Instructional Materials Technology Information

Title: CPM Integrated

Content Area: Math

Publisher: CPM Educational Program

Grades: HS

Copyright: 2015

Instructional Materials Technology Information

Since EdReports released its first reviews five years ago, the materials landscape has changed dramatically, especially in the area of technology. District questions have evolved from ensuring materials could be accessed on older browsers and versions of operating systems to detailed questions about interoperability, compatibility, security, support, and digital design. These questions have become even more important during the pandemic as districts assess what instructional materials may work best in their communities not just in-person, but also remotely and in hybrid settings. Access to high quality instructional materials by all students is more important than ever, and technology plays an essential role in that access. To help provide technology information for materials that meet alignment criteria in Gateways 1 and 2, EdReports has requested publishers answer the following questions to help consumers better understand the digital design and capabilities of their instructional materials.

- Section 1 provides broader questions most frequently asked of EdReports about the design of materials. These questions are meant to provide higher level, summary information.

- Section 2 provides more fine-grained details on aspects of design and functionality.

Considerations When Reading This Document

- EdReports is seeking the most accurate, descriptive information about curricular products. We are not evaluating quality or desirability, but documenting features in materials to empower local schools and districts with information to select materials that will work best for them given their technological capabilities and instructional vision.

- The information in this document comes directly from publishers. EdReports reviewed the information for clarity and consistency, but did not verify its accuracy. Questions you have regarding any of the reported information should be directed to the publisher of the product.

- Look at the information in the "Details" column carefully. Functionality and digital design can vary greatly depending on how a publisher responded. Most publishers provide granular information for each question to illuminate their responses.

- This document is most effective when paired with questions that relate to your local context and reviewed with both content and IT staff. Consider your district's technological access and capacity amongst students, teachers, and schools.

Table of Contents

Section 1: Usability Snapshot

This section includes questions on digital design and support that allows users quick access to essential information.

* Note:
"Yes with core product" below should be used to indicate functionality in the core materials as reviewed by EdReports that are available without LMS integration.
"Yes with dependencies" below refers to functionality in the materials reviewed by EdReports that are present or accessible only through working in a separate LMS, by utilizing other software as a plug-in, linking externally to sites outside the materials, or if functionality is dependent on a supplemental purchase.

Questions	Check Only One				Details
	Yes with core product	**Yes** with dependencies	**No**	Under Development	
Are the materials designed so that students are able to access and complete work online?		X			Students can fully access the eBook while online, including calculator links and Homework Help. No additional software or apps are necessary to access the material. If students are accessing the student eBook, then the student will need reliable internet. However students can use the print textbook to access the material if internet is not available. Student responses need to be recorded on paper and uploaded (via LMS, email, Google drive, etc) if students are not present in the classroom where a teacher can see their work. Work does not require a 1:1 device ratio.

Do the materials support learning in hybrid settings (both in-person and remote learning) concurrently?			X			While the curriculum was designed for in-person instruction, accomodations can be made when remote learning is necessary. CPM teachers are reporting success when utilizing online meeting platforms (Zoom, Google Meets, etc) to hold whole class discussions. Teachers are using online breakout rooms to provide students opportunities to synchronously collaborate online. Linked Desmos activities allow students to view other students' responses and let teachers provide feedback to students.
Are tasks, activities, and lessons able to be printed either for in-class use or for use in at-home learning?	X					Students can fully access the eBook while online, including calculator links and homework help. If necessary, students can print screens, but they would be better served by bringing a textbook home if they cannot read the screen for a prolonged period of time. Printable pdfs are included for Resource Pages, Checkpoints, and Parent Guides which provide basic skill summaries, reviews, and extra practice problems. PDFs are not provided for the student textbook since there is a print version of the book available for purchase.

