Instructional Materials Technology Information

Since EdReports released its first review, 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 is requesting 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.

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.

<u>Section 1: Usability Snapshot</u> <u>Section 2: Technology Details</u>

- Design
- System Access
- Technical Support
- Compatibility
- Accessibility
- Additional Technology Specifications



Section 1: Usability Snapshot

This section includes questions on digital design and support that allows users quick access to essential information. Please do not exceed a 150 word limit per question. You may use or remove prompt text in providing additional details. Words in the detail prompt text will not count toward the word limit.

* Note:

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

"Yes with dependencies" below refers to functionality present or accessible only through working in a separate LMS, by utilizing other software as a plug-in, or linking externally to sites outside the materials.

		Check O	nly One)	
Questions	Yes with core product	Yes with dependencies No		Under Development	Details
Are the materials designed so that students are able to access and complete work online?	✓				 This is built-in to the native materials and is available via web browser without any integrated software Online work is saved against a user's profile so each student should work independently on their device. An Internet connection is required to access the full materials features, but most materials can be downloaded to a PDF and accessed offline.
In what ways do the materials support learning in hybrid settings (both in-person and remote learning) concurrently?	V				Lesson materials can be delivered as part of direct instruction or student-led learning. Video examples are provided to support a student-led approach. Engage Activities are collaborative problem-solving tasks that require group work. can be done in person or remotely via video call

		software like Zoom using the Breakout Room feature. Practice problems can be completed in a group or individual setting.
Are tasks, activities, and lessons able to be printed either for in-class use or for use in at-home learning?	V	Some lessons feature interactive manipulatives and require a device and internet connection. However, lessons are still accessible and complete without accessing this additional material.
Is there instruction so students can work independently (or with an adult at home)?	V	 Instruction contains text, video examples and interactive manipulatives allowing students to work independently at home. Practice problems are graded with Step-by-step feedback and hints allowing students to practice independently and self-correct. Approximately 50% of practice problems also come with a video solution.
Does the technology facilitate a teacher's ability to differentiate lessons, tasks, or other content for students?	V	 Teachers can assign work to an entire class, to individuals or to small groups of students Adaptive tasks adjust in difficulty level for each student based on their previous responses Step-by-step feedback at the question level is tailored to the approach a student has taken to a problem and provides personalized support Teachers are provided information about which questions or skills are causing



			 challenges for students, to facilitate differentiation and recommendations Students have access to all of their historical work, with feedback on every problem, including exactly which parts of their solution are correct are incorrect. Teachers can choose specific individual questions to assign to students, or they can have students work more independently
Are there tutorials, videos, or other integrated supports in the materials to help educators to understand and/or utilize the materials?			 There is a materials guide available to educators to help them understand the materials. Within the materials, there are supports available for teachers that direct them towards how to use the materials effectively, especially as it pertains to special populations of students.
Are there tutorials, videos, or other integrated supports in the materials to help parents/guardians to understand and/or utilize the materials?	~		 Mathspace provides support articles for using Mathspace that include tutorials and videos. These are accessible by parents with a section focused on the student experience. Mathspace also hosts parent information webinars with district partners. Webinars are recorded and made available to parents to access along with information pamphlets to parents.
Are all of the following audiences provided access to the product as part of the core purchase? • parents/guardians	V		 Students have access to all of their data on work they have completed in Mathspace Teachers can see all activity for their



 Educators (Teachers, Administrators, etc.) Students 		 students, including assignments completed and a gradebook, as well as a full student workbook for all questions. Lesson materials and practice are accessible to students and teachers. Some materials, like the teacher guides and topic assessments, are only visible to teachers. Advanced permissioning allows administrators to oversee all teachers, classes and students within a school, as well as within multiple schools in a district, as required. Parents receive weekly progress emails from Mathspace to inform them of their child's engagement and progress.
Are the materials designed to integrate with a Learning Management System (LMS)?		 Materials are fully accessible outside of an LMS. Support for certain LMS' (Schoology, Canvas) is higher than others, and is evolving. Please reach out to the Mathspace team with specific questions about LMS integration
Does all content conform to the National Instructional Materials Accessibility Standard?		 All reviewed materials are available for PDF download and can be converted to NIMAS files on request. Note that some materials contain interactive elements that cannot be converted to NIMAS but all learning objectives are covered in the PDF materials.



 There may be some support issues that for a support issues that it is a support is support is support is support is support in the support in the support is support in the support is support in the support is support in the support in the support is support in the support is support in the support is support in the support in		Is technical support during day-to-day use primarily the responsibility for the client or the publisher?	V				 Live chat support is available from Mathspace for all teachers 16 hours a day, 5 days a week to assign with technical support and troubleshooting Every district receives a dedicated Customer Success Manager who is available for support as well There may be some support issues that fa
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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. You may use or remove prompt text in providing additional details.

