Newsletter	نشرة توجيهية
Subject: Mathematics	المادة: الرياضيات
Educational Program: Bilingual	البرنامج التعليمي: ثنائي اللغة
Grades: (1-10)	الصفوف: (۱–۱۰)
Academic Year: 2021\2022	للعام الدراسي: ۲۰۲۲/۲۰۲۱م

الفهرس العام

General Index

الفصل الأول : التوجيهات العامة

Section (1): General Guidelines

(٠٠)، فبراير/٢٠٢٠، نموذج رئيسي (3)

نشرة توجيهية

عملية اعتماد المصادر التعليمية الأساسية للبرنامجين احادي اللغة وثنائي اللغة في المدارس الخاصة.

(١): النسخة العربية

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

المجال	التعليمات
اختيار وتوفير المصادر التعليمية 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 السلاسل التعليمية الأساسية المعتمدة سيسمح بإستخدامها في العام الدراسي ٢٠٢٢/٢٠٢١م فقط و لآخر عام دراسي، تمت الإشارة إليها بشكل واضح أسفل قائمة المصادر المعتمدة، ولن يسمح بإستخدامها في العام الدراسي اللاحق ٢٠٢٣/٢٠٢٢م، 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، بناءً 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).**

التعليمات	المجال
○ 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 .	الوسائل التعليمية
○ "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 .	المصادر الداعمة للمعلم
○ 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 .	التدريب
○ 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	ملاحظات القسم

(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 ٢٠٢١/٢٠٢٢ only and will not be allowed to be used in the following year ٢٠٢٢/٢٠٢٣. 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	o 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. o 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	o Grades (1-6): To provide and implement the teaching aids and the ancillary materials which are prescribed within the chosen approved resources. o 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. o All grades: To provide paper, photocopiers, laptops, projectors and other consumable materials that will be required in using the approved resources.
Teachers' Support Resources	o "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	o 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	o **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
١	Cambridge Primary MATHS	Marshall Cavendish Education	Pupil's Book	Year of Publication (2020)
			Activity Book	
			Teacher's Guide	
2	Max Maths Primary	Macmillan Education	Student Book	Extra resources available Please visit the website New (2018)
			Workbook	
			Teacher's Guide	
3	Let's Start!	Vector	Student's Book	Year of Publication (2019)
			Workbook	
			Teacher's Pack	
4	Collins International Primary Maths	Collins	Student's Book	Extra resources available Please visit the website
			Workbook	
			Teacher's Guide	
5	Top Maths	Alston Publishing House	Textbook (A&B)	New Edition
			Workbook (A&B)	
			Teacher's Guide (A&B)	
6	Cambridge Primary Mathematics	Cambridge University Press	Learner's Book	Extra resources available Please visit the website
			Teacher's Resource with (CD)	
			Games Book	
7	Hodder Cambridge Primary Mathematics	Hodder Education	Learner's Book	----
			Workbook	
			Teacher's Pack	

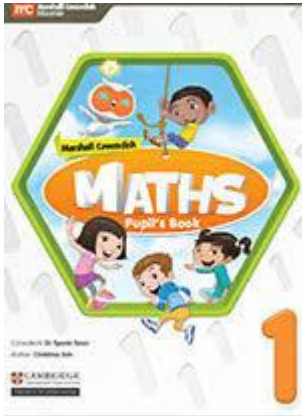**بعض السلاسل التعليمية في هذه القائمة ستكون معتمدة للتطبيق في العام الدراسي ٢٠٢٢/٢٠٢١م فقط وسيتم استبدالها بالنسخ المحدثه في العام الدراسي ٢٠٢٣/٢٠٢٢م فيرجى عدم شراء نسخ زائدة منها.*

*Some of the main resources in this list are approved only for the academic year 2021/2022 and will be substituted with their new editions in the academic year 2022/2023. So please do not buy extra copies of these resources.
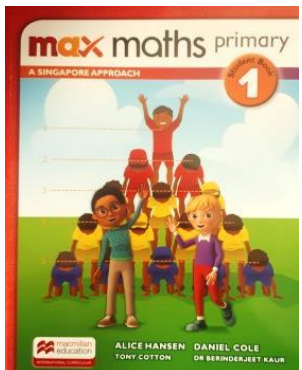
قوائم ال ISBN لمكونات السلاسل المعتمدة (١–٦)

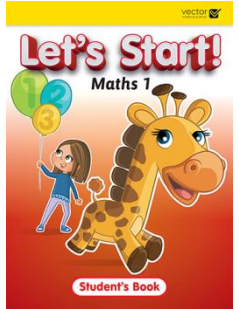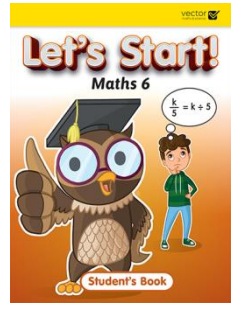## ISBN Lists of Approved Essential Components (1-6)

