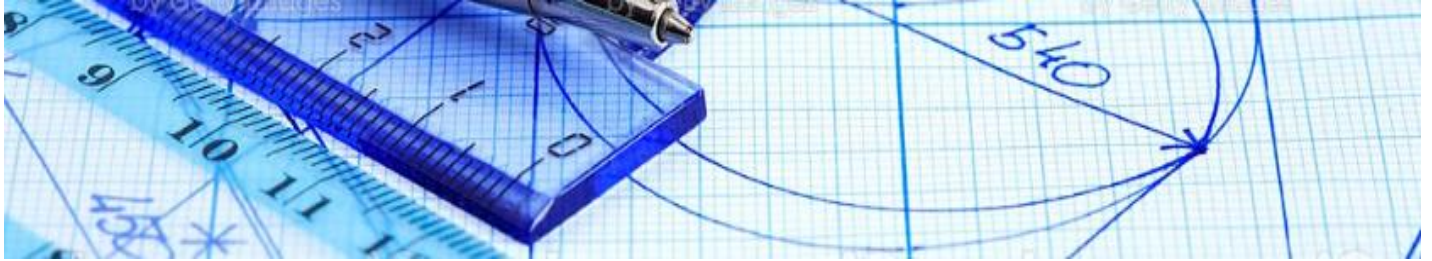




# المصادر التعليمية المعتمدة لمادة الرياضيات للمدارس الخاصة

البرنامج ثنائي اللغة - للصفوف (1-10)

Approved Mathematics Educational Resources for Private Schools  
Bilingual Program - Grades (1-10)



2024/2025

Handwritten signature in blue ink.



المصادر التعليمية المعتمدة لمادة الرياضيات 2025/2024م  
Mark Approved Resources 2024/2025



| الفهرس العام |                        |              |
|--------------|------------------------|--------------|
| الصفحة       | الموضوع                | الفصل        |
| 2            | الموجهات العامة        | الفصل الأول  |
| 7            | الصفوف الدراسية (1-6)  | الفصل الثاني |
| 22           | الصفوف الدراسية (7-8)  | الفصل الثالث |
| 33           | الصفوف الدراسية (9-10) | الفصل الرابع |

| General Index |                    |      |
|---------------|--------------------|------|
| Section       | Title              | Page |
| Section 1     | General Guidelines | 2    |
| Section 2     | Grades (1-6)       | 7    |
| Section 3     | Grades (7-8)       | 22   |
| Section 4     | Grades (9-10)      | 33   |

## الفصل الأول: الموجهات العامة

### Section (1): General Guidelines

على جميع المدارس الخاصة المطبقة للبرنامج ثنائي اللغة الالتزام بجميع التعليمات الواردة في الجدول أدناه:

### اختيار وتوفير السلاسل التعليمية والكتب الدراسية الأساسية

- اختيار أحد المصادر التعليمية الأساسية المعتمدة في هذه النشرة التوجيهية.
- توفير جميع المكونات الأساسية للمصادر التعليمية المختارة، بالنسبة لكل طالب ولكل معلم، والموضحة في الفصول القادمة من هذه النشرة التوجيهية.
- توفير نسخ كافية من الكتب وغيرها من المصادر التعليمية، لطلابها ومعلميها قبل وقت كافٍ من بداية العام الدراسي.
- توفير نسخ أصلية من المصادر التعليمية الأساسية التي تم اختيارها للتطبيق، ومراعاة حقوق الطبع والملكية الفكرية في جميع استخدامات المصادر المعتمدة في هذه النشرة.
- ضرورة توفير دليل المعلم الإلكتروني للمعلم، في السلاسل المعتمدة التي بها دليل معلم إلكتروني.

#### ملاحظة هامة:

- توجد مكونات إضافية غير إلزامية لبعض السلاسل المعتمدة في هذه النشرة، مثل كتب المراجعة، ومصادر داعمة للتقويم المستمر والتقويم الختامي، وكتب بناء المهارات لدى الطلاب، وكتب التحدي للطلبة المتميزين، ووسائل تعليمية رقمية وغيرها من المصادر الإثرائية للمنهج الدراسي، وللمدرسة الاطلاع عليها من خلال مواقع دور النشر، ولها الحرية في توفيرها للمعلمين ولأولياء الأمور والطلبة، بشرط أن يتم الالتزام بالمعايير المعتمدة لاختيار المصادر الإثرائية، والتي تستخدم بغرض دعم تطبيق المنهج بشكل أفضل.

### الأهداف

- المرحلة (1-8): تلتزم المدرسة بتحقيق الأهداف الواردة في السلاسل التعليمية المعتمدة، وذلك خلال الفصلين الدراسيين الأول والثاني في كل صف دراسي، بناءً على الوحدات المحددة في بند "توزيع المحتوى على الفصلين الدراسيين". برجاء مراجعة الفصلين الثاني والثالث من هذه النشرة التوجيهية.
- المرحلة (9-10): تلتزم المدرسة بتحقيق الأهداف الواردة في الفصل الرابع من هذه النشرة التوجيهية.

#### ملاحظة هامة:

- عند تدريس الدروس المتعلقة بالنقود في الصفوف (1-6) بضرورة استبدال العملة الأجنبية بالعملة العمانية (باستخدام نماذج ورقية مغلفة حراراً للفئات النقدية العمانية المختلفة).

|                   |  |
|-------------------|--|
| الوسائل التعليمية | <ul style="list-style-type: none"> <li>▪ مرحلة (1-6): الالتزام بتوفير الوسائل التعليمية المذكورة في دليل المعلم للسلسلة الأساسية التي قامت المدرسة باختيارها .</li> <li>▪ مرحلة (7-10): الالتزام بتوفير الوسائل التعليمية المذكورة في الفصلين الثالث والرابع من هذه النشرة التوجيهية .</li> <li>▪ تلتزم المدرسة بتسهيل عملية نسخ أوراق العمل من قبل المعلمين، وذلك بتوفير المدرسة للأوراق وآلات التصوير وأجهزة الحاسب الآلي وأجهزة العرض وغيرها من المستلزمات، إذ أن السلاسل التعليمية المعتمدة تتطلب ذلك لتنفيذها بالصورة المطلوبة .</li> </ul> |
| التدريب           | <ul style="list-style-type: none"> <li>▪ تدريب المعلمين والذي يتعلق باستخدام الكتب الدراسية والمصادر التعليمية المعتمدة، يجب أن يكون ضمن خطط المدارس الخاصة للإثراء المهني، والمدرسة معنية بالتنسيق مع دور النشر حول توفير البرامج التدريبية لمعلميها عن طريق التواصل المباشر مع الدار أو من خلال الموزعين المعتمدين .</li> </ul>  |

All schools implementing the bilingual program must follow all the instructions below:

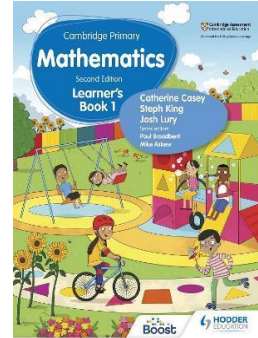
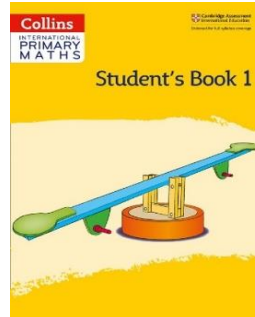
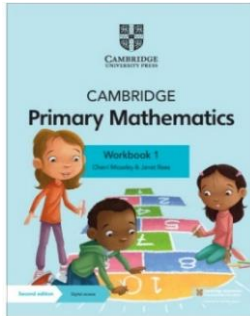
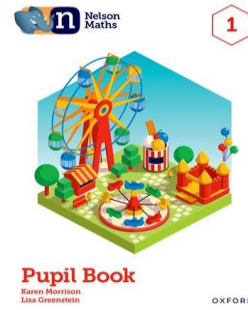
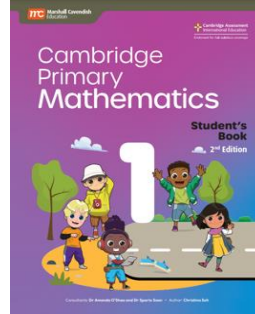
|  |  |
|--|--|
| Series and books Selection and Provision | <ul style="list-style-type: none"> <li>▪ Selecting and using essential resources from the approved titles in this newsletter.</li> <li>▪ Providing all the essential components of resources for students and teachers.</li> <li>▪ Ordering enough of the materials for teachers and students before the beginning of the academic year. Schools are responsible for any late delivery of their orders.</li> <li>▪ Providing original copies of the selected resources and taking in consideration the copy rights and intellectual properties while using any approved resource in any aspect.</li> <li>▪ Provide the teacher with (electronic / online ) teachers guide Wherever mentioned in the newsletter.</li> </ul> <p><b><u>Important Note:</u></b></p> <ul style="list-style-type: none"> <li>▪ For some approved titles, there are additional materials available, such as revision guides, continuous assessment resources, skills builder booklets, challenging booklets, digital resource and more. It is recommended that all schools visit the publishing houses' websites to provide the extra resources for their students, teachers, and parents (taking to account the criteria which is approved from (MOE) to select supplementary materials).</li> </ul> |
| Outcomes                                 | <ul style="list-style-type: none"> <li>• Grades (1-8): To implement the outcomes mentioned in the selected approved resources, and to distribute the content for two semesters according to the section "Content Distribution", in Chapters 2 and 3 in this newsletter.</li> <li>• Grades (9-10): To implement the outcomes mentioned in the section "Learning Outcomes Distribution" in Chapter 4 of this newsletter.</li> </ul> <p>Important Note:</p> <ul style="list-style-type: none"> <li>• When teaching the concept of currency and money, in grades (1-6) teachers should replace the foreign currency with Omani currency.</li> </ul>  |

|               |   |
|---------------|---|
| Teaching Aids | <ul style="list-style-type: none"> <li>▪ Grades (1-6): To provide and implement the teaching aids and the ancillary materials which are prescribed within the chosen approved resources.</li> <li>▪ Grades (7-10): To provide and implement the teaching aids which are specified in the "Teaching Aids" section at Chapters 3 and 4 within this newsletter.</li> <li>▪ All grades: To provide paper, photocopiers, laptops, projectors, and other consumable materials that will be required in using the approved resources.</li> </ul> |
| Training      | <ul style="list-style-type: none"> <li>▪ Teacher training related to the use of the selected coursebooks or learning resources should be part of all schools' commitment to the professional development of their teachers and should be made available to teachers by the schools by contacting the publishers or their concerned distributors.</li> </ul>   |



## الفصل الثاني: الصفوف الدراسية (1-6)

### Section (2): Grades (1-6)



## الفهرس

| Title   | Page | الموضوع   |
|---|------|---|
| List of Approved Series and their Compulsory Components | 8    | قائمة السلاسل التعليمية الأساسية المعتمدة ومكوناتها الإلزامية |
| ISBNs of the Approved Series Components                 | 9    | أرقام ال ISBNs لمكونات السلاسل التعليمية الأساسية المعتمدة    |
| Content Distribution                                    | 12   | توزيع المحتوى على الفصلين الدراسيين                           |



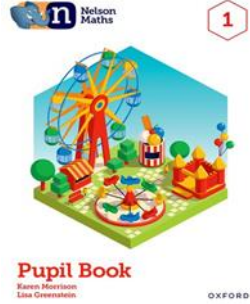
قائمة السلاسل التعليمية الأساسية المعتمدة لمادة الرياضيات ومكوناتها الإلزامية – الصفوف (1-6)

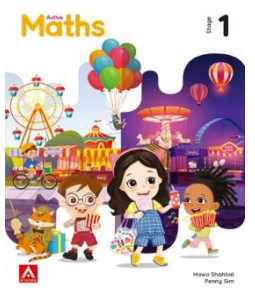
List of Approved Series and their Compulsory Components – Grades (1- 6)

