

STANDARD SHIFTS & GUIDING TENETS

CCSS Mathematics for English Learners

Shifts with CCSS Mathematics Expectations:

1. Problem situations that are language-rich and require multiple steps to decipher text for relevant phrases and specific use of language structures, vocabulary, relationships, concepts, and goals
2. Concepts represented in multiple ways and require translation between and among words, numbers, tables, diagrams, and symbols
3. Procedures constitute a special narrative (i.e., step-by-step actions lead reliably to a result) that support the determination of relevant ideas and the reasonableness of an answer

Guiding Tenets for ELs and CCSS Mathematics:

1. Mathematical language is more than vocabulary; learning language and content involves expanding *linguistic repertoires* to engage in a wide variety of situations, with a wide variety of concepts, for a wide variety of purposes.
2. English learners (ELs) bring rich linguistic backgrounds and repertoires into the classroom, including those in their native language or linguistic varieties.
3. ELs have rich background knowledge and experiences, which must be the basis for all teaching and learning; instruction must consider *and expand* what ELs bring to the classroom.
4. Teachers must provide ELs with abundant and diverse opportunities to engage with the four domains of language while attending to the affective filter, making students feel comfortable to take risks with their language and linguistic repertoires.
5. Since language and cognition develop simultaneously, teachers need to support and scaffold language-rich mathematics discussions. ELs learn to do things with language when engaged in meaningful content-based activities that engage and challenge them.
6. Mathematical practice and literacy requires multiple representations of concepts and ideas. Teaching and learning of mathematics for ELs requires use of visual and hands-on resources, such as charts, graphics, manipulatives, and realia.
7. In order to develop deep understanding of mathematical concepts, ELs need access to such concepts, complex texts, and academic conversations, along with support and extended time to deeply engage and wrestle with them.

Moscohkovich, J. (2012). Mathematics, the Common Core, and Language: Recommendations for Mathematics Instruction for ELs Aligned with the Common Core. *Understanding Language: Language, Literacy, and Learning in the Content Areas*. Palo Alto, CA: Stanford University.