# Q&A Pairs

## Query: Recognize and celebrate students’ diverse identities, presenting themes that allow students to explore content meaningful to their backgrounds and communities while integrating their interests and experiences as funds of knowledge to enhance instruction

At Carnegie Learning, our goal is to make math accessible to every student, regardless of background, by delivering culturally responsive and inclusive curricula and instruction. We engage students where they are. Student scaffolds are provided throughout the student MATHia Adventure software. The nature of the software is inviting, as the materials contain a balance of racial/ethnic names, and problems include a wide range of topics and settings to appeal to various interests and perspectives. Problems in Carnegie Learning’s interactive MATHia Adventure software are written to reflect multiculturalism and include real-world problems set in scenarios, locations, and with proper names that reflect diverse cultures and situations found throughout rural and urban United States. Images of students reflect cultural diversity, as well.  
  
The language in which problems are posed, the displays of visual information (charts, graphs, photographs, etc.), and the language used in assessments were carefully considered free of linguistic and cultural bias. Race, culture, and religious discrimination are avoided in the assessment materials. Race and culture stereotyping, language, and racism are non-existent. Religion is not mentioned in the Math Solution. Gender-based stereotyping language is non-existent. The materials contain a balance of male and female figures of various ages performing work in similar fields. Males and females are represented as characters in the instructional text and problems as intelligent, curious learners with multiple interests. Groups, which include males and females, are referred to in gender-neutral language. People are referred to by their names and roles rather than their position in a family.  
  
We holistically address the needs of emergent bilingual students while honoring and integrating their rich linguistic, cultural, and personal strengths. Here is an outline of our approach:  
  
Positioning Emergent Bilingual Students for Success  
• As educators, we have a proactive responsibility to position emergent bilingual students as leaders and valued, validated participants within the classroom.  
• We celebrate and embrace the full spectrum of students’ identities, cultures, and linguistic resources.  
• We affirm the importance of setting high expectations and using strategic grouping and partnering to enable every emergent bilingual student to shine.  
Multimodal and Multidimensional Approach  
• Mathematics is inherently multimodal and multidimensional. Therefore, we embrace multiple modes of conveying mathematical meaning, whether through visuals (such as drawings, graphs, and charts), gestures, manipulatives, realia, or other modes of communication. We advocate for teachers to leverage these various modes in expressing mathematical ideas and ask and encourage students to express themselves.  
• We affirm and embrace the use of students' entire linguistic repertoire in the learning environment. Using other languages can be a critical bridge in expressing and understanding mathematical concepts and promote meaningful and authentic classroom discussions.  
Academic Language and Modeling the Mathematical Register - Language Goals/Objective and Supports  
• We empower teachers to understand and model the mathematical register, ensuring that academic language is accessible but never diluted.   
• We are currently implementing language goals for each lesson, with three tiers of support for different language proficiency levels. These language objectives will delineate the type of language emergent bilingual students can use to meet the mathematical objectives of the lesson while maintaining the same overall language function across proficiency levels.  
• In addition to language goals, we embed supports directly within activities via “Language Links.” These provide teachers with targeted strategies to enhance students’ understanding and application of lesson and activity-specific language.  
Grounded in research and best practices, our program values and integrates every student’s cultural, linguistic, and individual assets while incorporating diverse avenues for conveying mathematical meaning, making it both inclusive and effective. A focus on multimodal expression and explicit modeling of the mathematics register further helps educators position emergent bilingual students as the leaders we already know they can be.