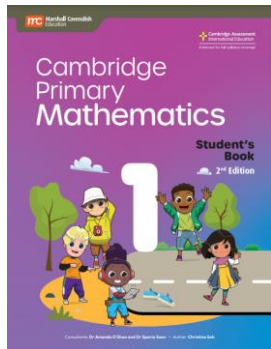
|   | Name of series                       | Edition        | Publisher                    | Components   | Comments                                    |
|---|--------------------------------------|----------------|------------------------------|--|---|
| 1 | Nelson Maths                         | First Edition  | Oxford                       | Pupil Book<br>Workbook<br>Teacher                            | New approval                                |
| 2 | Active Math's                        | First Edition  | Alston Education             | Textbook<br>Workbook<br>Teacher's Guide                      | Teacher Guide available as digital resource |
| 3 | Cambridge Primary MATHS              | Second Edition | Marshall Cavendish Education | Pupil's Book<br>Activity Book<br>Teacher's Guide             |   |
| 4 | Collins International Primary Math's | Second Edition | Collins                      | Student's Book<br>Workbook<br>Teacher's Guide                |   |
| 5 | Cambridge Primary Mathematics        | Second Edition | Cambridge University Press   | Learner's Book<br>Teacher's Resource with (CD)<br>Games Book |   |
| 6 | Hodder Cambridge Primary Mathematics | Second edition | Hodder Education             | Learner's Book<br>Workbook<br>Teacher's Pack                 |   |

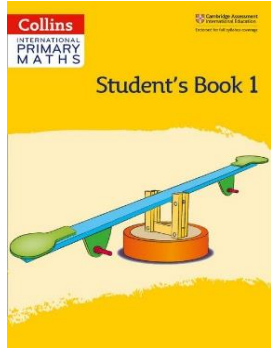
أرقام الـ (ISBNs) لمكونات السلاسل التعليمية الأساسية المعتمدة لمادة الرياضيات – الصفوف (1-6)

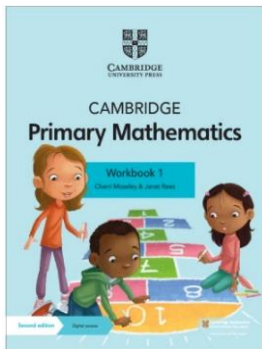
ISBNs of the Approved Series Components - Grades (1- 6)

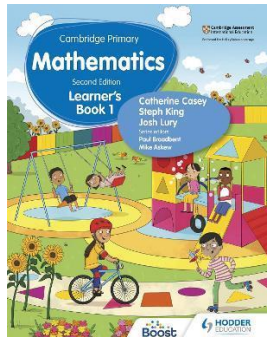
| 1. Nelson Maths - Oxford University press (First Edition) |                  |               |  |
|---|------------------|---------------|--|
| Grade   | Components       | ISBN          | Book Cover   |
| 1   | Pupil Book 1     | 9781382009980 |  |
|   | Workbook 1       | 9781382010245 |  |
|   | Teacher's Book 1 | 9781382010108 |  |
| 2   | Pupil Book 2     | 978132010009  |  |
|   | Workbook 2       | 9781382010269 |  |
|   | Teacher's Book 2 | 9781382010122 |  |
| 3   | Pupil Book 3     | 9781382010023 |  |
|   | Workbook 3       | 9781382010283 |  |
|   | Teacher's Book 3 | 9781382010146 |  |
| 4   | Pupil Book 4     | 9781382010047 |  |
|   | Workbook 4       | 9781382010306 |  |
|   | Teacher's Book 4 | 9781382010160 |  |
| 5   | Pupil Book 5     | 9781382010061 |  |
|   | Workbook 5       | 9781382010320 |  |
|   | Teacher's Book 5 | 9781382010184 |  |
| 6   | Pupil Book 6     | 9781382010085 |  |
|   | Workbook 6       | 9781382010344 |  |
|   | Teacher's Book 6 | 9781382010207 |  |

| 2. Active Math's - Alston Education (First Edition): |                 |               |   |
|--|-----------------|---------------|---|
| Grade  | Components      | ISBN          | Book Cover  |
| 1  | Textbook        | 9789813180727 |  |
|  | Workbook        | 9789813180789 |   |
|  | Teacher's Guide | 9789813180840 |   |
| 2  | Textbook        | 9789813180734 |   |
|  | Workbook        | 9789813180796 |   |
|  | Teacher's Guide | 9789813180857 |   |
| 3  | Textbook        | 9789813180741 |   |
|  | Workbook        | 9789813180802 |   |
|  | Teacher's Guide | 9789813180864 |   |
| 4  | Textbook        | 9789813180758 |   |
|  | Workbook        | 9789813180819 |   |
|  | Teacher's Guide | 9789813180871 |   |
| 5  | Textbook        | 9789813180765 |   |
|  | Workbook        | 9789813180826 |   |
|  | Teacher's Guide | 9789813180888 |   |
| 6  | Textbook        | 9789813180772 |   |
|  | Workbook        | 9789813180833 |   |
|  | Teacher's Guide | 9789813180970 |   |

| 3. Cambridge Primary MATHS - Marshall Cavendish Education (Second Edition): |                 |               |   |
|---|-----------------|---------------|---|
| Grade   | Components      | ISBN          | Book Cover  |
| 1   | Student's Book  | 9789814971096 |  |
|   | Activity Book   | 9789814971157 |   |
|   | Teacher's Guide | 9789814971218 |   |
| 2   | Student's Book  | 9789814971102 |   |
|   | Activity Book   | 9789814971164 |   |
|   | Teacher's Guide | 9789814971225 |   |
| 3   | Student's Book  | 9789814971119 |   |
|   | Activity Book   | 9789814971171 |   |
|   | Teacher's Guide | 9789814971232 |   |
| 4   | Student's Book  | 9789814971126 |   |
|   | Activity Book   | 9789814971188 |   |
|   | Teacher's Guide | 9789814971249 |   |
| 5   | Student's Book  | 9789814971133 |   |
|   | Activity Book   | 9789814971195 |   |
|   | Teacher's Guide | 9789814971256 |   |
| 6   | Student's Book  | 9789814971140 |   |
|   | Activity Book   | 9789814971201 |   |
|   | Teacher's Guide | 9789814971263 |   |

| 4. International Primary Math's (Second Edition) - Collins: |                   |               |   |
|---|-------------------|---------------|---|
| Grade   | Components        | ISBN          | Book Cover  |
| 1   | Student Book 1    | 9780008340896 |  |
|   | Workbook 1        | 9780008369453 |   |
|   | Teacher's Guide 1 | 9780008369514 |   |
| 2   | Student Book 2    | 9780008369408 |   |
|   | Workbook 2        | 9780008369460 |   |
|   | Teacher's Guide 2 | 9780008369521 |   |
| 3   | Student Book 3    | 9780008369415 |   |
|   | Workbook 3        | 9780008369477 |   |
|   | Teacher's Guide 3 | 9780008369538 |   |
| 4   | Student Book 4    | 9780008369422 |   |
|   | Workbook 4        | 9780008369484 |   |
|   | Teacher's Guide 4 | 9780008369545 |   |
| 5   | Student Book 5    | 9780008369439 |   |
|   | Workbook 5        | 9780008369491 |   |
|   | Teacher's Guide 5 | 9780008369552 |   |
| 6   | Student Book 6    | 9780008369446 |   |
|   | Workbook 6        | 9780008369507 |   |
|   | Teacher's Guide 6 | 9780008369569 |   |

| 5. Cambridge Primary Mathematics (Second Edition) - Cambridge University Press: |                     |               |   |
|---|---------------------|---------------|---|
| Grade   | Components          | ISBN          | Book Cover  |
| 1   | Learner's Book1     | 9781108746410 |  |
|   | Teacher's Resource1 | 9781108771498 |   |
|   | Work Book1          | 9781108746434 |   |
| 2   | Learner's Book2     | 9781108746441 |   |
|   | Teacher's Resource2 | 9781108783873 |   |
|   | Work Book2          | 9781108746465 |   |
| 3   | Learner's Book3     | 9781108746489 |   |
|   | Teacher's Resource3 | 9781108783934 |   |
|   | Work Book3          | 9781108746496 |   |
| 4   | Learner's Book4     | 9781108745291 |   |
|   | Teacher's Resource4 | 9781108770675 |   |
|   | Work Book4          | 9781108760027 |   |
| 5   | Learner's Book5     | 9781108760034 |   |
|   | Teacher's Resource5 | 9781108771207 |   |
|   | Work Book5          | 9781108746311 |   |
| 6   | Learner's Book6     | 9781108746328 |   |
|   | Teacher's Resource6 | 9781108771368 |   |
|   | Work Book6          | 9781108746335 |   |

| 6. Cambridge Primary Mathematics (Second Edition) – Hodder Education: |                  |               |   |
|---|------------------|---------------|---|
| Grade   | Components       | ISBN          | Book Cover  |
| 1   | Learner's Book1  | 9781398300903 |  |
|   | Workbook1        | 9781398301153 |   |
|   | Teacher's Guide1 | 9781398300781 |   |
| 2   | Learner's Book2  | 9781398300941 |   |
|   | Workbook2        | 9781398301177 |   |
|   | Teacher's Guide2 | 9781398300798 |   |
| 3   | Learner's Book3  | 9781398300989 |   |
|   | Workbook3        | 9781398301184 |   |
|   | Teacher's Guide3 | 9781398300804 |   |
| 4   | Learner's Book4  | 9781398301023 |   |
|   | Workbook4        | 9781398301207 |   |
|   | Teacher's Guide4 | 9781398300811 |   |
| 5   | Learner's Book5  | 9781398301061 |   |
|   | Workbook5        | 9781398301221 |   |
|   | Teacher's Guide5 | 9781398300828 |   |
| 6   | Learner's Book6  | 9781398301108 |   |
|   | Workbook6        | 9781398301245 |   |
|   | Teacher's Guide6 | 9781398300835 |   |

Content Distribution – Grades (1- 6)

| 1. Nelson Maths - Oxford University press (First Edition) |   |   |
|---|---|---|
| Grade   | Semester 1  | Semester 2  |
| <b>One</b>  | Unit 2: Measure and compare.<br>Unit 3: Count to 10 and beyond<br>Unit 4: 2D shapes<br>Unit 5: Order and position<br>Unit 6: Count to 20<br>Unit 7: Mass<br>Unit 8: Add and take away<br>Unit 9: Time   | Unit 10: More adding and taking away<br>Unit 11: Capacity and temperature<br>Unit 12: 3D shapes<br>Unit 15: Position and direction<br>Unit 16: Money<br>Unit 17: Sort shapes<br>Unit 19: More about time<br>Unit 20: data                                     |
| <b>Two</b>  | Unit 2: Working with numbers<br>Unit 3: Place value<br>Unit 4: 2D and 3D shapes<br>Unit 5: Patterns and Sequence<br>Unit 6: Add and subtract<br>Unit 7: Length<br>Unit 8: Mass<br>Unit 9: Lists and tables<br>Unit 10: Show data                | Unit 11: Multiply<br>Unit 12: Divide<br>Unit 13: Fractions<br>Unit 14: Time<br>Unit 15: Possible outcomes<br>Unit 16: Symmetry<br>Unit 17: Capacity and temperature<br>Unit 18: More about time<br>Unit 19: Position and movement<br>Unit 20: Money           |
| <b>Three</b>  | Unit 2: Number and place value<br>Unit 3: Length<br>Unit 4: Patterns and Sequences<br>Unit 5: Lines and angles<br>Unit 6: Polygons<br>Unit 7: Addition and subtraction<br>Unit 8: Money<br>Unit 9: Mass<br>Unit 10: Multiplication and division | Unit 11: Perimeter and area<br>Unit 12: Data<br>Unit 13: 3D shapes<br>Unit 14: position, direction and movement<br>Unit 15: Fractions<br>Unit 16: Capacity and temperature<br>Unit 17: Probability<br>Unit 18: Time   |
| <b>Four</b>   | Unit 2: Number and place value<br>Unit 3: 2D shapes<br>Unit 4: Time<br>Unit 5: Decimals<br>Unit 6: measures and money<br>Unit 7: Count and calculate<br>Unit 8: Symmetry<br>Unit 9: Data and charts<br>Unit 10: Addition and subtraction        | Unit 11: Angles and triangles<br>Unit 12: Multiplication and division facts<br>Unit 13: Negative numbers<br>Unit 14: Perimeter and area<br>Unit 15: Fractions<br>Unit 16: Position and movement<br>Unit 17: Multiplication<br>Unit 18: Work with a line graph |

