سلطنة عمان
وزارة التربية والتعليم
المديرية العامة للمدارس الخاصة
دائرة برامج ومناهج المدارس الخاصة

Newsletter	**نشرة توجيهية**
Subject: Mathematics	**المادة: الرياضيات**
Educational Program: Bilingual	**البرنامج التعليمي: ثنائي اللغة**
Grades: (1-10)	**الصفوف: (١-١٠)**
Academic Year: 2019/2020	**للعام الدراسي: ٢٠١٩/٢٠٢٠م**

الفهرس العام

General Index

الفصل الأول : التوجيهات العامة

Section (1): General Guidelines

(١): النسخة العربية

على جميع المدارس الخاصة **المطبقة لبرنامج ثنائي اللغة** الإلتزام بجميع التعليمات الواردة في الجدول أدناه:

المجال	التعليمات
اختيار وتوفير السلاسل التعليمية والكتب الدراسية الأساسية	○ الإلتزام باختيار أحد المصادر التعليمية الأساسية المعتمدة من قبل الدائرة في هذه النشرة التوجيهية. ○ الإلتزام بتوفير جميع المكونات الأساسية للمصادر التعليمية المختارة، بالنسبة لكل طالب ولكل معلم، والموضحة في الفصول القادمة من هذه النشرة التوجيهية. ○ الإلتزام بتوفير نسخ كافية من الكتب وغيرها من المصادر التعليمية، لطلابها ومعلميها قبل وقت كاف من بداية العام الدراسي. ○ الإلتزام بتوفير نسخ أصلية من المصادر التعليمية الأساسية التي تم اختيارها للتطبيق. **ملاحظة هامة:** ▪ توجد بعض السلاسل ضمن قائمة السلسل التعليمية الأساسية المعتمدة سيسمح بإستخدامها في العام الدراسي ٢٠١٩/٢٠٢٠م فقط ولآخر عام دراسي، تمت الإشارة إليها بشكل واضح في بند الملاحظات في القائمة، ولن يسمح بإستخدامها في العام الدراسي اللاحق ٢٠٢٠/٢٠٢١م، فيرجى الإلتزام بذلك وعدم شراء نسخ زائدة منها. ▪ 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 وللطلبة، بشرط أن يتم الإلتزام بالمعايير المعتمدة لاختيار المصادر الإثرائية، والتي تستخدم بغرض دعم تطبيق المنهج بشكل أفضل.
الأهداف	○ المرحلة (١–٨): الإلتزام بتحقيق الأهداف الواردة في السلاسل التعليمية المعتمدة، وذلك خلال الفصلين الدراسيين الأول والثاني في كل صف دراسي، بناءاً على الوحدات المحددة في بند "توزيع المحتوى/المخرجات التعليمية على الفصلين الدراسيين". برجاء مراجعة الفصلين الثاني والثالث من هذه النشرة التوجيهية. ○ المرحلة (٩–١٠): الإلتزام بتحقيق الأهداف الواردة في الفصل الرابع من هذه النشرة التوجيهية. **ملاحظة هامة:** ▪ ضرورة إلتزام المدارس بتفعيل الدروس المتعلقة بالنقود في الصفوف (١–٦) باستبدال العملة الأجنبية بالعملة العمانية (باستخدام نماذج ورقية مغلفة حراريا للفئات النقدية العمانية المختلفة).

المجال	التعليمات
الوسائل التعليمية	○ مرحلة (١–٦): الإلتزام بتوفير الوسائل التعليمية المذكورة في دليل المعلم للسلسلة الأساسية التي قامت المدرسة باختيارها . ○ مرحلة (٧–١٠): الإلتزام بتوفير الوسائل التعليمية المذكورة في الفصلين الثالث والرابع من هذه النشرة التوجيهية . ○ الإلتزام 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 .
المصادر الداعمة للمعلم	○ "المصادر الداعمة للمعلم " ويعنى بها: السلاسل التعليمية والمصادر التي تدعم المعلم في تدريسه للمنهج، وهي حق لكل معلم، ويجب على المدرسة أن تلتزم بتوفير نسخة واحدة على الأقل في المدرسة من المصادر المحددة في بند "المصادر الداعمة للمعلم"، حيث تكمن أهمية هذه المصادر في توفير أنشطة إضافية وأسئلة متنوعة، وأفكار تدريسية بديلة يمكن الاستعانة بها لتحقيق أهداف السلسلة الأساسية، وعند إعداد أوراق العمل الإضافية للطلاب، وعند إعداد مختلف أنواع الاختبارات، وغيرها من أوجه الاستفادة، مع الحرص على عدم نسخ محتوياتها إن لم تكن من المصادر المصممة للنسخ بدون الحصول على إذن رسمي من دار النشر المعنية بإنتاج هذه المصادر .
التدريب	○ الإلتزام بتدريب المعلمين – التدريب الذي يتعلق باستخدام الكتب الدراسية والمصادر التعليمية المعتمدة– ويجب أن يكون هذا التدريب ضمن خطة المدرسة للإنماء المهني، والمدرسة الخاصة هي الجهة المعنية بالتنسيق مع دور النشر وغيرها من الجهات التعليمية حول توفير البرامج التدريبية لمعلميها حسب الحاجة .
التغذية الراجعة	○ يأمل المختصون في قسم برامج المدارس الخاصة أن تقوم المدارس الخاصة بإرسال أية ملاحظات حول ما تم ذكره في هذه النشرة التوجيهية أو حول محتوى المصادر التعليمية المعتمدة أو أية مقترحات تطويرية، وسواء كان ذلك من قبل المعلمين أو من قبل الإدارات المدرسية، حتى يتسنى لأعضاء المناهج بالقسم المذكور الإلمام بها، وعلاج أية إشكاليات تتعلق بهذا الجانب . ▪ للتواصل/على البريد الإلكتروني: epc.ps@moe.om

(2) : English Version

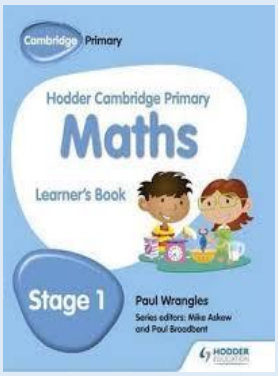
Schools **implementing the Bilingual Program** must follow all of the instructions below:

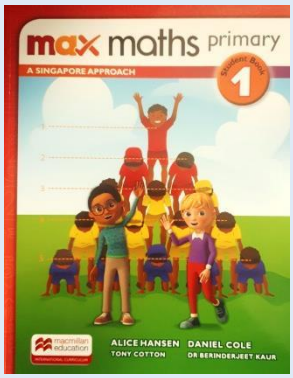
Area	Instructions
Essential Resources Selection and Provision	• To select and use essential resources from the approved titles in this newsletter. • To provide all of the essential components of the resources for students and teachers. • To order sufficient quantities of the materials for teachers and students before the beginning of the academic year. Schools are responsible for any late delivery of their orders. • To provide original copies of the selected resources. **Important Note:** • There are some main series approved for the year 2019/2020 only and will not be allowed to be used in the following year 2020/2021. This is clearly indicated in the notes column in the lists. • 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 in order 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).
Outcomes	○ 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/Learning Outcomes Distribution", in both chapters 2 and 3 in this newsletter. ○ Grades (9-10): To implement the outcomes mentioned in the section "Learning Outcomes Distribution" in chapter 4 of this newsletter. Important Note: • When teaching the concept of currency and money, in grades (1-6) teachers should replace the foreign currency with Omani currency.

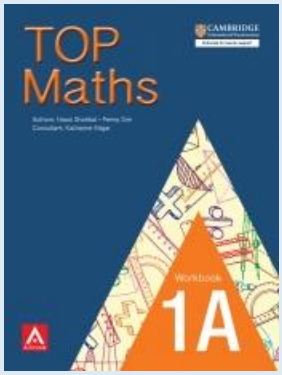
Area	Instructions
Teaching Aids	○ Grades (1-6): To provide and implement the teaching aids and the ancillary materials which are prescribed within the chosen approved resources. ○ Grades (7-10): To provide and implement the teaching aids which are specified in the "Teaching Aids" section at chapters 3 and 4 within this newsletter. ○ All grades: To provide paper, photocopiers, laptops, projectors and other consumable materials that will be required in using the approved resources.
Teachers' Support Resources	○ "Teachers' Supplementary Resources" are those materials which assist the teaching and learning process. Schools should provide their subject teachers with those resources in order to provide their students extra-curricula activities, various questions and new teaching ideas. In addition, those resources can suport teachers in the implementation of the compulsory resources, preparing worksheets and writing exam papers (with the consideration of copyright).
Training	○ Teacher training related to the use of the approved course-books 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, as required.
Feedback	○ The Curriculum Specialists at the Educational Programs and Curriculum Department encourage schools to send feedback regarding the newsletter, approved resources, printing errors or any pertinent suggestions from teachers, as well as from administrators. Such feedback supports the department in future reforms and to better meet students' and schools' needs. ❖ Please contact us at the e-mail: epc.ps@moe.om

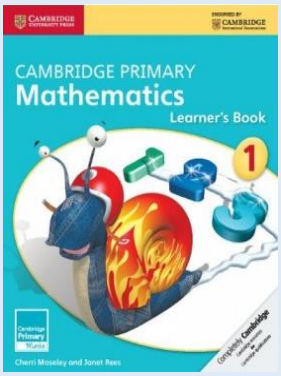
الفصل الثاني : المرحلة الدراسية (١-٦)

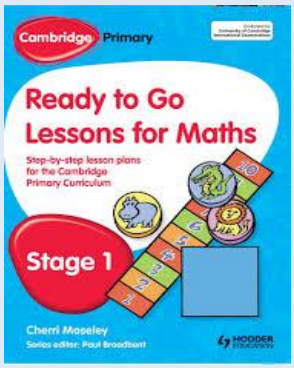
Section (2): Grades (1-6)

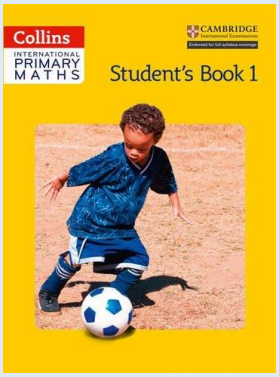












فهرس الفصل الثاني

الصفوف (١–٦)

Index of Section (2)

Grades (1-6)

السلاسل الأساسية المعتمدة ومكوناتها الإلزامية (١-٦)

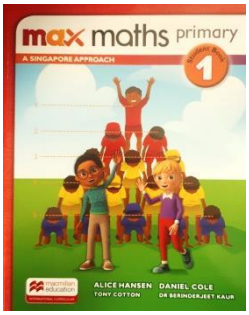
List of Approved Titles and Essential Components (1-6)

