

Amplify Education, Inc. – Accessibility Conformance Report WCAG Edition

(Based on VPAT® Version 2.5)

Name of Product/Version: Amplify Desmos Math

Report Date: August 2024

Product Description: A new K–12 math program that motivates and inspires all students to become math people for life.

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Notes: None

Evaluation Methods Used: Evaluation of the product involved a combination of automated, manual, and functional testing against the applicable success criteria within the Web Content Accessibility Guidelines (WCAG) 2.2 Conformance Level A and AA. Level Access (Level) tested a selection of the product using a representative sample to cover the components and functionality of use flows. The assistive technologies (ATs) used are NVDA/Chrome.

Applicable Standards/Guidelines

This report covers the degree of conformance for the following accessibility standard/guidelines:

Standard/Guideline	Included in Report
Web Content Accessibility Guidelines 2.0	Level A (Yes) Level AA (Yes) Level AAA (No)
Web Content Accessibility Guidelines 2.1	Level A (Yes) Level AA (Yes) Level AAA (No)
Web Content Accessibility Guidelines 2.2	Level A (Yes) Level AA (Yes) Level AAA (No)

Terms

The terms used in the Conformance Level information are defined as follows:

- **Supports:** The functionality of the product has at least one method that meets the criterion without known defects or meets with equivalent facilitation.
- **Partially Supports:** Some functionality of the product does not meet the criterion.
- **Does Not Support:** The majority of product functionality does not meet the criterion.
- **Not Applicable:** The criterion is not relevant to the product.
- **Not Evaluated:** The product has not been evaluated against the criterion. This can be used only in WCAG Level AAA.

WCAG 2.x Report

Note: When reporting on conformance with the WCAG 2.x Success Criteria, they are scoped for full pages, complete processes, and accessibility-supported ways of using technology as documented in the [WCAG 2.0 Conformance Requirements](#).

Table 1: Success Criteria, Level A

Notes:

Criteria	Conformance Level	Remarks and Explanations
1.1.1 Non-text Content (Level A)	Web: Partially Supports	Web: Some non-text content presented to the user in the product has text alternatives that serve the equivalent purpose. Exceptions include: <ul style="list-style-type: none"> • There are multiple charts and graphs used throughout the product that do not provide an equivalent description, such as the "Activity Checklist" on Boost/Telling Time: Screen 1, "Shape exercise" graph on Math K-1: Screen 2, and the "Find the difference" graph on Math K-1: Screen 7. • Canvas elements throughout the product do not provide equivalent descriptions such as the "Shape exercise graphs" on Math K-1: Screen 7, the "Drag to match the outline graph" on Math K-1: Screen 8, and the "Fractions comparison" activity on Math 2-3: Screen 15. • The content on Boost/Grade 4: Screen 4 uses image icons without equivalent descriptions to indicate incorrect answers.
1.2.1 Audio-only and Video-only (Prerecorded) (Level A)	Web: Supports	Web: The product does not contain prerecorded audio-only or video-only media.

Criteria	Conformance Level	Remarks and Explanations
1.2.2 Captions (Prerecorded) (Level A)	Web: Supports	Web: The product does not contain any prerecorded synchronized media (video with audio) that requires captions.
1.2.3 Audio Description or Media Alternative (Prerecorded) (Level A)	Web: Supports	Web: The product does not contain any prerecorded video media that requires audio descriptions or a media alternative.

Criteria	Conformance Level	Remarks and Explanations
1.3.1 Info and Relationships (Level A)	Web: Partially Supports	<p>Web: In most instances, the product ensures that information, structure, and relationships conveyed through presentation can also be determined programmatically or through text. Exceptions include:</p> <ul style="list-style-type: none"> • There are form fields that are not programmatically associated with their visible labels, such as the “How many dragonflies are there?” button on Boost/IF: Screens 4-6, and the “Show or explain your thinking” on Math 4-5: Screen 2. • There is content that functions as a heading but does not use heading markup, such as “Click to make a group of jerseys. What do you notice? What do you wonder?” on Math K-1: Screen 11, “Use the geoboard to create a triangle” on Math 2-3: Screen 8, and “Click on any coins you choose to show different ways Kyle could pay for the robot” on Math 2-3: Screen 9. • There is content that appears as a list but does not use list markup, such as the list of expressions options on Math K-1: Screen 7 and the list of time increments on Math 2-3: Screen18.