1. Marshall Cavendish: **Cambridge Primary MATHS**

Grade	Component	ISBN	Notes	Book Cover
1	Pupil's Book	9789814736756	For student	
	Activity Book	9789814736787	For student	
	Teacher's Guide	9789814736794	For teacher	
2	Pupil's Book	9789814736770	For student	
	Activity Book	9789814736817	For student	
	Teacher's Guide	9789814736824	For teacher	
3	Pupil's Book	9789814736718	For student	
	Activity Book	9789814736725	For student	
	Teacher's Guide	9789814736749	For teacher	
4	Pupil's Book	9789813163720	For student	
	Activity Book	9789813163737	For student	
	Teacher's Guide	9789813163744	For teacher	
5	Pupil's Book	9789813163751	For student	
	Activity Book	9789813163768	For student	
	Teacher's Guide	9789813163775	For teacher	
6	Pupil's Book	9789813163782	For student	
	Activity Book	9789813163799	For student	
	Teacher's Guide	9789813163805	For teacher	
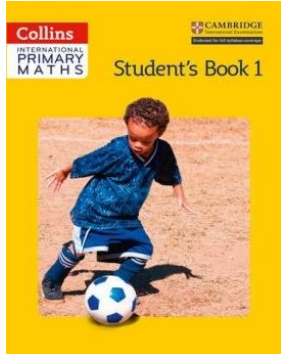
2. **Max Maths Primary**

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	
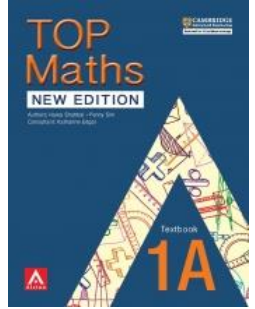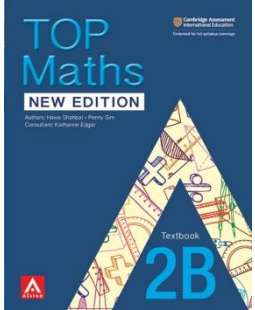
3. Let's Start!

Grade	Component	ISBN	Notes	Book Cover
1	Student's Book	9786185305291	For student	
	Workbook	9786185305307	For student	
	Teacher's Pack	9786185305314	For teacher	
2	Student's Book	9786185305345	For student	
	Workbook	9786185305352	For student	
	Teacher's Pack	9786185305369	For teacher	
3	Student's Book	9786185305376	For student	
	Workbook	9786185305383	For student	
	Teacher's Pack	9786185305390	For teacher	
4	Student's Book	9786185305406	For student	
	Workbook	9786185305413	For student	
	Teacher's Pack	9786185305420	For teacher	
5	Student's Book	9786185305444	For student	
	Workbook	9786185305451	For student	
	Teacher's Pack	9786185305468	For teacher	
6	Student's Book	9786185305475	For student	
	Workbook	9786185305482	For student	
	Teacher's Pack	9786185305499	For teacher	
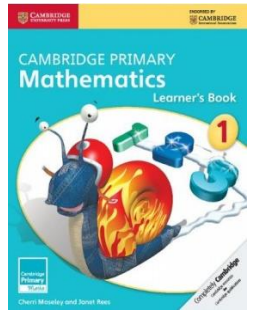
4. Collins International Primary Maths

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	
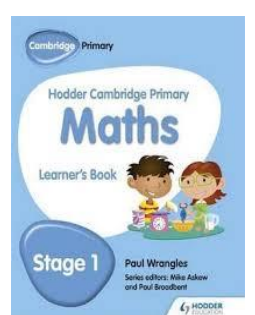
5. TOP Maths

Grade	Component	ISBN	Notes	Book Cover
1	Textbook 1A	9789813180017	For student	
	Workbook 1A	9789813180031	For student	
	Teacher's Guide 1A	9789813181106(online)	For teacher	
	Textbook 1B	9789813180024	For student	
	Workbook 1B	9789813180048	For student	
	Teacher's Guide 1B	9789813181113(online)	For teacher	
2	Textbook 2A	9789813180079	For student	
	Workbook 2A	9789813180093	For student	
	Teacher's Guide 2A	9789813181120(online)	For teacher	
	Textbook 2B	9789813180086	For student	
	Workbook 2B	9789813180109	For student	
	Teacher's Guide 2B	9789813181137(online)	For teacher	
3	Textbook 3A	9789813180130	For student	
	Workbook 3A	9789813180154	For student	
	Teacher's Guide 3A	9789813181144(online)	For teacher	
	Textbook 3B	9789813180147	For student	
	Workbook 3B	9789813180161	For student	
	Teacher's Guide 3B	9789813181205(online)	For teacher	
4	Textbook 4A	9789813180192	For student	
	Workbook 4A	9789813180215	For student	
	Teacher's Guide 4A	9789813181212(online)	For teacher	
	Textbook 4B	9789813180208	For student	
	Workbook 4B	9789813180222	For student	
	Teacher's Guide 4B	9789813181229(online)	For teacher	
5	Textbook 5A	9789813180253	For student	
	Workbook 5A	9789813180277	For student	
	Teacher's Guide 5A	9789813181236(online)	For teacher	
	Textbook 5B	9789813180260	For student	
	Workbook 5B	9789813180284	For student	
	Teacher's Guide 5B	9789813181243(online)	For teacher	
6	Textbook 6A	9789813180314	For student	
	Workbook 6A	9789813180338	For student	
	Teacher's Guide 6A	9789813181281 (online)	For teacher	
	Textbook 6B	9789813180321	For student	
	Workbook 6B	9789813180345	For student	
	Teacher's Guide 6B	9789813181298(online)	For teacher	