Is there instruction so students can work independently (or with an adult at home)?	x				The curriculum includes Checkpoints and Parent Guides, which provide written basic skill summaries and practice problems with answers. These can be used when needed by the student for self-guided study of basic skills. Students also have access to online Homework Help for hints and sample solutions to the Review & Preview problems. CPM's curriculum is written for an in-person classroom led by a knowledgeable teacher who questions students as they work and has access to the teacher materials. It is not designed to be used in isolation.
Does the technology facilitate a teacher's ability to differentiate lessons, tasks, or other content for students?				x	A generic Desmos Activity Builder template can be used to provide teachers with a way to see student work, and for students to receive feedback from the teacher. The technology is not designed to replace the teacher. Within an Activity Builder, screens can respond differently depending on the student's response; this is one way that differentiation can occur. Feedback is a natural consequence of student responses. Most Desmos activities have guidance for the teacher and are editable by the teacher.
Are there tutorials, videos, or other integrated supports in the materials to help educators to understand and/or utilize the materials?	x				The electronic version of the Teacher Edition includes a video summary of every lesson presented by a teacher experienced in teaching the course. It also includes guidance in pedagogy and content tips for every lesson.

Question						Response
Are there tutorials, videos, or other integrated supports in the materials to help parents/guardians to understand and/or utilize the materials?	x					CPM's curriculum is written for an in-person classroom led by a knowledgeable teacher who has access to the teacher materials. Parent Guides, which provide written basic skill summaries and practice problems with answers, are included with the curriculum and can be used by a parent or tutor as a guide to the core skills. All of our materials are available in Spanish; the eBook includes a link to Google translation for other languages.
Are all of the following audiences provided access to the product as part of the core purchase? ● parents/guardians ● Educators (Teachers, Administrators, etc.) ● Students	x					Teachers receive access to all student and teacher materials. Students receive access to student materials. Parent Guides and Checkpoint materials, which provide written basic skill summaries and practice problems with answers, are freely available to anyone through our website. No student or parent data is collected. CPM does not track student work or grades.
Are the materials designed to integrate with a Learning Management System (LMS)?	x					All materials are hosted and accessible outside of an LMS, and can be integrated through an LTI launch. Materials are on-demand, and cannot be "imported" into the LMS.
Does all content conform to the National Instructional Materials Accessibility Standard?	x					
Is there technical support during day-to-day use?	x					Is it primarily the responsibility of the client or the publisher? Technical support is available through our email help link.

Section 2: Technology Checklist

The following checklists are designed to give more detailed information about digital design and technical capabilities in key areas of instructional materials to support state and local decision making. This list reflects details commonly requested by those making purchasing decisions at the state or local level.

Design

Design questions address whether the materials are designed to be used digitally in an in-person environment, remote learning environment, or both. Digital design can vary, often ranging from the ability to access files that are identical to print materials online to doing tasks and assessments as part of the program. The ability to take advantage of design functionality may depend on answers to questions in other sections of the checklist such as internet capabilities, number and type of devices, etc.

* Note:
"Yes with core product" below should be used to indicate functionality in the core materials as reviewed by EdReports that are available without LMS integration.
"Yes with dependencies" below refers to functionality in the materials reviewed by EdReports that are present or accessible only through working in a separate LMS, by utilizing other software as a plug-in, linking externally to sites outside the materials, or if functionality is dependent on a supplemental purchase.

Questions	Check Only One				Details
	Yes with core product	**Yes** with dependencies	**No**	Under Development	
Are the materials designed to be used with both digital and print components? Are there print options available for student-facing materials that could be utilized in a blended digital approach? Is the print content identical, similar, or comparable to the digital?	**x**				The print content is identical to the ebook content for students. However, the print edition does not provide the links to the Homework Help hints and sample answers which are available online. Blackline masters of the entire book are available for purchase.

edreports.org   CPM_Educational_Program_CPM_Integrated_and_Traditional_HS_2015_Tech_6_2020

Is the digital design of the materials intended to replicate a textbook experience?			x		• e-book • Not simply *replicate*, but *enhance* the experience. The eBook contains all of the material in the textbook in an online format. It also contains links to CPM etools, Desmos graphing calculator and activities, and additional teaching resources such as MathCast videos made by teachers for teachers.