| 1. Nelson Maths - Oxford University press (First Edition) |  |  |
|---|--|--|
| Grade   | Semester 1   | Semester 2   |
| <b>Five</b>   | Unit 2: Number and place value<br>Unit 3: properties of shapes<br>Unit 4: Addition and subtraction<br>Unit 5: Decimals and percentages<br>Unit 6: Time<br>Unit 7: Multiplication and division 1<br>Unit 8: Measures and money<br>Unit 9: perimeter and area<br>Unit 10: Statistics | Unit 11: fractions<br>Unit 12: position, direction, and movement<br>Unit 13: Multiplication and division 2<br>Unit 14: Work with negative numbers<br>Unit 15: Calculate with decimals<br>Unit 16: Volume and capacity<br>Unit 17: Ratio and proportion<br>Unit 18: Probability |
| <b>Six</b>  | Unit 2: Numbers and Place Value<br>Unit 3: Multiples, factors, and special numbers.<br>Unit 4: Shapes, lines and angles<br>Unit 5: The four operations.<br>Unit 6: Fractions<br>Unit 7: Position, direction and movement<br>Unit 8: Decimals                                       | Unit 9: Percentages<br>Unit 10: Measures and money<br>Unit 11: Data<br>Unit 12: Ratio and proportion<br>Unit 13: perimeter, area, and volume<br>Unit 15: Probability   |



| 2. Active Math's Alston Education (First Edition) |  |  |
|---|--|--|
| Grade   | Semester 1   | Semester 2   |
| <b>One</b>  | Chapter1: Number to 20<br>Chapter2: More about numbers to 20<br>Chapter3: Time<br>Chapter4: Shapes and Solids<br>Chapter5: Addition  | Chapter6: Double and halves<br>Chapter7: Subtraction<br>Chapter8: Position and Movement<br>Chapter9: Measured<br>Chapter10: Money<br>Chapter11: Handling Data      |
| <b>Two</b>  | Chapter1: Numbers to 100<br>Chapter2: More about Numbers to 100<br>Chapter3: Time<br>Chapter4: Shapes and Solids<br>Chapter5: Addition and Subtraction<br>Chapter6: Measurement<br>Chapter7: Position and Movement | Chapter8: Multiplication<br>Chapter9: Money<br>Chapter10: Division<br>Chapter11: Fractions<br>Chapter12: Handling Data<br>Chapter13: Chance                        |
| <b>Three</b>                                      | Chapter1: Numbers to 1000<br>Chapter2: Time<br>Chapter3: Addition and Subtraction<br>Chapter4: Shapes and Solids<br>Chapter5: Multiplication and Division<br>Chapter6: Position and Movement                       | Chapter7: Perimeter and Area<br>Chapter8: Mass and Capacity<br>Chapter9: Money<br>Chapter10: Fractions<br>Chapter11: Handling Data<br>Chapter12: Chance            |
| <b>Four</b>                                       | Chapter1: Number to 100 000<br>Chapter2: Time<br>Chapter3: Addition and Solids<br>Chapter4: Angles, Shapes and Solids<br>Chapter5: Multiplication and Division   | Chapter6: Perimeter and Area<br>Chapter7: Position and Movement<br>Chapter8: Fractions<br>Chapter9: Percentage<br>Chapter10: Handling Data<br>Chapter11: Chance    |
| <b>Five</b>                                       | Chapter1: Number to 1000 000<br>Chapter2: Number Operations<br>Chapter3: Angles, Shapes and Solids<br>Chapter4: Perimeter and Area<br>Chapter5: Fractions<br>Chapter6: Decimals                                    | Chapter7: Time<br>Chapter8: Position and Movement<br>Chapter9: Percentage<br>Chapter10: Ratio and Proportion<br>Chapter11: Handling Data<br>Chapter12: Probability |
| <b>Six</b>  | Chapter1: Number to 10 000 000<br>Chapter2: Number Operations<br>Chapter3: Angles, Shapes and Solids<br>Chapter4: Fractions<br>Chapter5: Decimals  | Chapter6: Position and Movement<br>Chapter7: Percentage<br>Chapter8: Ratio and Proportion<br>Chapter9: Handling Data<br>Chapter10: Probability                     |



### 3. Cambridge Primary Math's Second Edition - Marshall Cavendish:

| Grade        | Semester 1  | Semester 2   |
|--------------|---|--|
| <b>One</b>   | Chapter1: Numbers 0 to 10<br>Chapter 2: Ordinal Numbers<br>Chapter 3: Numbers Patterns<br>Chapter 4: More about Numbers to 20<br>Chapter 5: 2D and 3D Shapes<br>Chapter 6: Place, Direction and Movement<br>Chapter 7: Making 10 and Doubles  | Chapter 8: Addition within 20<br>Chapter 9: Subtraction within 20<br>Chapter 10: Money<br>Chapter 11: Length, Mass, Capacity and Temperature<br>Chapter 12: Handling Information<br>Chapter 13: Fractions: Making Halves<br>Chapter 14: Time   |
| <b>Two</b>   | Chapter 1: Numbers to 100<br>Chapter 2: Place Value<br>Chapter 3: Money<br>Chapter 4: Ordinal Numbers<br>Chapter 5: Addition and Subtraction within 100<br>Chapter 6: Patterns and Chance<br>Chapter 7: 2D and 3D Shapes<br>Chapter 8: Number Patterns                                | Chapter 9: Multiplication<br>Chapter 10: Division<br>Chapter 11: Data Representation<br>Chapter 12: Investigation<br>Chapter 13: Finding Halves and Quarters<br>Chapter 14: Combining Fraction<br>Chapter 15: Time<br>Chapter 16: Turns, Movements and Reflections<br>Chapter 17: Length, Mass and Capacity  |
| <b>Three</b> | CHAPTER1: Number to 100<br>CHAPTER2: Place Value and Rounding<br>CHAPTER3: Addition and Subtraction<br>CHAPTER4: Time<br>CHAPTER5: 2D and 3D Shapes<br>CHAPTER6: Angles, Direction and Position<br>CHAPTER7: Patterns with Numbers and Shapes<br>CHAPTER8: Length, Mass, and Capacity | Chapter 9: Perimeter and Area<br>Chapter10: Chance<br>Chapter11: Multiplication Properties and Facts<br>Chapter12: Multiplication and Division<br>Chapter13: Fractions<br>Chapter 14: Comparing Fractions<br>Chapter15: Calculating with Fractions<br>Chapter16: Data Handling   |
| <b>Four</b>  | Chapter1: Place Value and Rounding Larger<br>Chapter2: Introducing Negative Numbers<br>Chapter3: Factor and Multiples<br>Chapter4: Time<br>Chapter5: 2d Shapes<br>Chapter6: 3d Shapes<br>Chapter7: Area and Perimeter<br>Chapter8: Addition and Subtraction                           | Chapter9: Multiplication and Division<br>Chapter10: Patterns and Sequence with Numbers and Objects<br>Chapter11: Data Representation<br>Chapter12: Statistical Cycle<br>Chapter13: Fractions<br>Chapter14: Calculating with Fractions<br>Chapter15: Angles, Position and Direction<br>Chapter16: Probability   |
| <b>Five</b>  | Chapter1: Special Numbers<br>Chapter2: Number Sequences<br>Chapter3: Decimals<br>Chapter4: Time<br>Chapter5: Angles and Triangles<br>Chapter6: Perimeter and Area<br>Chapter7: 3d Shapes<br>Chapter8: Probability and Chance<br>Chapter9: Addition and Subtraction                    | Chapter10: Multiplication and Division<br>Chapter11: Calculation Rules<br>Chapter12: Fraction, Decimals and Percentages<br>Chapter13: Operation on Fractions and Decimals<br>Chapter14: Proportion and Ratio<br>Chapter15: Data Handling and Representation<br>Chapter16: Statistical Enquiry<br>Chapter17: Coordinate Geometry<br>Chapter18: Symmetry, Reflection and Translation |
| <b>Six</b>   | Chapter 1: Place Value<br>Chapter 2: The Number System<br>Chapter 5: Addition and Subtraction<br>Chapter 6: Multiplication and Division<br>Chapter 7: Number Patterns<br>Chapter 9: Fractions, Percentages and Decimals<br>Chapter10: Calculations with Fractions                     | Chapter 11: Ratio and Proportion<br>Chapter 3 : 2d Shapes and Angles<br>Chapter 4 : 3d Shapes, Volume and Capacity<br>Chapter 12: Data Handling and Statistical Inquiry<br>Chapter 13: The Coordinate Grid<br>Chapter 14: Reflection and Rotation<br>Chapter 8 : Probability   |

| 4. Collins International Primary Math's Second Edition – Collins: |   |  |
|---|---|--|
| Grade   | Semester 1  | Semester 2   |
| <b>One</b>  | Unit 1-4 Whole Numbers<br>Unit 5: Addition as combining two sets.<br>Unit 6: Addition as counting on<br>Unit 10-11: Addition and Subtraction to 10A and B<br>Unit 21: 2D Shapes<br>Unit 22: 3D Shapes<br>Unit 25: Position and Movement<br>Unit 23: Length and Mass<br>Unit 2: Whole Numbers 2<br>Unit 16: Place Value and Ordering to 10<br>Unit 17: Place Value and Ordering to 20            | Unit 7: Subtraction as take away.<br>Unit 8: Subtraction as counting back.<br>Unit 9: Subtraction as difference<br>Unit 12-13: Addition and Subtraction A and B<br>Unit 15: Money<br>Unit 14: Doubling<br>Unit 18-19: Half A and B<br>Unit 24: Capacity and Temperature<br>Unit 20: Time<br>Unit 26-27: Statistics and Probability |
| <b>Two</b>  | Unit 1-3: Whole Numbers 1<br>Unit 4-6: Addition and subtraction<br>Unit 7: Multiplication as repeated Addition<br>Unit 9-10: Division1<br>Unit 20: 2D shapes, Symmetry and Angles<br>Unit 21: 3D shape<br>Unit 22: Length<br>Unit 14: Money<br>Unit 15-16: Place, Value, Ordering and Rounding<br>Unit 9-11: Multiplication and Division2   | Unit 12-13: Times Table A and B<br>Unit 8: Multiplication as an Array<br>Unit 23: Mass<br>Unit 24: Capacity and Temperature<br>Unit 19: Time<br>Unit 17-18: Fraction A and B<br>Unit 25: Position and Movement<br>Unit 26: Statistics<br>Unit 27: Statistics and Chance  |
| <b>Three</b>  | Unit 1: Whole Numbers 1<br>Unit 4: Addition and subtraction 1<br>Unit 8: Multiplication and division1<br>Unit 20: 2D shape<br>Unit 21: 3D Shape<br>Unit 22: Length<br>Unit 23: Mass<br>Unit 2: Whole Numbers 2<br>Unit 6: Addition and subtraction 2<br>Unit 9: Multiplication and division2  | Unit 13: Money<br>Unit 24: Capacity<br>Unit 26-27: Handling data<br>Unit 3: Whole numbers 3<br>Unit 16-18: Fractions<br>Unit 7: Addition and subtraction 3<br>Unit 10: Multiplication and division 3<br>Unit 25: Position and movement<br>Unit 19: Time  |
| <b>Four</b>   | Unit 1-3: Counting Sequences A and B Reading and Writing<br>Unit 4-6: Addition and subtraction 1<br>Unit 7: Times Table<br>Unit 8: Multiples, Factors and Divisibility<br>Unit 9: Multiplication (A)<br>Unit 22: Measuring Instruments<br>Unit 18: Time<br>Unit 26: Statistics<br>Unit 13-14: Place Value, Ordering and Rounding<br>Unit 10: Multiplication (B)<br>Unit 11-12: Division A and B | Unit 13: 2D shape, including symmetry.<br>Unit 19: 2D shape and Symmetry<br>Unit 20: 3D Shapes<br>Unit 24-25: Position, Direction, Movement and Reflection<br>Unit 23: Area and perimeter<br>Unit 15-16: Fractions A and B<br>Unit 17: Percentages<br>Unit 21: Angles<br>Unit 27: Statistics                                       |