	Titles	Publisher	Components	Notes
1	Max Maths Primary	Macmillan Education	Student Book Workbook Teacher's Guide	Extra resources available Please visit the website New (2018)
2	Hodder Cambridge Primary Mathematics	Hodder Education	Learner's Book Workbook Teacher's Pack	----
3	Collins International Primary Maths	Collins	Student's Book Workbook Teacher's Guide	Extra resources available Please visit the website
4	Top Maths	Alston Publishing House	Textbook (A&B) Workbook (A&B) Teacher's Guide (A&B)	----
5	Cambridge Primary Mathematics	Cambridge University Press	Learner's Book Teacher's Resource with (CD) Games Book	Extra resources available Please visit the website
6	Oxford International Primary Maths	Oxford University Press	Student Workbook Workbook Teacher's Guide	**For Last Year**
7	Nelson International Mathematics (2nd edition)	Oxford University Press	Workbook (A,B,C for 1-2) & (for 3-6) Student Book (for 3-6 Only) Teacher's Guide (Online)	**For Last Year**

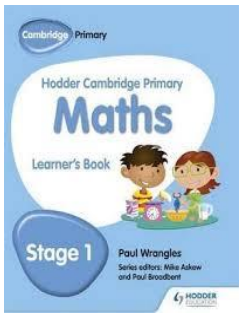
قوائم ال ISBN لمكونات السلاسل المعتمدة (١-٦)

ISBN Lists of Approved Essential Components (1-6)

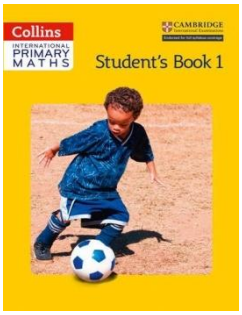
1. Max Maths Primary

Grade	Component	ISBN	Notes	Book Cover
1	Student Book 1	9781380008749	For student	
	Workbook 1	9781380017741	For student	
	Teacher's Guide 1	9781380017758	For teacher	
2	Student Book 2	9781380012647	For student	
	Workbook 2	9781380017789	For student	
	Teacher's Guide 2	9781380017796	For teacher	
3	Student Book 3	9781380012654	For student	
	Workbook 3	9781380017826	For student	
	Teacher's Guide 3	9781380017833	For teacher	
4	Student Book 4	9781380012661	For student	
	Workbook 4	9781380017864	For student	
	Teacher's Guide 4	9781380017871	For teacher	
5	Student Book 5	9781380012678	For student	
	Workbook 5	9781380017901	For student	
	Teacher's Guide 5	9781380017918	For teacher	
6	Student Book 6	9781380012692	For student	
	Workbook 6	9781380017949	For student	
	Teacher's Guide 6	9781380017956	For teacher	

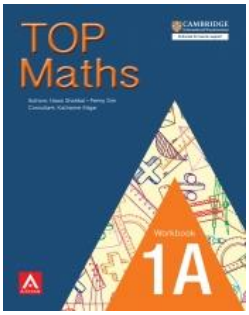
2. Hodder Cambridge Primary Mathematics

Grade	Component	ISBN	Notes	Book Cover
1	Learner's Book	9781471884313	For student	
	Workbook	9781471884566	For student	
	Teacher's Pack	9781471884443	For teacher	
2	Learner's Book	9781471884337	For student	
	Workbook	9781471884597	For student	
	Teacher's Pack	9781471884467	For teacher	
3	Learner's Book	9781471884368	For student	
	Workbook	9781471884610	For student	
	Teacher's Pack	9781471884481	For teacher	
4	Learner's Book	9781471884375	For student	
	Workbook	9781471884634	For student	
	Teacher's Pack	9781471884504	For teacher	
5	Learner's Book	9781471884405	For student	
	Workbook	9781471884658	For student	
	Teacher's Pack	9781471884528	For teacher	
6	Learner's Book	9781471884429	For student	
	Workbook	9781471884672	For student	
	Teacher's Pack	9781471884542	For teacher	

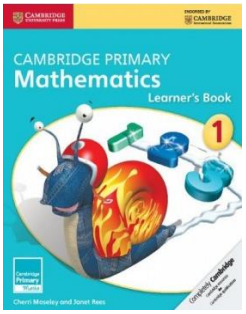
3. Collins International Primary Maths

Grade	Component	ISBN	Notes	Book Cover
1	Student Book 1	9780008159795	For student	
	Workbook 1	9780008159801	For student	
	Teacher's Guide 1	9780008159788	For teacher	
2	Student Book 2	9780008159849	For student	
	Workbook 2	9780008159856	For student	
	Teacher's Guide 2	9780008159832	For teacher	
3	Student Book 3	9780008159894	For student	
	Workbook 3	9780008159900	For student	
	Teacher's Guide 3	9780008159887	For teacher	
4	Student Book 4	9780008159948	For student	
	Workbook 4	9780008159955	For student	
	Teacher's Guide 4	9780008159931	For teacher	
5	Student Book 5	9780008159993	For student	
	Workbook 5	9780008160005	For student	
	Teacher's Guide 5	9780008159986	For teacher	
6	Student Book 6	9780008160043	For student	
	Workbook 6	9780008160050	For student	
	Teacher's Guide 6	9780008160036	For teacher	

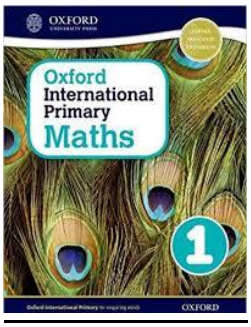
4. TOP Maths

Grade	Component	ISBN	Notes	Book Cover
1	Textbook 1A	9789814437899	For student	
	Workbook 1A	9789814437950	For student	
	Teacher's Guide 1A	9789814573016	For teacher	
	Textbook 1B	9789814573078	For student	
	Workbook 1B	9789814573139	For student	
	Teacher's Guide 1B	9789814573184	For teacher	
2	Textbook 2A	9789814437905	For student	
	Workbook 2A	9789814437967	For student	
	Teacher's Guide 2A	9789814573023	For teacher	
	Textbook 2B	9789814573085	For student	
	Workbook 2B	9789814573146	For student	
	Teacher's Guide 2B	9789814573191	For teacher	
3	Textbook 3A	9789814437912	For student	
	Workbook 3A	9789814437974	For student	
	Teacher's Guide 3A	9789814573030	For teacher	
	Textbook 3B	9789814573092	For student	
	Workbook 3B	9789814573153	For student	
	Teacher's Guide 3B	9789814573207	For teacher	
4	Textbook 4A	9789814437929	For student	
	Workbook 4A	9789814437981	For student	
	Teacher's Guide 4A	9789814573047	For teacher	
	Textbook 4B	9789814573108	For student	
	Workbook 4B	9789814573160	For student	
	Teacher's Guide 4B	9789814573214	For teacher	
5	Textbook 5A	9789814437936	For student	
	Workbook 5A	9789814437998	For student	
	Teacher's Guide 5A	9789814573221	For teacher	
	Textbook 5B	9789814573115	For student	
	Workbook 5B	9789814573177	For student	
	Teacher's Guide 5B	9789814573054	For teacher	
6	Textbook 6A	9789814437943	For student	
	Workbook 6A	9789814573009	For student	
	Teacher's Guide 6A	9789814573061	For teacher	
	Textbook 6B	9789814573122	For student	
	Workbook 6B	9789814573399	For student	
	Teacher's Guide 6B	9789814573238	For teacher	

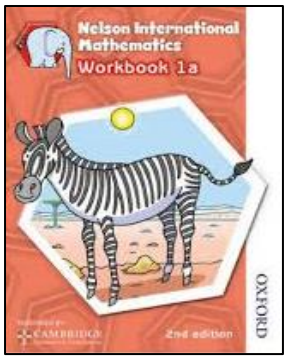
5. Cambridge Primary Mathematics

Grade	Component	ISBN	Notes	Book Cover
1	Stage 1 Learner's Book	9781107631311	For student	
	Stage 1 Teacher's Resource with CD-ROM	9781107656833	For teacher	
	Stage 1 Games Book with CD-ROM	9781107646407	For teacher	
2	Stage 2 Learner's Book	9781107615823	For student	
	Stage 2 Teacher's Resource with CD-ROM	9781107640733	For teacher	
	Stage 2 Games Book with CD-ROM	9781107623491	For teacher	
3	Stage 3 Learner's Book	9781107667679	For student	
	Stage 3 Teacher's Resource with CD-ROM	9781107668898	For teacher	
	Stage 3 Games Book with CD-ROM	9781107694019	For teacher	
4	Stage 4 Learner's Book	9781107662698	For student	
	Stage 4 Teacher's Resource with CD-ROM	9781107692947	For teacher	
	Stage 4 Games Book with CD-ROM	9781107685420	For teacher	
5	Stage 5 Learner's Book	9781107638228	For student	
	Stage 5 Teacher's Resource with CD-ROM	9781107658547	For teacher	
	Stage 5 Games Book with CD-ROM	9781107614741	For teacher	
6	Stage 6 Learner's Book	9781107618596	For student	
	Stage 6 Teacher's Resource with CD-ROM	9781107694361	For teacher	
	Stage 6 Games Book with CD-ROM	9781107667815	For teacher	

6. Oxford International Primary Maths (FOR LAST YEAR)

Grade	Component	ISBN	Notes	Book Cover
1	Student Workbook 1	9780198394594	For student	
	Workbook 1	9780198365266	For student	
	Teacher's Guide 1	9780198394655	For teacher	
2	Student Workbook 2	9780198394600	For student	
	Workbook 2	9780198365273	For student	
	Teacher's Guide 2	9780198394662	For teacher	
3	Student Workbook 3	9780198394617	For student	
	Workbook 3	9780198365280	For student	
	Teacher's Guide 3	9780198394679	For teacher	
4	Student Workbook 4	9780198394624	For student	
	Workbook 4	9780198365297	For student	
	Teacher's Guide 4	9780198394686	For teacher	
5	Student Workbook 5	9780198394631	For student	
	Workbook 5	9780198365303	For student	
	Teacher's Guide 5	9780198394693	For teacher	
6	Student Workbook 6	9780198394648	For student	
	Workbook 6	9780198365310	For student	
	Teacher's Guide 6	9780198394709	For teacher	

7. Nelson International Mathematics 2nd edition (FOR LAST YEAR)

Grade	Component	ISBN	Notes	Book Cover
1	Workbook 1A	9781408518915	For student	
	Workbook 1B	9781408518922	For student	
	Workbook 1C	9781408518939	For student	
2	Workbook 2A	9781408518946	For student	
	Workbook 2B	9781408518953	For student	
	Workbook 2C	9781408518960	For student	
3	Students Book 3	9781408519028	For student	
	Workbook 3	9781408518977	For student	
4	Students Book 4	9781408519035	For student	
	Workbook 4	9781408518984	For student	
5	Students Book 5	9781408519042	For student	
	Workbook 5	9781408518991	For student	
6	Students Book 6	9781408519059	For student	
	Workbook 6	9781408519004	For student	

أدلة المعلمين (على شبكة الإنترنت):

Teacher resources (Online):

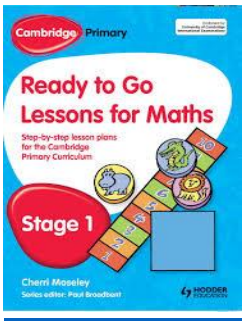
https://global.oup.com/education/content/primary/series/international-maths/?region=international&numResultsPerPage=50&view=ProductList&sortfield=relevance&start=50

المصادر الداعمة للمعلم (١-٦)

Teachers' Supplementary Resources (1-6)