Are digital teacher guides available for the materials?	x				If yes,
					• How do teachers access digital teacher guides?
					    ○ They are available through the digital teacher edition. Schools purchase and assign eBooks to the appropriate teacher.
					• Are guides available to parents/guardians at home?
					    ○ Parent Guides, which are different from the teacher guide, are available at cpm.org. Parent Guides can be downloaded for free.
					• Do teacher planning materials connect to student-facing lessons?
					    ○ Yes, they are directly connected and linked. The teacher edition also includes the student-facing version.
					• Are there any additional costs for these resources?
					    ○ No additional or hidden costs, ever. We also offer, *at no additional charge*, a complete professional learning course and follow-up support, both virtual and in-person. Our professional

					learning team helps teachers build their knowledge of the research behind collaborative and problem-based learning, gives them practical techniques to implement the curriculum in their classrooms, and works with them to develop a deeper understanding of the mathematical content.
Do the materials contain videos/animations/simulations for student learning?	X				Many lessons include links accessible to both teachers and students to CPM created etools such as algebra tiles and geoboards or Desmos calculator visualizations designed to help students interact directly with the mathematics being learned. These occur in most lessons but not all. All CPM-created eTools are at sites maintained by CPM. While the Desmos activities go to desmos.com, CPM owns the API and can maintain the activity or calculator indefinitely.
Is any or all online content dependent on links that are not maintained by the publisher?		X			Optional links to Desmos activities are maintained by desmos.com. Desmos calculators' API is embedded in the eBooks and are maintained by CPM.
Do the materials include opportunities for online collaboration among students?		X			Our curriculum includes linked Desmos activities which can be used to replace or extend some textbook lessons. Desmos activities allow students to see anonymized student responses. Students are encouraged to use any online mode of communication (or even a telephone) to collaborate if they are not together in a classroom. CPM is providing Google doc and slide templates to foster virtual collaboration among teammates.

Do the materials include built in features for student-to-teacher interaction?		x			Our curriculum includes linked Desmos activities which can be used to replace or extend some textbook lessons. Desmos activities allow teachers to provide individual feedback to students. The Google documents and slides templates allows the teacher to interact with students as well.
Is a 1:1 device ratio required?			x		Options include the teacher projecting online tools as a demonstration for class, students working in pairs on a Desmos activity, and students working in teams or 3 or 4 sharing a single device.
Are the assessments contained within the materials able to be securely completed by students online?				x	Secure online assessments will be available as an optional component and will support integration through LTI.
Is data available about user sessions (e.g., timestamps, content being viewed, callbacks fired, etc...)?	x				Minimal information is captured to determine usage patterns for the purpose of system improvement and user support. Google Analytics is used for non PII data.
Are there online professional learning supports to help teachers utilize the materials?	x				There are no additional or hidden costs for professional learning service. With our curriculum, teachers receive 3-years of progressive hybrid virtual and in-person professional learning and follow-up support. Our professional learning team helps teachers build their knowledge of the research behind CPM's three pillars (Collaborative Learning, Problem-Based Learning, and Mixed-Spaced Practice), gives them practical techniques to implement the curriculum in their classrooms, and works with them to develop a deeper understanding of the mathematical content.

| Are there parent/guardian resources available for school systems to utilize:
• For when there is in-person instruction?
• For when there is hybrid instruction?
• For creating continued learning plans for distance learning schedules? | | | | x | | Parent Guides can be downloaded and printed by parents/guardians to help their children review and strengthen core skills for every course. |

Learning Management Systems	Blackboard	Canvas	Eduphoria	Google Classroom	ItsLearning	Moodle	Schoology	Other: Please list below
Are the materials configured to work with one or more learning management systems? Check all that apply.	x	x	?	x	x	x	x	

CPM accepts the LTI launch protocol, so any LMS that supports LTI is supported. LTI launch is provided at no additional cost. This has been tested on Canvas, Google Classroom, Moodle and Schoology. It is understood to work on ItsLearning and Blackboard based on their published support of the LTI protocol.