| 4. Collins International Primary Math's Second Edition – Collins: |   |  |
|---|---|--|
| Grade   | Semester 1  | Semester 2   |
| <b>Five</b>   | Unit 1: Whole numbers 1<br>Unit 2-3: Addition and subtraction 1<br>Unit 4: Multiples, Factors, Divisibility, Primes and Squares.<br>Unit 6-7: Multiplication Whole numbers A and B<br>Unit 20: 2D shapes and Symmetry<br>Unit 21: 3D shape<br>Unit 17: Coordinates, Translation and Reflection<br>Unit 19: Time<br>Unit 12-13: Fractions A and B<br>Unit 15-16: Fractions | Unit 26-27: Statistics and Probability<br>Unit 8-9: Division Whole Numbers A and B<br>Unit 10-11: Place, Value and Decimals<br>Unit 14 and 17: Percentages, Fractions, and Decimals<br>Unit 22: Angles<br>Unit 23: Area and perimeter<br>Unit 15: Addition and subtraction of Decimals<br>Unit 16: Multiplication of Decimals<br>Unit 18: Ratio and proportion |
| <b>Six</b>  | Unit 1: Whole numbers 1<br>Unit 8: Addition and subtraction 1<br>Unit 11: Multiplication and division1<br>Unit 22: Area and perimeter<br>Unit 18: Length<br>Unit 14: 2D shape<br>Unit 15: 3D shape<br>Unit 17: Position and movement<br>Unit 2: Whole numbers 2<br>Unit 3: Decimals 1<br>Unit 9: Addition and subtraction 2<br>Unit12: Multiplication and division2       | Unit 19: Mass<br>Unit 20: Capacity<br>Unit 23: Handling data<br>Unit 4: Decimals 2<br>Unit 5: Fractions<br>Unit 6: Percentages<br>Unit 7: Ratio and proportion<br>Unit 10: Addition and subtraction 3<br>Unit 13: Multiplication and division 3<br>Unit 21: Time<br>Unit 16: Angles  |

| 5. Cambridge Primary Mathematics Second Edition - Cambridge University Press: |   |  |
|---|---|--|
| Grade   | Semester 1  | Semester 2   |
| <b>One</b>  | Unit 1: Numbers to 10<br>1.1 Counting and Comparing numbers<br>1.2 Read and write numbers and spelling to 10.<br>Unit 2: Geometry 1<br>2.1 2D and 3D Shapes<br>Unit 3: Fraction 1<br>3.1 Making half of shapes.<br>Unit 4: Measures 1<br>4.1 Length<br>Unit 5: working with Numbers to 10<br>1.1 Addition and subtraction<br>Unit 6: Position<br>6.1 Ordinal numbers<br>Unit 7: Statistics 1<br>7.1 Sets and Venn diagram<br>Unit 8: Time 1               | Unit 9: Numbers to 20<br>9.1 Counting to 20<br>9.2 Comparing and ordering numbers and numbers pattern.<br>Unit 10: Geometry 2<br>10.1 2D and 3D shapes<br>Unit 11: Fractions 2<br>11.1 making half of numbers.<br>Unit 12: Measures 2<br>12.1 Mass and Capacity<br>Unit 13: Working with numbers to 20.<br>13.1 Addition and Subtraction using number line.<br>Unit 14: Statistics 2<br>14.1 Carroll diagram, pictograms, and block graph<br>Unit 15: Time 2<br>15.1 Days of the week and months of the year<br>Unit 16: Position, direction, and patterns |
| <b>Two</b>  | Unit1: Numbers to 100<br>1.1 Read and write up to 100,<br>1.2 Counting and Comparing numbers<br>Unit2: Geometry 1<br>2.1 2D and 3D Shapes<br>2.2 Fractions of shapes<br>Unit 3: Measures 1<br>3.1 Length<br>Unit 4: Statistics 1<br>4.1 Carroll diagram and tally chart<br>Unit 5: Working with numbers to 100.<br>1.2 Addition and subtraction<br>1.3 Multiplication and division<br>Unit 6: Money<br>Unit 7: Time<br>7.1 Units of time and the calendar | Unit 8: Numbers to 100<br>8.1 Numbers in words<br>8.2 Fractions of numbers<br>Unit 9: Statistics 2<br>9.1 Venn diagram, pictograms, and block graphs<br>Unit 10: Calculating<br>10.1 Addition and Subtraction (2-digit)<br>10.2 Multiplication and division<br>Unit 11: Geometry 2<br>11.1 Angles and turns.<br>Unit 12: Telling the time.<br>Unit 13: Measures 2<br>13.1 Mass<br>13.2 Capacity<br>Unit 14: Pattern and Probability<br>Unit 15: Symmetry, Position and Movement  |
| <b>Three</b>  | Unit1: Numbers to 1000<br>1.1 Place Values<br>1.2 Comparing and Ordering<br>1.3 Estimation<br>Unit2: Statistics: Tally charts and frequency Tables<br>Unit 3: Addition, Subtraction and Money<br>Unit 4: 3D Shapes<br>Unit 5: Multiplication and division<br>Unit 6: Measurement, area, and Perimeter<br>Unit 7: Fractions of Shapes<br>Unit 8: Time<br>Unit 9: More addition and Subtraction<br>9.1 Addition and subtraction with regrouping tens        | Unit 10: Graphs<br>10.1 Pictograms and bar charts<br>10.2 Venn and Carroll diagram<br>Unit 11: More Multiplication and division<br>Unit 12: More Fractions<br>12.1 Ordering and comparing numbers.<br>12.2 Calculating Fractions<br>Unit 13: Measure<br>13.1 Mass<br>13.2 Capacity and Temperature<br>Unit 14: Time 2<br>14.1 Time and Timetables<br>Unit 15: Angles and Movement<br>15.1 Angles, direction, position, and movement<br>Unit 16: Chance<br>Unit 17: Pattern and Symmetry  |

| 5. Cambridge Primary Mathematics Second Edition - Cambridge University Press: |  |   |
|---|--|---|
| Grade   | Semester 1   | Semester 2  |
| <b>Four</b>   | Unit1: Numbers and the number system<br>Unit2: Time and Timetables<br>Unit 3: Addition, Subtraction of whole numbers<br>Unit 4: Probability<br>Unit 5: Multiplication, multiples, and factors<br>Unit 6: 2D Shapes<br>Unit 7: Fractions<br>7.1 Understanding Fractions<br>7.2 Fractions as Operators<br>Unit 8: Angles<br>8.1 Comparing angles.<br>8.2 Acute and Obtuse<br>8.3 Estimating angles.<br>Unit 9: Comparing, rounding, and dividing.<br>9.1 Rounding, ordering, and comparing whole numbers.<br>9.2 Division of 2-digit numbers   | Unit 10: Collecting and Recording Data<br>Unit 11: Fractions and Percentages<br>11.1 Equivalence, Ordering and comparing fractions.<br>11.2 Percentage<br>Unit 12: Investigating 3D Shapes and nets.<br>Unit 13: Addition and Subtraction<br>13.1 Adding and subtracting efficiently.<br>13.2 Adding and subtracting fractions with same denominator.<br>Unit 14: Area and Perimeter<br>14.1 Estimating and measuring area and perimeter.<br>Unit 15: Special Numbers<br>15.1 Ordering and comparing Numbers.<br>15.2 Test of divisibility<br>Unit 16: Data display and interpretation<br>Unit 17: Multiplication and Division<br>17.1 Using an efficient column method for multiplication.<br>Unit 18: Position, direction, and movement |
| <b>Five</b>   | Unit1: The Number system<br>1.1 Understanding Place Value<br>1.2 Rounding Decimals Numbers<br>Unit2: 2D Shapes and Patterns (Triangles and symmetry)<br>Unit 3: Number and Sequences<br>3.1 Square and triangular numbers<br>3.2 Prime and composite numbers<br>Unit 4: Averages<br>4.1 Mode and Median<br>Unit 5: Addition and Subtraction<br>5.1 Addition and Subtraction including decimals and negative numbers.<br>Unit 6: 3D Shapes<br>6.1 Net of cubes and drawing 3D Shapes<br>Unit 7: Fractions, decimals, and percentages<br>7.1 Understanding Fractions<br>7.2 Percentages, decimals, and fractions<br>Unit 8: Probability<br>8.1 Experiments and simulation<br>Unit 9: Addition and Subtraction of Fractions | Unit 10: Angles<br>Unit 11: Multiplication and Division<br>Unit 12: Data<br>12.1 Representing and interpreting data.<br>12.2 Frequency diagram and line graphs<br>Unit 13: Ratio and Proportion<br>Unit 14: Area and Perimeter<br>Unit 15: Multiplying and dividing fractions and decimals.<br>15.1 Multiplying and dividing fractions.<br>15.2 Multiplying a decimal and a whole number.<br>Unit 16: Time<br>16.1 Time Intervals and time zones<br>Unit 17: Number and the laws of arithmetic<br>Unit 18: Position and direction   |

| 5. Cambridge Primary Mathematics Second Edition - Cambridge University Press: |  |   |
|---|--|---|
| Grade   | Semester 1   | Semester 2  |
| <b>Six</b>  | Unit1: The Number system<br>1.1 Understanding Place Value<br>1.2 Rounding Decimals Numbers<br>Unit2: Numbers and Sequences<br>2.1 Special numbers<br>2.2 Common multiples and factors<br>Unit 3: Averages<br>3.1 Mode, median, mean and range.<br>Unit 4: Addition and Subtraction 1<br>4.1 Positive and negative numbers<br>4.2 Using letters to represent numbers.<br>Unit 5: 2D Shapes<br>5.1 Quadrilaterals and circles<br>5.2 Rotational Symmetry<br>Unit 6: Fractions and percentages<br>6.1 Understanding Fractions<br>6.2 Percentages<br>6.3 Equivalence and comparison<br>Unit 7: Exploring Measures<br>7.1 Rectangles and triangles<br>7.2 Time<br>Unit 8: Addition and Subtraction 2<br>8.1 Adding and subtracting decimals numbers and fractions.<br>Unit 9: Probability | Unit 10: Multiplication and Division 1<br>Unit 11: 3D Shapes<br>11.1 Shapes and Nets<br>1.2 Capacity and volume<br>Unit 12: Ratio and Proportion<br>Unit 13: Angles<br>13.1 Measuring and drawing angles.<br>13.2 Angles in a triangle<br>Unit 14: Multiplication and Division 2<br>14.1 Multiplying and dividing fractions.<br>14.2 Multiplying and dividing decimals.<br>Unit 15: Data<br>15.1 Bar charts, dot plots, waffle diagram and pie charts<br>15.2 Frequency diagrams, line graphs and scatter graphs<br>Unit 16: The laws of arithmetic<br>Unit 17: Transformations<br>17.1 Coordinates and transformations<br>17.2 Reflections and Rotations |