6. 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	

7. Hodder Cambridge Primary Mathematics
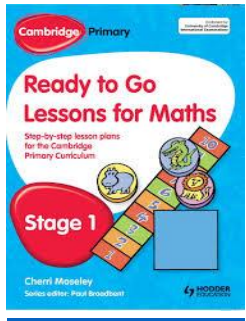
Grade	Component	ISBN	Notes	Book Cover
1	Learner's Book	9781471884313	For student	
	Workbook	9781471884566	For student	
	Teacher's Pack(digital copy)	9781471884443	For teacher	
2	Learner's Book	9781471884337	For student	
	Workbook	9781471884597	For student	
	Teacher's Pack(digital copy)	9781471884467	For teacher	
3	Learner's Book	9781471884368	For student	
	Workbook	9781471884610	For student	
	Teacher's Pack(digital copy)	9781471884481	For teacher	
4	Learner's Book	9781471884375	For student	
	Workbook	9781471884634	For student	
	Teacher's Pack(digital copy)	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(digital copy)	9781471884542	For teacher	

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. Cambridge Primary MATHS (Marshall Cavendish)

Grade	Semester 1	Semester 2
One	Unit 1: Numbers 0 to 10 Unit 2: Naming Position Unit 3: Length and Mass Unit 4: Number Pairs Unit 5: Addition Within 10 Unit 6: Subtraction within 10 Unit 7: 2D Shapes Unit 8: 3D Shapes Unit 9: Making 10	Unit 10: Numbers 10 to 20 Unit 11: Addition and Subtraction within 20 Unit 12: More on Length and Mass Unit 13: Time Unit 14: Graphs Unit 15: Doubles and Halves Unit 16: Sharing Unit 17: Number to 100 Unit 18: Money Unit 19: Capacity Unit 20: Handling Information
Two	Unit 1: Numbers to 100 Unit 2: More About Number 100 Unit 3: 2D Shapes Unit 4: 3D Shapes Unit 5: Addition with 100 Unit 6: Subtraction with 100 Unit 7: Length Unit 8: Multiplication Unit 9: Multiplying by 2, 5 and 10 Unit 10: Multiplying by 3 and 4	Unit 11: Mass Unit 12: Capacity and Volume Unit 13: Data handling Unit 14: Division Unit 15: Dividing by 2 and 3 Unit 16: Dividing by 4, 5 and 10 Unit 17: Time, Days and Months Unit 18: Doubles and Halves Unit 19: Halves and Quarters Unit 20: Angles and Movement Unit 21: Money
Three	Unit 1: Numbers up to 1000 Unit 2: More About Numbers Unit 3: 2D Shapes and 3D Shapes Unit 4: Addition and Subtraction within 1000 Unit 5: word Problem Unit 6: Length Unit 7: Multiplication Unit 8: Division	Unit 9: Mass Unit 10: Capacity Unit 11: Symmetry Unit 12: Time and Data Unit 13: Number Crunching Unit 14: : Data handling Unit 15: Fractions Unit 16: More About Fractions Unit 17: Money Unit 18: Right Angle Unit 19: Position and Movement
Four	Unit 1: Numbers up to 100000 Unit 2: More About Numbers Unit 3: Addition and subtraction Unit 4: Time Unit 5: Multiplication Unit 6: Division Unit 7: Pictograms and Bar Charts With Scales	Unit 10: From 2D Shapes to 3D Shapes Unit 11: Decimals Unit 12: Length, mass and Capacity Unit 13: Angle, Direction and Position Unit 14: Fractions Unit 15: Mixed Number Unit 16: More About Fractions Unit 17: Perimeter and Area

