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.

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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.

	С	Check Only One		ne	
Questions	Yes with core product	Yes with dependen cies	No	Under Development	Details
Are the materials designed so that students are able to access and complete work online?	X				Each course in Carnegie Learning's Math Solutions includes a consumable student MATHbook and adaptive MATHia software. Students can access MATHia software from any web-enabled computer or tablet. Students can access and view the MATHbook content as a digital eText.
Do the materials support learning in hybrid settings (both in-person and remote learning) concurrently?	X				 Carnegie Learning's instructional resources support whole-class instruction for both in-person and remote learning situations. The MATHbook is available as a consumable printed textbook and eText. Teachers and students can access these materials at the lesson, topic, module, and course levels. Lesson presentation slides allow teachers to facilitate instruction in hybrid settings. There is a Topic Summary at the end of each topic that includes video descriptions of the Worked Examples for students to review key concepts at home. MATHia, specially designed for students to learn individually, simulates 1-to-1 coaching that adapts to give students exactly

			what they need at any given moment. They have the support of Sample Problems and Step-by-Step Examples for each workspace. Multi-level hints, including just-in-time hints, are available throughout the software to support students as they solve problems. Their experience with MATHia is the same in both a brick-and-mortar setting or learning at home. The LiveLab facilitation tool allows teachers to monitor student activity in either learning environment. Teachers can manage student placement in the software remotely via the Teacher's Toolkit. This allows them to unlock content, restart or skip problems, and manage student profiles. Teachers can also use the Content Browser within the Teacher's Toolkit to provide instruction in a hybrid situation. Regardless of modality, teachers can pull reports in Teacher's Toolkit that describe student time on task, completion rates, and success on skills and standards, and highlight on- and off-task behavior.
Are tasks, activities, and lessons able to be printed either for in-class use or for use in at-home learning?	Х		Carnegie Learning's instructional model centers on active student learning in consumable MATHbooks as part of in-class or at-home learning. Students also have online access to the same MATHbook content to print as needed for at-home learning.
Is there instruction so students can work independently (or with an adult at home)?	X		MATHia provides students with an opportunity to learn independently on any web-enabled computer or tablet. As they are working, students have the support of Sample Problems and Step-by-Step Examples for each workspace. Multi-level hints, including just-in-time hints, support students as they solve problems. Additional instructional supports include: LiveHint

			LiveHint provides online support for students and caregivers by providing hints and support for the Practice portion of the Assignments that accompany each lesson. MATHia Student Data via Embedded Skillometers Student embedded tracking tools within MATHia enables students to monitor their own activity and progress towards math skills regardless whether the student is learning at school or at home. Topic Summary Worked Example Videos A Topic Summary is provided for each topic and includes video descriptions of the Worked Examples for students to review key concepts independently. Home Connections Support Portal Home Connections provide caregivers with product support and education resources such as Family Guides. Students or adults at home can contact our Customer Support via the Home Connections Support Portal. Family Guides Available digitally, Family Guides introduce caregivers to the mathematics of the topic, describe how the math fits into the scope of the course, and provide specific questions caregivers can ask students to support learning at home.
Does the technology facilitate a teacher's ability to differentiate lessons, tasks, or other content for students?	X		The artificial intelligence in MATHia automatically differentiates content for students, guaranteeing that they receive the just-right amount of practice and instruction that they need for each concept. LiveLab provides teachers with in-the-moment guidance about which students to follow-up with and provides suggestions on the skills that require additional support. A suite of MATHia Reports informs teachers about student progress on the standards.

		MATHia, LiveLab, and a suite of reports empower teachers with data as they make instructional decisions for their students and class. Data is real time and easy to interpret by teachers and leaders. In addition to interpreting student performance, the APSLE (Adaptive Personalized Learning Score) report predicts year-end summative assessment results. Teachers can also build custom modules in MATHia that they can assign to individual students, groups of students, or the entire class. Teachers have access to Edulastic, an online assessment tool. Teachers can access, adapt, create, and assign assessments digitally. When students take the assessment digitally (either at home or in school), auto-grading features allow teachers to focus their time on interpreting the data and making instructional decisions.
Are there tutorials, videos, or other integrated supports in the materials to help educators to understand and/or utilize the materials?	X	 The Teacher's Implementation Guide (TIG) is the synthesis between implementation workshops and day-in-day-out teacher work. The Front Matter of this resource provides an overview of teacher guidance and suggestions for how to enact these instructional materials. Teachers have access to digital versions of the TIG via MyCL. Throughout the lesson content, the Carnegie Learning Math Solution TIGs: Clearly and concisely describe the mathematical intentions of each course, module, topic, lesson, and activity. Provide detailed pacing support for MATHbook and MATHia. To support pacing decisions, activities that contain key terms or concepts essential to the learning goals of each lesson are denoted at the lesson and topic levels. Define the instructional sequences of lessons. Communicate the MATHia connections.

