

Unpacking the Language of Mathematics Essential Standard (What does this mean a child will know and be able to do?)

Essential Standard #3: English language learners communicate information, ideas and concepts necessary for academic success in the content area of Mathematics

- Standard Three addresses the **explicit teaching** of the **academic language of mathematics** in the **content and ESL classrooms**.

Instruction should engage ELLs in the vocabulary, writing, reading, and oral language necessary to participate meaningfully in the mathematics classroom. Academic language instruction is characterized by the staging of authentic opportunities to learn and practice with the situation-specific patterns of communication that students need in order to be successful in mathematics.

Academic language is the language of the classroom. It includes the language of textbooks, assessment, teacher-student discourse, and student-student discourse. Asking for clarification, stating an opinion, and expressing agreement are examples of such discourse. Academic language differs from everyday English in structure and vocabulary.

Academic language uses complex grammar found in expository structures:

- Description [_____ is made up of _____ and looks like _____.]
- Sequence [First, _____. Next, _____. Finally, _____.]
- Compare-contrast [Both _____ and _____ are _____. _____ is a _____, but _____ is not.]
- Cause-effect [_____ leads to _____ because _____.]
- Problem solution [One answer to _____ is _____.]
- Evaluate [Sample A is the best choice because _____.]
- Analysis [A _____ is composed of _____ parts.]

Academic language also uses:

- Transition words (next, then, first, also)
- Supporting information
- Elaboration (I predict..., I predict _____ because ..., My prediction was confirmed/refuted because ..., I know from my own experience(s) _____ so I can predict/infer.

Vocabulary in academic language includes discipline-specific words and those words that support or explain technical concepts such as refer, required, significant. It also includes,

- Polysemous words [words with more than one meaning (example: table, face)]
- Synonyms and antonyms
- Prepositions [*divided* by, *divided* into, between, among]
- Word forms [like, likeable, likely, likelihood, liken, likeness, likewise]
- Prefixes/suffixes