	Semester	Semester
	Unit 8: Number Crunching Unit 9: Negative Numbers	Unit 18: Handling data
Five	Unit 1: Numbers up to 999 9999 Unit 2: Addition and subtraction Unit 3: Angle Unit 4: Line and Shapes Unit 5: Multiplication and Division Unit 6:Factors, Multiples and Square Number Unit 7: Time Unit 8: Number Crunching Unit 9: More About Numbers	Unit 10: : Data handling Unit 11: Decimals Unit 12: Adding, Subtracting and Multplying Decimals Unit 13: More on Measurement Unit 14: Mixed Number and Improper Fracation Unit 15: Percentages Unit 16: Ratio Unit 17: Symmetry and Triangles Unit 18:Translation and Reflction Unit 19: Area and perimeter
Six	Unit 1:Whole Numbers Unit 2: Factors, Multiples and Prime Number Unit 3: Shapes Unit 4: Operation With Whole Numbers Unit 5: Length Unit 6: Time Unit 7: More About Numbers Unit 8: Operation With Decimals	Unit 9: Mass and Volume Unit 10: Data Handling Unit 11: Perimeter and area Unit 12: Time Zones Unit 13: Fracation, Mixed Number and Decimals Unit 14: Percentages Unit 15: Angle Unit 16: Transforming Shapes Unit 17: Ratio and Proportion Unit 18: Metric and Imperial Measures

2. 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 7: Multiplication Unit 8: Division Unit 9: Length, mass and volume

	Unit 4: Fractions Unit 5: Shapes and space Unit 6: Data handling	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

3. Let's Start! (Vector)

Grade	Semester 1	Semester 2
One	Unit 1: Number to 10 Unit 2: Addition Unit 3: Subtraction Unit 4: Numbers 11 to 20 Unit 5: Addition and Subtraction up to 20 Unit 6: Length Unit 7: Mass	Unit 8: Capacity Unit 9: Number to 100 Unit 10: Shape, solids and patterns Unit 11: Time Unit 12: Addition and subtraction up to 100 Unit 13: Position Unit 14: Money Unit 15: Data
Two	Unit 1: Number to 1000 Unit 2: Addition and Subtraction up to 100 Unit 3: Length Unit 4: Addition and subtraction up to 1000 Unit 5: Mass	Unit 6: Multiplication Unit 7: Divison Unit 8: Time Unit 9: Money Unit 10: Volume Unit 11: Shapes and solids Unit 12: Data
Three	Unit 1: Number to 1000 Unit 2: Addition and subtractionup Unit 3: Data	Unit 7: Volume Unit 8: Multiplication Unit 9: Divison

Grade	Semester 1	Semester 2
	Unit 4: Length Unit 5: Time Unit 6: Mass	Unit 10: Fraction Unit 11: Money Unit 12: Shapes and solids Unit 13: Angles
Four	Unit 1: Number to 100 000 Unit 2: Addition and subtractionup Unit 3: Geometry Unit 4: Multiplication Unit 5: Divison Unit 6: Data	Unit 7: Length Unit 8: Area and perimeter Unit 9: Word problems Unit 10: Fraction Unit 11: Time Unit 12: Decimals Unit 13: Combined operation
Five	Unit 1: Number to 10 000 000 Unit 2: Operations Unit 3: Angles Unit 4: Data and probability Unit 5: Fraction Unit 6: Operations with Fraction	Unit 7: Decimals Unit 8: Operations with Decimals Unit 9: Percentage Unit 10: Quadrilaterals Unit 11: Triangles Unit 12: Solids and volume Unit 13: Ratio Unit 14: Measurement
Six	Unit 1: Number and operation Unit 2: Algbra Unit 3: Factors and multiples Unit 4: Direction Unit 5: Fraction Unit 6: Decimals Unit 7: Operations with Decimals	Unit 8: Angles and quadrilaterals Unit 9: Circles Unit 10: Percentage Unit 11: Solids, nets and volume Unit 12: Data and probability Unit 13: Ratio Unit 14: Convert measurements

4. **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

Grade	Semester 1	Semester 2
Two	Unit 1: Whole numbers 1 Unit 5: Addition and subtraction 1 Unit 8: Multiplication and division1 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 division2	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 division2	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 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 1:Multiplication and division2	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
Five	Unit 1: Whole numbers 1 Unit 8: Addition and subtraction 1 Unit 1:Multiplication and division1 Unit 14: 2D shape, including symmetry Unit 15: 3D shape Unit 17: Position and movement Unit 21: Time	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

Grade	Semester 1	Semester 2
	Unit 2: Whole numbers 2 Unit 3: Decimals 1 Unit 9: Addition and subtraction 2 Unit 12: Multiplication and division2	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 1:Multiplication and division1 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 Unit12:Multiplication and division2	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

5. **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

6. 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
		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

Grade	Semester 1	Semester 2

	12 Ordering numbers (1)
	13 Combine and take away
	14 Ordering numbers (2)
	2C: Measure and Problem Solving
	   15 Money
		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

Grade	Semester 1	Semester 2
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)	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

Grade	Semester 1	Semester 2
	16 Special numbers 2B: Measure and Problem Solving 17 Mass & capacity 18 Time (2)	