Criteria	Conformance Level	Remarks and Explanations
1.3.2 Meaningful Sequence (Level A)	Web: Supports	Web: The product ensures that a correct reading order can be programmatically determined for content whose presentation sequence affects its meaning.
1.3.3 Sensory Characteristics (Level A)	Web: Partially Supports	<p>Web: In most instances, instructions in the product do not rely solely on sensory characteristics such as shape, size, visual location, or sound. Exceptions include:</p> <ul style="list-style-type: none"> • There are instructions or corrections that use visual location cues, such as the corrective instructions of “the bar should be this high” on Boost/IF: Screens 4-6 and the instructions to complete the exercises on Math 2-3: Screen 4 and 5.
1.4.1 Use of Color (Level A)	Web: Supports	Web: The product does not use color as the only visual means of conveying information, indicating an action, or prompting a response.
1.4.2 Audio Control (Level A)	Web: Supports	Web: The product does not include audio that plays automatically for more than 3 seconds.

Criteria	Conformance Level	Remarks and Explanations
2.1.1 Keyboard (Level A)	Web: Partially Supports	<p>Web: In most instances, the product ensures that interactive content and functionality is accessible and operable using a keyboard or keyboard emulator. Exceptions include:</p> <ul style="list-style-type: none"> • There are interactive controls throughout the product that cannot be navigated to with the keyboard alone, such as the “Close Keypad” button on Boost/Grade 4: Screen 4, “drag and drop” controls on multiple screens, and the “Pencil” and “Eraser” on Math 2-3: Screen 23. • There are non-interactive elements throughout the product that can receive keyboard focus, such as the “graph paper” on Boost/Telling Time: Screen 1, the “drag and drop” container on Boost/IF: Screens 4-6 and the “Shape Exercise” results on Math K-1: Screen 2.
2.1.2 No Keyboard Trap (Level A)	Web: Supports	Web: Where a component can receive keyboard focus, the product allows focus to be moved away using only the keyboard.
2.1.4 Character Key Shortcuts (Level A 2.1 only)	Web: Supports	Web: The product does not use character key shortcuts.
2.2.1 Timing Adjustable (Level A)	Web: Supports	Web: The product does not contain time-limited or time-dependent content.

Criteria	Conformance Level	Remarks and Explanations
2.2.2 Pause, Stop, Hide (Level A)	Web: Partially Supports	Web: In most instances, the product allows users to pause, stop, or hide moving, blinking, scrolling or auto-updating content. Exceptions include: <ul style="list-style-type: none"> The background on the Math K-1: Screen 7 scrolls continuously without a method to stop or pause it.
2.3.1 Three Flashes or Below Threshold (Level A)	Web: Supports	Web: The product does not contain flashing content.
2.4.1 Bypass Blocks (Level A)	Web: Supports	Web: The product provides skip links and other mechanisms to bypass blocks of content repeated on multiple pages.
2.4.2 Page Titled (Level A)	Web: Supports	Web: Screens of the product provide titles that adequately describe their topic or purpose.

Criteria	Conformance Level	Remarks and Explanations
2.4.3 Focus Order (Level A)	Web: Partially Supports	<p>Web: In most instances, screens of the product can be navigated sequentially with a focus order that matches the logical reading order. Exceptions include:</p> <ul style="list-style-type: none"> • Focus does not move to the first field in error after submitting a form when inline errors are present, such as in the form on Boost/Grade 4: Screen 4 and 6 and Boost/IF: Screens 4-6. • When closing a dialog, the focus does not return to the element that opened the dialog, this includes the “Shape” dialog in Math K-1: Screen 2, the “Price” expression dialog in Math K-1: Screen 4 and the “Choose the path with fewer” dialog in Math K-1: Screen 10.
2.4.4 Link Purpose (In Context) (Level A)	Web: Supports	Web: The product ensures that the purpose of links can be determined from the link text alone or in combination with the surrounding or programmatic context.
2.5.1 Pointer Gestures (Level A 2.1 only)	Web: Supports	Web: The product does not require multipoint or path-based gestures for operation.
2.5.2 Pointer Cancellation (Level A 2.1 only)	Web: Supports	Web: The product ensures that functionality on pointer down-event is completed only when the user releases the pointer or allows the user to abort and/or undo the action.

Criteria	Conformance Level	Remarks and Explanations
2.5.3 Label in Name (Level A 2.1 only)	Web: Partially Supports	<p>Web: In most instances, the product ensures that when interface components have visual labels that include text, the provided accessible name contains the visually presented text. Exceptions include:</p> <ul style="list-style-type: none"> • There are form controls with visible labels that are not included in its accessible name, such as “How many dragonflies are there?” on Boost/IF: Screens 4 – 6 and “Show or explain your thinking” on Math 4-5: Screen 2
2.5.4 Motion Actuation (Level A 2.1 only)	Web: Supports	Web: The product does not contain functionality that requires device motion or user motion.
3.1.1 Language of Page (Level A)	Web: Supports	Web: The product ensures that the default human language used on each screen can be programmatically determined.
3.2.1 On Focus (Level A)	Web: Partially Supports	<p>Web: In most instances, the product ensures that interface components do not initiate a change of context when receiving focus. Exceptions include:</p> <ul style="list-style-type: none"> • When the “Show or explain your thinking” input is focused, the keypad is opened automatically without user initiation.

