

Audio Support for STAR Math Enterprise FAQ

What is Audio Support for STAR Math Enterprise?

Audio Support is a feature that can be enabled for students whose math ability outpaces their reading ability. It takes away the reading barrier for students that may be inhibiting performance on the math assessment to provide more accurate data on a student's math ability. Audio is provided in various forms for all items in the math assessment.

Why was audio added to SME?

Previous research suggested that reading the assessment aloud for students whose math ability outpaced their reading ability didn't impact reliability and validity, thus the practice was frequently used by educators. This is a time-consuming practice so audio became a frequent request from customers. The decision to add audio followed a review of research supporting the use of audio accommodations in math assessments. [Empirical Support for Provision of a Read-Aloud Accommodation on the STAR Math Test](#) We also engaged experts in the field to establish guidelines and best practices for adding audio support without compromising the reliability and validity of the assessment.

What guidelines were established and followed for adding audio to SME?

STAR Math Enterprise Audio Support Guidelines were developed after reviewing sample scripts and evaluating item reliability and validity. These guidelines are the basis for the development of the audio component to ensure each question was treated with consistency and fairness:

- Provide audio support for items that involve reading.
- Avoid reading information contained in graphs or tables.
- Provide audio support for answer choices that are phrases or sentences that would pose significant difficulty for struggling readers.
- Do not provide audio support if doing so would necessitate the use of words that are not part of the item and that would change the construct of the item.

Is audio available for all items in STAR Math Enterprise?

All items in the STAR Math Enterprise item bank have audio support available. The following are examples of the types of audio support provided:

- Audio support will be available for items in which the question (or stem) involves reading or for items with difficult words. If a stem is a simple equation, for example, $2+1=$, the audio will state, "Choose the best answer."
- Labels and information in tables and graphics will not be read aloud. Text above or below a graphic or math expression that is part of the stem will have audio.

- Answer choices will be read if they contain a text that would pose significant difficulty for struggling readers. However, if the answer choices contain a difficult word, for example, domain or range, that students have already heard in the stem, the answer choices will not have audio.
- For items that require labeling an object, the stem may not be read aloud. That's because, in some cases, use of the correct name gives students hearing the audio an advantage. For example, if a stem asks, "A (image of a dime) is the same as ____?", the audio support would simply be, "Choose the best answer."

Which students are most likely to benefit from use of audio support?

Renaissance Learning worked with a consultant who researched read-aloud accommodations and protocols and audio guidelines and best practices published by a range of testing organizations. These findings include:

- Audio support is most likely to benefit younger students or students with lower reading ability.
- Audio support was shown to be most effective for struggling readers when it is used for difficult items with difficult reading.
- Audio support was found to be least effective when it is used for easy items or items with easy, little, or no reading.
- For students with little content knowledge from the beginning, providing audio support was shown to have little impact on performance.

What are things to consider when using audio support?

- Because this is a feature that will need to be enabled in the software in order for the student to use it, how will students needing the accommodation be identified, and who is responsible for enabling audio for those students?
- Are headphones available for the students who will be using the accommodation?
- Is there an audio jack on the testing computer or device?
- Will there be a designated area in the lab for students using the audio accommodation, or will those students be tested at a separate time?

What is the student experience when using audio?

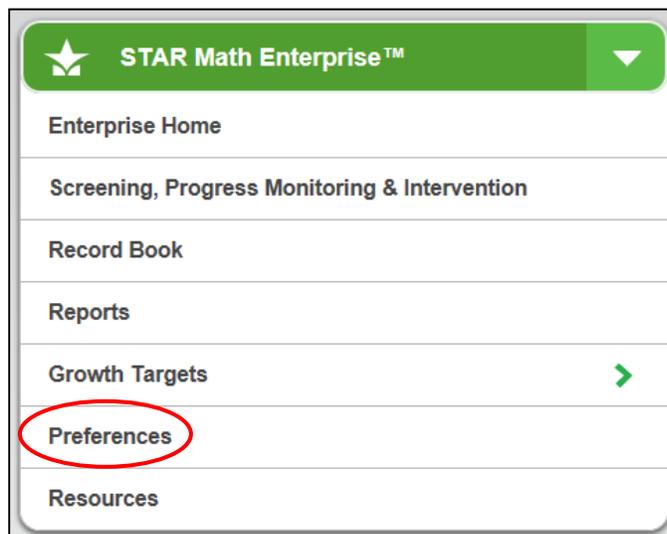
When a new question is presented to the student, the audio begins playing automatically. The student does not have to wait for the audio to finish before answering a question; answers can be entered at any time. While audio is playing, the user can click the "pause" symbol to stop the audio. To resume the audio at the same point where it was paused, the user can click the "play" symbol. The student can also replay the audio by clicking the "play" symbol to have the question repeated.

Do students using the audio accommodation perform better than they would have without it?

Yes, preliminary analysis of STAR Math test records with and without the accommodation indicate that on average, students who took STAR Math with and without the accommodation in close proximity scored better when they used the accommodation. This is to be expected and was the intent of providing audio to those students for whom reading or language inhibits their performance on math assessments.

How is audio support enabled for students?

Audio support can be enabled by clicking on “Preferences” under STAR Math Enterprise and then scrolling to “Student Preferences” and selecting “Edit”.



Student Preferences		
Preferences	Description	Current Setting
Estimated MIL	Change students' estimated Math Instructional Level	Estimated MIL is not set
Extended Question Time Limit	Extend students' time limit for answering questions	Extended Question Time Limit off for: All students
Audio	Enable students to hear audio for test questions	Audio is off for: All students
Test Type	Select test to administer, which affects reporting capabilities	Enterprise: 18 Students Algebra: 0 Students Geometry: 0 Students