7. 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 2: Geometry and problem solving
	   2a Patterns and shapes
	   2b Making shapes
	 Unit 3: Number and problem solving
	   3a Numbers to 20
	   3b Adding and subtraction
	   3c Counting patterns
	 Unit 4: Measure and problem solving
	   4a Money
	   4b Measures
	   4c Time
	 Unit 5: Problem solving and review
	   5a Problem solving
	 Unit 6: Number and problem solving
	   6a Counting patterns
	   6b Numbers
	 Unit 7: Handling data and problem solving
	   7a Sorting objects and shapes
	   7b Pictograms
		Unit 8: Number and problem solving
		   8a Addition
		   8b Subtraction
		   8c Addition and subtraction
		 Unit 9: Measure and problem solving
		   9a Money
		   9b Measures
		   9c Time
		 Unit 10: Problem solving and review
		   10a Problem solving
		 Unit 11: Number and problem solving
		   11a Counting patterns
		   11b Numbers
		 Unit 12: Handling data and problem solving
		   12a Sorting numbers
		   12b Sorting shapes
		   12c Blocks graphs
		 Unit 13: Number and problem solving
		   13a Adding and subtraction
		   13b Doubles and halves
		 Unit 14: Measure and problem solving
		   14a Money
		   14b Measures
		   14c Time and movement
		 Unit 15: Problem solving and review
		   15a Problem solving

Grade	Semester 1	Semester 2
Two	Unit 1: Number and problem solving	Unit 8: Number and problem solving
	1a Number to 100	8a Addition and subtraction
	1b Comparing and rounding numbers	8b Multiplication
	1c Number and place value	8c Division
	Unit 2: Geometry and problem solving	Unit 9: Measure and problem solving
	2a 2-D shapes and symmetry	9a Money
	2b Shapes around me	9b Measuring mass
	Unit 3: Number and problem solving	9c Time
	3a Number facts	Unit 10: Problem solving and review
	3b Addition and subtraction	10a The circus
	3c Multiplication	Unit 11: Number and problem solving
	Unit 4: Measure and problem solving	11a Place value and partitioning
	4a Money	11b Halves and quarters
	4b Measuring length	11c Number patterns
	4c Time	Unit 12: Geometry and problem solving
	Unit 5: Problem solving and review	12a 2-D and 3-D shapes
	5a Under the sea	12b Position and movement
	Unit 6: Number and problem solving	Unit 13: Number and problem solving
	6a Counting patterns	13a Adding and subtraction
	6b Comparing, ordering and estimating	13b Multiplication and division
	6c Number and place value	13c Missing number problems
	Unit 7: Handling data and problem solving	Unit 14: Measure and problem solving
	7a Sorting objects and shapes	14a Money
	7b Block graphs and pictograms	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 2: Geometry and problem solving 2a 2-D shapes 2b 3-D shapes Unit 3: Number and problem solving 3a Addition and subtraction 3b Multiplication and division 3c Calculation problems Unit 4: Measure and problem solving 4a Money 4b length 4c Time Unit 5: Problem solving and review 5a Problem solving Unit 6: Number and problem solving 6a Number and place value 6b Comparing, ordering and rounding 6c Mental strategies Unit 7: Measure and problem solving 7a Money 7b Mass 7c Time	Unit 8: Number and problem solving 8a Addition and subtraction 8b Multiplication and division 8c Calculation problems Unit 9: Handling data and problem solving 9a Sorting numbers and shapes 9b Charts, graphs and tables Unit 10: Problem solving and review 10a Problem solving Unit 11: Number and problem solving 11a Number and place value 11b Fractions 11c Fractions and amounts Unit 12: Geometry and problem solving 12a 2-D shapes 12b Position and movement 12c 3-D shapes Unit 13: Number and problem solving 13a Mental strategies 13b Addition and subtraction 13c Multiplication and division Unit 14: Measure and problem solving 14a Money 14b Capacity 14c Time Unit 15: Problem solving and review 15a Problem solving

Grade	Semester 1	Semester 2
Four	Unit 1: Number and problem solving 1a Place value and decimals 1b Rounding and estimating 1c Addition and subtraction Unit 2: Measures and problem solving 2a The metric system 2b Length, area and perimeter 2c Time 2d Problem solving Unit 3: Number and problem solving 3a Number Patterns 3b Multiplication and division 3c 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 5: Problem solving and review 5a Problem solving Unit 6: Number and problem solving 6a Numbers and the number system 6b Addition and subtraction Unit 7: Measures and problem solving 7a The metric system 7b Length, area and perimeter 7c Time 7d Problem solving	Unit 8: Number and problem solving 8a Number patterns 8b Multiplication and division 8c Problem solving Unit 9: Handling data and problem solving 9a Handling data 9b Problem solving Unit 10: Problem solving and review 10a Problem solving Unit 11: Number and problem solving 11a Numbers and the number system 11b Fractions and decimals 11c Addition and subtraction Unit 12: Measures and problem solving 12a The metric system 12b Area and perimeter 12c Time 12d Problem solving Unit 13: Number and problem solving 13a Number patterns 13b Multiplication and division 13c 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 2: Measures and problem solving
	   2a The metric system
	   2b Length, area and perimeter
	   2c Time
	   2d Problem solving
	Unit 3: Number and problem solving
	   3a Number Patterns
	   3b Multiplication and division
	   3c 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 5: Problem solving and review
	   5a Problem solving
	Unit 6: Number and problem solving
	   6a Place value and the number system
	   6b Rounding and ordering
	   6c Addition and subtraction
	Unit 7: Measure and problem solving
	   7a The metric system
	   7b Length, area and perimeter
	   7c Time
	   7d Problem solving
		Unit 8: Number and problem solving
		   8a Number patterns
		   8b Multiplication and division
		Unit 9: Handling data and problem solving
		   9a Organising, categorizing and representing data
		   9b Probability
		   9c Problem solving
		Unit 10: Problem solving and review
		   10a Problem solving
		Unit 11: Number and problem solving
		   11a Rounding and ordering
		   11b Fractions
		   11c Addition and subtraction
		Unit 12: Measures and problem solving
		   12a The metric system
		   12b Length, area and perimeter
		   12c Time
		Unit 13: Number and problem solving
		   13a Number patterns
		   13b Multiplication and division
		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