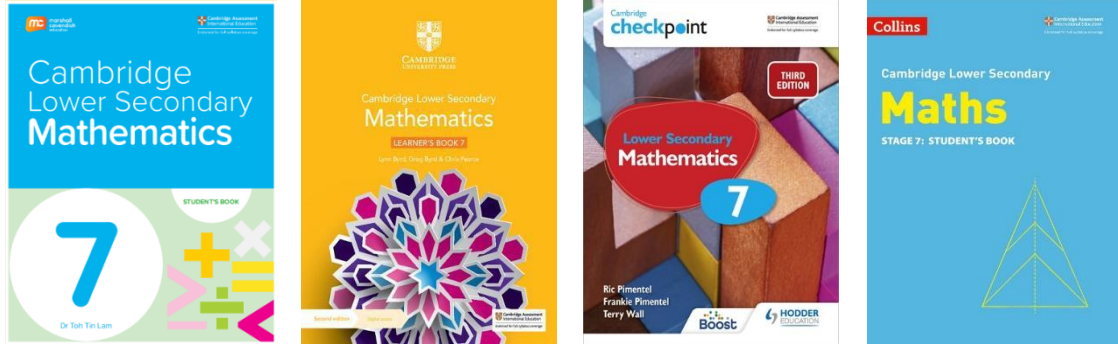


| 6. Hodder Cambridge Primary Mathematics Second Edition - Hodder Education: |  |  |
|--|--|--|
| Grade  | Semester 1   | Semester 2   |
| <b>One</b>   | Unit 1: Numbers to 20<br>Unit 2: Addition and Subtraction<br>Unit 3: Shapes, Direction and Movement<br>Unit 4: Statistical methods<br>Unit 5: Numbers to 20<br>Unit 6: Time and Measurement<br>Unit 7: Statistical methods<br>Unit 8: Shapes, Direction and Movement<br>Unit 9: Numbers to 20                                      | Unit 10: Time and Measurement<br>Unit 11: Addition and Subtraction<br>Unit 12: Fraction<br>Unit 13: Numbers to 20<br>Unit 14: Addition and Subtraction<br>Unit 15: Shapes, Direction and Movement<br>Unit 16: Statistical methods<br>Unit 17: Fraction<br>Unit 18: Time and Measurement  |
| <b>Two</b>   | Unit 1: Number to 100<br>Unit 2: Addition and Subtraction 1<br>Unit 3: Shapes, Direction and Movement 1<br>Unit 4: Statistical Methods and Chance 1<br>Unit 5: Multiplication and Division 1<br>Unit 6: Time and Measurement 1<br>Unit 7: Addition and Subtraction 2<br>Unit 8: Money<br>Unit 9: Number patterns and place Value 1 | Unit 10: Time and Measurement 2<br>Unit 11: Shapes, Direction and Movement 2<br>Unit 12: Fractions 1<br>Unit 13: Statistical Methods and Chance 2<br>Unit 14: Number patterns and place Value 2<br>Unit 15: Addition and Subtraction 2<br>Unit 16: Multiplication and Division 2<br>Unit 17: Fractions 2<br>Unit 18: Time and Measurement 3                              |
| <b>Three</b>   | Unit 1: Numbers to 1000<br>Unit 2: Addition and Subtraction 1<br>Unit 3: Shapes and Angles 1<br>Unit 4: Statistical Methods and Chance 1<br>Unit 5: Multiplication and Division 1<br>Unit 6: Time and Measurement 1<br>Unit 7: Addition and Subtraction 2<br>Unit 8: Patterns, Place Value and Division                            | Unit 9: Multiplication and Division 2<br>Unit 10: Time and Measurement 2<br>Unit 11: Shapes and Angles 2<br>Unit 12: Fractions 1<br>Unit 13: Patterns, Place Value and Rounding<br>Unit 14: Addition and Subtraction 2<br>Unit 15: Time and Measurement 2<br>Unit 16: Multiplication and Division 2<br>Unit 17: Fractions 2<br>Unit 18: Statistical Methods and Chance 2 |
| <b>Four</b>  | Unit 1: Number<br>Unit 2: 2D Shapes<br>Unit 3: Calculation 1<br>Unit 4: Time 1<br>Unit 5: Statistical Methods<br>Unit 6: Fractions 1<br>Unit 7: Calculation 2<br>Unit 8: Probability<br>Unit 9: Number 2   | Unit 9: Number 2<br>Unit 10: 2D and 3D Shapes<br>Unit 11: Fractions 2<br>Unit 12: Angles, Position and Direction 1<br>Unit 13: Number 3<br>Unit 14: Statistical Methods 2<br>Unit 15: Calculation 3<br>Unit 16: Time 2<br>Unit 17: Fractions and Percentages<br>Unit 18: Angles, Position and Direction 2  |
| <b>Five</b>  | Unit 1: Number<br>Unit 2: Angles and Shapes<br>Unit 3: Calculation 1<br>Unit 4: Time 1<br>Unit 5: Statistical Methods 1<br>Unit 6: Fraction, Decimals, Percentages and Proportion<br>Unit 7: Number 2<br>Unit 8: Probability<br>Unit 9: Calculation<br>Unit 10: Location and Movement  | Unit 11: Fraction, Decimals, Percentages and Proportion<br>Unit 12: Angles and Shapes<br>Unit 13: Number 2<br>Unit 14: Location and Movement<br>Unit 15: Calculation<br>Unit 16: Statistical Methods 2<br>Unit 17: Fraction, Decimals, Percentages and Proportion<br>Unit 18: Time 2   |
| <b>Six</b>   | Unit 1: Number 1<br>Unit 2: 2D and 3D Shapes 1<br>Unit 3: Calculation 1<br>Unit 4: Statistical Methods 1<br>Unit 5: Fraction, Decimals, Ratio Percentages and Proportion<br>Unit 6: Probability<br>Unit 7: Number 2<br>Unit 8: The coordinate grid 1<br>Unit 9: Calculation 2  | Unit 10: Probability<br>Unit 11: Fraction, Decimals, Ratio Percentages and Proportion<br>Unit 12: 2D and 3D Shapes 2<br>Unit 13: Number 3<br>Unit 14: The coordinate grid 2<br>Unit 15: Calculation 3<br>Unit 16: 2D and 3D Shapes 3<br>Unit 17: Fraction, Decimals, Ratio Percentages and Proportion<br>Unit 18: Statistical Methods 2                                  |



## الفصل الثالث: الصفوف الدراسية (7-8)

### Section (3): Grades (7-8)



## الفهرس

| Title   | Page | الموضوع   |
|---|------|---|
| List of Approved Series and their Compulsory Components | 23   | قائمة السلاسل التعليمية الأساسية المعتمدة ومكوناتها الإلزامية |
| ISBNs of the Approved Series Components                 | 24   | أرقام ال ISBNs لمكونات السلاسل التعليمية الأساسية المعتمدة    |
| Teaching Aids   | 26   | الوسائل التعليمية   |
| Content Distribution                                    | 27   | توزيع المحتوى على الفصلين الدراسيين                           |

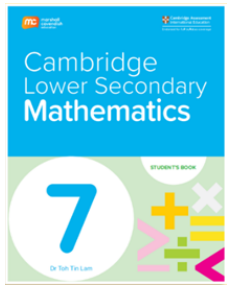
قائمة السلاسل التعليمية الأساسية المعتمدة ومكوناتها الإلزامية لمادة الرياضيات – الصفوف (7-8)

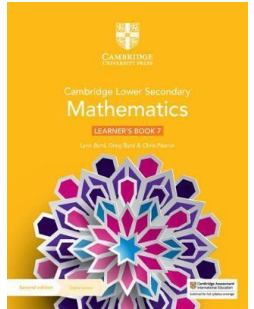
List of Approved Series and their Compulsory Components – Grades (7- 8)

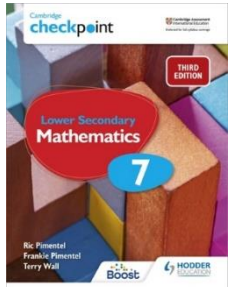
|   | Titles  | Publisher                    | Components           | Grade | Comments     |
|---|---|------------------------------|----------------------|-------|--------------|
| 1 | Cambridge Lower Secondary Mathematics 1 <sup>st</sup> Edition       | Marshall Cavendish Education | Student's Book 7     | 7     | New approval |
|   |   |                              | Workbook 7           |       |              |
|   |   |                              | Teacher’s Guide 7    |       |              |
|   |   |                              | Student's Book 8     | 7&8   |              |
|   |   |                              | Workbook 8           |       |              |
|   |   |                              | Teacher’s Guide 8    |       |              |
|   |   |                              | Student's Book 9     | 8     |              |
|   |   |                              | Workbook 9           |       |              |
|   |   |                              | Teacher’s Guide9     |       |              |
| 2 | Cambridge Lower Secondary Mathematics 2 <sup>nd</sup> Edition       | Cambridge University Press   | Learner’s Book7      | 7     |              |
|   |   |                              | Workbook 7           |       |              |
|   |   |                              | Teacher’s Resource 7 |       |              |
|   |   |                              | Learner’s Book 8     | 7 & 8 |              |
|   |   |                              | Workbook 8           |       |              |
|   |   |                              | Teacher’s Resource 8 |       |              |
|   |   |                              | Learner’s Book 9     | 8     |              |
|   |   |                              | Workbook 9           |       |              |
|   |   |                              | Teacher’s Resource 9 |       |              |
| 3 | Cambridge Checkpoint Lower Secondary Math’s 3 <sup>rd</sup> Edition | Hodder Education             | Student's Book 7     | 7     |              |
|   |   |                              | Workbook 7           |       |              |
|   |   |                              | Teacher’s Guide 7    |       |              |
|   |   |                              | Student's Book8      | 7 & 8 |              |
|   |   |                              | Workbook 8           |       |              |
|   |   |                              | Teacher’s Guide 8    |       |              |
|   |   |                              | Student's Book 9     | 8     |              |
|   |   |                              | Workbook 9           |       |              |
|   |   |                              | Teacher’s Guide 9    |       |              |
| 4 | Cambridge Lower Secondary Math’s 2 <sup>nd</sup> Edition            | Collins                      | Student Book 7       | 7     |              |
|   |   |                              | Workbook 7           |       |              |
|   |   |                              | Teacher's Guide 7    |       |              |
|   |   |                              | Student Book 8       | 7 & 8 |              |
|   |   |                              | Workbook 8           |       |              |
|   |   |                              | Teacher's Guide 8    |       |              |
|   |   |                              | Student Book 9       | 8     |              |
|   |   |                              | Workbook 9           |       |              |
|   |   |                              | Teacher's Guide 9    |       |              |

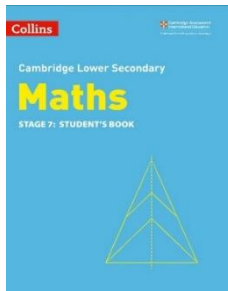
أرقام الـ ISBNs لمكونات السلاسل التعليمية الأساسية المعتمدة لمادة الرياضيات - الصفوف (7-8)