Criteria	Conformance Level	Remarks and Explanations
3.2.2 On Input (Level A)	Web: Partially Supports	Web: The product ensures that most interactive components do not initiate a change in context when the component setting is changed unless followed by an explicit user action such as activation of a button or link Exceptions include: <ul style="list-style-type: none"> • When a user selects the “ABC” or “123” control in the keypad focus moves to the close button. • The “Color” and “Size” options change when closed with the “Escape” key.
3.2.6 Consistent Help (Level A 2.2 only)	Web: Supports	Web: Help mechanisms occur in the same order relative to other page content in the product.
3.3.1 Error Identification (Level A)	Web: Supports	Web: Where the product automatically detects input errors, the item or field in error is identified and the error is described to the user in text.
3.3.2 Labels or Instructions (Level A)	Web: Supports	Web: Where user input is required, the product presents adequate labels or instructions for successfully providing that input.
3.3.7 Redundant Entry (Level A 2.2 only)	Web: Supports	Web: The product does not request redundant user-entered information in multi-step processes.
4.1.1 Parsing (Level A) Applies to: WCAG 2.0 and 2.1 – Always answer ‘Supports’ WCAG 2.2 (obsolete and removed) - Does not apply	Web: Supports	For WCAG 2.0, 2.1, EN 301 549, and Revised 508 Standards, the September 2023 errata update indicates this criterion is always supported. See the WCAG 2.0 Editorial Errata and the WCAG 2.1 Editorial Errata .

Criteria	Conformance Level	Remarks and Explanations
4.1.2 Name, Role, Value (Level A)	Web: Partially Supports	Web: In some instances, the product contains user interface components whose name, role, state, and value can be programmatically determined. Exceptions include: <ul style="list-style-type: none"> • There are tooltips without name or role information, such as the “Error message” tooltip on Boost/Grade 4: Screen 4. • There are links and buttons without appropriate role information, such as the “Let’s Go” button on Boost/Telling Time: Screen 1, the “shape” toggle buttons on Math K-1: Screen 2 and the Possible equation answer control options "4 + 2 = _" and "4 + _ = 2" toggle buttons on Math K-1: Screen 9. • There are tabs without name, role, or state information, such as the ones on the Math 2-3: Screen 19.

Table 2: Success Criteria, Level AA

Notes:

Criteria	Conformance Level	Remarks and Explanations
1.2.4 Captions (Live) (Level AA)	Web: Supports	Web: The product does not contain any live synchronized media (video with audio) that requires real-time captioning.
1.2.5 Audio Description (Prerecorded) (Level AA)	Web: Supports	Web: The product does not contain any prerecorded synchronized media (video with audio) that requires audio descriptions.
1.3.4 Orientation (Level AA 2.1 only)	Web: Supports	Web: The product does not restrict its view and operation to a single display orientation, such as portrait or landscape.
1.3.5 Identify Input Purpose (Level AA 2.1 only)	Web: Supports	Web: The product ensures that the purpose of input fields that request information about the user, such as name or email, can be programmatically determined.

Criteria	Conformance Level	Remarks and Explanations
1.4.3 Contrast (Minimum) (Level AA)	Web: Partially Supports	<p>Web: In some instances, the visual presentation of text and images of text in the product provides a contrast ratio of at least 4.5:1 against adjacent colors. Exceptions include:</p> <ul style="list-style-type: none"> • There is text that does not meet the required minimum color contrast ratio with its background, such as the number chosen in the "Drag up" control on Boost/IF: Screens 4 – 6, the numbers indicating the difference between the correct and incorrect answer on Math K-1: Screen 7 and all of the numbers on Math 2-3: Screen 24.
1.4.4 Resize text (Level AA)	Web: Partially Supports	<p>Web: In some instances, the product allows text to be resized without assistive technology up to 200 percent without loss of content or functionality. Exceptions include:</p> <ul style="list-style-type: none"> • There is content that overlaps or is cut off when viewing the page at 200% browser zoom and a 1280-pixel viewport width, such as the "Drag" arrow on Math K-1: Screen 8, the rabbit, racoon and fox images on Math 2-3: Screen 13, and sections "A" – "D" on Math 2-3: Screen 27.
1.4.5 Images of Text (Level AA)	Web: Supports	Web: Except for logos, the product uses text instead of images of text.