- Present facilitation notes at point-of-use.
- Provides specific guidance on common student misconceptions and other opportunities for differentiation.
- Highlight readiness skills and connections for teachers, providing strategies to identify and fill readiness gaps.

In addition to printed resources, teachers have access to an entire ecosystem of ongoing classroom support, including MyPL, MyCL, and our LONG + LIVE + MATH community.

Module Overview Videos walk teachers through the mathematical arc of the module, including organizing concepts and connections to prior and future learning. These videos help teachers understand the coherence of the course.

Topic Overview Videos walk teachers through the mathematical arc of the topic, including important concepts in the topic and connections to prior and future learning. These videos help teachers understand the mathematical goals of the topic.

MATHia Teacher Access is obtained through MyCL, our central teacher hub. Within this hub, teachers can access the same course software that their students are working in. By creating a sample student account, teachers can work through the mathematics, obtain supports and hints, and visualize the identified connections between their print lessons and the application of the software experience.

Topic Summary Worked Example Videos are student-facing videos that walk students through each Worked Example in a Topic Summary. They are intended for use after students have completed the lesson to help a student review content that they have already learned. However, teachers can use them to better understand and/or utilize the materials.

		MyPL Videos cover a range of instructional, pedagogical, and content-driven videos that help teachers prepare for instruction and understand the resource.
Are there tutorials, videos, or other integrated supports in the materials to help parents/guardians to understand and/or utilize the materials?		Each course begins with an introductory lesson, A Meeting of the Minds: An Introduction to MATHbook and Your Learning Resources, for teachers to implement with students. This interaction sets the stage for how teachers will teach and students will learn with the instructional resources. The accompanying Assignment provides a link to the online resources for families and shows students how to access LiveHint, the digital assistant for practice problems.
		As students are working in MATHia, they have the support of Sample Problems and Step-by-Step Examples for each workspace. Multi-level hints, including just-in-time hints, support students as they solve problems.
		Additional supports include: LiveHint LiveHint provides online support for students and parents/guardians by providing hints and support for the Practice portion of the Assignments that accompany each lesson.
		MATHia Student Data via Embedded Skillometers Student embedded tracking tools within MATHia enables students to monitor their own activity and progress towards math skills regardless whether the student is learning at school or at home.
		Topic Summary Worked Example Videos There is a Topic Summary at the end of each topic that includes video descriptions of the Worked Examples for students to review key concepts independently.
	Х	Home Connections Support Portal

		Home Connections provide parents/guardians with product support and education and resources such as Family Guides. Students or adults at home can contact our Customer Support via the Home Connections Support Portal. Family Guides Available digitally, Family Guides introduce parents to the mathematics of the topic, describe how the math fits into the scope of the course, and provide specific questions parents can ask students to support learning at home.
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	Parents/guardians: Parents/guardians can access the MATHia software via their student's login to view assignments and progress in MATHia software. We provide additional support for parents/guardians as listed above. All parent/guardian materials are part of the core purchase. Educators (Teachers, Administrators, etc.): Teachers and administrators have access to: • Teacher's Toolkit, which includes a content browser of MATHia software • Printed and digital eTexts of the Teacher's Implementation Guide and Student Edition • Lesson Presentation Slides • Digital summative assessments and Edulastic assessments and item bank • Digital Skills Pratice • Ancillary supports (including, MATHia trackers, I-Can Statement trackers, interactive topic planners) • MyCL • MATHia reports (including student activity reports, predictive reports, and standards and skills level reporting) • LiveLab Students: Students have access to:

		 Printed and/or digital consumable Student Editions of MATHbook MATHia software LiveHint Topic Summaries with accompanying Worked Example Videos
Are the materials designed to integrate with a Learning Management System (LMS)?	Х	Full materials are available outside an LMS, via direct login to our products. Materials can be integrated into an LMS, either via SSO link to our products or Thin Common Cartridge to import eText lessons into an LMS, where such imported materials are static.
Does all content conform to the National Instructional Materials Accessibility Standard?	Х	
Is there technical support during day-to-day use?	X	Carnegie Learning's Customer Support Team is available Monday - Friday from 8:00 a.m. to 9:00 p.m. ET. This expert team provides support for installations, networking, and other technical issues in addition to consulting on general questions related to pedagogy, classroom management, content and curricula via email, live chat, or over the phone. Users can call directly using our toll free number to speak directly with a team member. Our experienced team members can guide a teacher or administrator and address any challenges. We guarantee a response from the CL team within 1 business day.