ISBNs of the Approved Series Components - Grades (7- 8)

| 1. Cambridge Checkpoint Math's 3 <sup>rd</sup> Edition - Hodder Education: |       |               |             |  |
|--|-------|---------------|-------------|--|
| Component  | Grade | ISBN          | Note        | Book Cover   |
| Student's Book 7   | 7     | 9789815090390 | For student |  |
| Workbook 7   |       | 9789815090420 | For student |  |
| Teacher's Guide 7  |       | 9789815090451 | For teacher |  |
| Student's Book 8   | 7 – 8 | 9789815090406 | For student |  |
| Workbook 8   |       | 9789815090437 | For student |  |
| Teacher's Guide 8  |       | 9789815090468 | For teacher |  |
| Student's Book 9   | 8     | 9789815090413 | For student |  |
| Workbook 9   |       | 9789815090444 | For student |  |
| Teacher's Guide 9  |       | 9789815090475 | For teacher |  |

| 2. Cambridge Lower Secondary Mathematics 2 <sup>nd</sup> Edition - Cambridge University Press: |       |               |             |   |
|--|-------|---------------|-------------|---|
| Component  | Grade | ISBN          | Note        | Book Cover  |
| Learner's Book 7   | 7     | 9781108771436 | For student |  |
| Workbook 7   |       | 9781108746366 | For student |   |
| Teacher's Resource 7   |       | 9781108771405 | For teacher |   |
| Learner's Book 8   | 7 & 8 | 9781108771528 | For student |   |
| Workbook 8   |       | 9781108746403 | For student |   |
| Teacher's Resource 8   |       | 9781108771450 | For teacher |   |
| Learner's Book 9   | 8     | 9781108783774 | For student |   |
| Workbook 9   |       | 9781108746502 | For student |   |
| Teacher's Resource 9   |       | 9781108783897 | For teacher |   |

| 3. Cambridge Checkpoint Math's 3 <sup>rd</sup> Edition - Hodder Education: |       |               |             |   |
|--|-------|---------------|-------------|---|
| Component  | Grade | ISBN          | Note        | Book Cover  |
| Student's Book 7   | 7     | 9781398301948 | For student |  |
| Workbook 7   |       | 9781398301269 | For student |   |
| Teacher's Guide 7  |       | 9781398300729 | For teacher |   |
| Student's Book 8   | 7 – 8 | 9781398301993 | For student |   |
| Workbook 8   |       | 9781398301283 | For student |   |
| Teacher's Guide 8  |       | 9781398300736 | For teacher |   |
| Student's Book 9   | 8     | 9781398302044 | For student |   |
| Workbook 9   |       | 9781398301306 | For student |   |
| Teacher's Guide 9  |       | 9781398300743 | For teacher |   |

| 4. Cambridge Lower Secondary Mathematics – Collins: |       |               |             |   |
|---|-------|---------------|-------------|---|
| Component   | Grade | ISBN          | Note        | Book Cover  |
| Student Book 7                                      | 7     | 9780008340858 | For student |  |
| Workbook 7  |       | 9780008378561 | For student |   |
| Teacher's Guide 7                                   |       | 9780008378592 | For teacher |   |
| Student Book 8                                      | 7 – 8 | 9780008378547 | For student |   |
| Workbook 8  |       | 9780008378578 | For student |   |
| Teacher's Guide 8                                   |       | 9780008378608 | For teacher |   |
| Student Book 9                                      | 8     | 9780008378554 | For student |   |
| Workbook 9  |       | 9780008378585 | For student |   |
| Teacher's Guide 9                                   |       | 9780008378615 | For teacher |   |

## Teaching Aids - Grades (7- 8)

Schools must provide the following teaching aids:

على المدارس توفير الوسائل التعليمية الآتية:

1. Master Mathematical Instruments (for teacher use): Two set squares, a  $180^\circ$  protractor, a ruler, a compass. أدوات هندسية بحجم كبير لاستخدام المعلم على السبورة: المثلث الثلاثيني الستيني والمثلث متساوي الساقين، منقلة، مسطرة، فرجار.
2. A range of measurement tools for: Weight, length, distances, and capacity. مجموعة أدوات القياس لكل مما يلي: الأوزان، الأطوال، المسافات، السعة.
3. Grid whiteboard (In addition to the normal whiteboard). سبورة الرسم البياني (بالإضافة للسبورة العادية في الفصل).
4. Different sets of dices with different number of sides. مجموعة من أحجار النرد متنوعة في عدد الأوجه.
5. A laptop for each teacher. جهاز حاسوب لكل معلم.
6. Projectors. أجهزة عرض.
7. Internet connection. شبكة إنترنت متاحة.

توزيع المحتوى على الفصلين الدراسيين – الصفوف (7-8)

Content Distribution - Grades (7- 8)

| 1. Cambridge Lower Secondary Mathematics 1 <sup>st</sup> Edition – Marshall Cavendish Education: |   |  |
|--|---|--|
| Grade 7  |   |  |
| Semester   | Chapters  | Main Resource  |
| 1 <sup>st</sup> Semester   | Chapter 1: Numbers<br>Chapter 2: Fractions , Decimals and Percentages .<br>Chapter 3: Ratio and Proportion.<br>Chapter 4:: Algebra<br>Chapter 5: Inequalities, Sequences ,Function and Graphs<br>Chapter 6 : Statistics<br>Chapter 7 : Probabiility<br>Chapter 8 : 2D and 3D Shapes.<br>Chapter 9 :Maps , Scales and Transformation .<br>Chapter 10 : Measurement of 2D and 3D Shapes . | Student Book 7<br><br>Work book 7  |
| 2 <sup>nd</sup> Semester   | Chapter 1: Numbers<br>Chapter 2 : Fractions, Decimals and Percentages .<br>Chapter 3 : Ratio and Proportion .<br>Chapter 4 : Algebraic Manipulation.<br>Chapter 6 : Measurement , Distance and Angles .<br>Chapter 9 :Statistics .<br>Chapter 10 : Probabiility   | Work Book 8<br>[From Page 1 to page 45]<br><br>[From Page 69 to page 89]<br><br>[ From Page 133 to page 164] |
| Grade 8  |   |  |
| 1 <sup>st</sup> Semester   | Chapter 3 : Ratio and Proportion .<br>Chapter 4: Algebraic Manipulation.<br>Chapter 5 : Inequalities ,Sequences, Function and Graphs.<br>Chapter 7 :3D shapes<br>Chapter 8 : Coordinates and Transformation .   | Work Book8<br>[ From Page 46 to page 68]<br>[From Page 90 to page 132]                                       |
|  | Chapter 1 : Numbers<br>Chapter 2 : Fractions, Decimals and Percentages .<br>Chapter 3 :Ratio and Proportion .<br>Chapter 4 : Algebra .  | Work Book 9<br>[ from Page 1 to page 71]   |
| 2 <sup>nd</sup> Semester   | Chapter 5: Inequalities ,Sequences ,Function and Graphs<br>Chapter 6 2D and 3D Shapes .<br>Chapoter 7 : Angles , Bearings and Scale Drawings.<br>Chapoter 8 : Coordinates and Transformation.<br>Chapter 9 : Statistics .<br>Chapter 10 : Probabiility .  | Work Book 9<br>[ from Page 72 to page 184]   |

| 2. Cambridge Lower Secondary Mathematics 2 <sup>nd</sup> Edition - Cambridge University Press: |  |   |
|--|--|---|
| Grade 7  |  |   |
| Semester   | Chapters   | Main Resource                               |
| 1 <sup>st</sup> Semester   | Unit 1: Integers<br>Unit 2: Expressions, formulae, and equations<br>Unit 3: Place value, ordering and rounding.<br>Unit 4: Decimals<br>Unit 5: Angles and constructions<br>Unit 6: Collecting data.<br>Unit 7: Fraction<br>Unit 8: Shapes and symmetry<br>Unit 9: Sequences and Functions<br>Unit 10 : Percentages<br>Unit 11 : Graphs<br>Unit 12 : Ratio and proportion | Workbook 7:<br>From page 7<br>to page 161   |
| 2 <sup>nd</sup> Semester   | Unit 13: Probability.<br>Unit 14: Position and transformation .<br>Unit 15: Shapes, Area, and volume.<br>Unit 16: Interpreting and discussing results.   | Workbook 7:<br>From page 164<br>to page 247 |
|  | Unit 1: Integers<br>Unit 2: Expressions, formulae, and equations.<br>Unit 3: Place value, ordering and rounding.<br>Unit 4: Decimals<br>Unit 5: Angles and constructions<br>Unit 6: Collecting data.<br>Unit 7: Fraction<br>Unit 8: Shapes and symmetry  | Workbook 8:<br>From page 7<br>to page 105   |
| Grade 8  |  |   |
| 1 <sup>st</sup> Semester   | Unit 9: Sequences and functions<br>Unit 10: Percentages<br>Unit 11: Graphs<br>Unit 12: Ratio and proportion<br>Unit 13: Probability<br>Unit 14 Position and transformation<br>Unit 15: Shapes, area, and volume<br>Unit 16: Interpreting and results   | WorkBook8:<br>From page 112<br>to page 232  |
|  | Unit 1: Number and calculation<br>Unit 2: Expressions and formulae<br>Unit 3: Decimals, percentages and rounding.<br>Unit 4: Equations and inequalities  | WorkBook9:<br>From page 7<br>to page 63     |
| 2 <sup>nd</sup> Semester   | Unit 5: Angles<br>Unit 6: Statistical investigations<br>Unit 7: Shapes and measurements<br>Unit 8: Fractions<br>Unit 9: Sequences and functions<br>Unit 10: Graphs<br>Unit 11: Ratio and proportion<br>Unit 12: Probability<br>Unit 13: Position and transformation<br>Unit 14: Volume, surface area and symmetry<br>Unit 15: Interpreting and discussing results        | Workbook 9:<br>From page 66<br>to page 203  |



| 3. Cambridge Checkpoint Math's 3 <sup>rd</sup> Edition - Hodder Education: |  |   |
|--|--|---|
| Grade 7  |  |   |
| Semester   | Chapters   | Main Resource                                     |
| 1 <sup>st</sup> Semester   | Unit 1: Addition, subtraction, Multiplication and Division<br>Unit 2: Properties of two-dimensional shapes<br>Unit 3: Data collection and sampling<br>Unit 4: Area of triangle<br>Unit 5: Order of operations<br>Unit 6: Algebra beginning- using letters for unknown numbers.<br>Unit 7: Organizing and presenting.<br>Unit 8: Properties of three- dimensional shapes<br>Unit 9: Multiples and factors<br>Unit 10: Probability and the likelihood of events<br>Unit 11: Rounding and estimation – calculations with decimals.<br>Unit 12: Mode, mean, median, and range.<br>Unit 13: Transformations of two-dimensional shapes<br>Unit 14: Manipulating algebraic expressions.<br>Unit 15: Fractions, decimals, and percentages<br>Unit 16: Probability and outcomes<br>Unit 17: Angle properties<br>Unit 18: Algebraic expressions and formulae<br>Unit 19: Probability experiments<br>Unit 20: Introduction to equations and inequalities<br>Unit 21: Sequences<br>Unit 22: Percentages of whole numbers<br>Unit 23: Coordinates | Student's Book 7:<br>From page 1<br>to page 185   |
| 2 <sup>nd</sup> Semester   | Unit 24: Introduction to functions<br>Unit 25: Coordinates and two – dimensional shapes<br>Unit 26: Squares, square roots, cubes, and cube roots<br>Unit 27: Linear functions<br>Unit 28: Converting units and scale drawings.<br>Unit 29: Ratio<br>Unit 30: Graphs and rates of change  | Student's Book 7:<br>From page 192<br>to page 247 |
|  | Unit 1: Multiplication and division<br>Unit 2: Hierarchy of quadrilaterals<br>Unit 3: Data collection and sampling methods<br>Unit 4: Parallelograms, trapezia, and circles<br>Unit 5: Order of operations<br>Unit 6: Expressions, formulae, and equations<br>Unit 7: Recording, organizing, and representing data.<br>Unit 8: Properties of three – dimensional shapes<br>Unit 9 : Factors and multiples<br>Unit 10 : Complementary events<br>Unit 11 : Decimals and place value<br>Unit 12: Comparing and interpreting.<br>Unit 13: Transformation of 2D shapes<br>Unit 14: Fractions and decimals<br>Unit 15: Manipulating algebraic expressions.   | Student's Book 8:<br>From page 1<br>to page 127   |