System Access

System access questions address how users access the digital materials and what kind of logins/passwords are accepted/supported/required.

* Note:

"Yes with core product" below should be used to indicate functionality in the core materials as reviewed by EdReports that are available without LMS integration.

"Yes with dependencies" below refers to functionality in the materials reviewed by EdReports that are present or accessible only through working in a separate LMS, by utilizing other software as a plug-in, linking externally to sites outside the materials, or if functionality is dependent on a supplemental purchase.

Questions	Check Only One				Details
	Yes with core product	**Yes** with dependencies	**No**	Under Development	
Is single sign-on supported?	X			classlink	The following SSO providers and protocols are supported: SAML, LTI, Google, Clever
Can the platform manage staff assigned to multiple schools with a single sign-on?	X				Yes, requires automated rostering.
Can co-teachers be assigned to multiple classes?	X				Yes, requires automated rostering.
Can students who move between teachers or schools using the same materials be re-assigned without losing their work/progress?	X				If change is within the same school district.

Can the platform provide user accounts for staff members (principals and other admin) who are not assigned students?	x				Distinct user roles exist for district-wide administration, school specific administration, license administration and faculty and student specific. View-only roles are not currently supported. Districts and/or schools can administer the available roles via their administration tools and according to their discretion. These roles are provided at no additional cost.
Can passwords be reset without assistance from trained IT staff?	x				A Forgot Username/Password is provided for any user using CPM credentials. Process will vary when using an external account via SSO to login.
When working offline, does the product automatically sync when a connection is re-established?			x		Use of the eBook requires an active internet connection.

Technical Support

Technical Support questions are designed to help users understand what assistance to expect. These details are important to consider alongside local capacity for devices, networks, and use. Considering what level of independence users will have alongside these criteria can help schools and districts reflect on their needs for support.

* Note:
"Yes with core product" below should be used to indicate functionality in the core materials as reviewed by EdReports that are available without LMS integration.

"Yes with dependencies" below refers to functionality in the materials reviewed by EdReports that are present or accessible only through working in a separate LMS, by utilizing other software as a plug-in, linking externally to sites outside the materials, or if functionality is dependent on a supplemental purchase.

Technical Support	Check Only One				Details
	Yes with core product	**Yes** with dependencies	**No**	Under Development	
Is technical support provided to districts during initial set-up and deployment?	x				CPM tech support is available by phone or email to assist in initial account set-up. We also provide video tutorials for assistance in setting up accounts.
Is technical support provided during the duration of the contract?	x				CPM tech support is available by phone or email to all users to assist in initial account set-up. Emails receive a support ticket which will be answered within 24 hours. ● (209)745-2055
If utilizing a free or trial version, is technical support provided?	x				
Are there self-service supports for troubleshooting?	x				We provide video tutorials on our website which will help teachers and administrators set up teacher and student accounts. Trouble-shooting links on the assessment site are also located at support.cpm.org.
Does technical support include planning for emergency access and district support?	x				

Compatibility

Compatibility questions address technical compatibility specifications. It is designed to help users understand how the materials will look and operate on various devices. These details are important to consider alongside local capacity for devices, networks, and use. Understanding what devices function best can help determine users' needs for district device or technical support.

* Note:
"Yes with core product" below should be used to indicate functionality in the core materials as reviewed by EdReports that are available without LMS integration.
"Yes with dependencies" below refers to functionality in the materials reviewed by EdReports that are present or accessible only through working in a separate LMS, by utilizing other software as a plug-in, linking externally to sites outside the materials, or if functionality is dependent on a supplemental purchase.

Questions	Check Only One				Details
	Yes with core product	**Yes** with dependencies	**No**	Under Development	
Does the product have a native mobile application?			X		
Is the product browser-based?	X				
Does the product use responsive design for rendering on smartphones?				X	Completion date of Fall, 2020
Does the product use responsive design for rendering on tablet devices?				X	Completion date of Fall, 2020
Does the product use responsive design for rendering on laptop devices?				X	Completion date of Fall, 2020
Does the product use responsive design for rendering on desktop devices?				X	Completion date of Fall, 2020

Are all users (students/teachers/staff/admin/parents) permitted to use the product on more than one device (e.g. computer at school and a laptop at home or a smartphone and a laptop)?		x			No additional downloads or licenses are necessary.