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.

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plug-in, or linking externally to sites outside the materials.

	Check Only One					
Questions	Yes with core product	Yes with dependencies	No	Under Development	Details	
Are the materials designed to be used with both digital and print components? Are there print options available for					 Print and digital materials are available. Print options include: Hard copy teacher guides Hard copy student textbooks 	
student-facing materials that could be utilized in a blended digital approach? Is the print content identical, similar, or comparable to the digital?	V				 PDFs that can be printed at home or at school The materials are designed to be used with a print-only, digital-only, or a blended approach 	



		 Everything available in the print materials are also available in the digital offering. There are some things (like the step- by-step support, adaptive practice and automatic grading, that are only available in the digital components.
Is the digital design of the materials intended to replicate a textbook experience?	V	 The digital textbook contains the same content and structure as the print textbook experience, with courses divided into topics and subtopics. The navigation of the digital has been designed specifically for a digital experience to provide a more responsive experience than scrolling through an e-book or a PDF.
Are digital teacher guides available for the materials?		 Teacher guides are available in the digital textbook Within each subtopic, there is a tab for the student lesson and a tab for the teacher guide The teacher guide is directly connected to each student lesson, with strategies and supports to aide in delivering the content of that lesson Teachers also have digital access to teacher-only materials like topic and subtopic overviews and topic assessments, available through clearly labeled tabs in the digital textbook Purchasing the full Mathspace Digital Core Product includes unlimited access to these materials. The digital version of the teacher materials are not included with print-only purchases,

			though print teacher guides are also available
Do the materials contain videos/animations/simulations for student learning?	~		 Approximately 50% of digital practice questions contain video tutorials Some lessons contain interactive applets that include animations and simulations, as appropriate. These videos are applets are accessed directly through Mathspace, and are maintained and created by Mathspace.
Is any or all online content dependent on links that are not maintained by the publisher?			 Certain content, while maintained by Mathspace, is hosted on external platforms. Key URL permissions are: www.geogebra.org for interactive math applets If yes, Detail permissions the district may need to set to ensure access to this content (age restriction bypass, specific URL permissions etc.).
Do the materials include opportunities for online collaboration among students?	V		 Mathspace's Engage Activities are designed to be completed in groups These are rich, open-ended tasks that have a strong emphasis on collaboration, discovery and discussion.
Do the materials include built in features for student-to-teacher interaction?			 While there is no explicit built-in features for student-to-teacher interaction, teachers are automatically informed of student work in real-time and provided reports of student progress, where support is needed and targeted recommendations.
ls a 1:1 device ratio required?		V	 Mathspace is available as a print-only material.



Are the assessments contained within the			 For optimal usage of the digital materials, it is recommended that every student have their own device, but it is not required. This is true for most assessments.
materials able to be securely completed by students online?	V		 Currently, summative topic assessments are designed to be completed offline, away from access to devices or the internet. Formative assessments that are completed online can be edited by teachers to choose the specific questions they would like students to complete.
Is data available about user sessions (e.g., timestamps, content being viewed, callbacks fired, etc)?	V		 This data is collected by Mathspace for security reasons and to enhance the reliability and functional of the platform Teachers can see timestamped reports of when their students were active in Mathspace and what they were working on. If yes, How is this gathered and reported? Who has access to this data?
Are there online professional learning supports to help teachers utilize the materials?	V		 Live chat support is available to teachers 16 hours a day, 5 days a week A detailed help repository is available to all users at help.mathspace.co Comprehensive e-learning courses on Mathspace are also available to all teachers Live Virtual Professional Development with a Mathspace trainer can be purchased at an hourly rate
Are there parent/guardian resources available for school systems to utilize: • For when there is in-person instruction?		V	

For when there is hybrid instruction?For creating continued learning			
plans for distance learning schedules?			
scrieduless			

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.		~						

Integration is available at no additional cost.

Mathspace offers an LTI 1.3 compatible integration, which we have tested to work with the latest online versions of Canvas and Schoology LMS in 2023. Mathspace is only available as an online service, and so there is no version compatibility issue.

