global Context – Globalization and sustainability Key Concepts – Chance Related Concept(s) – Adaptation, Choice and Environment.
7	<b>Fundamental to Intermediate Sending, Receiving and Moving through Basketball , Flag Football and Hockey Embedded Fitness and Dance</b> The Fundamentals of the game Global Context – Orientation in space and time Key Concepts – Relationships Related Concept(s) – Development, Movement, Pattern, Balance	<b>Fundamentals to Intermediate Sending, Receiving and Moving through Athletics, Badminton and Tennis Embedded Fitness and Dance</b> The Fundamentals of the game Global Context – Fairness and Development Key Concept – Change Related Concept(s) – Perspective, Choice
8	<b>Intermediate Sending, Receiving and Moving through Volleyball, Cricket and Lacrosse Embedded Fitness and Dance</b> Global Context – Orientation in space and time Key Concepts – Relationships Related Concept(s) – Development, Movement, Pattern, Balance	<b>Intermediate Sending, Receiving and Moving through Athletics, Badminton and Tennis Embedded Fitness and Dance</b> Global Context – Globalization and sustainability Key Concept – Change Related Concept(s) – Environment, Adaptation

## Prescribed Learning Outcomes

Unit 1	Unit 2
<b>Intermediate Sending, Receiving and Moving through Volleyball, Cricket and Lacrosse Embedded Fitness and Dance</b> Global Context – Orientation in space and time Key Concepts – Relationships Related Concept(s) – Development, Movement, Pattern, Balance	<b>Intermediate Sending, Receiving and Moving through Athletics, Badminton and Tennis Embedded Fitness and Dance</b> Global Context – Globalization and sustainability Key Concept – Change Related Concept(s) – Environment, Adaptation

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Knowledge	<ul style="list-style-type: none"> <li>• apply relationship and social skills and active participation to peer assessment.</li> <li>• demonstrate an understanding of serve reception and defensive formation</li> <li>• describe strategies that they found effective while participating in net/wall activities</li> <li>• apply skills and tactical solutions to a game of volleyball</li> <li>• identify skills, concepts and strategies that they found effective while participating in physical activity.</li> <li>• demonstrate an understanding of the phases of movement of track and field activities and apply them as they perform locomotor movements with and without equipment</li> <li>• use a variety of different badminton shots to set up for and defend against the attack.</li> <li>• apply skills and tactical solutions to a modified game of badminton.</li> </ul>
Skill	<ul style="list-style-type: none"> <li>• assume a proper ready position to send and receive the ball in a controlled manner while using the forearm pass</li> <li>• send and receive the ball in a controlled manner while using the overhead pass</li> <li>• use an underhand serve to send the ball over the net in the intended direction</li> <li>• begin to use the overhead and forearm pass in combination to set up for and defend against attack</li> <li>• use a bat to accurately strike a ball to a variety of specific targets</li> <li>• receive and then send the ball to the appropriate base-player in order to minimize the number of runs scored</li> <li>• send, receive, and retain their lacrosse ball while demonstrating how to move effectively while actively participating in modified lacrosse games</li> <li>• demonstrate tactical solutions to play more effectively</li> <li>• use self-awareness and self-monitoring skills as a tactical solution while participating actively the Mile Run activity</li> <li>• review and perform strategies for successful javelin, discus throw and shot putt</li> <li>• be able to coordinate racquet and ball handling skills with various locomotor movements</li> <li>• send and receive objects using the forehand and backhand stroke</li> <li>• recover into a ready position to defend space</li> </ul>
Attitudes	<ul style="list-style-type: none"> <li>• communicate effectively with their team mates using verbal and non-verbal means</li> <li>• identify safety concerns associated with fielding activities and take necessary safety precautions to create and maintain a safe environment</li> <li>• demonstrate active participation during the activity.</li> <li>• describe factors that contribute to their enjoyment of physical activity</li> <li>• participate actively and use critical and creative thinking skills to demonstrate an understanding of how to deal with emergency situations that may occur during physical activity</li> <li>• use self-awareness and self-monitoring skills to assist them as they demonstrate behaviors that promote their safety and that of others as they participate actively in various sustained moderate to vigorous activities</li> <li>• learn the value of practicing previously learned skills</li> <li>• enjoy working with peers</li> </ul>