Criteria	Conformance Level	Remarks and Explanations
1.4.10 Reflow (Level AA 2.1 only)	Web: Does Not Support	Web: Screens across the product do not allow for resizing to a minimum width of 320 CSS pixels or vertical height of 256 CSS pixels without loss of content or functionality, and without requiring scrolling in two dimensions. Examples include: <ul style="list-style-type: none"> • There is content that disappears, overlaps, or is cut off when the page has a viewport width of 320 CSS pixels, such as the graph on Math K-1: Screen 2, Expression control options such as “10,” “20,” “2,” and “5” overlap each other on Math K-1: Screen 4 and the “5” text overlaps other content on Math 2-3: Screen 5.
1.4.11 Non-text Contrast (Level AA 2.1 only)	Web: Partially Supports	Web: In most instances, the visual presentation of non-text content in the product has a contrast ratio of at least 3:1 against adjacent color(s). Exceptions include: <ul style="list-style-type: none"> • There are user interface components with a focus indicator with a contrast ratio below 3.00:1, such as the hover state of the “rectangle,” “circle,” and “square” elements on the “Try It” graph on Math K-1: Screen 2, the “Dotted arrow” icon indicating why the answer selected is wrong, and the “Dotted rectangle” space to indicate the space for the selected shape.

Criteria	Conformance Level	Remarks and Explanations
1.4.12 Text Spacing (Level AA 2.1 only)	Web: Partially Supports	<p>Web: In most instances, the product supports user changes in text style properties, such as line height or text spacing, without loss of content or functionality. Exceptions include:</p> <ul style="list-style-type: none"> • There is content that is cut off when viewing the page with custom text spacing and at a viewport width of 320 CSS pixels, such as the “Try again” control on Math K-1: Screen 4, the “Try Again” control on Math K-1: Screen 7, and the text “27 of 27” on Math 2-3: Screen 27. • The numbers “10,” “3,” and “12” overlap on Math 2-3: Screen 27 when viewing the page with custom text spacing and at a viewport width of 320 CSS pixels.
1.4.13 Content on Hover or Focus (Level AA 2.1 only)	Web: Supports	Web: Content in the product that is triggered by hover or focus remains visible while triggered, remains visible while moving the pointer over it, and can be dismissed without moving the pointer or changing focus if it obscures other content.
2.4.5 Multiple Ways (Level AA)	Web: Supports	Web: Screens of the product are accessed via a process flow and do not otherwise require multiple methods of access.
2.4.6 Headings and Labels (Level AA)	Web: Supports	Web: Headings and labels provided in the product adequately describe the topic or purpose of the content with which they are associated.

Criteria	Conformance Level	Remarks and Explanations
2.4.7 Focus Visible (Level AA)	Web: Supports	Web: The product provides a visible indication of keyboard focus for elements on each screen.
2.4.11 Focus Not Obscured (Minimum) (Level AA 2.2 only)	Web: Supports	Web: When user interface components receive keyboard focus, they are, at minimum, partially visible.
2.5.7 Dragging Movements (Level AA 2.2 only)	Web: Does Not Support	Web: When dragging movement is needed for operation the product does not allow the functionality to be accomplished by a single pointer without dragging.
2.5.8 Target Size (Minimum) (Level AA 2.2 only)	Web: Supports	Web: The size of targets in the product meets the requirements of this criterion.
3.1.2 Language of Parts (Level AA)	Web: Supports	Web: Screens of the product present content in a single language.
3.2.3 Consistent Navigation (Level AA)	Web: Supports	Web: The product ensures that navigational mechanisms repeated across the product are presented consistently and in the same relative order.
3.2.4 Consistent Identification (Level AA)	Web: Supports	Web: The product ensures that components with the same functionality are identified consistently across screens of the product.
3.3.3 Error Suggestion (Level AA)	Web: Supports	Web: Where the product automatically detects input errors and provides error messages, the product also provides suggestions for correcting each error.
3.3.4 Error Prevention (Legal, Financial, Data) (Level AA)	Web: Supports	Web: The product does not cause legal commitments, process financial transactions, or modify or delete user-controllable data.

Criteria	Conformance Level	Remarks and Explanations
3.3.8 Accessible Authentication (Minimum) (Level AA 2.2 only)	Web: Supports	Web: The product does not require an authentication process.
4.1.3 Status Messages (Level AA 2.1 only)	Web: Partially Supports	<p>Web: In most instances, the product provides status messages that can be presented to assistive technologies without receiving focus.</p> <p>Exceptions include:</p> <ul style="list-style-type: none"> • When successful or unsuccessful results have appeared, it is not announced via the screenreader. • When the user has successfully completed an outline task the success is not communicated via screenreader.

Table 3: Success Criteria, Level AAA

Notes: Not evaluated