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 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.

edreports.org   Desmos_Desmos Math_6-8_2022_Tech Doc_Oct_2022

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.

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?	✔				An LMS integration is <u>not</u> required in order to access and complete work online. The Desmos Curriculum does optionally integrate with major LMS's. When students are completing work online, they will need a continuous and reliable internet connection to take advantage of every feature. 1:1 devices are not required to use the product. We recommend a 1:2 or 1:1 device to student ratio.
In what ways do the materials support learning in hybrid settings (both in-person and remote learning) concurrently?	✔				Students can complete curriculum activities in either in-person or remote learning environments. In both cases, teachers will be able to access student thinking using a teacher dashboard and respond in different ways depending on that environment. When in-person, teachers can

					facilitate conversations about the work in class. When remote, teachers can use the Desmos Classroom written feedback tool to send feedback to students digitally.
Are tasks, activities, and lessons able to be printed either for in-class use or for use in at-home learning?		✔			The Desmos Classroom digital lessons can be printed out by teachers, though that will render dynamic interactives static. The Desmos Classroom print lessons can be printed out by teachers or distributed to students via LMS for printing at home or elsewhere.
Is there instruction so students can work independently (or with an adult at home)?	✔				Lessons, practice problems, and assessments that are assigned in Desmos can be accessed by students on their device from home. Additionally, each unit includes a Family Resource that offers a unit summary, explanations of key concepts throughout the unit, as well as problems for families and their student(s) to try at home. The Family Resource for each unit can be found on the Unit Overview page.
Does the technology facilitate a teacher's ability to differentiate lessons, tasks, or other content for students?	✔				The Desmos Classroom dynamic interactives differentiate based on student responses. Students enter their thinking and interactive contexts change in response, letting students know whether their answer is correct or incorrect and also its effect on the context.

					Teachers can use a pacing tool to change the work selection at the lesson of a class. They can use a written feedback tool to send feedback messages to students or groups of students. Teachers can copy the Desmos Math Curriculum–print or digital–and edit them to make modifications of different sizes, including changing, adding, or deleting screens.
Are there tutorials, videos, or other integrated supports in the materials to help educators to understand and/or utilize the materials?	✔				The Desmos Math Curriculum contains supporting materials on every screen, suggesting teacher moves, sample responses, supports for multilingual learners, learners with disabilities, and other learners with special needs. Every unit contains teacher support materials, including an overview video, an in-class facilitation guide, and a guide for remote facilitation. When students complete pre-unit assessments, the Desmos Math Curriculum offers recommendations for how their results might inform instruction later in the unit. The Desmos Math Curriculum offers "just-in-time" preview emails when teachers arrive at selected lessons, helping them understand how the larger themes of the curriculum might appear.
Are there tutorials, videos, or other integrated supports in the materials to help	✔				In each unit, the Desmos Math Curriculum offers a family resource which summarizes the major ideas of the unit and offers "Try At Home"

parents/guardians to understand and/or utilize the materials?						activities along with their answers. That resource is available in Spanish and English.
Are all of the following audiences provided access to the product as part of the core purchase? • parents/guardians • Educators (Teachers, Administrators, etc.) • Students	✔					Educators and caregivers and students can all access the core product, including any work students have completed within the digital product. Educators have expanded access to the product which lets them see summaries of the work of entire classes of students, as well as the same views of work from individual students that caregivers and students can access. Administrators can access the curriculum and also access activity reports from across the entire school or district.
Are the materials designed to integrate with a Learning Management System (LMS)?	✔					Yes. Teachers can import class rosters and assign Desmos Math Curriculum lessons via particular LMS's. The lessons are available outside of the LMS. Teachers can unassign lessons if they want, make modifications, and then re-assign the lesson.
Does all content conform to the National Instructional Materials Accessibility Standard?	✔					Yes, the student workbooks for 6-8 are available as NIMAS files in the NIMAC library.
Is technical support during day-to-day use primarily the responsibility for the client or the publisher?	✔					Technical support for students is provided by teachers and other staff at the district / school. Desmos provides technical support for teachers and administrators.

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.

* 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.

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?	✔				We offer printed workbooks for purchase which contain note pages and summary materials for each lesson. The print content is meant to support the digital activities. About 20% of the lessons are print media lessons.