	Name of the Resource	ISBN
1	Ready to Go Lessons for Maths	Hodder Education
2	توفير نسخة واحدة لإحدى السلاسل المعتمدة في الصفحة (١٠) للمعلم، والتي لم تختارها المدرسة Provide at least 1 additional copy of a different title from the approved list for teacher use (see page 10)	

"Ready to Go Lessons for Maths"

Component	ISBN	Book Cover
Ready to Go Lessons for Maths: Stage 1	9781444177602	
Ready to Go Lessons for Maths: Stage 2	9781444177596	
Ready to Go Lessons for Maths: Stage 3	9781444177589	
Ready to Go Lessons for Maths: Stage 4	9781444177619	
Ready to Go Lessons for Maths: Stage 5	9781444177626	
Ready to Go Lessons for Maths: Stage 6	9781444177633	

توزيع المحتوى على الفصلين الدراسيين للصفين (١–٦)

Content Distribution of Grades (1-6)

1. Max Maths Primary

Grade	Semester 1	Semester 2
One	Unit 1: Numbers up to 20 Unit 2: Addition to 20 Unit 3: Subtraction within 20	Unit 4: Shapes and geometric reasoning Unit 5: Length Unit 6: Mass Unit 7: Capacity Unit 8: Time Unit 9: Money Unit 10: Data handling
Two	Unit 1: Numbers to 100 Unit 2: Addition Unit 3: Subtraction Unit 4: 2D and 3D shapes Unit 5: Multiplication	Unit 6: Division Unit 7: Fractions Unit 8: Length Unit 9: Mass Unit 10: Volume Unit 11: Money Unit 12: Time Unit 13: Position and movement Unit 14: Data handling
Three	Unit 1: Numbers up to 1000 Unit 2: Addition Unit 3: Subtraction Unit 4: Fractions Unit 5: Shapes and space Unit 6: Data handling	Unit 7: Multiplication Unit 8: Division Unit 9: Length, mass and volume Unit 10: Time Unit 11: Position and movement
Four	Unit 1: Numbers up to 10000 Unit 2: Addition and subtraction Unit 3: Position and movement Unit 4: Multiplication Unit 5: Division Unit 6: Handling data	Unit 7: Time Unit 8: Fractions Unit 9: Geometry Unit 10: Decimals Unit 11: Measures: length, perimeter and area, mass and volume
Five	Unit 1: Numbers up to 1000000 Unit 2: Addition and subtraction Unit 3: Geometry Unit 4: Multiplication Unit 5: Division	Unit 6: Area and perimeter Unit 7: Time Unit 8: Fractions Unit 9: Decimals Unit 10: Percentages Unit 11: Length, mass and volume Unit 12: : Data handling Unit 13: Position and movement
Six	Unit 1: Numbers up to 1000000 Unit 2: Addition and subtraction Unit 3: Multiplication and division Unit 4: Length, mass and capacity Unit 5: Statistics	Unit 6: Position and movement Unit 7: Geometry Unit 8: Fractions Unit 9: Decimals Unit 10: Percentages Unit 11: Time Unit 12: Perimeter and area

2. Hodder Cambridge Primary Mathematics

Grade	Semester 1	Semester 2
One	Unit 1: Number and problem solving 1a Counting 1b Comparing numbers 1c Adding and subtraction	Unit 8: Number and problem solving 8a Addition 8b Subtraction 8c Addition and subtraction
	Unit 2: Geometry and problem solving 2a Patterns and shapes 2b Making shapes	Unit 9: Measure and problem solving 9a Money 9b Measures 9c Time
	Unit 3: Number and problem solving 3a Numbers to 20 3b Adding and subtraction 3c Counting patterns	Unit 10: Problem solving and review 10a Problem solving
	Unit 4: Measure and problem solving 4a Money 4b Measures 4c Time	Unit 11: Number and problem solving 11a Counting patterns 11b Numbers
	Unit 5: Problem solving and review 5a Problem solving	Unit 12: Handling data and problem solving 12a Sorting numbers 12b Sorting shapes 12c Blocks graphs
	Unit 6: Number and problem solving 6a Counting patterns 6b Numbers	Unit 13: Number and problem solving 13a Adding and subtraction 13b Doubles and halves
	Unit 7: Handling data and problem solving 7a Sorting objects and shapes 7b Pictograms	Unit 14: Measure and problem solving 14a Money 14b Measures 14c Time and movement
		Unit 15: Problem solving and review 15a Problem solving
Two	Unit 1: Number and problem solving 1a Number to 100 1b Comparing and rounding numbers 1c Number and place value	Unit 8: Number and problem solving 8a Addition and subtraction 8b Multiplication 8c Division
	Unit 2: Geometry and problem solving 2a 2-D shapes and symmetry 2b Shapes around me	Unit 9: Measure and problem solving 9a Money 9b Measuring mass 9c Time
	Unit 3: Number and problem solving 3a Number facts 3b Addition and subtraction 3c Multiplication	Unit 10: Problem solving and review 10a The circus
	Unit 4: Measure and problem solving 4a Money 4b Measuring length 4c Time	Unit 11: Number and problem solving 11a Place value and partitioning 11b Halves and quarters 11c Number patterns
	Unit 5: Problem solving and review 5a Under the sea	Unit 12: Geometry and problem solving 12a 2-D and 3-D shapes 12b Position and movement
	Unit 6: Number and problem solving 6a Counting patterns 6b Comparing, ordering and estimating 6c Number and place value	Unit 13: Number and problem solving 13a Adding and subtraction 13b Multiplication and division 13c Missing number problems
	Unit 7: Handling data and problem solving 7a Sorting objects and shapes 7b Block graphs and pictograms	Unit 14: Measure and problem solving 14a Money 14b Measuring capacity 14c Time
		Unit 15: Problem solving and review 15a Sports

Grade	Semester 1	Semester 2
Three	Unit 1: Number and problem solving 1a Counting and numbers to 1000 1b Number and place value 1c Mental strategies	Unit 8: Number and problem solving 8a Addition and subtraction 8b Multiplication and division 8c Calculation problems
	Unit 2: Geometry and problem solving 2a 2-D shapes 2b 3-D shapes	Unit 9: Handling data and problem solving 9a Sorting numbers and shapes 9b Charts, graphs and tables
	Unit 3: Number and problem solving 3a Addition and subtraction 3b Multiplication and division 3c Calculation problems	Unit 10: Problem solving and review 10a Problem solving
	Unit 4: Measure and problem solving 4a Money 4b length 4c Time	Unit 11: Number and problem solving 11a Number and place value 11b Fractions 11c Fractions and amounts
	Unit 5: Problem solving and review 5a Problem solving	Unit 12: Geometry and problem solving 12a 2-D shapes 12b Position and movement 12c 3-D shapes
	Unit 6: Number and problem solving 6a Number and place value 6b Comparing, ordering and rounding 6c Mental strategies	Unit 13: Number and problem solving 13a Mental strategies 13b Addition and subtraction 13c Multiplication and division
	Unit 7: Measure and problem solving 7a Money 7b Mass 7c Time	Unit 14: Measure and problem solving 14a Money 14b Capacity 14c Time
		Unit 15: Problem solving and review 15a Problem solving
Four	Unit 1: Number and problem solving 1a Place value and decimals 1b Rounding and estimating 1c Addition and subtraction	Unit 8: Number and problem solving 8a Number patterns 8b Multiplication and division 8c Problem solving
	Unit 2: Measures and problem solving 2a The metric system 2b Length, area and perimeter 2c Time 2d Problem solving	Unit 9: Handling data and problem solving 9a Handling data 9b Problem solving
	Unit 3: Number and problem solving 3a Number Patterns 3b Multiplication and division 3c Problem solving	Unit 10: Problem solving and review 10a Problem solving
	Unit 4: Geometry and problem solving 4a Classifiying shapes 4b 3-D and 2-D shapes 4c Position and movement 4d Problem solving	Unit 11: Number and problem solving 11a Numbers and the number system 11b Fractions and decimals 11c Addition and subtraction
	Unit 5: Problem solving and review 5a Problem solving	Unit 12: Measures and problem solving 12a The metric system 12b Area and perimeter 12c Time 12d Problem solving
	Unit 6: Number and problem solving 6a Numbers and the number system 6b Addition and subtraction	Unit 13: Number and problem solving 13a Number patterns 13b Multiplication and division 13c Problem solving
	Unit 7: Measures and problem solving 7a The metric system 7b Length, area and perimeter 7c Time 7d Problem solving	Unit 14: Geometry and problem solving 14a Classifying shapes 14b 3-D and 2-D shapes 14c Position and movement
		Unit 15: Problem solving and review 15a Problem solving

Grade	Semester 1	Semester 2
Five	Unit 1: Number and problem solving 1a Place value and the number system 1b Rounding and estimating 1c Addition and subtraction	Unit 8: Number and problem solving 8a Number patterns 8b Multiplication and division
	Unit 2: Measures and problem solving 2a The metric system 2b Length, area and perimeter 2c Time 2d Problem solving	Unit 9: Handling data and problem solving 9a Organising, categorizing and representing data 9b Probability 9c Problem solving
	Unit 3: Number and problem solving 3a Number Patterns 3b Multiplication and division 3c Problem solving	Unit 10: Problem solving and review 10a Problem solving
	Unit 4: Geometry and problem solving 4a Classifying 2-D shapes 4b 3-D and 2-D shapes 4c Working with coordinates 4d Transfotmations 4e Problem solving	Unit 11: Number and problem solving 11a Rounding and ordering 11b Fractions 11c Addition and subtraction
	Unit 5: Problem solving and review 5a Problem solving	Unit 12: Measures and problem solving 12a The metric system 12b Length, area and perimeter 12c Time
	Unit 6: Number and problem solving 6a Place value and the number system 6b Rounding and ordering 6c Addition and subtraction	Unit 13: Number and problem solving 13a Number patterns 13b Multiplication and division
	Unit 7: Measure and problem solving 7a The metric system 7b Length, area and perimeter 7c Time 7d Problem solving	Unit 14: Geometry and problem solving 14a Classifying 2-D shapes 14b 3-D and 2-D shapes 14c Working with coordinates 14c Transformations
		Unit 15: Problem solving and review 15a Problem solving
Six	Unit 1: Number and problem solving 1a Place value and decimals 1b Rounding and estimating 1c Addition and subtraction	Unit 8: Number and problem solving 8a Factors and multiples 8b Number patterns, sequences and generalisations 8c Multiplication and division
	Unit 2: Measures and problem solving 2a The metric system 2b Length, area and perimeter 2c Time 2d Problem solving	Unit 9: Handling data and problem solving 9a Handling data 9b Probability 9c Data handling and probability problems
	Unit 3: Number and problem solving 3a Factors and multiples 3b Number Patterns, sequences and generalisations 3c Multiplication and division	Unit 10: Problem solving and review 10a Problem solving
	Unit 4: Geometry and problem solving 4a Classifying 2-D shapes 4b 3-D and 2-D shapes 4c Angles in a triangle 4d Working with coordinates 4e Transfotmations	Unit 11: Number and problem solving 11a Place value and decimal numbers 11b Fractions 11c Mixed numbers 11d Equivalences 11c Addition and subtraction, including decimal numbers
	Unit 5: Problem solving and review 5a Problem solving	Unit 12: Measures and problem solving 12a The metric system 12b Length, area and perimeter 12c Time
	Unit 6: Number and problem solving 6a Place value 6b Rounding and estimating 6c Addition and subtraction, including decimal numbers	Unit 13: Number and problem solving 13a Percentages 13b Ratio and proportion 13c Multiplication and division
	Unit 7: Measure and problem solving 7a The metric system 7b Length, area and perimeter 7c Time	Unit 14: Geometry and problem solving 14a 2-D shapes 14b 3-D and 2-D shapes 14c Angles in a triangle 14d Coordinates 14e Transformations
		Unit 15: Problem solving and review 15a Problem solving

