



Appendix D: ***EMPower™***

Educators should note that, in 2003, nearly 1/3 (29.9%) of GED test takers in the United States failed to achieve the minimum GED score standard. Data from the GED Mathematics Training Institute of 2006 indicate that passing rates on the math exam were the lowest among the five academic subject areas. Therefore, this curriculum suggests that a substantial amount of time be dedicated solely on the teaching and learning of math skills identified on the GED test.

Over the course of five years (2000-2005), a collaboration of teachers and researchers at TERC in Cambridge, MA with expertise in adult numeracy education and k-12 mathematics reform developed and piloted eight contextualized curriculum units. The curriculum, *EMPower™*, fosters a pedagogy of learning for understanding and challenges students and teachers to consistently extend their ideas of what it means to do math. The program fosters a learning community in which students are encouraged to expand their understanding of mathematics through open-ended investigations, working collaboratively, sharing ideas, and discovering multiple ways for solving problems.

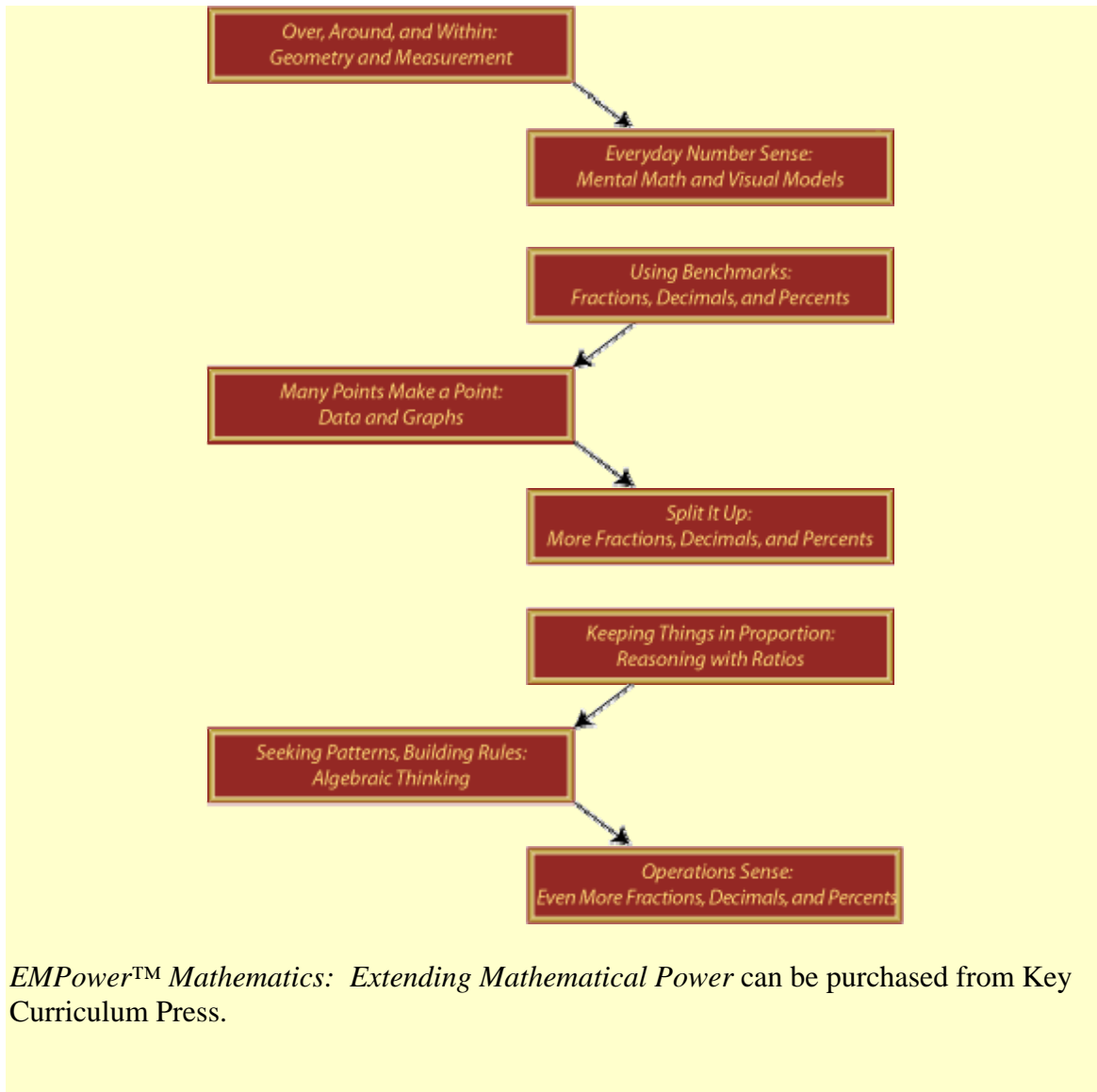
EMPower™ is designed to give adult learners and out-of-school youth mathematics skills for daily life. Developed and field tested by the Education Research Collaborative at TERC with support from the National Science Foundation, *EMPower™* combines insights from educational research and classroom practice. This comprehensive curriculum works in adult and workplace education, alternative high schools, correctional settings, and GED/high school equivalency programs. Students who need help transitioning to college also benefit from its dynamic approach.

Rather than focusing on memorizing formulas, students develop useful mathematics skills through engaging exercises that relate to their lives. They investigate concepts, work collaboratively, share ideas orally and in writing, and discover multiple ways to solve problems. The full curriculum comprises eight non-sequential units emphasizing whole numbers, fractions, decimals, percents, proportions, geometry and measurement, algebra, and data and graphs.

The sequence in which the units can be used effectively with your class will depend on the backgrounds and interests of students. The units are not numbered so teachers can order them according to their class needs; however, the authors suggest specific unit arrangements that will support students' progression through certain concepts.

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The authors do not recommend sequencing the units according to the traditional basic math model that begins with whole numbers, follows with fractions, decimals, and percents; data and graphs; algebra; and then geometry. Instead, the authors suggest you integrate the five units that focus on numbers with the units on geometry, data, and algebra. The authors found this integration of topics helped to motivate the adult students in their pilot classes. *EMPower™* suggests an integrated sequence:



EMPower™ Mathematics: Extending Mathematical Power can be purchased from Key Curriculum Press.

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