

Frequently Asked Questions

A: The goal of EMPower is to help adults and adolescents manage the mathematical demands they meet in the various aspects of their lives:

- **Everyday life:** Weighing options and making decisions across the spectrum from consumer choices to personal health
- **Further education:** Preparing for high school equivalency tests and community college courses
- **Workplace success:** Thriving in jobs that demand problem solving, measurement, communication, and fluency with numbers

A: The National Center for Education and the Economy launched an intense study of the mathematics students need to be college and career ready. They determined that middle school math is vital for success in nine different programs offered at community colleges. They based their assessment on texts and exams from programs including nursing, accounting, and criminal justice. Though middle school math—fractions, decimals, percents, ratio, and proportion—are taught, they are not learned well. Teaching these concepts so that learners have a true foundation rather than a shaky, passing familiarity with a number of topics and procedures will enable students to meet their long-term goals.

A: The *EMPower Student Book* pages include situations and instructions that require some proficiency in written English. Students who test at National Reporting System (NRS) low and high intermediate levels or grades 4-7 grade level equivalency in mathematics are the best candidates for *EMPower*. Such students may have some familiarity with basic operations and know some number facts but might be unable to retain some basic operations and know some number facts but might be unable to retain some procedures or perform them accurately or reliably.

Students at a higher level can benefit from *EMPower* if they have trouble getting started on a problem on their own, or if they are anxious and shut down when they see equations that look complicated. *EMPower* sets them up to be more independent, to test multiple solution paths, and to feel more confident in being flexible with numbers.

A: In a classroom with a wide range of levels, focus on students' representations and reasoning. This gives everyone the chance to see that answers emerge in several ways. Slowing down deepens understanding and avoids facile responses. Having calculators available can even the playing field. Choose lessons like *Is That You*, *Mona Lisa?* or *Countries in Our Closets* that have activities with a hands-on component.

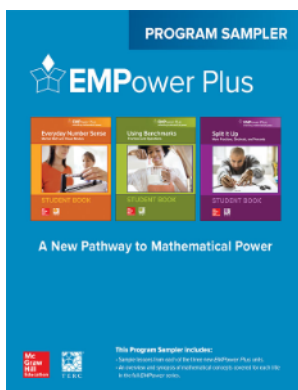
A: Change is unsettling, especially for students who are accustomed to math classes where their job is to work silently on a worksheet solving problems by following a straightforward example. Be clear about the reasons why you have chosen to de-emphasize some of the traditional ways of teaching in favor of this approach. Ultimately, you may need to agree to some changes to accommodate students' input. Meanwhile, when there is an "Aha!" moment, point it out. If administrators question your approach, remind them that students typically score lowest on math compared to other subjects and that doing more of the same thing when students have failed in the past doesn't make sense. New approaches are needed to surface misunderstandings.

A: Uneven attendance can be disruptive. Students who miss class may feel disoriented; however, the lessons spiral back to the most important concepts. When the curriculum circles back, students will have a chance to revisit concepts and get a toehold.

A: Each activity is important, but reviewing it is equally important. It is better to cut the activity short so there is time to talk with students about what they noticed. Maximize the time by selecting a student or group whose work you feel will add to the class's understanding to report their findings. Be conscious of when you are letting an activity go on too long because the energy is high. Fun is good, but be sure important learning is happening. If you like to give time in class to reviewing homework, and you want to hear from everyone in discussions, you will run out of time. Schedule a catch-up session every three or four lessons.

A: Yes! Most teachers tend to teach the way they were taught. Adopting a different stance requires support, and the more types of support, the better. This curriculum offers support in a few ways. The teacher books for each unit list open-ended questions designed to keep the math on track. In the Lesson Commentary sections, Math Background helps teachers deepen their understanding of a concept. In addition, the Lesson in Action sections provide examples of student work with comments that illuminate the underlying mathematics.

The best support often comes from a colleague. If no one at your site is currently teaching *EMPower*, join the Adult Numeracy Network. Attend your regional NCTM conference. Look for others who are integrating NCTM principles and standards through the use of a curriculum such as *1776* *stigations through Number, Data and Space, Connected Mathematics, or Interactive Mathematics Programs*



To view a PDF sampler of the EMPower series, click the image to the right.

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