3. Collins International Primary Maths

Grade	Semester 1	Semester 2
One	Unit 1: Whole numbers 1 Unit 5: Addition and subtraction 1 Unit 10: 2D Shape Unit 11: 3D Shape Unit 12: Patterns and symmetry Unit 13: Position and Movement Unit 16: Length Unit 17: Mass Unit 2: Whole numbers 2 Unit 6: Addition and subtraction 2 Unit 8: Multiplication and Division 1	Unit 21: Handling data 1 Unit 14: Money 1 Unit 18: Capacity Unit 19: Time 1 Unit 3: Whole numbers 3 Unit 4: Fractions Unit 7: Addition and subtraction 3 Unit 9: Multiplication and division 2 Unit 22: Handling data 2 Unit 15: Money 2 Unit 20: Time 2
Two	Unit 1: Whole numbers 1 Unit 5: Addition and subtraction 1 Unit 8: Multiplication and division 1 Unit 11: 2D shape Unit 12: 3D shape Unit 13: Patterns and symmetry Unit 17: Length Unit 15: Money 1 Unit 2: Whole numbers 2 Unit 6: Addition and subtraction 2 Unit 9: Multiplication and division 2	Unit 21: Handling data Unit 18: Mass Unit 20: Time Unit 3: Whole numbers 3 Unit 4: Fractions Unit 7: Addition and subtraction 3 Unit 10: Multiplication and division 3 Unit 14: Position and movement Unit 19: Capacity Unit 16: Money 2
Three	Unit 1: Whole numbers 1 Unit 5: Addition and subtraction 1 Unit 8: Multiplication and division 1 Unit 11: 2D shape Unit 12: 3D Shape Unit 15: Length Unit 16: Mass Unit 2: Whole numbers 2 Unit 6: Addition and subtraction 2 Unit 9: Multiplication and division 2	Unit 14: Money Unit 17: Capacity Unit 19: Handling data Unit 3: Whole numbers 3 Unit 4: Fractions Unit 7: Addition and subtraction 3 Unit 10: Multiplication and division 3 Unit 13: Position and movement Unit 18: Time
Four	Unit 1: Whole numbers 1 Unit 7: Addition and subtraction 1 Unit 10: Multiplication and division 1 Unit 16: Length Unit 17: Mass Unit 18: Capacity Unit 20: Time Unit 22: Handling data 1 Unit 2: Whole numbers 2 Unit 4: Decimals 1 Unit 8: Addition and subtraction 2 Unit 11: Multiplication and division 2	Unit 13: 2D shape, including symmetry Unit 14: 3D shape Unit 15: Position and movement Unit 21: Area and perimeter Unit 3: Whole numbers 3 Unit 5: Decimals 2 Unit 6: Fractions Unit 9: Addition and subtraction 3 Unit 12: Multiplication and division 3 Unit 19: Measures Unit 23 Handling data 2

Grade	Semester 1	Semester 2
Five	Unit 1: Whole numbers 1 Unit 8: Addition and subtraction 1 Unit 11: Multiplication and division 1 Unit 14: 2D shape, including symmetry Unit 15: 3D shape Unit 17: Position and movement Unit 21: Time Unit 2: Whole numbers 2 Unit 3: Decimals 1 Unit 9: Addition and subtraction 2 Unit 12: Multiplication and division 2	Unit 23: Handling data Unit 18: Length Unit 19: Mass Unit 4: Decimals 2 Unit 5: Fractions Unit 6: Percentages Unit 7: Ratio and proportion Unit 10: Addition and subtraction 3 Unit 13: Multiplication and division 3 Unit 16: Angles Unit 20: Capacity Unit 22: Area and perimeter
Six	Unit 1: Whole numbers 1 Unit 8: Addition and subtraction 1 Unit 11: Multiplication and division 1 Unit 22: Area and perimeter Unit 18: Length Unit 14: 2D shape Unit 15: 3D shape Unit 17: Position and movement Unit 2: Whole numbers 2 Unit 3: Decimals 1 Unit 9: Addition and subtraction 2 Unit 12: Multiplication and division 2	Unit 19: Mass Unit 20: Capacity Unit 23: Handling data Unit 4: Decimals 2 Unit 5: Fractions Unit 6: Percentages Unit 7: Ratio and proportion Unit 10: Addition and subtraction 3 Unit 13: Multiplication and division 3 Unit 21: Time Unit 16: Angles

4. Top Maths

Grade	Semester 1	Semester 2
One	Chapter 1: Numbers from 0 to 20 Chapter 2: More about Numbers Chapter 3: Shapes and Solids Chapter 4: Addition and Subtraction Chapter 5: Position and Movements Chapter 6: Doubles and Tens	Chapter 7: Money Chapter 8: Length Chapter 9: Mass Chapter 10: Capacity Chapter 11: Time Chapter 12: Handling Data
Two	Chapter 1: Numbers to 100 Chapter 2: More about Numbers Chapter 3: Shapes and Solids Chapter 4: Halves and Quarters Chapter 5: Addition and Subtraction Chapter 6: Position and Movement Chapter 7: Multiplication and Division	Chapter 8: Mental Skills Chapter 9: Money Chapter 10: Length Chapter 11: Mass Chapter 12: Capacity Chapter 13: Time Chapter 14: Handling Data
Three	Chapter 1: Numbers to 1000 Chapter 2: More about Numbers Chapter 3: Shapes and Solids Chapter 4: Addition and Subtraction Chapter 5: Position and Movement Chapter 6: Angles Chapter 7: Multiplication and Division	Chapter 8: Mental Skills Chapter 9: Fractions Chapter 10: Money Chapter 11: Length Chapter 12: Mass Chapter 13: Capacity Chapter 14: Time Chapter 15: Handling Data
Four	Chapter 1: Numbers to 10000 Chapter 2: More about Numbers Chapter 3: Shapes and Solids Chapter 4: Addition and Subtraction Chapter 5: Multiplication and Division Chapter 6: Position and Movement	Chapter 7: Mental Skills Chapter 8: Fractions Chapter 9: Decimals Chapter 10: Measurements Chapter 11: Time Chapter 14: Area and Perimeter Chapter 13: Handling Data
Five	Chapter 1: Whole Numbers Chapter 2: Shapes and Lines Chapter 3: Decimals Chapter 4: Fractions Chapter 5: Ratio Chapter 6: Mental Skills	Chapter 7: Angles Chapter 8: Position and Movement Chapter 9: Measurements Chapter 10: Percentage Chapter 11: Time Chapter 12: Area and Perimeter Chapter 13: Handling Data Chapter 14: Probability
Six	Chapter 1: Whole Numbers Chapter 2: Fractions Chapter 3: Mental Skills Chapter 4: Decimals Chapter 5: Ratio Chapter 6: Percentage	Chapter 7: Shapes, Solids and Angles Chapter 8: Position and Movement Chapter 9: Measurement Chapter 10: Time Chapter 11: Area and Perimeter Chapter 12: Handling Data Chapter 13: Probability

5. Cambridge Primary Mathematics

Grade	Semester 1	Semester 2
One	1A: Number and Problem Solving 1 Counting to ten 2 Playing with ten 1C: Measure and Problem Solving 3 Length 1A: Number and Problem Solving 4 Counting over ten 5 Estimating 1B: Geometry and Problem Solving 6 2D & 3D shapes and patterns 1A: Number and Problem Solving 7 Counting beyond 20 1C : Measure and Problem Solving 8 Capacity (1) 9 Money & time 10 Comparing weight 2A: Number and Problem Solving 11 Odd & even numbers 12 Ordering numbers (1) 13 Combine and take away 14 Ordering numbers (2) 2C: Measure and Problem Solving 15 Money	16 Ordering length & weight 17 Measuring & estimating capacity (2) 18 Minutes, days & months 2B: Handling Data and Problem Solving 19 Organising, categorising & representing data (1) 3A: Number and Problem Solving 20 Number & the number system: counting in tens 21 Number line, counting on & counting back 22 Doubles & halves 23 Addition & subtraction: number patterns 3C: Measure and Problem Solving 24 Money 25 Comparing length & weight 26 Further estimation & comparing of capacity 27 Telling the time & months of the year 3B: Handling Data and Problem Solving 28 Organising, categorising & representing data (2)
Two	1A: Number and Problem Solving 1 The 100 square 2 Counting in twos, fives & tens 3 Number line to 100 4 Using a number line 5 Playing with 20 6 Adding & subtracting (1) 7 Multiplication arrays 1B: Geometry and Problem Solving 8 2D shapes, 3D shapes and symmetry 1C: Measure and Problem Solving 9 Measuring length 10 Measuring time & distance 11 Measuring weight, time & cost 2A: Number and Problem Solving 12 Tens and ones to 100 13 Estimating 14 Number patterns 15 Adding & subtracting (2) 16 Finding the difference 17 Grouping & sharing 2B: Handling Data and Problem Solving 18 Handling data	2C: Measure and Problem Solving 19 Length, height & capacity 20 Capacity, volume & 1 litre 21 Investigating weight, length & time 3A: Number and Problem Solving 22 More doubles 23 Threes & fours 24 Sums & differences 25 Fraction 26 Multiplying & dividing 27 Ordering numbers 3B: Geometry and Problem Solving 28 Tangrams 29 Position & movement 30 2D shapes 3C: Measure and Problem Solving 31 More on length, mass, money and time 32 Passing time & spending money

Grade	Semester 1	Semester 2
Three	1A: Number and Problem Solving 1 Place value (1) 2 Playing with 10 and 100 3 Adding several small numbers 4 Doubling & halving 5 Number pairs 6 Multiples 1B: Geometry and Problem Solving 7 Shapes, shapes & more shapes 8 Symmetry & movement 1C: Measure and Problem Solving 9 Money (1) 10 Time (1) 11 Measures 2A: Number and Problem Solving 12 Place value (2) 13 Estimating & rounding 14 Doubles & halves 15 Addition & subtraction 16 More multiples 2B: Measure and Problem Solving 17 Time (2) 18 Estimating & measuring	19 Zoo shop & café 2C: Handling Data and Problem Solving 20 Handling data 3A: Number and Problem Solving 21 Number sense 22 Fractions 23 More doubles 24 More addition & subtraction 25 Multiplying & dividing 3B: Geometry and Problem Solving 26 Right angles 27 Symmetry 28 Movement 3C: Measure and Problem Solving 29 Time (3) 30 Money (2) 31 Capacity & length 32 Weight
Four	1A: Number and Problem Solving 1 Numbers & the number system 2 Addition & subtraction (1) 3 Multiplication & division (1) 1B: Measure and Problem Solving 4 Weight 5 Time (1) 6 Area & perimeter (1) 1C: Handling data and Problem Solving 7 Graphs, tables & charts (1) 8 Carroll & Venn diagrams 2A: Number and Problem Solving 9 The number system & properties of number 10 Addition & subtraction (2) 11 Multiplication & division (2) 2B: Geometry and Problem Solving 12 Angles, position & direction 13 Symmetry	14 2D & 3D shapes 2C: Measure and Problem Solving 15 Length 16 Time (2) 17 Area & perimeter (2) 3A: Number and Problem Solving 18 Special numbers 19 Fractions & divisions 20 Ration & proportion 3B: Measure and Problem Solving 21 Capacity 22 Time (3) 23 Area & perimeter (3) 3C: Handling Data and Problem Solving 24 Graphs, tables & charts (2) 25 Venn & Carroll diagrams