Is the print content identical, similar, or comparable to the digital?					
Is the digital design of the materials intended to replicate a textbook experience?	✔				Yes, the materials are accessed via the website teacher.desmos.com where teachers can click on each grade level and, within those grades, click on units and further on individual lessons.
Are digital teacher guides available for the materials?	✔				Every lesson has a digital teacher guide that is accessible by a link. The materials in those guides are also available on the individual screens of the lesson, which teachers can preview before they assign the lesson or review during instruction itself.
Do the materials contain videos/animations/simulations for student learning?	✔				The Desmos Math Curriculum contains interactive simulations that take student thinking and represent it in another form—often using it to control a variable in a simulation or by connecting it to a mathematical representation–in order to support student learning.
Is any or all online content dependent on links that are not maintained by the publisher?	✔				We include a small number of links to external websites, exclusively on pages visible to teachers. (For example links to standards documents, follow-up reading, and data sources.)
Do the materials include opportunities for online collaboration among students?	✔				Yes, for example: ● Students see one another's responses to selected free response questions. ● Students create challenges for one another to complete in periodic "challenge creator" activities. ● Students learn to use mathematical language in a collaborative experience called "Polygraph."

Do the materials include built in features for student-to-teacher interaction?					Yes, students respond to questions in the Desmos Math Curriculum digital lessons and teachers can see their responses. Teachers can also send written feedback to students, or groups of students, using the platform.
Is a 1:1 device ratio required?			✔		We recommend a 2:1 or 1:1 student-to-device ratio.
Are the assessments contained within the materials able to be securely completed by students online?	✔				All assessments are able to be securely completed by students online. Teachers can also edit the assessments to customize, add, or delete questions.
Is data available about user sessions (e.g., timestamps, content being viewed, callbacks fired, etc...)?	✔				Administrators can see on a grade level-by-grade level and site-by-site basis, how many Desmos Curriculum lessons are getting used by students. Teachers are able to view student responses on each digital screen along with the location of students throughout the activity. This data is all gathered automatically and reported to administrators and teachers on demand.
Are there online professional learning supports to help teachers utilize the materials?	✔				We offer a two-hour virtual onboarding session to help administrators understand how to support teachers and help teachers understand what the program can look like in their classes. We offer a suite of on-demand asynchronous support resources like knowledge base articles, unit overview webinars, and email support,

					We offer monthly synchronous webinars that teachers can attend to get personalized assistance from Desmos coaches.
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?	✔				The Desmos Curriculum includes a Family Resource in each unit that offers a unit summary, explanations of key concepts throughout the unit, as well as problems for families and their student(s) to try at home. The Family Resource for each unit can be found on the Unit Overview page.

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.				✔				

In each of these LMS instances, teachers can copy a link to an assigned lesson and share it with their students via the LMS.

With Google Classroom, they can assign the lesson directly as an "Assignment" type.

Additional LMS integrations will be available in summer 2023 as Desmos Classroom integrates with the Amplify platform.

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 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.

Questions	Check Only One				Details
	Yes with core product	**Yes** with dependencies	**No**	Under Development	
Is single sign-on supported?	✔				Yes, we currently support Google and Clever SSO. Additional SSO integration will be available in summer 2023 as Desmos Classroom integrates with the Amplify platform.
Can the platform manage staff assigned to multiple schools with a single sign-on?	✔				Yes, staff can change the access level for any teacher with a license for the Desmos Math Curriculum, including teachers assigned to multiple schools.
Can co-teachers be assigned to multiple classes?	✔				Yes, teachers can grant co-teacher access to other licensed users of the program.
Can students who move between teachers or schools using the same materials be re-assigned without losing their work/progress?	✔				Yes, students will retain access to any lesson in which they have completed work, even if they move to another class or school within the account.
Can the platform provide user accounts for staff members (principals and other admin) who are not assigned students?	✔				Yes, every account can license unlimited users and define their access level so they can a) assign lessons to classes of students, b) add / remove / change access levels, c) see account-level usage statistics.
Can passwords be reset without assistance from trained IT staff?	✔				Yes, everyone with a license for the Desmos Math Curriculum will access the materials using either a Desmos account or a Single SIgn On account. In

	Check Only One				
					either case, they can change their password at will, without extra assistance.
When working offline, does the product automatically sync when a connection is re-established?			✔		Students will need a persistent network connection to complete work in the Desmos Math Curriculum.

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 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.