Device Type	Mark box if device is compatible	Oldest operating system/version supported	Newest operating system/version supported	Details Indicate if the materials are designed for a specific device type or if they are generally compatible.
Windows	x	Per browser versions	Per browser versions	Generally compatible via supported browser. Currently support in scaled mode, responsive mode Fall, 2020.
Linux	x	Per browser versions	Per browser versions	Generally compatible via supported browser. Currently support in scaled mode, responsive mode Fall, 2020.
Windows Tablet	x	Per browser versions	Per browser versions	Generally compatible via supported browser. Currently support in scaled mode, responsive mode Fall, 2020.
Apple Laptop/Desktop	x	Per browser versions	Per browser versions	Generally compatible via supported browser. Currently support in scaled mode, responsive mode Fall, 2020.
iPhone	x	Per browser versions	Per browser versions	Generally compatible via supported browser. Currently support in scaled mode, responsive mode Fall, 2020.
iPad	x	Per browser versions	Per browser versions	Generally compatible via supported browser. Currently support in scaled mode, responsive mode Fall, 2020.
Android Phone	x	Per browser versions	Per browser versions	Generally compatible via supported browser. Currently support in scaled mode, responsive mode Fall, 2020.
Android Tablet	x	Per browser versions	Per browser versions	Generally compatible via supported browser. Currently support in scaled mode, responsive mode Fall, 2020.
Chromebook/Chrome OS	x	Per browser versions	Per browser versions	Generally compatible via supported browser. Currently support in scaled mode, responsive mode Fall, 2020.
Amazon Fire OS				
Other E-Reader	x			E-Readers supported through NIMAS
Interactive Whiteboard				

| Browser | | Operating System | | | | | | |
| | | Apple | | Windows | | | | |
	Check if browser is compatible	Oldest version supported	Newest version supported	Oldest version supported	Newest version supported	Linux	Chrome OS	N/A
Chrome	x	64	83	64	83	x	x	
Firefox	x	58	76	58	76	x	x	
Safari	x	10	13.1					
Edge (formerly Internet Explorer)	x	79	83	79	83			
Internet Explorer	☐							
Other:____	☐							
Additional Notes: CPM maintains backwards compatibility for up to two years however some user experience may be degraded on older browsers.								

Accessibility

Curricula with digital capabilities integrate accessible supports in a variety of ways. Accessibility questions pertain specifically to diverse learners who may need specific supports to be able to successfully interact with materials.

Questions	Check Only One				Details
	Yes with core product	Yes with dependencies	No	Under Development	
Screen Readers		X			Requires OS or 3rd party screenreader. WCAG 2.2 compliance to be reached Fall 2020
Screen Magnification Software		X			Some zoom features available in core product, compatible with OS zoom accessible features
Text Readers			X		
Adjustable Print Size			X		
Speech Input Software			X		
Header Point Devices			X		
Motion/Eye Tracking Devices			X		
Single Switch Entry Devices			X		
Braille Readers/ Display Devices			X		
Closed Captioning			X		
Alternative Input Devices			X		
High Color Contrast Display Options			X		Color schemes meeting WCAG 2.0 AA standard will be default starting Fall 2020
Translation of Text to Other Languages	X				Spanish
Bilingual Dictionaries available for students	X				

Question				Details
Are there required accessories (headsets, speakers)?			X	
Multiple Playback of audio/video			X	
Can students adjust the speed of audio/video playback?			X	
Are these accessibility supports able to be turned on/off?			X	
Does all browser-based technology satisfy the Web Content Accessibility Guidelines or VPAT?			X	WCAG, available for Fall 2020 as part of core product If yes, • Software: SortSite

Additional Technology Specifications

Data Security and Privacy

Data Security and Privacy questions address how student data storage, disposal, and adherence to privacy laws are addressed. If applicable, privacy reports and/or certificates can be found next to the respective indicator.