Grade	Semester 1	Semester 2
Five	1A: Number and Problem Solving 1 The number system (whole numbers) 2 Mental & written strategies for addition & subtraction 3 Mental & written strategies for multiplication & division 4 Multiples, square numbers and factors 1B: Geometry and Problem Solving 5 Shapes and geometric reasoning 6 Position & movement 1C: Measure and Problem Solving 7 Mass 8 Time & timetables 9 Area & perimeter (1) 2A: Number and Problem Solving 10 Number & number sequences 11 Decimal numbers 12 Mental strategies 13 Mental & written strategies for addition & subtraction 14 Written methods for multiplication & division	2B: Handling Data and Problem Solving 15 Handling data 16 Probability 17 Line graphs 18 Finding the mode 2C: Measure and Problem Solving 19 Length 20 Time (2) 21 Area & perimeter (2) 3A: Number and Problem Solving 22 Number: mental strategies 23 Working with decimals 24 Fractions, decimals & percentages 25 Calculation 26 Ratio & proportion 3B: Geometry and Problem Solving 27 Angles 28 Shapes & geometric reasoning (2) 29 Position & movement 3C: Measure and Problem Solving 30 Capacity 31 Time (3) 32 Area & perimeter (3)
Six	1A: Number and Problem Solving 1 The number system (1) 2 Multiples, factors & primes 3 Multiplication & division (1) 4 More on number 1B: Measure and Problem Solving 5 Length 6 Time (1) 7 Area & perimeter (1) 1C: Geometry and Problem Solving 8 2D & 3D shape (1) 9 Angles & triangle 10 Shapes & Geometric reasoning 2A: Number and Problem Solving 11 The number system (2) 12 Decimals 13 Positive & negative numbers 14 Multiples, factors & mental strategies using them 15 Multiplication & division (2) 16 Special numbers 2B: Measure and Problem Solving 17 Mass & capacity 18 Time (2)	19 Area & parameter (2) 2C: Handling Data and Problem Solving 20 Graphs & charts & tables 21 Statistics 3A: Number and Problem Solving 22 Probability 23 The number system (3) 24 Mental Strategies 25 Addition & subtraction 26 Multiplication & division (3) 27 Fractions 28 Fractions, decimals & percentages 29 Ratio & proportion 3B: Measure and Problem Solving 30 Metric & imperial measures 31 Time (3) 32 Area & perimeter (3) 3C: Geometry and Problem Solving 33 2D & 3D Shape (2) 34 Locating 2D shapes 35 Angles & triangles

6. Oxford International Primary Maths

Grade	Semester 1	Semester 2
One	Unit 1: Numbers & Counting Unit 2: Exploring Numbers Unit 3: Number Pairs Unit 4: Addition Unit 5: Subtraction & Difference Unit 6: Number Patterns	Unit 7: Counting & Estimation Unit 8: Multiplication & Division Unit 9: Measures Unit 10: Shapes Unit 11: Time Unit 12: Handling Data
Two	Unit 1: Tens & Ones Unit 2: Number Patterns & Properties Unit 3: Number Pairs Unit 4: Calculating – Addition & Subtraction Unit 5: Number Families Unit 6: Multiplication & Division	Unit 7: Parts of a Whole Unit 8: Shapes Everywhere Unit 9: Measurements Unit 10: Geometry Unit 11: Time Unit 12: Handling Data
Three	Unit 1: Number & Place Value Unit 2: Fractions & Decimals Unit 3: Mental Calculation Unit 4: Addition & Subtraction Unit 5: Multiplication & Division	Unit 6: Shapes & Geometry Unit 7: Position & Movement Unit 8: Length, Mass & Capacity Unit 9: Time Unit 10: Data Handling
Four	Unit 1: Number & Place Value Unit 2: Addition & Subtraction Unit 3: Multiplication Unit 4: Division Unit 5: Fraction	Unit 6: Decimals & Fraction Unit 7: Measurement, Area and Perimeter Unit 8: Time Unit 9: Shape & Geometry Unit 10: Position & Movement Unit 11: Handling Data
Five	Unit 1: Number & Place Value Unit 2: Fractions, Decimals, Percentages, Ratio & Proportion Unit 3: Mental Calculation Strategies Unit 4: Written Calculation	Unit 5: Shape Unit 6: Position & Movement Unit 7: Length, Mass & Capacity Unit 8: Time Unit 9: Perimeter & Area Unit 10: Handling Data
Six	Unit 1: Number & Place Value Unit 2: Fractions & Decimals Unit 3: Mental Calculation Unit 4: Addition & Subtraction Unit 5: Multiplication & Division Unit 6: Shapes & Geometry	Unit 7: Position & Movement Unit 8: Length, Mass & Capacity Unit 9: Time Unit 10: Area & Perimeter Unit 11: Handling Data

7. Nelson International Mathematics

Grade	Semester 1	Semester 2
One	**(1a)** Measurement: length, capacity Number: count to 10, write numerals, order numbers Shape and space: 2D shapes, patterns, sort shapes Number: ordinal numbers Data: sort data, tables, Vann diagrams Number: count to 20, order, add **(1b)** Number: count, order, place value, estimate Measurement: weight, informal units Number: add, number pairs, subtract Measurement: time, order events, units Number: subtract, difference Measurement: capacity, informal units	**(1b)** Number: add, subtract, make 10 Shape and space: solids, match, sort Number: double, nearly double **(1c)** Number: count, count in twos, odd and even, compare, order Measurement: time, hours, days, months Number: place value, count in tens, multiples Shape and space: direction, position Number: add, addition strategies Shape and space: 2D shapes, 3D shapes, sort shapes Number: add, pairs that make 10, addition strategies Measurement: money, coins, totals Shape and space: half a shape, line symmetry Measurement: time, time on the hour Number: find half, share equally Data: tables, lists, diagrams Number: addition and subtraction facts, solve problems Data: pictograms, block graphs
Two	**(2a)** Revising numbers and place value Addition and subtraction Data handling Multiplication as repeated addition Making equal groups (division) 3D shapes More work with numbers 2D shapes Skip counting Measurement: weight Place value and rounding Measurement: length Data handling **(2b)** Halves and quarters Counting to 100 Units of time Place value to 100 Position and movement Counting patterns Telling and measuring time Division	**(2b)** Multiplication Position and movement Adding sets of numbers Adding multiples of 10 Doubling and halving **(2c)** Addition 3D shapes Subtraction 2D shapes Division Position and movement Money Symmetry More adding and multiplying More measurement Number problems Data handling

Grade	Semester 1	Semester 2
Three	Revising place value to 100 Place value to 1000 Making three-digit numbers Spot the mistake Number lines Ordering numbers Comparing numbers Recognizing 3D shapes Faces, edges and vertices Investigating 3D shapes Nets of cubes Counting on and back More counting Missing numbers Counting patterns to 1000 Revising 2D shapes Naming 2D shapes Investigating 2D shapes Symmetry Adding and subtraction facts Addition and subtraction problems Addition and subtraction patterns Making 100 Adding several small numbers Calculating mentally Meters Estimate and measure in meters Measuring in centimeters Measure the paths The nearest centimeter Rounding to ten Rounding to the nearest 100 Estimate and count Estimate by counting in groups Time in minutes Telling and showing time Estimating time Calendars and dates Calendar problems Revise multiplication and division Tables, ×2, ×5 and ×10 Recognizing multiples The ×3 table Multiplying by 4 Weighing in kilograms Kilograms and grams Reading Scales Working with weights	Revise dividing into groups Division facts Division with some left over Use number line to divide Dividing bigger numbers Multiplication and division problems Reading tables Vann diagrams Carroll diagrams Writing fractions More fractions Equivalent fractions Half of an amount Finding fractions of amounts Making fractions Measuring capacity Liters and milliliters Reading scales Capacity problems Doubling numbers Ten more, ten less Add or subtract multiples of 10 and 100 More adding More subtracting Rounding and estimating Adding bigger numbers Making right angles Investigation angles Writing money amounts Making 100 Money problems Clockwise and anti-clockwise Position on a grid Mixed numbers Showing mixed numbers on a number line Favorite flavors Reading a bar chart Sandwich survey Multiplying by 10 Multiply ‘teens’ numbers Doubling and halving Halving and odd number

Grade	Semester 1	Semester 2
Four	Revising place value Place value to thousands Working with larger numbers Comparing and ordering numbers Compare and order using < and > More ordering and comparing numbers Rounding to the nearest 10 Rounding to the nearest 100 Revising 2D shapes Investigating polygons Pinboard investigations More about quadrilaterals Investigating rectangles Analogue time Time: a.m. and p.m. Digital time Make your own sliding digital clock Using a calendar Timetables Decimal notation Decimal place value Counting in tenths Decimals and fractions More decimals Comparing decimals Gymnastics scores Metric units of length Reading and writing lengths Liters and milliliters Mixing amounts Using liquids Which is best? Reading measuring scales Counting on and back Adding or subtracting groups of 10s, 100s and 1000s Making 100 Pairs of numbers that make 100 Revising adding facts Adding numbers by making 10 or 20 Adding multiples of 10 Symmetry Symmetry in polygons Symmetry around us Organizing data Frequency tables A typical day Who uses the shop? More bar charts Reading a pictogram More pictograms Drawing pictograms Revising repeating addition and subtraction Revising the 2×, 3×, 5×, and 10× tables The 4× table The 6× and 9× tables How many ways? Multiplication grids Code breakers Division facts Revising 3D shapes Naming 3D shapes Solids and their nets Is it a cuboid? Is it a pyramid?	Negative numbers Reading a thermometer One day in winter Fractions Fractions of shapes Fractions of a number Comparing fractions Equivalent fractions Compare and order equivalent fractions Fractions and decimals Mixed numbers Real-life problems Position on a grid Compass direction Finding your way Mental strategies for adding Estimating Counting on and back to subtract More subtraction strategies Working with bigger numbers More adding and subtracting Coded subtractions Fruit and nut problems Perimeter Area More area Odd and even numbers Zig-zag number track Number patterning Multiples Angles Compare and order angles Revise multiplication facts Multiplying tens Multiply bigger numbers by 10 Multiply by 100 Doubling Halving Multiplying a 2-digit numbers by a one digit number Multiplication problems Vann diagrams Carroll diagrams Sorting data into three groups Sorting data into three groups (continued) Using Carroll diagrams to sort data A database: big cats Using a database More sorting Division by sharing Division by repeated subtraction More dividing Rounding answers after division Dividing by 10 and 100 Divide or multiply? Ration and proportion Ratio and proportion problems Classroom proportion