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.

		Check O	nly One		
Question	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 student-facing materials that could be utilized in a blended digital approach? Is the print content identical, similar, or comparable to the digital?	X				If yes, • What are the print options? (check all that apply) X Purchase hard-copy books/workbooks X Photo copies available for purchase X_ Users can print at home

			Each Carnegie Learning core product includes the consumable MATHbook textbook and access to MATHia software, an integrated digital component. The alignment to the MATHia workspaces is made evident in MATHbook at the module, topic, and lesson levels. Carnegie Learning offers identical content of the printed MATHbook as a digital eText. Students have online access to the eText materials to print as needed at home.
Is the digital design of the materials intended to replicate a textbook experience?	X		The digital eText replicates the printed textbook experience.
Are digital teacher guides available for the materials?	X		The Teacher's Implementation Guide (TIG) is available as a digital eText. Teachers can also access Module and Topic Overview via MyPL—an interactive library of video content. Additionally, we provide presentation slides in PowerPoint and Google Slides to assist teachers in facilitation textbook lessons.
Do the materials contain videos/animations/simulations for student learning?	X		MATHia uses various instructional strategies to engage students as they develop and demonstrate their learning. Animations allow students to watch, pause, and re-watch demonstrations of various mathematical concepts. Through visual depictions and audio narration, they connect the representations of

			different mathematical ideas to their abstract underpinnings. Explore Tools support the investigation of mathematical concepts, search for patterns, and look for structure in ways that make sense to students. Classification Tools apply students' mathematical understanding by categorizing answers based on similarities and allow students to demonstrate proficiency in recognizing patterns in problem structure. Problem Solving Tools provide highly individualized and self-paced instruction that adapts to each student's exact needs to deepen their conceptual understanding of mathematics. Each MATHia workspace includes the appropriate tools to learn and practice the targeted mathematical concepts.
Is any or all online content dependent on links that are not maintained by the publisher?		X	
Do the materials include opportunities for online collaboration among students?	X		Our digital materials do not explicitly provide for these experiences. However, teachers can provide the corresponding lesson slides to students so that they can collaborate digitally on the content.
Do the materials include built in features for student-to-teacher interaction?		X	While there is no explicit built-in features for student-to-teacher interaction, LiveLab communicates on behalf of the student as they are working on MATHia. LiveLab provides in-the-moment guidance indicating to teachers which students to

			follow up with and provides suggestions on the skills that require additional support. Teachers can also use this tool virtually to monitor students working in MATHia. The Carnegie Learning Math Solutions do not require a 1:1 device ratio. Students can access MATHia
ls a 1:1 device ratio required?		Х	software from any supported device with internet access.
Are the assessments contained within the materials able to be securely completed by students online?	X		Carnegie Learning provides access to an online assessment platform, giving educators powerful tools for assessing learning and measuring student progress. Educators can build, edit, and assign pre-built and customizable assessments for students to access and complete online. In MATHia, assessment is a fully integrated part of the learning process. MATHia continuously assesses every step of each student's work, analyzes that work, and delivers a custom learning path for each student, focused on developing a deep level of understanding to help them achieve skill mastery. As students work through problems, each step is associated with one or more required cognitive skills.
	X		LiveLab LiveLab provides in-the-moment, actionable data so teachers can effectively manage student work in MATHia at all times. LiveLab alerts teachers when students may be in need of additional support and also indicates when they have reached progression milestones.
Is data available about user sessions (e.g., timestamps, content being viewed, callbacks fired, etc)?			Session Report The Session Report provides teachers with a detailed view of the work completed each time a student