Grade	Semester 1	Semester 2

Six	Unit 1: Number and problem solving
	  1a Place value and decimals
	  1b Rounding and estimating
	  1c Addition and subtraction
	Unit 2: Measures and problem solving
	  2a The metric system
	  2b Length, area and perimeter
	  2c Time
	  2d Problem solving
	Unit 3: Number and problem solving
	  3a Factors and multiples
	  3b Number Patterns, sequences and generalisations
	  3c Multiplication and division
	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 5: Problem solving and review
	  5a Problem solving
	
	Unit 6: Number and problem solving
	  6a Place value
	  6b Rounding and estimating
	  6c Addition and subtraction, including decimal numbers
	Unit 7: Measure and problem solving
	  7a The metric system
	  7b Length, area and perimeter
	  7c Time
		Unit 8: Number and problem solving
		  8a Factors and multiples
		  8b Number patterns, sequences and generalisations
		  8c Multiplication and division
		Unit 9: Handling data and problem solving
		  9a Handling data
		  9b Probability
		  9c Data handling and probability problems
		Unit 10: Problem solving and review
		  10a Problem solving
		
		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 12: Measures and problem solving
		  12a The metric system
		  12b Length, area and perimeter
		  12c Time
		Unit 13: Number and problem solving
		  13a Percentages
		  13b Ratio and proportion
		  13c Multiplication and division
		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

الفصل الثالث : المرحلة الدراسية (٧–٨)

Section (3): Grades (7-8)

فهرس الفصل الثالث

الصفوف (۷–۸)

Index of Section (3)

Grades (7-8)

السلاسل الأساسية المعتمدة ومكوناتها الإلزامية (٧–٨)

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

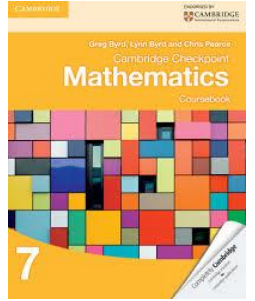|	Title	Publisher	Components	Notes
1	Cambridge Checkpoint Mathematics	Cambridge University Press	Coursebook	Extra resources available Please visit the website
			Practice Book	
			Teacher's Resource (CD)	
2	Maths SMART For Cambridge Lower Secondary	Alston Publishing House	Student Book	Year of Publication (2020)
			Teacher's Guide	
3	Cambridge Checkpoint Maths	Hodder Education	Student's Book	----
			Workbook	
			Teacher's Resource Book	
4	Oxford International Math (For Cambridge Secondary 1)	Oxford University Press	Student Book	----
			Homework Book	
			Teacher Pack / with (CD)	

*بعض السلاسل التعليمية في هذه القائمة ستكون معتمدة للتطبيق في العام الدراسي ٢٠٢١/٢٠٢٢م فقط وسيتم استبدالها بالنسخ المحدثه في العام الدراسي ٢٠٢٢/٢٠٢٣م فيرجى عدم شراء نسخ زائدة منها.

*Some of the main resources in this list are approved only for the academic year 2021/2022 and will be substituted with their new editions in the academic year 2022/2023. So please do not buy extra copies of these resources.

قوائم ال ISBN لمكونات السلاسل المعتّمدة (٧–٨)

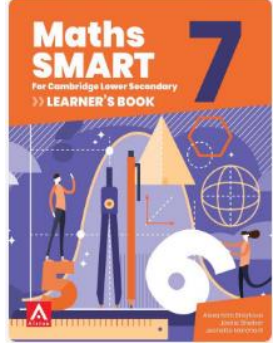## ISBN Lists of Approved Essential Components (7-8)