### 3. Cambridge Checkpoint Math's 3<sup>rd</sup> Edition - Hodder Education:

#### Grade 8

| Semester                 | Chapters   | Main Resource                                     |
|--------------------------|--|---|
| 1 <sup>st</sup> Semester | Unit 16: Combined events<br>Unit 17: Constructions, lines, and angles<br>Unit 18: Algebraic expressions and formulae<br>Unit 19: Probability experiments<br>Unit 20: Equations and inequalities<br>Unit 21: Describing sequences.<br>Unit 22: Percentage increases and decreases.<br>Unit 23: 2D representations of 2D shapes<br>Unit 24: Functions<br>Unit 25: Geometry and translations<br>Unit 26: Squares, square roots, cubes, and cube roots<br>Unit 27: Graphs and equations of straight lines<br>Unit 28: Distances and bearings<br>Unit 29: Ratio<br>Unit 30: Reading and interpreting graphs   | Student's Book 8:<br>From page 148<br>to page 261 |
|                          | Unit 1: Indices and standard form<br>Unit 2: Pythagoras' theorem<br>Unit 3: Data collection and sampling<br>Unit 4: Area and circumference of a circle<br>Unit 5: Order of operations with algebra<br>Unit 6: Large and small units<br>Unit 7: Record, organize and represent data.<br>Unit 8: Surface area and volume of prisms   | Student's Book 9:<br>From page 1<br>to page 55    |
| 2 <sup>nd</sup> Semester | Unit 9: Rational and irrational number<br>Unit 10: Mutually exclusive events<br>Unit 11: Rounding and estimating numbers.<br>Unit 12: Further data interpretation<br>Unit 13: Further transformations<br>Unit 14: Further fractions and decimals<br>Unit 15: Manipulating algebraic expressions.<br>Unit 16: Combined events<br>Unit 17: Further constructions, polygons, and angles<br>Unit 18: Further algebraic expressions and formulae<br>Unit 19: Probability – expected and relative frequency<br>Unit 20: Further algebraic equations and inequalities<br>Unit 21: Linear and quadratic sequences<br>Unit 22: Compound percentages<br>Unit 23: Scale and area factors of enlargement<br>Unit 24: Function and their representation<br>Unit 25: Coordinates and straight-line segments<br>Unit 26: Estimating surds.<br>Unit 27: Linear functions and solving Simultaneous linear equations.<br>Unit 28: Bearings and scale drawings<br>Unit 29: Direct and inverse proportion<br>Unit 30: Compound measures and graphs | Student's Book 9:<br>From page 61<br>to page 240  |

| 4. Cambridge Lower Secondary Mathematics – Collins: |   |   |
|---|---|---|
| Grade 7   |   |   |
| Semester  | Chapters  | Main Resource                                     |
| 1 <sup>st</sup> Semester                            | Chapter 1: Factors<br>Chapter 2: 2D and 3D Shapes<br>Chapter 3: Collecting Data<br>Chapter 4: Negative numbers and indices<br>Chapter 5: Expressions<br>Chapter 6: Symmetry<br>Chapter 7: Rounding and Decimals<br>Chapter 8: Presenting and interpreting data 1.<br>Chapter 9: Fractions<br>Chapter 10: Manipulating expressions.<br>Chapter 11: Angles<br>Chapter 12: Measures of average and spread.<br>Chapter 13: Calculations<br>Chapter 14: Functions and formulae<br>Chapter 15: Area and volume<br>Chapter 16: Fractions, decimals, and percentages<br>Chapter 17: Probability 1<br>Chapter 18: Transformations<br>Chapter 19: Percentages<br>Chapter 20: Presenting and interpreting data 2 | Student's Book 7:<br>From page 2<br>to page 229   |
| 2 <sup>nd</sup> Semester                            | Chapter 21: Equations and inequalities<br>Chapter 22: Ratio and proportion<br>Chapter 23: Probability<br>Chapter 24: Sequences<br>Chapter 25: Accurate drawing<br>Chapter 26: Thinking statistically.<br>Chapter 27: Relationships and graphs   | Student's Book 7:<br>From page 223<br>to page 318 |
|   | Chapter 1: Negative numbers, indices, and roots<br>Chapter 2: 2D and 3D Shapes<br>Chapter 3: Collecting Data<br>Chapter 4: Factors and rational numbers<br>Chapter 5: Expressions<br>Chapter 6: Angles<br>Chapter 7: Place value, rounding and decimals.<br>Chapter 8: Presenting and interpreting data 1.<br>Chapter 9: Functions and formulae<br>Chapter 10: Fractions<br>Chapter 11: Length, area, and volume<br>Chapter 12: Probability 1<br>Chapter 13: Calculations   | Student's Book 8:<br>From page 2<br>to page 165   |

| 4. Cambridge Lower Secondary Mathematics – Collins: |  |   |
|---|--|---|
| Grade 8   |  |   |
| Semester  | Chapters   | Main Resource                                     |
| 1 <sup>st</sup> Semester                            | Chapter 14: Equations and inequalities<br>Chapter 15: Midpoints<br>Chapter 16: Fractions, decimals, and percentages<br>Chapter 17: Presenting and interpreting data 2<br>Chapter 18: Transformations<br>Chapter 19: Percentages<br>Chapter 20: Sequences<br>Chapter 21: Probability 2<br>Chapter 22: Ratio and proportion<br>Chapter 23: Relationships and graphs<br>Chapter 24: Thinking statistically.<br>Chapter 25: Accurate drawing   | Student's Book 8:<br>From page 164<br>to page 331 |
|   | Chapter 1: Indices, roots, and rational numbers<br>Chapter 2: Angles<br>Chapter 3: Collecting and organizing Data.<br>Chapter 4: Standard form<br>Chapter 5: Expressions<br>Chapter 6: Transformations<br>Chapter 7: Presenting and interpreting data 1  | Student's Book 9:<br>From page 2<br>to page 85    |
| 2 <sup>nd</sup> Semester                            | Chapter 8: Rounding and decimals.<br>Chapter 9: Functions and formulae<br>Chapter 10: Accurate drawing<br>Chapter 11: Fractions<br>Chapter 12: Probability 1<br>Chapter 13: Equations and inequalities<br>Chapter 14: Calculations<br>Chapter 15: Pythagoras's theorem<br>Chapter 16: Measures of averages and spread.<br>Chapter 17: Percentages<br>Chapter 18: Sequences<br>Chapter 19: Area and measures<br>Chapter 20: Presenting and interpreting data 2.<br>Chapter 21: Ratio and proportion<br>Chapter 22: Relationships and graphs<br>Chapter 23: Probability 2<br>Chapter 24: 3D Shapes<br>Chapter 25: Simultaneous equations<br>Chapter 26: Thinking statistically | Student's Book 9:<br>From page 101<br>to page 333 |

## الفصل الرابع: المرحلة الدراسية (9-10)

### Section (4): Grades (9-10)



## الفهرس

| Title                                    | Page | الموضوع  |
|--|------|--|
| List of Approved Essential Resources     | 34   | قائمة المصادر التعليمية الأساسية المعتمدة                    |
| Components of Resources with their ISBNs | 35   | مكونات السلاسل التعليمية الأساسية المعتمدة مع أرقام ال ISBNs |
| Teaching Aids                            | 37   | الوسائل التعليمية  |
| Learning Outcomes Distribution           | 38   | توزيع المخرجات التعليمية على الفصلين الدراسيين               |

قائمة المصادر التعليمية الأساسية المعتمدة لمادة الرياضيات – الصفوف (9-10)

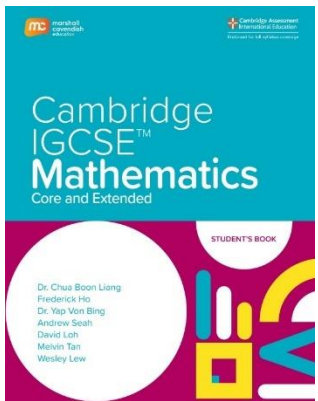
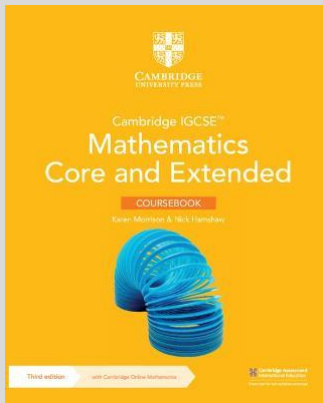
List of Approved Essential Resources – Math – Grades (9- 10)

| No | Titles   | Publisher                    | Components                 | Comments   |
|----|--|------------------------------|----------------------------|--|
| 1  | Cambridge IGCSE Mathematics Core and Extended (First Edition)        | Marshall Cavendish Education | Student's Book             | New approval   |
|    |  |                              | Workbook                   |  |
|    |  |                              | Teacher's Guide            |  |
| 2  | Cambridge IGCSE Mathematics Core and Extended (Third Edition )       | Cambridge University Press   | Coursebook                 | New approval   |
|    |  |                              | Practice Book              |  |
|    |  |                              | Digital Teacher's Resource |  |
| 3  | Cambridge IGCSE Mathematics Core and Extended (Second Edition )      | Cambridge University Press   | Coursebook                 | Last year approval<br>(only for grade 10 this year ) |
|    |  |                              | Practice Book              |  |
|    |  |                              | Teacher's Resource         |  |
| 4  | Pemberton Mathematics for Cambridge IGCSE – Extended (Third Edition) | Oxford University Press      | Coursebook                 |  |
|    |  |                              | Teacher Resource Pack      |  |
| 5  | Cambridge IGCSE Math's (Fourth Edition)                              | Collins                      | Student Book               |  |
|    |  |                              | Teacher Guide              |  |



مكونات السلاسل التعليمية الأساسية المعتمدة مع أرقام (ISBNs) لمادة الرياضيات – الصفوف (9-10)

Components of Math Resources with their ISBNs- Grades (9- 10)

|   | Components   | Publisher                    | ISBN          | Book Cover  |
|---|--|------------------------------|---------------|---|
| 1 | Cambridge IGCSE Mathematics Core and Extended Student's Book (First Edition) | Marshall Cavendish Education | 9789814913065 |   |
|   | Cambridge IGCSE Mathematics Core and Extended Workbook (First Edition)       |                              | 9789814913072 |   |
|   | Cambridge IGCSE Mathematics Core and Extended Teacher's Book (First Edition) |                              | 9789814913089 |   |
| 2 | Cambridge IGCSE Mathematics Core and Extended Coursebook (Third Edition )    | Cambridge University Press   | 9781009343671 |  |
|   | Cambridge IGCSE Mathematics Core and Extended Practice Book                  |                              | 9781009297974 |   |
|   | Cambridge IGCSE Mathematics Core and Extended Digital Teacher's Resource     |                              | 9781009298209 |   |



|   |  |                            |                      |   |
|---|--|----------------------------|----------------------|---|
| 3 | Cambridge IGCSE Mathematics Core and Extended - Coursebook (Second Edition)                | Cambridge University Press | 9781108437189        |    |
|   | Cambridge IGCSE Mathematics Extended - Practice Book (Second Edition)                      |                            | 9781108437219        |   |
|   | Cambridge IGCSE Mathematics - Teacher's Resource (Second Edition)                          |                            | 9781108437271 online |   |
| 4 | Pemberton Mathematics for Cambridge IGCSE - Extended (Third Edition)                       | Oxford University Press    | 9780198428402        |   |
|   | Pemberton Mathematics for Cambridge IGCSE Teacher Resource Pack – Extended (Third Edition) |                            | 9780198428473        |   |
| 5 | Cambridge IGCSE math's - Student book (Fourth Edition)                                     | Collins                    | 9780008546052        |  |
|   | Cambridge IGCSE math's - Teacher Guide (Fourth Edition)                                    |                            | 9780008546069        |   |
|   | Cambridge IGCSE Mathematics Extended - Practice Book (Second Edition)                      |                            | 9781108437219        |   |
|   | Cambridge IGCSE Mathematics - Teacher's Resource (Second Edition)                          |                            | 9781108437271 online |   |

Teaching Aids - Math - Grades (9- 10)

Schools must provide the following teaching aids:

على المدارس توفير الوسائل التعليمية الآتية:

1. Master Mathematical Instruments (for teachers use): Two set squares, a  $180^\circ$  protractor, a ruler, a compass.
2. Grid whiteboard (In addition to the normal whiteboard).
3. A laptop for each teacher.
4. Projectors.
5. Internet connection.

1. أدوات هندسية بحجم كبير لاستخدام المعلم على السبورة: المثلث الثلاثيني الستيني والمثلث متساوي الساقين، منقلة، مسطرة، فرجار.
2. سبورة الرسم البياني (بالإضافة للسبورة العادية في الفصل).
3. جهاز حاسوب لكل معلم.
4. جهاز عرض.
5. شبكة إنترنت متاحة.