		logged in to MATHia, including where the student worked and the number of problems completed in the software during each session. Progress Report The Progress Report identifies student progress across the entire syllabus. The status of every workspace assigned to the student in the class, as well as their current placement within the assigned content, the number of workspaces completed, the syllabus completion percentage and the average performance score for the date range selected is included in this report. Standards Report The Standards Report provides an easy view of student proficiency on specific standards. The Summary section gives teachers insight into the progress and performance of the standards assigned to the class. The Details Table shows the status of every standard for every student. Teaches can use this view to easily see trends on how their students are performing. Skills Report The Skills Report monitors math skill proficiency. It provides detailed information about each student's skill mastery progress. Students are considered to be proficient in a skill in MATHia when they demonstrate a 95% probability that they understand that skill.
Are there online professional learning supports to help teachers utilize the materials?	Х	Teachers can access on-demand, online professional learning through MyPL. MyPL is an interactive library of video content designed to

		 provide the power of the Carnegie Learning Professional Learning Team. Hundreds of easily searchable videos created by a team of Master Math Practictioners Tools to save and share videos with colleagues 24/7 access to classroom strategies, implementation support, and more Additionally, districts can purchase access to MyPL+. This enhanced version of MyPL includes all the same features of MyPL, plus: MINI SESSIONS: 60-minute live or recorded virtual workshop sessions FULL COURSES: Self-paced courses designed for active learning Ongoing Coaching & Support Collaboration Tools Comprehensive Data & Reporting that includes individual teacher dashboards and Individual & district usage reports.
 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	Home Connections Support Portal Home Connections provide parents/guardians with product support and education (Help articles, etc) and resources such as Family Guides. Family Guides Each topic in the Carnegie Learning Math Solution contains a Family Guide. Available within the student textbook and digitally, each Family Guide introduces care-givers to the mathematics of the topic, describes how the math fits into the scope of the course, and provides specific questions

care-givers can ask students to support learning at home.
LiveHint LiveHint provides online support for care-givers by providing hints and support for the Practice portion of the Assignments that accompany each lesson.
MATHia Student Data via Embedded Skillometers Student embedded tracking tools within MATHia enables students to monitor their own activity and progress towards math skills regardless whether the

student is learning at school or at home.

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	

If the materials integrate with any of the LMS above, include information here about any additional costs and which version of your materials and the LMS was tested.

We offer a rudimentary application launch integration with the LMS platforms checked above via LTI and either Clever or Classlink. We can also support custom integrations using IMS Global standards, OneRoster and LTI.

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.

		Check Only One			
Questions	Yes with core product	Yes with dependencies	No	Under Development	Details
Is single sign-on supported?	X				We support Clever and Classlink as well as custom integration via LTI and OneRoster.
Can the platform manage staff assigned to multiple schools with a single sign-on?	X				
Can co-teachers be assigned to multiple classes?	X				This process is supported for customers doing roster integration and is managed by the district in their roster data.
Can students who move between teachers or schools using the same materials be re-assigned without losing their work/progress?	X				The materials are assigned to the student and not the class, so any class to which the student is assigned will show the student's work.
Can the platform provide user accounts for staff members (principals and other admin) who are not assigned students?	X				There are two levels of users (instructor and supervisor). Roles are assigned and managed by the district. Schools can also create instructor and supervisor accounts manually through our web-based invitation process. This is part of the standard software purchase.
Can passwords be reset without assistance from trained IT staff?	X				This is part of teacher functionality within the software.

When working offline, does the product		
automatically sync when a connection is		
re-established?	Χ	MATHia requires 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.

* 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.

	С	heck O	nly Or	ne		
Technical Support		Yes with dependencies	No	Under Development	Details	
Is technical support provided to districts during initial set-up and deployment?	X				Our implementation team will work directly with District technical staff to ensure a successful implementation, including roster/LMS/SSO integration. This support is provided throughout the life of the contract.	
Is technical support provided during the duration of the contract?	X				Carnegie Learning's Customer Support Team is available Monday - Friday from 8:00 a.m. to 9:00 p.m. ET. This expert team provides support for installations, networking, and other technical issues in addition to consulting on general questions related to pedagogy, classroom management, content and curricula via email, live chat, or over the phone. Users can call directly using our toll free	

			number at 1-877-401-2527, to speak directly with a team member. Our experienced team members can guide a teacher or administrator and address any challenges. We guarantee a response from the CL team within 1 business day.
If utilizing a free or trial version, is technical support provided?	X		Technical support is provided for free for all users.
Are there self-service supports for troubleshooting?	X		We provide a comprehensive Help Center and the System Help tool gives users information on getting started and working with the software tools.
Does technical support include planning for emergency access and district support?	X		Our Technical Support team is prepared to work with the rest of Carnegie Learning to provide Emergency Access and District Support to districts as needed

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.