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?	✔				Yes, Desmos offers training and support during initial set-up and deployment, both through synchronous calls with their Desmos coach and also through our email support desk.
Is technical support provided during the duration of the contract?	✔				Yes, Desmos offers the same on-demand support during the duration of the contract as we do during initial set-up and deployment.
If utilizing a free or trial version, is technical support provided?	✔				Yes, Desmos offers email-based support when people use the free sample lessons from the Desmos Math Curriculum.

					When people sign up for a trial account, Desmos assigns them an account representative to answer their questions as well.
Are there self-service supports for troubleshooting?	✔				Yes, Desmos maintains an extensive online knowledge base with support articles detailing core aspects of the Desmos Math Curriculum.
Does technical support include planning for emergency access and district support?	✔				Yes, Desmos can access any account and troubleshoot issues from the district to the student level.

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 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.

| Questions | Check Only One | | | | Details |
	Yes with core product	LMS Dependent	No	Under Development	
Does the product have a native mobile application?			✔		The Desmos Math Curriculum is accessible using mobile devices, but only through the mobile web browser, not a native mobile application.
Is the product browser-based?	✔				

edreports.org

Question	✔				Details
Does the product use responsive design for rendering on smartphones?	✔				
Does the product use responsive design for rendering on tablet devices?	✔				
Does the product use responsive design for rendering on laptop devices?	✔				
Does the product use responsive design for rendering on desktop devices?	✔				
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)?	✔				Yes, all users can access the Desmos Math Curriculum using any web browser on any device.

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	✔	Windows 10	Latest	
Linux	☐			
Windows Tablet	✔	Windows 10	Latest	
Apple Laptop/Desktop	✔	OS 10.14	Latest	
iPhone	✔	iOS 14	Latest	The Desmos Curriculum is compatible with iPhones but not optimized for that screen size.
iPad	✔	iOS 14	Latest	
Android Phone	✔	Android 5.0	Latest	The Desmos Curriculum is compatible with Android Phones but not optimized for that screen size.
Android Tablet	✔	Android 5.0	Latest	

edreports.org

Chromebook/Chrome OS	✔	Latest two versions.	Latest	
Amazon Fire OS	☐			
Other E-Reader	☐			
Interactive Whiteboard	☐			

Browser		Operating System						
		Apple		Windows		Linux	Chrome OS	N/A
	Check if browser is compatible	Oldest version supported	Newest version supported	Oldest version supported	Newest version supported			
Chrome	✔	Latest 2 versions	Latest	Latest 2 versions	Latest		Latest 2 versions	
Firefox	✔	Latest 2 versions	Latest	Latest 2 versions	Latest			
Safari	✔	12	Latest					
Edge (formerly Internet Explorer)	✔			Latest 2 versions	Latest			
Internet Explorer	☐							
Other:____	☐							
Additional Notes:								

Desmos_Desmos Math_6-8_2022_Tech Doc_Oct_2022

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	✔				
Screen Magnification Software	✔				
Text Readers	✔				
Adjustable Print Size	✔				
Speech Input Software			✔		
Header Point Devices	✔				
Motion/Eye Tracking Devices	✔				
Single Switch Entry Devices			✔		
Braille Readers/ Display Devices	✔				
Closed Captioning	✔				
Alternative Input Devices	✔				
High Color Contrast Display Options	✔				
Translation of Text to Other Languages	✔				The Desmos Math Curriculum is available in Spanish.

	Yes	No	Under Development	Details
Bilingual Dictionaries available for students	✔			
Are there required accessories (headsets, speakers)?			✔	
Multiple Playback of audio/video	✔			
Can students adjust the speed of audio/video playback?			✔	
Are these accessibility supports able to be turned on/off?	✔			Students can enable and disable these accessibility supports.
Does all browser-based technology satisfy the Web Content Accessibility Guidelines or VPAT?	✔			

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?	✔			Yes, student personally identifiable information is encrypted at rest using industry-standard AES-256 encryption. For more information see amplify.com/security
Data Security: Do the materials refer students to video, content, and other online sources that are not native to the materials?		✔		The Desmos Curriculum contains infrequent links to resources such as data sources and follow-up readings, all of which are optional.