1. Cambridge Checkpoint Mathematics (CUP)

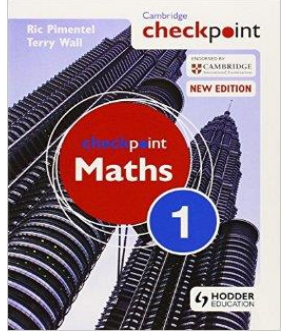| Grade	Component	ISBN	Note	Book Cover
7	Coursebook 7	9781107641112	For student	
	Practice Book 7	9781107695405	For student	
	Teacher's Resource (CD) 7	9781107693807	For teacher	
7 – 8	Coursebook 8	9781107697874	For student	
	Practice Book 8	9781107665996	For student	
	Teacher's Resource (CD) 8	9781107622456	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.
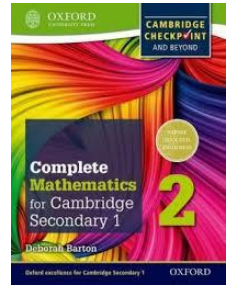
2. Maths SMART For Cambridge Lower Secondary (Alston)

Grade	Component	ISBN	Note	Book Cover
7	Learner's Book 7	9789813180918	For student	
	Teacher's Guide 7	9789813183032 online	For teacher	
7 – 8	Learner's Book 8	9789813180925	For student	
	Teacher's Guide 8	9789813183049 online	For teacher	
8	Learner's Book 9	9789813180932	For student	
	Teacher's Guide 9	9789813183056 online	For teacher	

3. Cambridge Checkpoint Maths (HODDER)

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

4. Oxford International Math
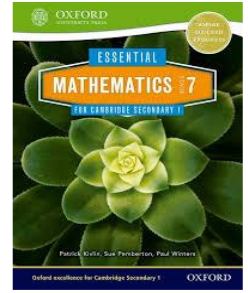
Grade	Component	ISBN	Note	Book Cover
7	Student Book 1	9780199137046	For student	
	Homework Book1 (pack of 15)	9780199137060	For student	
	Teacher Pack with (CD)1	9780199137053	For teacher	
7 – 8	Student Book 2	9780199137077	For student	
	Homework Book 2(pack of 15)	9780199137091	For student	
	Teacher Pack with (CD)2	9780199137084	For teacher	
8	Student Book 3	9780199137107	For student	
	Homework Book 3(pack of 15)	9780199137121	For student	
	Teacher Pack with (CD)3	9780199137114	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 (26) للمعلم ، والتي يختارها 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:

على المدارس توفير الوسائل التعليمية الآتية:

1. Master Mathematical Instruments (for teacher use): Two set squares, a 180° protractor, a ruler, a compass

١. 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.

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

3. Grid whiteboard (In addition to the normal whiteboard

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

4. Different sets of dices with different number of sides

٤. مجموعة من أحجار النرد متنوعة في عدد الأوجه .

5. A laptop for each teacher.

٥. جهاز حاسوب لكل معلم .

6. Projectors.

٦. أجهزة عرض .

7. Internet connection.

٧. شبكة إنترنت متاحة .

توزيع المحتوى على الفصلين الدراسيين للصفين (٧–٨)

Content Distribution of Grades (7-8)

1. Cambridge Checkpoint Mathematics (CUP)

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. **Maths SMART For Cambridge Lower Secondary**

Grade 7		
Semester	**Units**	**Main Resource**
1ˢᵗ Semester	**Unit 1**: Factors, Multiples and Prime **Unit 2:**Integers **Unit 3**: Introduction to Algebra and Equation **Unit 4**: Decimals **Unit 5**: Measurement **Unit6**: Angles and Their Properties **Unit 7**: Data Handling **Unit 8**: Fractions **Unit 9**: Terms and Sequences **Unit 10**: Shpes snd Symmetry **Unit 11**: Coordinate Geometry **Unit 12**: Percntages **Unit 13**: Ratio, Rate and Proportion **Unit 14:** Geometrical Construction	Learner's Book 7: From page 2 to page 323
	Unit 15: Measuring Time, Area, Perimeter and Volume **Unit 16**: Transformation **Unit 17**: Data Handling **Unit 18**: Probability	Learner's Book 7: From page 324 to page 434
2ⁿᵈ Semester	**Unit 1:**Inegers **Unit 2**: Algebraic Expression and Linear Equation **Unit 3**: Angles and Angle Properties **Unit 4**: Decimals **Unit 5**: Measurement **Unit 6:**Handling Data **Unit 7:** Fraction **Unit 8:** Shapes and Solids **Unit 9:** Arithmetic Sequences	Learner's Book 8: From page 3 to page 276

Maths SMART(cont.)

Grade 8		
Semester	**Units**	**Main Resource**
1ˢᵗ Semester	**Unit 10:** Area and Volume **Unit 11:** Percentages **Unit 12: :** Coordinate Geometry and Graph **Unit 13:** Ratio and Proportion **Unit 14:** Geometrical Construction **Unit 15:** Transformation **Unit 16:** Handling Data **Unit 17:** Probability	Learner's Book 8: From page 277 to page 525
	Unit 1: Inetgers **Unit 2:** Algebraic Expression and Linear Equation **Unit 3:** Shapes and Solids **Unit 4:** Decimals	Learner's Book 9: From page 3 to page 112
2ⁿᵈ Semester	**Unit 5:** Fraction **Unit 6:** Mensuration **Unit 7:** Trigonometry **Unit 8:** Bearing **Unit 9:** Percntages **Unit 10:** Rate, Ratio and Proportion **Unit 11:** Algebraic Equation **Unit 12:** Coordinate Geometry and Graph **Unit 13:** Geometrical Construction **Unit 14:** Transformation **Unit 15:** Arithmetic Sequences **Unit 16:** Data Handling **Unit 17:** Probability	Learner's Book 9: From page 113 to page 421

3. . Cambridge Checkpoint Maths (HODDER)

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.)

