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| Enseignement secondaire | |
| Classes internationales | |
| | Régime anglophone |
| Mathématiques | |
| Programme | |
| 7IEC | |

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| Leçons hebdomadaires: 4 |
| Langue véhiculaire: anglais |
| Nombre minimal de devoirs en classe: 7 par année / 2 par trimestre |

General comments

Students are expected to have at least five years of prior mathematics experience and are familiar with the mathematical skills required for the admission to year 7 (7IEC). The aim of the course is to prepare for the study of mathematics in year 8 (6IEC).

Numerical reasoning

The ability to work with numbers is an essential skill in mathematics.

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| Whole numbers | Chapter 1 |
| <ul style="list-style-type: none">- The number system- Number strategies- Rounding numbers- Estimation- Operating with numbers- Index notation (with integers)- Order of operations- Square and cubic numbers | |
| Notes: <ul style="list-style-type: none">- No irrational numbers- Order of operations: Additional exercises to be added by the teacher | |
| Positive and negative numbers | Chapter 3 |
| <ul style="list-style-type: none">- Opposites- The number line (ascending/descending order)- Adding and subtracting negatives- Multiplying negative numbers- Dividing negative numbers | |



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| Notes: <ul style="list-style-type: none">- Order of operations: Additional exercises to be added by the teacher | |
| Properties of numbers | Chapter 4 |
| <ul style="list-style-type: none">- Divisibility by 2, 3, 4, 5, 6, 9, 10, 11, 15- Factors of numbers- Prime numbers (Sieve of Eratosthenes) and prime factors- Decomposition in prime factors with index notation- Highest common factor, lowest common multiple- $HCF(a;b) * LCM(a;b) = a*b$ | |
| Fractions | Chapter 5 |
| <ul style="list-style-type: none">- Common fractions- Fractions as division- Proper and improper fractions- Placing fractions on a number line- Equal fractions and simplifying- Comparing fractions- Adding and subtracting fractions- Multiplying fractions- Reciprocals- Dividing fractions- Problem solving Notes: <ul style="list-style-type: none">- Order of operations: Additional exercises to be added by the teacher | |
| Decimal numbers | Chapter 6 |
| <ul style="list-style-type: none">- Place value- Converting between decimals and fractions- Rounding decimal numbers- Placing decimal numbers on a number line- Comparing decimal numbers- Adding and subtracting decimal numbers- Multiplying and dividing by powers- Multiplying decimal numbers- Dividing decimal numbers Notes: <ul style="list-style-type: none">- Decimal division, order of operations: Additional exercises to be added by the teacher | |



Spatial reasoning

Spatial reasoning skills provide students with the tools for analysing, measuring and transforming geometric quantities in two dimensions.

The topics and skills in spatial reasoning will help students develop an understanding of

- construction and manual skills,
- visualization of 2D shapes

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| Angles and lines | Chapter 2 |
| <ul style="list-style-type: none">- Points and lines- Measuring and classifying angles- Angle properties- Angle pairs (Vertically opposites, corresponding, alternate-interior, co-interior angles)- Parallel lines cut by a transversal (corresponding, alternate-interior, co-interior angles properties) <p>Notes:</p> <ul style="list-style-type: none">- Equations are not introduced in year 7 | |
| Geometric constructions | Not in the book |
| <ul style="list-style-type: none">- Line segment bisector- Angle bisector- 30, 45, 60 degrees angle- Perpendicular to a point on a line- Perpendicular to a point not on a line- Parallel line through a point- Same angle construction- Cut a line in N segments- Equilateral triangle construction- Isosceles triangle construction- Constructing ASA, SAS, SSS, SSA triangles <p>Notes:</p> <ul style="list-style-type: none">- Optional: Constructions of square, rhombus, kite, pentagon, hexagon | |
| Polygons | Chapter 10 |
| <ul style="list-style-type: none">- Definition of polygon- Types of triangles- Angles of a triangle property- Isosceles triangles properties- Types and properties of quadrilaterals- Angles of a quadrilateral | |
| Measurement: Length and Area | Chapter 11 |
| <ul style="list-style-type: none">- Length- Perimeter- Area of polygons and composite figures | |



| Circles | Chapter 17 |
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| <ul style="list-style-type: none">- Circles- Introduction to Pi- Circumference- Area <p>Notes:</p> <ul style="list-style-type: none">- Volumes are treated in year 8 | |

Textbook

Haese and Harris Publications

Mathematics for the international student 7 (MYP 2) - Second edition

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Planning the curriculum

Here's a possible order to sequence the individual chapters.

1. MYP2 – Chapter 1 – Whole numbers
2. MYP2 – Chapter 2 – Angles and lines
3. MYP2 – Chapter 3 – Positive and negative numbers
4. MYP2 – Chapter 4 – Properties of numbers
5. MYP2 – Chapter 5 – Fractions
6. MYP2 – Chapter 6 – Decimal numbers
7. MYP2 – Chapter 7 – Geometric constructions
8. MYP2 – Chapter 10 – Polygons
9. MYP2 – Chapter 11 – Measurement : Length and area
10. MYP2 – Chapter 17 – Circles

Calculator

Casio FX-991 EX