System Access

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

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		Check Only One		:	
Questions	Yes with core product	Yes with dependencies	No	Under Development	Details
Is single sign-on supported?	V				SSO is supported through:
Can the platform manage staff assigned to multiple schools with a single sign-on?	V				
Can co-teachers be assigned to multiple classes?	V				 If rostered through a third-party tool like Clever, co-teachers are managed at the network level Custom classes can be created by all teachers and co-teachers can be added to these classes at the teacher level, by adding an existing teacher to the teacher roster for a specific class.
Can students who move between teachers or schools using the same materials be re-assigned without losing their work/progress?	V				

Can the platform provide user accounts for staff members (principals and other admin) who are not assigned students?		 School-level administrators have access to data for all teachers, students, and classes within their designated school With SSO, this access is controlled at the network level. District or network-level admins like coaches or supervisors can receive access to some or all of the individual schools within the network This access is controlled by sharing a list of users who require this access with Mathspace, and what schools they require access to. This is part of a standard contract.
Can passwords be reset without assistance from trained IT staff?	~	 If using SSO, then whatever the district or network policies for password reset apply For native Mathspace accounts, all users can utilize a "Forgot Password" feature on the login page to reset their password using their email Teachers also have the ability to reset their students' passwords manually, providing a student with a temporary password they are prompted to change on first login.
When working offline, does the product automatically sync when a connection is re-established?		 Mathspace's digital tools require an 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.

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	C	Check Only One			
Technical Support	Yes with core product	Yes with dependencies	No	Under Development	Details
Is technical support provided to districts during initial set-up and deployment?	V				 Live chat support Onboarding support through a dedicated customer success manager Connection with Mathspace IT team as required to ensure effective deployment Meetings available through online e-meeting platforms (like Zoom, Google Meet etc)
Is technical support provided during the duration of the contract?	V				 Live chat support is available to teacher and admin users 16 hours a day, 5 days a week (excluding holidays) Initial response time during available hours is under 10 minutes Every customer has a dedicated Customer Success Manager who is available via email The public Mathspace webpage also has a live chat that can be used by students or parents.
If utilizing a free or trial version, is technical support provided?	V				



Are there self-service supports for troubleshooting?		 Online respository of help articles Digital Mathspace Community of teacher and admin Mathspace users Online course with instructional videos and how-to guides.
Does technical support include planning for emergency access and district support?		As Mathspace is browser-based and does not require any software or hardware on school or district networks, it is available anywhere with internet access. In case of emergency, as long as internet access is available, Mathspace will be available. And certain parts of the material can be downloaded and made available offline as part of emergency preparedness as well. Support is available to at some level to all teachers and students in the district, not just the designated district administrators.

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.

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		Check C	only On	e	
Questions	Yes with core product	LMS Dependent	No	Under Development	Details
Does the product have a native mobile application?	V				For iPad only
Is the product browser-based?	V				
Does the product use responsive design for rendering on smartphones?		V			While the product is responsive to screen size and available on smartphones, some content requires a larger screen size. So we recommend students use a screen size with a minimum width of 768 pixels (iPad size) or more.
Does the product use responsive design for rendering on tablet devices?	V				
Does the product use responsive design for rendering on laptop devices?	V				
Does the product use responsive design for rendering on desktop devices?	V				



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	V	Windows 10	Windows 11	OS requirements are only what is required to run the latest version of mainstream web browsers.
Linux	V			OS requirements are only what is required to run the latest version of mainstream web browsers.
Windows Tablet	V			Can be accessed via web browser. For best experience we recommend a screen width greater than 768 pixels
Apple Laptop/Desktop	V	macOS 10.15 Catalina	macOS 14 Sonoma	OS requirements are only what is required to run the latest version of mainstream web browsers.
iPhone				Can access materials from this device but some content will be too large and require horizontal scrolling.
iPad	V			A native iPad application is available.
Android Phone				Can access materials from this device but some content will be too large and require horizontal scrolling.
Android Tablet	V			Can be accessed via web browser. For best experience we recommend a screen width greater than 768 pixels
Chromebook/Chrome OS	V	ChromeOS 119	ChromeOS 120	Latest 2 versions supported
Amazon Fire OS				
Other E-Reader				



Can be projected onto interactive whiteboard via web application

		Operating System									
Brov	wser	Apple		Wind	lows						
	Check if browser is compatible	Oldest version supported	Newest version supported	Oldest version supported	Newest version supported	Linux	Chrome OS	N/A			
Chrome	V	macOS 10.15 Catalina	macOS 14 Sonoma	Windows 10	Windows 11	Where latest version of Chrome is supported	Latest 2 versions supported				
Firefox	V	macOS 10.15 Catalina	macOS 14 Sonoma	Windows 10	Windows 11	Where latest version of Firefox is supported	N/A				
Safari	~	macOS 10.15 Catalina	macOS 14 Sonoma	Windows 10	Windows 11	N/A	N/A				
Edge (formerly Internet Explorer)	V	macOS 10.15 Catalina	macOS 14 Sonoma	Windows 10	Windows 11	Where latest version of Edge is supported	N/A				
Internet Explorer											
Other:											

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.