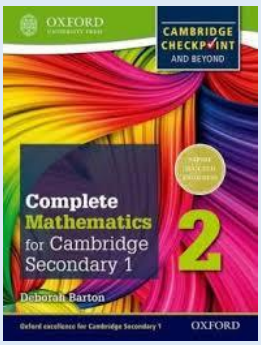
Grade	Semester 1	Semester 2
Five	Whole number in figure and words Numbers beyond 9999 Comparing numbers More ordering and comparing numbers Rounding to the nearest 10 or 100 Rounding to the nearest 1000 Adding and subtracting lots of numbers Inverse operations Order of operations Working in order Three-digit target numbers Revising polygons Line symmetry Symmetry patterns Rotational symmetry Rotating squares Different triangles Classifying triangles The 24-hour clock Reading timetables How long did it take? Races and records Athletics records Days, weeks, months and years Place value to tenths and hundredths Reading and writing decimal fraction Comparing decimals Rounding decimals to the nearest whole number More decimals Length Mass Capacity Measuring scales Reading measuring scales Measuring and drawing lines More measuring and drawing Counting in steps Counting on to add Counting on and back to subtract Rounding numbers to add and subtract Find the pairs Addition and subtraction problems Position on a grid Position on maps Multiplication and division facts More multiplication and division facts Multiples Multiple problems Square numbers Factors More factors Fun with factors Divisibility rules Seedling sale How many words per day Adventure camp activities Show choices on a pictogram	Review of fractions Equivalent fractions Improper fractions and mixed numbers Changing improper fractions to mixed numbers Find the fraction Perimeter More perimeter Finding the area of rectangles Using the formula Multiplying by 10 and 100 What happens when you divide by 10 or 100? Multiplying tens and hundreds Doubling and halving Using factors to multiply Multiplying by 19 or 21 Multiplying by 25 Reflections Translations More translations Pairs of decimals that make 1 More pairs of decimals that make 1 Making 10s Doubling and halving decimals Adding and subtracting decimals Frequency tables Frequency tables with groups Bar-line graphs More bar-line graphs Line graphs More line graphs Making sense of line graphs Favorite meals – healthy meals? Revise division facts More division Dividing with a reminder Can you divide the reminder? What will you do with the remainder? More division Division problems Shapes and nets Matching shapes to their nets Making shapes and cuboids Comparing amounts Comparing parts to the whole set More about ratios Fractions and ratios School ratios Mixing paint Percentages Percentages, decimals and fractions Finding Percentages of an amount Express fractions as percentages More equivalent fractions How likely? Likely and unlikely events Good chance, poor chance Revising multiplication

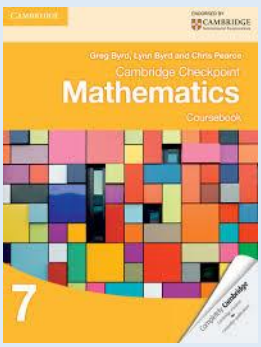
Grade	Semester 1	Semester 2
Five cont.	The mode What do you watch? Positive and negative numbers Comparing positive and negative numbers Temperature changes Number sequences More number sequences Odd and even numbers Parallel lines Perpendicular lines Measuring angles accurately Drawing angles Classifying angles Angles on a straight line	Multiplying bigger numbers Multiplying by two-digit numbers Other methods of multiplication Practice multiplying Multiplying decimals More multiplying decimals Decimals problems Mixed operations More mixed operations Brain power
Six	Revising place value Comparing and ordering numbers Rounding numbers Revising place value to hundredths Numbers below 0 Temperature differences Days, weeks, month and years Working with calendars Revising time More about 24-hour time Different time in different places Revising 3D shapes Properties of 3D shapes 3D shapes and their nets Investigate different nets Revising addition and subtraction facts Adding whole numbers More addition Subtracting whole numbers More subtraction Multiplication facts Further multiplication facts Multiplying by 10, 100 and 1000 Multiplication More multiplication Dividing whole numbers Multiplication and division problem Rules of divisibility Using the divisibility rules Units of measurement Choosing unit Changing form one unit to another Working with units of length Working with kilometers More converting units Other measuring systems Revising fractions Mixed number and improper fractions Changing fractions from one type to another	More about multiplies Factors Prime numbers Prime factors Multiplication by multiplies by 10 Multiplying pairs of multiples of 10 and 100 Multiplying by near multiples of 10 Division by multiples of 10 Mixed calculations Measuring and drawing angles Calculating the size of angles Missing angles Angles in a triangle Calculating angles in triangles Angles of rotation Percentages Percentages, fractions and decimals More conversions Finding percentages of amounts More percentages of amounts Dealing with discounts Working with money Checking calculator addition More money calculations Fast food Paying by mass How much does it weight? Describing probability What is chance? More probability Revising co-ordinates Extending the grid Co-ordinates and quadrants Reflections Translations Finding the matching shapes Revising mental strategies for division Division- remainders with fractions Division by repeated subtraction

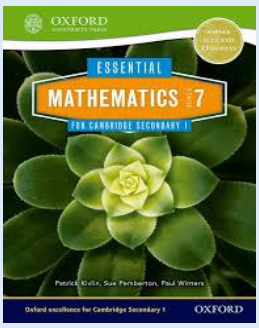
Grade	Semester 1	Semester 2
Six cont.	Equivalent fractions Making equivalent fractions Comparing and ordering fractions Comparing and ordering mixed numbers Place value to thousandths Comparing and ordering decimals Rounding decimals More rounding Sorting data Grouped data More grouped data Graphs from tables Line graphs More line graphs Unusual graphs More unusual graphs Multiplying and dividing decimals by 10 and 100 More operations with 10 and 100 Extending multiplication and division facts to decimals Comparing common fractions and decimals Repeating decimals Adding and subtracting decimals More addition and subtraction of decimals Calculating with decimals Doubling and halving decimals amounts Mixed decimal problems Revising 2D shapes Triangles and their properties Properties of quadrilaterals Naming quadrilaterals Special parallelograms More about quadrilaterals Identifying and drawing shapes Perimeter More Perimeter	Division- rounding the reminder Rounding to estimate answers Multiplying larger numbers Multiplication by two digit numbers Multiplication and division problems Ratio Working with ratios Proportion Ratio and proportion problems Investigating multiplication Properties of multiplication Using the properties of multiplication Combining multiplication and addition Making sense of bar graphs Making sense of line graphs Working with data The median The mean Shape patterns Finding the rules patterns Number machines More number machines Number patterns Patterns of odd and even numbers Number sequences Calculating periods of time More calculations involving of time Timetables Revising area Area of combined shapes Estimating area using a grid More estimating area Area problems Revise division with reminders Long division More division Dividing decimals Division problems Mixed calculations Mixed problems

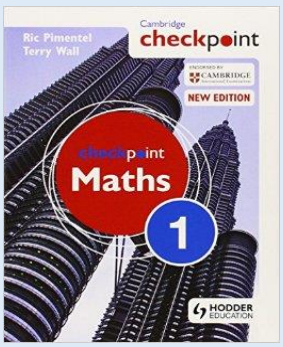
الفصل الثالث : المرحلة الدراسية (٧–٨)

Section (3): Grades (7-8)









فهرس الفصل الثالث

الصفوف (٧–٨)

Index of Section (3)

Grades (7-8)

السلاسل الأساسية المعتمدة ومكوناتها الإلزامية (٧–٨)

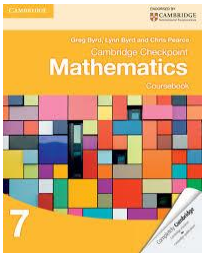
List of Approved Titles and Essential Components (7-8)

	Title	Publisher	Components	Notes
1	Cambridge Checkpoint Mathematics	Cambridge University Press	Coursebook	Extra resources available Please visit the website
			Practice Book	
			Teacher's Resource (CD)	
2	Oxford International Math (For Cambridge Secondary 1)	Oxford University Press	Student Book	----
			Homework Book	
			Teacher Pack / with (CD)	
3	Cambridge Checkpoint Maths	Hodder Education	Student's Book	----
			Workbook	
			Teacher's Resource Book	

قوائم ال ISBN لمكونات السلاسل المعتمدة (٧–٨)

ISBN Lists of Approved Essential Components (7-8)

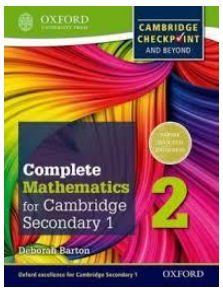
1. Cambridge Checkpoint Mathematics

Grade	Component	ISBN	Note	Book Cover
7	Coursebook 7	9781107641112	For student	
	Practice Book 7	9781107695405	For student	
	Teacher's Resource (CD) 7	9781107693807	For teacher	
7 – 8	Coursebook 8	9781107697874	For student	
	Practice Book 8	9781107665996	For student	
	Teacher's Resource (CD) 8	9781107622456	For teacher	
8	Coursebook 9	9781107668010	For student	
	Practice Book 9	9781107698994	For student	
	Teacher's Resource (CD) 9	9781107693975	For teacher	

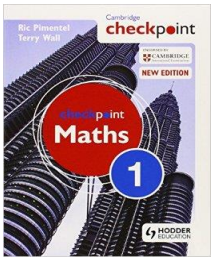
Note: Optional resources are available: Skills Builder workbook and Challenge Workbook.

ملاحظة: تتوفر مصادر اختيارية تم تأليفها لدعم تطبيق السلسلة وهي: كتاب بناء المهارات وكتاب التحدي.

2. Oxford International Math

Grade	Component	ISBN	Note	Book Cover
7	Student Book 1	9780199137046	For student	
	Homework Book1	9780199137985	For student	
	Teacher Pack with (CD)1	9780199137053	For teacher	
7 – 8	Student Book 2	9780199137077	For student	
	Homework Book 2	9780199137992	For student	
	Teacher Pack with (CD)2	9780199137084	For teacher	
8	Student Book 3	9780199137107	For student	
	Homework Book 3	9780199138005	For student	
	Teacher Pack with (CD)3	9780199137114	For teacher	

3. Cambridge Checkpoint Maths

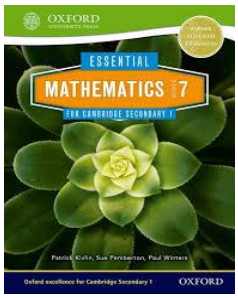
Grade	Component	ISBN	Note	Book Cover
7	Student's Book 1	9781444143959	For student	
	Workbook 1	9781444144017	For student	
	Teacher's Resource Book1	9781444143928	For teacher	
7 – 8	Student's Book2	9781444143973	For student	
	Workbook 2	9781444144031	For student	
	Teacher's Resource Book2	9781444143935	For teacher	
8	Student's Book 3	9781444143997	For student	
	Workbook 3	9781444144055	For student	
	Teacher's Resource Book3	9781444143942	For teacher	

المصادر الداعمة للمعلم (٧–٨)

Teachers' Supplementary Resources (7-8)

	Name of series	Publisher	Components
1	Mathematics (For Cambridge secondary1)	Oxford University Press	Student Book
			Workbook
			Teacher's (CD)
2	توفير نسخة واحدة لإحدى السلاسل المعتمدة في الصفحة (٣٦) للمعلم، والتي لم تختارها المدرسة Provide at least 1 additional copy of a different title from the approved list for teacher use (see page 36)		

Mathematics (For Cambridge secondary1)

Grade	Component	ISBN	Book Cover
7	Student Book stage 7	9781408519837	
	Workbook stage 7	9781408519844	
	Teacher's (CD) stage 7	9781408519820	
7 – 8	Student Book stage 8	9781408519868	
	Workbook stage 8	9781408519875	
	Teacher's (CD) stage 8	9781408519851	
8	Student Book stage 9	9781408519899	
	Workbook stage 9	9781408519905	
	Teacher's (CD) stage 9	9781408519882	

الوسائل التعليمية (٧–٨)

Teaching Aids (7-8)

Schools must provide the following teaching aids:

1. Master Mathematical Instruments (for teacher use): Two set squares, a 180° protractor, a ruler, a compass.
2. A range of measurement tools for: Weight, length, distances and capacity.
3. Grid whiteboard (In addition to the normal whiteboard).
4. Different sets of dices with different number of sides.
5. A laptop for each teacher.
6. Projectors.
7. Internet connection.