Learning Outcomes Distribution - Math - Grades (9- 10)

| Grade (9)               |  |
|-------------------------|--|
| First Semester          |  |
| 1) Number               | <p><b>Indices</b></p> <ul style="list-style-type: none"> <li>Understand the meaning and rules of indices.</li> <li>Use the standard form <math>A \times 10^n</math> where n is a positive or negative integer, and <math>1 \leq A &lt; 10</math></li> </ul> <p><b>Real Numbers</b></p> <ul style="list-style-type: none"> <li>Identify and use real numbers (Which includes rational &amp; irrational numbers)</li> <li>Convert recurring decimals to fractions (And opposite)</li> </ul> <p><b>Proportion</b></p> <ul style="list-style-type: none"> <li>Increase and decrease a quantity by a given ratio.</li> <li>Use common measures of rate.</li> <li>Calculate average speed.</li> </ul> <p><b>Percentages</b></p> <ul style="list-style-type: none"> <li>Calculate a given percentage of a quantity.</li> <li>Express one quantity as a percentage of another</li> <li>Calculate percentage increase or decrease.</li> <li>Carry out calculations involving reverse percentages</li> </ul> |
| 2) Algebra              | <p><b>Algebraic Manipulation</b></p> <ul style="list-style-type: none"> <li>Construct and transform complicated formulae and equations.</li> <li>Manipulate directed numbers.</li> <li>Use brackets and extract common factors.</li> <li>Expand products of algebraic expressions</li> <li>Factorize where possible expressions of the form:</li> </ul> $ax + bx + kay + kby$ $a^2x^2 - b^2y^2$ $a^2 + 2ab + b^2$ $ax^2 + bx + c$ <ul style="list-style-type: none"> <li>Manipulate algebraic fractions.</li> <li>Factorize and simplify rational expressions</li> </ul>   |
| 3) Co-ordinate Geometry | <p><b>Straight Line Graphs</b></p> <ul style="list-style-type: none"> <li>Find the gradient of a straight line.</li> <li>Calculate the gradient of a straight line from the co-ordinates of two points on it.</li> <li>Calculate the length and the co-ordinates of the midpoint of a straight line from the co-ordinates of its end points.</li> <li>Interpret and obtain the equation of a straight-line graph in the form <math>y = mx + c</math></li> <li>Determine the equation of a straight line parallel to a given line.</li> <li>Find the gradient of parallel and perpendicular lines</li> </ul>  |
| 4) Mensuration          | <p><b>Arc Length and Sector Area of the Circle</b></p> <ul style="list-style-type: none"> <li>Solve problems involving the arc length and sector area as fractions of the circumference and area of a circle.</li> </ul> <p><b>Surface Area and Volume of 3D Shapes</b></p> <ul style="list-style-type: none"> <li>Carry out calculations involving the volume of a cuboid, prism and cylinder and the surface area of a cuboid and a cylinder.</li> <li>Carry out calculations involving the surface area and volume of a sphere, pyramid, and cone.</li> </ul> <p><b>Areas and Volumes of Compound Shapes</b></p> <ul style="list-style-type: none"> <li>Carry out calculations involving the areas and volumes of compound shapes</li> </ul>  |

| Grade (9)              |  |
|------------------------|--|
| Second Semester        |  |
| 1) <b>Number</b>       | <b>Sets</b> <ul style="list-style-type: none"> <li>Use language, notation and Venn diagrams to describe sets and represent relationships between sets.<br/>Note: Including shaded parts</li> <li>Define sets in different ways</li> </ul>  |
| 2) <b>Algebra</b>      | <b>Linear Equations and Inequalities</b> <ul style="list-style-type: none"> <li>Solve simple linear equations in one unknown.</li> <li>Solve simple linear inequalities.</li> </ul> <b>Variation</b> <ul style="list-style-type: none"> <li>Express direct and inverse variation in algebraic terms and use this form of expression to find unknown quantities</li> </ul>  |
| 3) <b>Geometry</b>     | <b>scale drawings</b> <ul style="list-style-type: none"> <li>Read and make scale drawings.</li> </ul> <b>Symmetry</b> <ul style="list-style-type: none"> <li>Recognize rotational and line symmetry (including order of rotational symmetry) in two dimensions.</li> <li>Recognize symmetry properties of the prism (including cylinder) and the pyramid (including cone)</li> <li>Use the following symmetry properties of circles: <ul style="list-style-type: none"> <li>equal chords are equidistant from the center</li> <li>the perpendicular bisector of a chord passes through the center</li> <li>tangents from an external point are equal in length</li> </ul> </li> </ul> <b>Angle Properties</b> <ul style="list-style-type: none"> <li>Calculate unknown angles using the following geometrical properties: <ul style="list-style-type: none"> <li>angles at a point</li> <li>angles at a point on a straight line and intersecting straight lines</li> <li>angles formed within parallel lines</li> <li>angle properties of triangles and quadrilaterals</li> <li>angle properties of regular polygons</li> <li>angle in a semi-circle</li> <li>angle between tangent and radius of a circle.</li> <li>angle properties of irregular polygons</li> <li>angle at the center of a circle is twice the angle at the circumference</li> <li>angles in the same segment are equal</li> <li>angles in opposite segments are supplementary; cyclic quadrilaterals</li> </ul> </li> </ul> |
| 4) <b>Trigonometry</b> | <b>Bearings</b> <ul style="list-style-type: none"> <li>Interpret and use three-figure bearings.</li> </ul> <b>Trigonometry</b> <ul style="list-style-type: none"> <li>Apply Pythagoras' theorem and the sine, cosine, and tangent ratios for acute angles to the calculation of a side or of an angle of a right-angled triangle.</li> <li>Solve trigonometrical problems in two dimensions involving angles of elevation and depression.</li> <li>Extend sine and cosine values to angles between <math>90^\circ</math> and <math>180^\circ</math></li> </ul>   |
| 5) <b>Statistics</b>   | <b>Reading and Displaying Data</b> <ul style="list-style-type: none"> <li>Construct and read histograms with equal and unequal intervals and scatter diagrams.</li> <li>Understand what is meant by positive, negative and zero correlation with reference to a scatter diagram.</li> <li>Draw a straight line of best fit by eye.</li> </ul> <b>Mean, Median, Mode and Range</b> <ul style="list-style-type: none"> <li>Calculate the mean, median, mode and range for individual and discrete data and distinguish between the purposes for which they are used.</li> <li>Calculate an estimate of the mean for grouped and continuous data.</li> <li>Identify the modal class from a grouped frequency distribution</li> </ul>  |

| Grade (10)     |   |
|----------------|---|
| First Semester |   |
| 1) Algebra     | <p><b>Algebraic indices</b></p> <ul style="list-style-type: none"> <li>• Use and interpret positive, negative and zero indices.</li> <li>• Use and interpret fractional indices.</li> <li>• Use the rules of indices.</li> </ul> <p><b>Solving Equations</b></p> <ul style="list-style-type: none"> <li>• Solve simultaneous linear equations in two unknowns.</li> <li>• Solve quadratic equations by factorization, completing the square or by use of the formula.</li> </ul> <p><b>Linear Programming</b></p> <ul style="list-style-type: none"> <li>• Represent inequalities graphically and use this representation in the solution of simple linear programming problems.</li> </ul> <p><b>Sequences</b></p> <ul style="list-style-type: none"> <li>• Continue a given number sequence.</li> <li>• Recognize patterns in sequences and relationships between different sequences.</li> <li>• Find the nth term of sequences</li> </ul> |
| 2) Number      | <p><b>Accuracy</b></p> <ul style="list-style-type: none"> <li>• Give appropriate upper and lower bounds for data given to a specified accuracy.</li> <li>• Obtain appropriate upper and lower bounds to solutions of simple problems given data to a specified accuracy.</li> </ul> <p><b>Money and Finance</b></p> <ul style="list-style-type: none"> <li>• Use given data to solve problems on personal and small business finance involving earnings, simple interest and compound interest, discount, profit, and loss.</li> <li>• Extract data from tables and charts</li> </ul> <p><b>Exponential Growth and Decay</b></p> <ul style="list-style-type: none"> <li>• Use exponential growth and decay in relation to population and finance</li> </ul>   |
| 3) Geometry    | <p><b>Similarity</b></p> <ul style="list-style-type: none"> <li>• Calculate lengths of similar figures</li> <li>• Use the relationships between areas of similar triangles, with corresponding results for similar figures and extension to volumes and surface areas of similar solids.</li> </ul>   |
| 4) Vectors     | <p><b>Vectors</b></p> <ul style="list-style-type: none"> <li>• Describe a translation by using a vector represented by e.g. <math>\begin{pmatrix} x \\ y \end{pmatrix}</math> , <math>\vec{AB}</math> or <b>a</b>.</li> <li>• Add and subtract vectors.</li> <li>• Multiply a vector by a scalar.</li> <li>• Calculate the magnitude of a vector <math>\begin{pmatrix} x \\ y \end{pmatrix}</math> as <math>\sqrt{x^2 + y^2}</math></li> <li>• Represent vectors by directed line segments.</li> <li>• Use the sum and difference of two vectors to express given vectors in terms of two coplanar vectors.</li> <li>• Use position vectors</li> </ul>  |
| 5) Statistics  | <p><b>Cumulative Frequency</b></p> <ul style="list-style-type: none"> <li>• Construct and use cumulative frequency diagrams.</li> <li>• Estimate and interpret the median, percentiles, quartiles and inter-quartile range</li> </ul>   |

**Grade (10)**  
**Second Semester**

**1) Algebra**

**Graphs in Practical Situations**

- Interpret and use graphs in practical situations including travel graphs and conversion graphs.
- Draw graphs from given data.
- Apply the idea of rate of change to easy kinematics involving distance-time and speed-time graphs, acceleration, and deceleration.
- Calculate distance travelled as area under a linear speed-time graph.

**Graphs of Functions**

- Construct tables of values and draw graphs for functions of the form  $ax^n$ , where  $a$  is a rational constant, and  $n = -2, -1, 0, 1, 2, 3$ , and simple sums of not more than three of these and for functions of the form  $a^x$ , where  $a$  is a positive integer
- Solve associated equations approximately by graphical methods.
- Draw and interpret graphs representing exponential growth and decay problems.
- Estimate gradients of curves by drawing tangents

**Functions**

- Use function notation, e.g.,  $f(x) = 3x - 5$ ,  $f: x \rightarrow 3x - 5$ , to describe simple functions
- Find inverse functions  $f^{-1}(x)$
- Form composite functions as defined by  $gf(x) = g(f(x))$

**2) Trigonometry**

**Trigonometry**

- Solve problems using the sine and cosine rules for any triangle and the formula area of triangle =  $\frac{1}{2} ab \sin C$
- Solve simple trigonometrical problems in three dimensions including angle between a line and a plane

**3) Transformation**

**Transformations**

- Reflect simple plane figures in horizontal or vertical lines.
- Rotate simple plane figures about the origin, vertices or midpoints of edges of the figures, through multiples of  $90^\circ$
- Construct given translations and enlargements of simple plane figures.
- Recognize and describe reflections, rotations, translations, and enlargements.
- Use the following transformations of the plane: reflection (M), rotation (R), translation (T), enlargement (E)
- Identify and give precise descriptions of transformations connecting given figures.
- Describe transformations using co-ordinates and matrices (singular matrices are excluded)

**4) Probability**

**Probability of Single Events**

- Calculate the probability of a single event as either a fraction, decimal, or percentage.
- Understand and use the probability scale from 0 to 1.
- Understand that the probability of an event occurring =  $1 -$  the probability of the event not occurring
- Understand relative frequency as an estimate of probability.

**Probability of Combined Events**

- Calculate the probability of simple combined events, using possibility diagrams and tree diagrams where appropriate



نهاية النشرة

**End of the Newsletter**