		Check O	nly One			
Questions	Yes with core product	Yes with dependencies	No	Under Development	Details	
Screen Readers	V					
Screen Magnification Software		V			Standard zoom functions built into the web browser do work, as well as screen magnification software that operates on the display level.	
Text Readers	V					
Adjustable Print Size			V			
Speech Input Software			V			
Header Point Devices			V			
Motion/Eye Tracking Devices			V			
Single Switch Entry Devices			V			
Braille Readers/ Display Devices			V			
Closed Captioning	V				We're adding new videos every month so there's some delay with closed captioning on videos. But all core material videos are close-captioned.	
Alternative Input Devices			V			

High Color Contrast Display Options			V	
Translation of Text to Other Languages		V		Browser-based platform, core materials are compatible with translation extensions
Bilingual Dictionaries available for students			V	
Are there required accessories (headsets, speakers)?			V	
Multiple Playback of audio/video	V			
Can students adjust the speed of audio/video playback?	V			
Are these accessibility supports able to be turned on/off?	V			If yes, • Specify which supports and who has access to turn them on/off.
Does all browser-based technology satisfy the Web Content Accessibility Guidelines or VPAT?			V	If yes, • Provide reports from the software or organization used to test the product.

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.

Overliens	Check Only One			D 1 "	
Questions	Yes	No	Under Development	Details	
Data Security: Are data elements encrypted at rest, i.e. in a database or file system?	V			 Database storage is encrypted with AWS RDS encryption features 	



			 Encrypted with AES-256 and AWS Key Management Service (KMS) which uses a hardware security module to protect our keys. Passwords are stored using the PBKDF2 algorithm with a SHA256 hash and per-user salt. The work factor and algorithm used are frequently updated.
Data Security: Do the materials refer students to video, content, and other online sources that are not native to the materials?		V	
Data Security: Does the end-user licensing agreement allow customers to scrape data from the product?	V		Permitted although not explicitly in the agreement, with some notes: Only permitted for data that the customer is authorized to access, for example grades data from students and classes in the customer account Content scraping only permitted when the use complies with fair use and copyright
Privacy: Is personally-identifying student data provided to, generated by, or stored in any systems used by the product?	V		Required elements: NA - all student data can be attached to anonymized student accounts, if desired by the customer Optional elements: Student name Student email address Student grade level/class enrolment
Privacy: Does the product/vendor make their student privacy policy publicly available?	V		https://mathspace.co/us/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.)?	V		

Privacy: Has a third-party evaluated the product for FERPA compliance?	V	
Privacy: Does the product allow registration or data collection from children under the age of 13?	V	Children under 13 are required to have parental consent organized by the school or school district.

Installation

Feature/Requirement/Specification	Check Only One		ly One	
	Yes	No	Under Development	Details
Is the product downloaded to individual devices: one-time internet connection required?		V		Internet access is required
Is the product installed on individual computers (from CD-ROM/DVD, flash drive, etc.): no internet connection required?		V		
Is the product installed on LAN/WAN (school or district server): no internet connection required for teachers/students after installation?		V		
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?	V			All domains to be white-listed are available at: https://help.mathspace.co/en/articles/420159-domain-whitelist
Does the product support deployment through Mobile Device Management (MDM) systems?	V			The Mathspace iPad app is able to be deployed via an MDM system.
Does the product provide a detailed schedule of updates that minimizes access interruption?		V		 Updates that will impact access are strategically scheduled during holidays and overnight Such updates are announced via messages in product 4 weeks in advance

Does the login authentication use district protocols to establish unique and memorable usernames and passwords?	V	SSO login is supported with the SAML protocol. Alternatively, login is also supported with email and password.
Is there an option for concurrent user licensing?	V	

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)	V	https://site.imsglobal.org/certifications/mathspace/mathspace
IMS Global (Caliper Analytics)		
IMS Global (Question and Test Interoperability (QTI))		
IMS Global (Learning Tools Interoperability (LTI))	V	https://site.imsglobal.org/certifications/mathspace/mathspace

IMS Global (LTI Advantage)	V	https://site.imsglobal.org/certifications/mathspace/mathspace
IMS Global (Common Cartridge)		
IMS Global (Lite Common Cartridge)		
IMS Global (Open Video)		
Other:		

Implementation and Scalability	Yes/No or Value
What is the average page load time?	2.4s average over past 30 days
What is the required bandwidth per user?	For a user that is actively using the application: 0.1 MB per user, per minute.
Are results of stress tests provided to customers?	No
Is a disaster recovery plan for data provided to customers?	No, our disaster recovery plan is not published to customers.
· ·	No. While many parts of the implementation plan are standardized, we aim to tailor each implementation to the needs of individual customers.
Does the service level agreement include uptime guarantees of at least 95% excluding planned maintenance/down-times?	Yes
Does the product require a VPN for off site access?	No

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