Data Security: Does the end-user licensing agreement allow customers to scrape data from the product?		✔		
Privacy: Is personally-identifying student data provided to, generated by, or stored in any systems used by the product?				Yes, for a complete list of student information collected and storage processes, please review our privacy policies and student data disclosures. https://www.desmos.com/privacy#information-collected https://www.desmos.com/studentdata
Privacy: Does the product/vendor make their student privacy policy publicly available?	✔			https://www.desmos.com/privacy
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.)?	✔			Amplify complies with applicable federal and state laws. In particular, at Amplify, all of our products are built to facilitate LEA compliance with applicable data privacy and security laws, including FERPA. FERPA and other regulations related to the use of student PII restrict how LEAs may share this information. Amplify facilitates compliance with such regulations by ensuring that LEAs control who can access their data. Within Amplify applications, the LEA must authorize all sharing of student PII with a third party.
Privacy: Has a third-party evaluated the product for FERPA compliance?		✔		While Amplify has not had a third party evaluation aimed specifically at FERPA compliance, Amplify conducts regular third party assessments, including successful completion of a SOC 2 Type 2 examination of controls relevant to security. The report states that Amplify's systems meet the criteria for the security principle and opine on management's description of the organization's system and the suitability of the design of controls to protect against unauthorized access, use, or modification.

| Privacy: Does the product allow registration or data collection from children under the age of 13? | ✔ | | | We do not knowingly collect personal information from a child under 13 unless and until a school or a teacher has authorized us to collect such information through the provision of the product on the school's behalf.

To the extent COPPA applies to the information we collect, we process such information for educational purposes only, at the direction of the partnering school and on the basis of educational institutional consent. |

Installation

Feature/Requirement/Specification	Check Only One			Details
	Yes	No	Under Development	
Is the product downloaded to individual devices: one-time internet connection required?		✔		
Is the product installed on individual computers (from CD-ROM/DVD, flash drive, etc.): no internet connection required?		✔		
Is the product installed on LAN/WAN (school or district server): no internet connection required for teachers/students after installation?		✔		
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?	✔			Yes, network admins should allowlist *.desmos.com.
Does the product support deployment through Mobile Device Management (MDM) systems?		✔		

edreports.org

Does the product provide a detailed schedule of updates that minimizes access interruption?	✔			
Does the login authentication use district protocols to establish unique and memorable usernames and passwords?	✔			Desmos defers to the district's conventions on usernames and passwords.
Is there an option for concurrent user licensing?		✔		

Standards Compliance/Certification	Check all that apply	Details
SIF		If checked, include where customers can verify this information.
CEDS		If checked, include where customers can verify this information.
EDUPUB		If checked, include where customers can verify this information.
Ed-Fi (SIS/ODS)		If checked, include where customers can verify this information.
Ed-Fi (Assessments)		If checked, include where customers can verify this information.
MS Global (Competencies and Academic Standards Exchange)		If checked, include where customers can verify this information.
IMS Global (Comprehensive Learner Record)		If checked, include where customers can verify this information.
IMS Global (Open Badges)		If checked, include where customers can verify this information.
IMS Global (One Roster)	✔	Desmos Classroom supports OneRoster via integration partner Clever. https://site.imsglobal.org/certifications/clever/clever
IMS Global (Caliper Analytics)		If checked, include where customers can verify this information.

IMS Global (Question and Test Interoperability (QTI))		If checked, include where customers can verify this information.
IMS Global (Learning Tools Interoperability (LTI))		If checked, include where customers can verify this information.
IMS Global (LTI Advantage)		If checked, include where customers can verify this information.
IMS Global (Common Cartridge)		If checked, include where customers can verify this information.
IMS Global (Lite Common Cartridge)		If checked, include where customers can verify this information.
IMS Global (Open Video)		If checked, include where customers can verify this information.
Other:		If checked, list and include where customers can verify this information.

Implementation and Scalability	Yes/No or Value
What is the average page load time?	Desmos Classroom is delivered as a modern "Single Page Application". After initial page load (average is under 2 seconds), navigation and usage takes place within the loaded application, and is very low-latency.
What is the required bandwidth per user?	Desmos Classroom requires minimum bandwidth of 2 mbps per device during peak usage, with 10 mbps per device recommended.
Are results of stress tests provided to customers?	No.
Is a disaster recovery plan for data provided to customers?	Yes, 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?	Amplify strives for industry-time reliability and performance for all of its customers. The average overall uptime over the 2021-2022 school year exceeded 99.9%. Formal service level commitments are subject to negotiation.
Does the product require a VPN for off site access?	No

Once this document is complete and ready to submit to EdReports, please fill-out a [Technology Information Document Submission Certification](#) to certify that the information is final and accurate.