Questions	Check Only One			Details
	Yes	No	Under Development	
Data Security: Are data elements encrypted at rest, i.e. in a database or file system?	X			Full database instances and snapshots at rest are encrypted using AES-256.
Data Security: Do the materials refer students to video, content, and other online sources that are not native to the materials?	X			References to external resources are centrally managed without options for user generated content. Video content is published in a private hosting service and embedded or linked directly. Other handoffs

				include a server to server handoff for company level authentication, but does not include transmission of PII.
Data Security: Does the end-user licensing agreement allow customers to scrape data from the product?		X		
Privacy: Is personally-identifying student data provided to, generated by, or stored in any systems used by the product?	X			Collection and storage of user information is limited to fields required to provision a user account, which includes first name, last name, email address and unique username.
Privacy: Does the product/vendor make their student privacy policy publicly available?	X			https://cpm.org/privacy-policy
Privacy: Does the product conform with FERPA regulations (e.g., allows districts to maintain direct control of the student record, implements permissions to prevent unnecessary disclosures, etc.)?	X			
Privacy: Has a third-party evaluated the product for FERPA compliance?		X		
Privacy: Does the product allow registration or data collection from children under the age of 13?		X		

Installation

Feature/Requirement/Specification	Check Only One			Details
	Yes	No	Under Development	
Is the product downloaded to individual devices: one-time internet connection required?		X		
Is the product installed on individual computers (from CD-ROM/DVD, flash drive, etc.): no internet connection required?		X		
Is the product installed on LAN/WAN (school or district server): no internet connection required for teachers/students after installation?		X		
Required server configuration. Do network admins need to ensure a specific set of domains are white listed to allow the internet traffic to those endpoints?		X		
Does the product support deployment through Mobile Device Management (MDM) systems?		X		
Does the product provide a detailed schedule of updates that minimizes access interruption?	X			Users are notified in advance of a scheduled update. Updates occur overnight so as to minimize interruption to users.
Does the login authentication use district protocols to establish unique and memorable usernames and passwords?	X			This is fulfilled through use of a district's preferred Identity Provider and SSO, in effect inheriting district protocols. Protocols include SAML, LTI, Google, Clever. Districts can also choose to administer and implement user accounts using their protocol manually. Email address is the most common unique ID.
Is there an option for concurrent user licensing?		X		

Standards Compliance/Certification	Check all that apply	Details
SIF		
CEDS		
EDUPUB		
Ed-Fi (SIS/ODS)		
Ed-Fi (Assessments)		
MS Global (Competencies and Academic Standards Exchange)		
IMS Global (Comprehensive Learner Record)		
IMS Global (Open Badges)		
IMS Global (One Roster)	x	Supported, but not certified.
IMS Global (Caliper Analytics)		
IMS Global (Question and Test Interoperability (QTI))		
IMS Global (Learning Tools Interoperability (LTI))	x	Supported, but not certified.
IMS Global (LTI Advantage)		
IMS Global (Common Cartridge)		
IMS Global (Lite Common Cartridge)		
IMS Global (Open Video)		
Other:		

edreports.org

Implementation and Scalability	Yes/No or Value
What is the average page load time?	< 1s
What is the required bandwidth per user?	>= 1MB / sec
Are results of stress tests provided to customers?	No
Is a disaster recovery plan for data provided to customers?	Upon request
Are customers provided with a standardized implementation plan to ensure a successful rollout?	Yes
Does the service level agreement include uptime guarantees of at least 95% excluding planned maintenance/down-times?	Uptime SLAs are not part of agreements, however CPM meets or exceeds 95% uptime.
Does the product require a VPN for off site access?	No

edreports.org   CPM_Educational_Program_CPM_Integrated_and_Traditional_HS_2015_Tech_6_2020