	Che	ck Only	One		D 1 11	
Questions	Yes with core product	Yes with dependencies	No	Under Development	Details	
Does the product have a native mobile application?			Χ			
Is the product browser-based?	X					
Does the product use responsive design for rendering on smartphones?			X		Smartphones are not supported due to the limited screen size which would interfere with the pedagogical and cognitive design of the content.	
Does the product use responsive design for rendering on tablet devices?	X					
Does the product use responsive design for rendering on laptop devices?	Х					
Does the product use responsive design for rendering on desktop devices?	X					
Are all users (students/teachers/staff/admin/parents) permitted to use the product on more than one device	X				If yes,	

smartphone and a laptop)? downloads or license necessary? No.	downloads or licenses	(e.g. computer at school and a laptop at home or a smartphone and a laptop)?
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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	Υ	Windows 10	Windows 10	Generally compatible.
Linux	Ν			
Windows Tablet	Y	Android 9	Pie	Generally compatible.
Apple Laptop/Desktop	Υ	Mac OSX 10.14	Latest version	Generally compatible.
<mark>i</mark> Phone	N	N/A	N/A	
iPad	Υ	iOS 12	Latest version	
Android Phone	Ν	N/A	N/A	
Android Tablet	Υ	Android 9	Latest version	Generally compatible.
Chromebook/Chrome OS	Υ	ChromeOS 74	Latest version	Generally compatible.
Amazon Fire OS	Ν	N/A	N/A	
Other E-Reader	Ν	N/A	N/A	
Interactive Whiteboard	Y	*	*	*The interactive whiteboard must run on one of our supported browsers.

_		Operating System							
Br	rowser	Apple		Wind	dows				
	Check if browser is compatible	Oldest version supported	Newest version supported	Oldest version supported	Newest version supported	Linux	Chrome OS	N/A	
Chrome	Y	Chrome 74	Latest version	Chrome 74	Latest version	N/A	Chrome 74		
Firefox	Y	N/A	N/A	Firefox 67	Latest version	N/A	N/A		
Safari	Y	Safari 11	Latest version	N/A	N/A	N/A	N/A		
Edge (formerly Internet Explorer)	Y	N/A	N/A	Edge 44.17763	Latest version	N/A	N/A		
Internet Explorer	Ν								
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 support 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	X				
Screen Magnification Software	Χ				
Text Readers	Χ				
Adjustable Print Size	Χ				
Speech Input Software	Χ				
Header Point Devices			Χ		
Motion/Eye Tracking Devices			Χ		
Single Switch Entry Devices			Χ		
Braille Readers/ Display Devices	Χ				
Closed Captioning	Χ				
Alternative Input Devices	Χ				
High Color Contrast Display Options	Χ				
Translation of Text to Other Languages	X				MATHia software is available in English and Spanish. Other language translations are available via Google Translate.

Bilingual Dictionaries available for students	Χ		The MATHia glossary is in both English and Spanish.
Are there required accessories (headsets, speakers)?		Χ	
Multiple Playback of audio/video	X		
Can students adjust the speed of audio/video playback?	Χ		
Are these accessibility supports able to be turned on/off?	X		Text to speech can be turned on and off by the student. NIMAC and similar support needs to be implemented with the school district. Video playback is all based on an action taken by the student. Translations need to be specifically assigned to the school to ensure they can access.
Does all browser-based technology satisfy the Web Content Accessibility Guidelines or VPAT?	X		Completed VPAT available from publisher upon request.

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		
Quesilons	Yes N		Under Development	Details
Data Security: Are data elements encrypted at rest, i.e. in a database or file system?	X			All data is encrypted in transit and at rest. All network data transfers are carried out over TLS, without exception. Presently we support TLS 1,1.1,and 1.2. We use AES256 and SHA-512 to secure data at rest in the database.
Data Security: Do the materials refer students to video, content, and other online sources that are not native to the materials?		X		Yes, MATHia software is a closed system.
Data Security: Does the end-user licensing agreement allow customers to scrape data from the product?		X		Scraping data is not permitted as per our <u>Terms of Use</u> .
				The only personally identifiable or sensitive information that Carnegie Learning collects are names, email address (optional for students), school association and passwords. Carnegie Learning does not collect or maintain any demographic, academic or other school record information about students, teachers or administrators unless it has a separate reporting or research agreement.
Privacy: Is personally-identifying student data provided to, generated by, or stored in any systems used by the product?	X			Carnegie Learning has designed its systems to ensure that sensitive student academic data is not tied, or linked, to a student on an identifiable basis. Other personal information collected and stored in a de-identified/blinded manner, separate

