

Comparison of Privacy Policies: Desmos vs DeltaMath

by Katherine (Kate) Maschmeyer

Services and Policies

- Desmos: <https://www.desmos.com/privacy>
- DeltaMath: <https://www.deltamath.com/privacy-policy/>,
<https://www.desmos.com/studentdata>

Both services are often used in Math classrooms at the secondary level.

Desmos offers several services:

- Calculator: graphing, scientific, and four function
- Geometry tool
- Assigning & creating online, interactive student activities in class to support student learning and potentially tracking of student progress
- Desmos-provided curriculum (including specific online, interactive student activities) - paid only

DeltaMath allows teachers to create assignments from a pre-made bank of questions, give automatic feedback to students on their work, automatically grade assignments, and track student progress on assignments. There are additional paid features, including instructional videos, tests and test corrections, creating one's own problems, and uploading of student work.

Data Collected

Note: both services rely on each school to provide appropriate notice to parents of the school's use of third party service providers (like Desmos or DeltaMath), and for the schools to provide consent, if necessary, and authorization for the service to collect Student Data, as permitted by the Children's Online Privacy Protection Act (COPPA).

Both Desmos and DeltaMath:

- name
- email or unique username & password
- if shared with service: uploaded photos, communications via email

- If linked: can be tied with Google classroom & Google SSO
- Usage data: web request, Internet Protocol address, operating system, browser type, browser language, referring/exit pages and URLs, platform type, click history, domain names, landing pages, pages viewed and the order of those pages, the amount of time spent on particular pages, the date and time of your request, and whether you opened an email

DeltaMath only:

- school name and school address
- which problems were attempted
- the time at which each problem was attempted
- the answers the student submitted and whether they were correct
- the duration the student was working on each problem
- whether each assignment was completed on time
- the completion percentage for each assignment
- If the problems have corresponding videos:
 - whether the student watched the videos and for how long.
- If the teacher decides to assign a "Test Correction" assignment:
 - their grade on the given test or quiz
 - which questions they got wrong
- IP addresses for any given problem solved

Desmos only:

- class assignment data and other classroom content (not specified)

Desmos explicitly states that they do not knowingly collect: (i) exact geolocation data, (ii) behavioral data for advertising purposes, (iii) biometric / health data, or (iv) sensitive data, as defined under the General Data Protection Regulation (GDPR) (including, racial or ethnic origin, political opinions, religious or philosophical beliefs, or trade-union membership, and the processing of genetic data, biometric data for the purpose of uniquely identifying a natural person, data concerning health or data concerning a natural person's sex life or sexual orientation).

How data is used:

Desmos:

- to facilitate account creation and logon process
- to enforce their terms, conditions and policies
- to respond to legal requests and prevent harm
- for other "Business Purposes"
 - improving the quality and design

- to create new features and services
- remembering information so that you will not have to re-enter it during your visit or the next time
- providing custom, personalized content and information;
- monitoring aggregate metrics
- diagnosing and fixing technology problems
- for marketing

DeltaMath

- To help ensure students have the correct class: teacher name & salutation, school name, school address
- To protect student data that teachers have access to: teacher email & password
- To send infrequent updates about DeltaMath: teacher email address
- To create assignments on a per class/section basis: information about the classes teachers are teaching (name/section)
- To ensure unique login as well as password recovery initiated by the student: student email & password
- To track student progress:
 - which problems were attempted
 - the time at which each problem was attempted
 - the answers the student submitted and whether they were correct
 - the duration the student was working on each problem
 - whether each assignment was completed on time
 - the completion percentage for each assignment
- To combat cheating (a student completing another student's work under a false identity): IP addresses for any given problem solved
- Additionally, DeltaMath states that they share information to:
 - Develop new products and features
 - Respond to requests for information or customer support
 - Customize the service
 - Send teachers information about new features and DeltaMath products

How assignments/activities are shared:

Desmos

- [Not specified in privacy policy.]

DeltaMath

- Teachers have the opportunity to share their assignments with all DeltaMath users, but the default is that all assignments created are private.

Notes:

- Neither service allows 3rd party targeted advertising.
- In DeltaMath: teachers can turn off the requirement for student email addresses to be used during registration. If used, the teacher can assign non-personally identifiable usernames and nicknames in order to increase student anonymity. The only users that will be able to see the student personally identifiable information are the teachers for whom the student has registered.
- In DeltaMath: Teachers are not able to see their students' passwords, but the teacher is able to reset the password of a student in the event that a student has forgotten their password.
- Desmos provides a short summary for each section of their privacy policy before going into further detail. Desmos also has a separate student data privacy statement.
- DeltaMath's privacy policy is first focused on how they collect and use information. This section also describes what information they collect. I wonder if this is done to reduce people's focus on what is collected: For students: full name, email address, password, correct class section, and teacher code, which will link school name and school address.