على المدارس توفير الوسائل التعليمية الآتية:

١. أدوات هندسية بحجم كبير لاستخدام المعلم على السبورة: المثلث الثلاثيني الستيني والمثلث متساوي الساقين، منقلة، مسطرة، فرجار.

٢. مجموعة أدوات القياس لكل مما يلي: الأوزان، الأطوال، المسافات، السعة.

٣. سبورة الرسم البياني (بالإضافة للسبورة العادية في الفصل).

٤. مجموعة من أحجار النرد متنوعة في عدد الأوجه.

٥. جهاز حاسوب لكل معلم.

٦. أجهزة عرض.

٧. شبكة إنترنت متاحة.

توزيع المحتوى على الفصلين الدراسيين للصفين (٧–٨)

Content Distribution of Grades (7-8)

1. Cambridge Checkpoint Mathematics

Grade 7		
Semester	**Units**	**Main Resource**
1st Semester	**Unit 1:** Integers **Unit 2:** Sequences, expressions and formulae **Unit 3:** Place value, ordering and rounding **Unit 4:** Length, mass and capacity **Unit 5:** Angles **Unit 6:** Planning and collecting data **Unit 7:** Fraction **Unit 8:** Symmetry **Unit 9:** Expressions and equations **Unit 10:** Averages **Unit 11:** Percentages **Unit 12:** Construction **Unit 13:** Graphs **Unit 14:** Ratio and proportion **Unit 15:** Time	Coursebook 7: From page 7 to page 151
2nd Semester	**Unit 16:** Probability **Unit 17:** Position and movement **Unit 18:** Area, perimeter and volume **Unit 19:** Interpreting and discussing results	Coursebook 7: From page 152 to page 194
	Unit 1: Integers, powers and roots **Unit 2:** Sequences, expressions and formulae **Unit 3:** Place value, ordering and rounding **Unit 4:** Length, mass and capacity **Unit 5:** Angles **Unit 6:** Planning and collecting data **Unit 7:** Fraction **Unit 8:** Shapes and geometric reasoning **Unit 9:** Simplifying expressions and solving equations	Coursebook 8: From page 7 to page 101

Cambridge Checkpoint Mathematics (cont.)

Grade 8		
Semester	**Units**	**Main Resource**
1st Semester	**Unit 10:** Processing and presenting data **Unit 11:** Percentages **Unit 12:** Constructions **Unit 13:** Graphs **Unit 14:** Ratio and proportion **Unit 15:** Probability **Unit 16:** Position and movement **Unit 17:** Area, perimeter and volume **Unit 18:** Interpreting and discussing results	Course book 8: From page 102 to page 195
	Unit 1: Integers, powers and roots **Unit 2:** Sequences and functions **Unit 3:** Place value, ordering and rounding **Unit 4:** Length, mass, capacity and time **Unit 5:** Shapes **Unit 6:** Planning and collecting data **Unit 7:** Fraction	Coursebook 9: From page 7 to page 74
2nd Semester	**Unit 8:** Constructions and Pythagoras' theorem **Unit 9:** Expressions and formulae **Unit 10:** Processing and presenting data **Unit 11:** Percentages **Unit 12:** Tessellations, transformations and loci **Unit 13:** Equations and inequalities **Unit 14:** Ratio and proportion **Unit 15:** Area, perimeter and volume **Unit 16:** Probability **Unit 17:** Bearings and scale drawings **Unit 18:** Graphs **Unit 19:** Interpreting and discussing results	Coursebook 9: From page 75 to page 193

2. Oxford International Math

Grade 7		
Semester	**Units**	**Main Resource**
1st Semester	1. Number and calculation 1 2. Expressions 3. Shapes and constructions 4. Number and calculation 2 5. Length, mass and capacity 6. Representing information 7. Fractions 8. Equations and formulae 9. Geometry 10. Fractions and decimals 11. Time and rates of change 12. Presenting data and interpreting results 13. Fractions, decimals and percentages 14. Sequences, functions and graphs	Student Book 1: From page 7 to page 247 (And related questions from "Review C")
	15. Symmetry and transformations 16. Ratio and proportion 17. Area, perimeter and volume 18. Probability	Student Book 1: From page 248 to page 305 (Sec.19 is not included)
2nd Semester	1. Number and calculation 1 2. Expressions and functions 3. Shapes and mathematical drawings 4. Length, mass and capacity 5. Number and calculation 2 6. Planning, collecting and processing data 7. Fractions 8. Expressions, equations and formulae 9. Geometry 10. Fractions and decimals	Student Book 2: From page 7 to page 157 (And related questions from "Review B")

Oxford International Math (cont.)

Grade 8		
Semester	**Units**	**Main Resource**
1st Semester	11. Time and rates of change 12. Presenting data and interpreting results 13. Fractions, decimals and percentages 14. Sequences, functions and graphs 15. Transformations 16. Ratio and proportion 17. Area, perimeter and volume 18. Probability	Student Book 2: From page 158 to page 302 (Sec.19 is not included)
	1. Fractions and indices 2. Expressions and formulae 3. Shapes and mathematical drawings 4. Number 5. Measures	Student Book 3: From page 7 to page 78 (And related questions from "Review A")
2nd Semester	6. Planning, collecting and processing data 7. Rounding, multiplying and dividing 8. Equations and inequalities 9. Geometry 10. Mental strategies 11. Compound measures 12. Presenting data and interpreting results 13. Ratio and proportion 14. Sequences, functions and graphs 15. Transformations 16. Fractions, decimals and percentages 17. Area, perimeter and volume 18. Probability	Student Book 3: From page 79 to page 306 (Sec.19 is not included)

3. Cambridge Checkpoint Maths

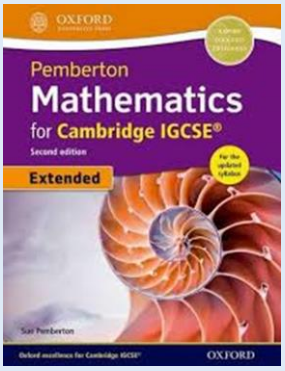
Grade 7		
Semester	**Chapters**	**Main Resource**
1st Semester	**Chapter 1:** Place value, ordering and rounding **Chapter 2:** Expressions **Chapter 3:** Shapes and geometric reasoning **Chapter 4:** Length, mass and capacity **Chapter 5:** Collecting and displaying data **Chapter 6:** Addition and subtraction **Chapter 8:** Integers, powers and roots **Chapter 9:** Equations and simple functions **Chapter 10:** Measurement and construction **Chapter 11:** Time **Chapter 12:** Averages **Chapter 13:** Multiplication and division 1 **Chapter 15:** Fractions, decimals and percentages **Chapter 16:** Sequences **Chapter 17:** Angle properties **Chapter 18:** Area and perimeter of rectangles **Chapter 19:** Probability **Chapter 20:** Multiplication and division 2	Student's Book 1: From page 1 to page 176 (Ch.7,14,21 are not included)
2nd Semester	**Chapter 22:** Ratio and proportion **Chapter 23:** Formulae and substitution **Chapter 24:** Coordinates **Chapter 25:** Cubes and cuboids **Chapter 26:** Experimental and theoretical probability **Chapter 27:** Division and fractions of a quantity	Student's Book 1: From page 177 to page 214 (Ch.28 is not included)
	Chapter 1: Place value, ordering and rounding **Chapter 2:** Expressions, equations and formulae **Chapter 3:** Congruency and properties of two-dimensional shapes **Chapter 4:** Measures and motion **Chapter 5:** Collecting and displaying data **Chapter 6:** Calculations and mental strategies 1 **Chapter 8:** Integers, powers and roots **Chapter 9:** Equations and simple functions **Chapter 10:** Constructions **Chapter 11:** Transformations **Chapter 12:** Statistical calculations **Chapter 13:** Calculations and mental strategies	Student's Book 2: From page 1 to page 127 (Ch.7,14 are not included)

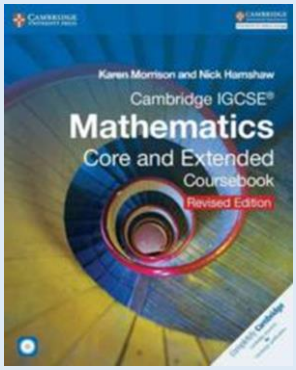
Cambridge Checkpoint Maths (cont.)

