

What I wish K-5 Teachers did for Math – A College Engineering educator/professor Viewpoint

In K-5 we focus the least on math, but math is the only subject in which we separate kids into two or more levels in middle school and higher. Math is also cumulative.

- 1. Talk with 6th grade math teachers in your own district**
 - a. to understand what they would like kids to know.
- 2. Provide much more math practice and drills in the classroom**
 - a. Maybe – replace some games with math drills?
 - b. Why – math drills critical for fluency; arithmetic fluency critical for giving each kid a chance to succeed in pre-algebra and algebra – critical for college and STEM success
- 3. Close the “math awareness” gap for parents –**
 - a. **Tell all kids and parents about Khan Academy - excellent free review/practice resource**
 - i. Has videos/work in Spanish, Arabic, other languages too
 - ii. And/or provide **paper workbook suggestions** or send one home
 - b. **Tell all parents about testing dates and why the scores matter**
 - c. Tell everyone about Math acceleration plans of your district –
 - i. inform and explain to all 3rd-5th grade parents of the options and how kids are placed and what acceleration even means (most immigrant and many US parents do not know this, I did not myself even with having lived in US for 25 years)
 - d. **Middle School requires at least ONE way to do arithmetic, any one way is okay**
- 4. Helping Close Gaps from Previous Years or for Students New to US/Iowa**
 - a. If a child transfers in from another district/state/country, it helps to check their skills from 2 grades below. One easy way to do this is Khan Academy Course Challenge for 2 grades below
 - b. And or help them reinforce basic skills any which way (US style of teaching math – more word problems etc) is very different from other countries – inform their parent and the kids - to do Khan Academy previous grades' material at home to be able to thrive in the classroom.
 - c. Even better – inform all kids about Khan.
 - d. It's even available in different languages.
- 5. Two key college or HS success skills that I wish kids learned early**
 - a. Be able work on homework
 - b. Be able to study for a test or exam

More Details and Reasoning

1. <https://cymath.iastate.edu/files/2025/05/Tips-for-Math-Success.pdf>
2. More – <https://cymath.iastate.edu/math-for-all/>
3. Still more - https://ece.iastate.edu/~namrata/cacm_final.pdf

Viewpoint of CyMath and Dr. Namrata Vaswani (ISU Electrical & Computer Engineering professor)