			 from the personally identifiable and sensitive information about students and teachers, may include: The class student is enrolled in; Usage data on student activity within the digital properties, including answers provided, errors, hint requests, timing information, progress within the system, and inferences made from this data about student knowledge.
Privacy: Does the product/vendor make their student privacy policy publicly available?	X		https://www.carnegielearning.com/privacy-policy/#:~:text=Carnegie%20Learning%20collects%20personal%20information,context%20authorized%20by%20the%20school.
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?	Χ		Future of Privacy Forum: https://studentprivacypledge.org/signatories/
Privacy: Does the product allow registration or data collection from children under the age of 13?	X		See our privacy policy at this link, particularly Section 11 on student privacy. We are fully compliant with COPPA and applicable state laws: https://www.carnegielearning.com/privacy-policy/#:~:text=Carnegie%20Learning%20collects%20personal%20information,context%20authorized%20by%20the%20school.

Installation

		Check Only One		
Feature/Requirement/Specification	Yes	No	Under Development	Details
Is the product downloaded to individual devices: one-time internet connection required?		X		MATHia software is a fully cloud-based solution.
Is the product installed on individual computers (from CD-ROM/DVD, flash drive, etc.): no internet connection required?		Χ		
Is the product installed on LAN/WAN (school or district server): no internet connection required for teachers/students after installation?		X		For Capacity Planning: For up to 30 concurrent student users, allocate a minimum of 2Mbps Internet bandwidth total. Beyond 30 concurrent student users, allocate an additional 100kbps per user. Bandwidth-intensive activities such as streaming video, audio downloads, VoIP, and database backups can affect performance of Carnegie Learning software. Packet-shaping, QoS, and network traffic prioritization techniques on heavily trafficked networks can improve performance.
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?	Х			Carnegie Learning wildcard hostnames are *.carnegielearning.com, *.pendo.com, www.google-analytics.com and *.jslogger.com Alternatively, the following specific domains can be whitelisted:

			• pendo.com
Does the product support deployment through Mobile Device Management (MDM) systems?		Χ	MDM is not applicable or necessary with this product.
Does the product provide a detailed schedule of updates that minimizes access interruption?	X		Minor updates and bug fixes are deployed every two weeks during off hours and generally do not require down time. Major releases are deployed during periods of low usage such as over the summer and during the winter break period. Major releases may require some down time which is communicated to users in advance.
Does the login authentication use district protocols to establish unique and memorable usernames and passwords?	Х		Yes. The district is responsible for establishing student usernames, either through roster integration or by manual creation. If the district is using single sign-on and students sign in through a school website, then the password criteria will be those established by the district. If the district is not using single sign-on then students are required to set their own passwords (must be at least 8 characters long, cannot be the same as the username).
Is there an option for concurrent user licensing?		Χ	

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	https://site.imsglobal.org/certifications/carnegie-learning-inc
IMS Global (Caliper Analytics)		
IMS Global (Question and Test Interoperability (QTI))		
IMS Global (Learning Tools Interoperability (LTI))	Х	https://site.imsglobal.org/certifications/carnegie-learning-inc
IMS Global (LTI Advantage)		
IMS Global (Common Cartridge)		
IMS Global (Lite Common Cartridge)	X	https://site.imsglobal.org/certifications/carnegie-learning-inc
IMS Global (Open Video)		
Other:		

Implementation and Scalability	Yes/No or Value
What is the average page load time?	MATHia is a 'single page app'. Most user interactions have a median response time of about 0.5 seconds. Major navigations that change the user's context have a median response time of about 4 seconds.
What is the required bandwidth per user?	For up to 30 concurrent student users, allocate a minimum of 1 Mbps Internet bandwidth total. Beyond 30 concurrent student users, allocate an additional 50kbps per user
Are results of stress tests provided to customers?	No. We are willing to discuss district requirements as necessary.
Is a disaster recovery plan for data provided to customers?	Yes. The MATHia database is continuously replicated to multiple locations, permitting us to restore data to any point in time within the previous two weeks. In addition, full backups of all data are made nightly and securely stored in AWS S3. Servers are ephemeral and do not have any configuration or state which needs to be backed up: they can be regenerated in minutes, from scratch, by our build and deploy systems.
Are customers provided with a standardized implementation plan to ensure a successful rollout?	Yes. Our experienced Implementation Team works closely with district and school staff to establish integration protocols for rostering and SSO. This is part of our onboarding protocol for every customer.
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.