

Instruction with CPM for English Learners

Reading & Writing

Require that students **read** problems, either individually, with their partner, or their team. Check for understanding after all substantial reading passages.

Give explicit **vocabulary** instruction. Post vocabulary publicly, refer to the posting frequently, make connections between words in the display visually and encourage students to use the words frequently.

Link **vocabulary** to cognates. This reduces the number of words to learn by drawing on prior knowledge. Make comparisons to clarify meaning. For example, compare kilograms with pounds, and compare meters with yards.

Provide instruction in **English**. Use their native language to clarify and enhance key concepts and skills. Ask students if they know the word(s) in their native language and have them write and discuss these words with the rest of the class as a way to establish the meaning of English word(s).

Assign the **text-rich** problems. These are better for English language learners than algorithmic problems. Help students to use contextual clues, pictures, diagrams, and graphics to unlock problems.

Help students learn to represent problems in a **visual** form to build concrete understanding.

Require English language learners to **write** about their math learning in their own language. This organizes and clarifies what they have learned. The Learning Log problems provide this opportunity regularly.

◦ *Sentence Frames*

Groups

Start with study **partners** and move into study teams when students feel secure and comfortable with their learning environment.

Arrange some teams so that students who **speak** primarily their first language are working with students who have stronger bilingual skills as well as with students who speak only English.

Emphasize the importance of students to **talk** and collaborate on problems.

Use **pair sharing** for practice exercises, where partners alternate. One student does the first problem while talking aloud about what s/he is doing and the other follows along with what the first is writing, stopping him/her if there is an error. Then they switch roles for the next problem. They do not have to speak the same language because they are following the written problem.

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Instruction

Focus on the **core** problems in a lesson.

Make the **connections** from what they are learning to their prior mathematical learning.

Be careful about giving answers too quickly. Instead, use effective **questioning** techniques to challenge students to answer their own questions.

Scaffold instruction as much as possible. Use prepared resource pages and create additional ones for scaffolding as appropriate.

Turn some lessons into **silent** lessons where a brief presentation for the whole class is done without speaking, using only pantomime, drawings, gestures and a few written directions and examples. This completely levels the playing field for a day and helps language learners become equal players in completing the lesson.

Homework

Provide after-school **tutoring**, a supportive place to work on homework, and a place where they can come with questions.

Direct students and parents to the homework help **website** www.cpm.org