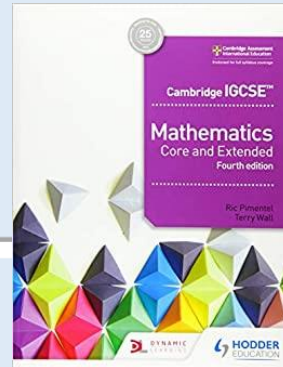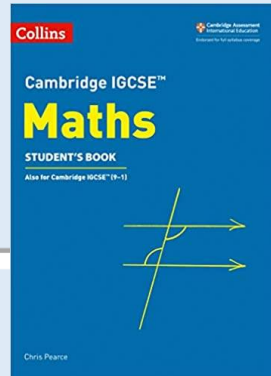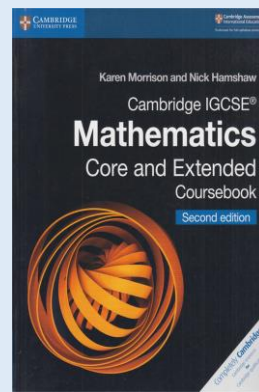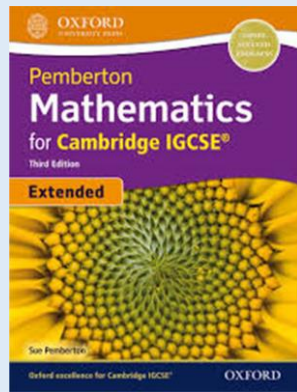| Grade 8		
Semester	**Chapters**	**Main Resource**
1st Semester	**Chapter 15:** Fractions, decimals and percentages **Chapter 16:** Sequences, function and graphs **Chapter 17:** Angle properties **Chapter 18:** Area and volume **Chapter 19:** Interpreting data and graphs **Chapter 20:** Calculations 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)

4. **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)

الفصل الرابع : المرحلة الدراسية (٩-١٠)

Section (4): Grades (9-10)

فهرس الفصل الرابع

الصفوف (۹- ۱۰)

Index of Section (4)

Grades (9-10)

المصادر التعليمية الأساسية المعتمدة وأرقام الـISBN – 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 (Third Edition)	9780198428402	
		Pemberton Mathematics for Cambridge IGCSE Teacher Resource Pack – Extended (Third Edition)	9780198428473	
2	Hodder Education*	Cambridge IGCSE Mathematics Core and Extended (Fourth Edition)	9781510421684	
		Cambridge IGCSE Mathematics Core and Extended (Fourth Edition) - workBook	9781510421707	
		Cambridge IGCSE Mathematics Core and Extended - Teacher's CD-ROM	9781510424197 onlin	
3	Collins	Cambridge IGCSE Maths - Student book	9780008257798	
		Cambridge IGCSE Maths - Teacher Guide	9780008257804	
4	Cambridge University Press	Cambridge IGCSE Mathematics Core and Extended - Coursebook (Second Edition)	9781108437189	
		Cambridge IGCSE Mathematics Extended - Practice Book (Second Edition)	9781108437219	
		Cambridge IGCSE Mathematics - Teacher's Resource (Second Edition)	9781108437271 online	

*المصدر (Hodder) يعتمد فقط لطلاب الصف العاشر الذين درسوا نفس الكتاب في الصف التاسع في العام الأكاديمي ٢٠٢٠/٢٠٢١.

*Hodder text book is only approved to 10th grade students who have taken the text book in grsde 9 in 2020/2021.

المصادر الداعمة للمعلم (٩-١٠)

Teachers' Supplementary Resources (9-10)

	Name of series	Publisher	ISBN
1	Exam Success in Mathematics for Cambridge (IGCSE® (Core & Extended	Oxford University Press	**9780198428121**
2	توفير نسخة واحدة لإحدى السلاسل المعتمدة في الصفحة (٤٩) للمعلم، والتي تختارها المدرسة Provide at least 1 additional copy of a different title from the approved list for teacher use (see page 49)		

الوسائل التعليمية (٩-١٠)

Teaching Aids (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° 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.

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.

توزيع المخرجات التعليمية على الفصلين الدراسيين للصفين (9-10)

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

Grade (9)
First Semester

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

Grade (10)

First Semester

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 $\rightarrow$ 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 = 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 $\left|A\right|$ and inverse 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

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End of the newsletter