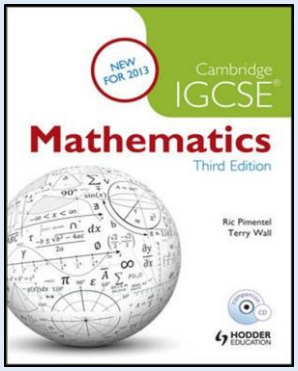
Grade 8		
Semester	**Chapters**	**Main Resource**
1st Semester	**Chapter 15:** Fractions, decimals and percentages **Chapter 16:** Sequences, function and graphs **Chapter 17:** Angle properties **Chapter 18:** Area and volume **Chapter 19:** Interpreting data and graphs **Chapter 20:** Calculations and mental strategies 3 **Chapter 22:** Ratio and proportion **Chapter 23:** Formulae and substitution **Chapter 24:** Enlargement and scale drawing **Chapter 25:** Nets and surface area **Chapter 26:** Probability **Chapter 27:** Calculations and mental strategies 4	Student's Book 2: From page 128 to page 256 (Ch.21,28 are not included)
	Chapter 1: Integers, powers and roots **Chapter 2:** Expressions and formulae **Chapter 3:** Shapes and geometric reasoning **Chapter 4:** Length, mass and capacity **Chapter 5:** Planning and collecting data **Chapter 6:** Calculations and mental strategies 1	Student's Book 3: From page 1 to page 71 (Ch.7 is not included)
2nd Semester	**Chapter 8:** Place value, ordering and rounding **Chapter 9:** Equations and inequalities **Chapter 10:** Pythagoras' theorem **Chapter 11:** Compound measures and motion **Chapter 12:** Processing and presenting data **Chapter 13:** Calculations and mental strategies 2 **Chapter 15:** Fractions, decimals and percentages **Chapter 16:** Sequences **Chapter 17:** Position and movement **Chapter 18:** Area and volume **Chapter 19:** Interpreting and discussing results **Chapter 20:** Calculations and mental strategies 3 **Chapter 22:** Ratio and proportion **Chapter 23:** Functions and graphs **Chapter 24:** Bearings and drawings **Chapter 25:** Measures and the circle **Chapter 26:** Probability **Chapter 27:** Calculations and mental strategies 4	Student's Book 3: From page 72 to page 271 (Ch.14,21,28 are not included)

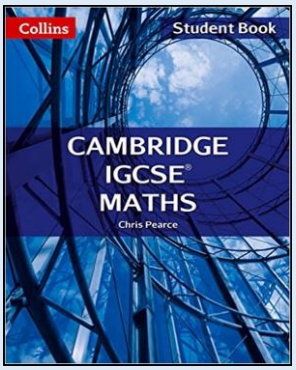
الفصل الرابع : المرحلة الدراسية (٩-١٠)

Section (4): Grades (9-10)









فهرس الفصل الرابع

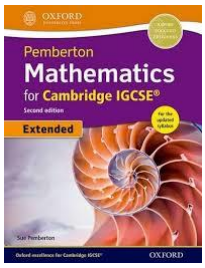
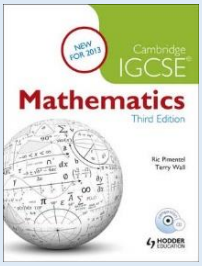
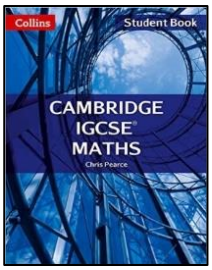
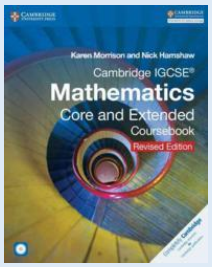
الصفوف (٩– ١٠)

Index of Section (4)

Grades (9-10)

المصادر التعليمية الأساسية المعتمدة وأرقام الISBN – للصفين (٩–١٠)

List of Essential Approved Resources and their ISBNs- Grades (9-10)

	Publisher	Components	ISBN	Book Cover
1	Oxford	Pemberton Mathematics for Cambridge IGCSE - Extended (Second Edition)	9780198378402	
		Pemberton Mathematics for Cambridge IGCSE Teacher Resource Pack – Extended (Second Edition)	9780198378419	
2	Hodder Education	Cambridge IGCSE Mathematics Core and Extended (Third Edition) + CD-ROM	9781444191707	
		Cambridge IGCSE Mathematics Core and Extended - Practice Book	9781444180466	
		Cambridge IGCSE Mathematics Core and Extended - Teacher's CD-ROM	9781444191745	
3	Collins	Cambridge IGCSE Maths - Student book	9780008150372	
		Cambridge IGCSE Maths - Teacher Guide	9780008150365	
4	Cambridge University Press	Cambridge IGCSE Mathematics Core and Extended - Coursebook Revised Edition + CD-ROM	9781316605639	
		Cambridge IGCSE Mathematics Extended - Practice Book	9781107672727	
		Cambridge IGCSE Mathematics - Teacher's Resource CD-ROM Revised Edition	9781316609309	

المصادر الداعمة للمعلم (٩–١٠)

Teachers' Supplementary Resources (9-10)

توفير كتابين – على الأقل – من الكتب الأساسية المعتمدة في الصفحة (٤٨) والتي لم تختارهما المدرسة كمصدر أساسي .
Provide at least 2 additional copied of different title from the approved list for teacher use (see page 48).

الوسائل التعليمية (٩–١٠)

Teaching Aids (9-10)

على المدارس توفير الوسائل التعليمية الآتية:

١. أدوات هندسية بحجم كبير لاستخدام المعلم على السبورة: المثلث الثلاثيني الستيني والمثلث متساوي الساقين، منقلة، مسطرة، فرجار .

٢. سبورة الرسم البياني (بالإضافة للسبورة العادية في الفصل) .

٣. جهاز حاسوب لكل معلم .

٤. جهاز عرض .

٥. شبكة إنترنت متاحة .

Schools must provide the following teaching aids:

1. Master Mathematical Instruments (for teachers use): Two set squares, a 180° 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.

توزيع المخرجات التعليمية على الفصلين الدراسيين للصفين (٩-١٠)

Learning Outcomes Distribution of Grades (9-10)

Grade (9)

First Semester

1) Number

Indices

- Understand the meaning and rules of indices
- Use the standard form $A \times 10^n$ where n is a positive or negative integer, and $1 \leq A < 10$

Real Numbers

- Identify and use real numbers (Which includes rational & irrational numbers)
- Convert recurring decimals to fractions (And opposite)

Proportion

- Increase and decrease a quantity by a given ratio
- Use common measures of rate
- Calculate average speed

Percentages

- Calculate a given percentage of a quantity
- Express one quantity as a percentage of another
- Calculate percentage increase or decrease
- Carry out calculations involving reverse percentages

2) Algebra

Algebraic Manipulation

- Construct and transform complicated formulae and equations
- Manipulate directed numbers
- Use brackets and extract common factors
- Expand products of algebraic expressions
- Factorize where possible expressions of the form:

$ax + bx + kay + kby$
$a^2x^2 - b^2y^2$
$a^2 + 2ab + b^2$
$ax^2 + bx + c$

- Manipulate algebraic fractions
- Factorize and simplify rational expressions

3) Co-ordinate Geometry

Straight Line Graphs

- Find the gradient of a straight line
- Calculate the gradient of a straight line from the co-ordinates of two points on it
- Calculate the length and the co-ordinates of the midpoint of a straight line from the co-ordinates of its end points
- Interpret and obtain the equation of a straight line graph in the form $y = mx + c$
- Determine the equation of a straight line parallel to a given line
- Find the gradient of parallel and perpendicular lines

4) Mensuration

Arc Length and Sector Area of the Circle

- Solve problems involving the arc length and sector area as fractions of the circumference and area of a circle

Surface Area and Volume of 3D Shapes

- Carry out calculations involving the volume of a cuboid, prism and cylinder and the surface area of a cuboid and a cylinder
- Carry out calculations involving the surface area and volume of a sphere, pyramid and cone

Areas and Volumes of Compound Shapes

- Carry out calculations involving the areas and volumes of compound shapes

Grade (9)

Second Semester

1) Number

Sets

- Use language, notation and Vann diagrams to describe sets and represent relationships between sets
  Note: Including shaded parts
- Define sets in different ways

2) Algebra

Linear Equations and Inequalities

- Solve simple linear equations in one unknown
- Solve simple linear inequalities

Variation

- Express direct and inverse variation in algebraic terms and use this form of expression to find unknown quantities

3) Geometry

scale drawings

- Read and make scale drawings

Symmetry

- Recognize rotational and line symmetry (including order of rotational symmetry) in two dimensions
- Recognize symmetry properties of the prism (including cylinder) and the pyramid (including cone)
- Use the following symmetry properties of circles:
  - equal chords are equidistant from the center
  - the perpendicular bisector of a chord passes through the center
  - tangents from an external point are equal in length

Angle Properties

- Calculate unknown angles using the following geometrical properties:
  - angles at a point
  - angles at a point on a straight line and intersecting straight lines
  - angles formed within parallel lines
  - angle properties of triangles and quadrilaterals
  - angle properties of regular polygons
  - angle in a semi-circle
  - angle between tangent and radius of a circle.
  - angle properties of irregular polygons
  - angle at the center of a circle is twice the angle at the circumference
  - angles in the same segment are equal
  - angles in opposite segments are supplementary; cyclic quadrilaterals

4) Trigonometry

Bearings

- Interpret and use three-figure bearings

Trigonometry

- 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
- Solve trigonometrical problems in two dimensions involving angles of elevation and depression
- Extend sine and cosine values to angles between 90° and 180°

5) Statistics

Reading and Displaying Data

- Construct and read histograms with equal and unequal intervals and scatter diagrams
- Understand what is meant by positive, negative and zero correlation with reference to a scatter diagram
- Draw a straight line of best fit by eye

Mean, Median, Mode and Range

- Calculate the mean, median, mode and range for individual and discrete data and distinguish between the purposes for which they are used
- Calculate an estimate of the mean for grouped and continuous data
- Identify the modal class from a grouped frequency distribution

Grade (10)

First Semester

1) Algebra

Algebraic indices

- Use and interpret positive, negative and zero indices
- Use and interpret fractional indices
- Use the rules of indices

Solving Equations

- Solve simultaneous linear equations in two unknowns
- Solve quadratic equations by factorization, completing the square or by use of the formula

Linear Programming

- Represent inequalities graphically and use this representation in the solution of simple linear programming problems

Sequences

- Continue a given number sequence
- Recognize patterns in sequences and relationships between different sequences
- Find the nth term of sequences

2) Number

Accuracy

- Give appropriate upper and lower bounds for data given to a specified accuracy
- Obtain appropriate upper and lower bounds to solutions of simple problems given data to a specified accuracy

Money and Finance

- Use given data to solve problems on personal and small business finance involving earnings, simple interest and compound interest, discount, profit and loss
- Extract data from tables and charts

Exponential Growth and Decay

- Use exponential growth and decay in relation to population and finance

3) Geometry

Similarity

- Calculate lengths of similar figures
- Use the relationships between areas of similar triangles, with corresponding results for similar figures and extension to volumes and surface areas of similar solids

Loci

- Use the following loci and the method of intersecting loci for sets of points in two dimensions which are:
  - at a given distance from a given point
  - at a given distance from a given straight line
  - equidistant from two given points
  - equidistant from two given intersecting straight lines

4) Vectors

Vectors

- Describe a translation by using a vector represented by e.g. $\begin{pmatrix} x \\ y \end{pmatrix}$, $\overrightarrow{AB}$ or **a**.
- Add and subtract vectors
- Multiply a vector by a scalar
- Calculate the magnitude of a vector $\begin{pmatrix} x \\ y \end{pmatrix}$ as $\sqrt{x^2 + y^2}$
- Represent vectors by directed line segments
- Use the sum and difference of two vectors to express given vectors in terms of two coplanar vectors
- Use position vectors

5) Statistics

Cumulative Frequency

- Construct and use cumulative frequency diagrams
- Estimate and interpret the median, percentiles, quartiles and inter-quartile range

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 → 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 = 1/2 ab sin C
- Solve simple trigonometrical problems in three dimensions including angle between a line and a plane

3) Matrices and transformation

Matrices

- Display information in the form of a matrix of any order
- Calculate the sum and product (where appropriate) of two matrices
- Calculate the product of a matrix and a scalar quantity
- Use the algebra of 2 × 2 matrices including the zero and identity 2 × 2 matrices
- Calculate the determinant $|\mathbf{A}|$ and inverse $\mathbf{A^{-1}}$ of a non-singular matrix **A**

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°
- 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