CHOOSE A PATH THAT INCLUDES MATH

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Mathematics Knowledge Network
Réseau de connaissances en mathématiques

CALCULATING THE TIME CHILDREN SPEND AT HOME vs. at SCHOOL FROM BIRTH TO AGE 18

- Assume children sleep 8 hrs/day.
- 24 hrs/day – 8 hrs sleeping = 16 waking hrs/day
- 365 days/yr X 18 years = 6 570 days
- 6 570 days X 16 waking hrs/day = 105 120 waking hours by age 18
- Average 6 hrs per day at school.
- Average 190 school days/year
- 190 school days/yr X 6 hrs/school day = 1 140 hrs per school year
- 1 140 hrs/school year X 13 school years (1 yr Kindergarten + 12 years through to end of secondary school) = 14 820 school hours
- 14 820 school hours ÷ 105 120 waking hours = 0.140981735159817 4 or just 14% of waking hours by age 18 spent in school

The Family Path

- "…half of the achievement we're responsible for as educators happens out there, so if we can do something out there to encourage more productive learning conditions, we can hit some home runs!" (K. Leithwood, 2012: Co-Producing Learning: The Family Path, video)

Parent involvement as a high-leverage student success strategy

- the support of parents as "…the single most important contributory factor to student achievement" and note that "in terms of raising student achievement, parents matter significantly"
- (Harris, Andrew-Power and Goodall (2009), p.2)

- the research over three decades is consistent and persuasive: student success is positively impacted by parent and family involvement regardless of background, socioeconomic status, or parents' level of education (Jeynes, 2005).

Parent involvement as a high-leverage student success strategy

- “parent programs that provide resources and assistance that parents may use with their children at home are more likely to have an effect on students’ academic progress” (Stelmack, 2013 p. 3)

Overview of today's presentation

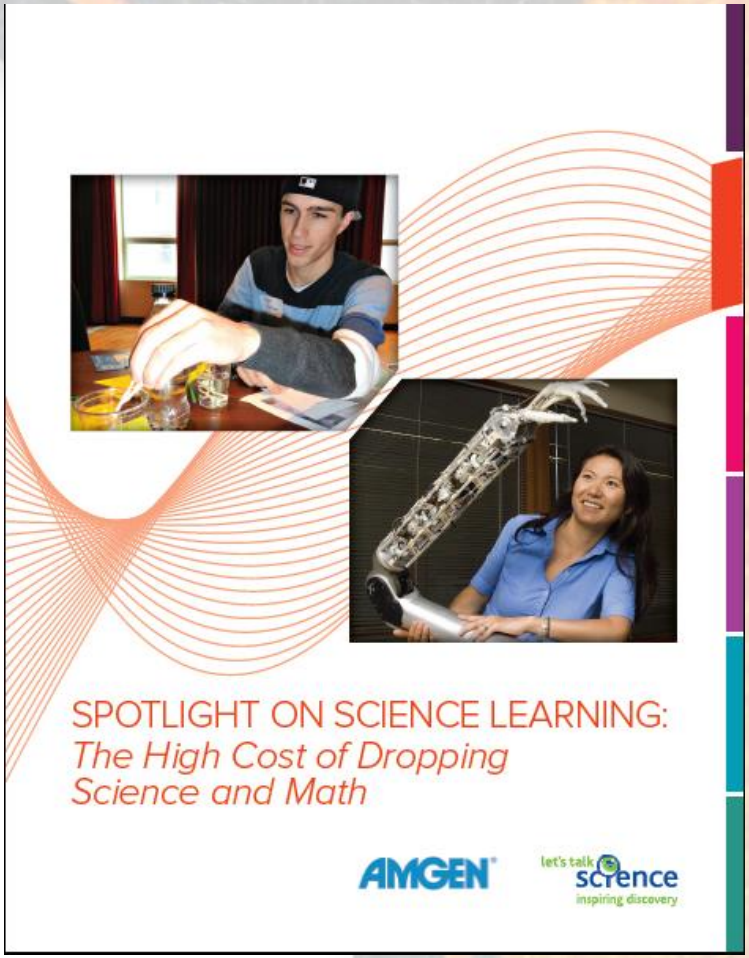
1. Council of Ontario Directors of Education
2. Responding to recent research
3. Development process
4. Choose a path that includes math
5. Questions and Discussion

Council of Ontario Directors of Education

Parent Engagement is Important to Student Success

CODE MATH TOOL-KITS

Responding to recent research



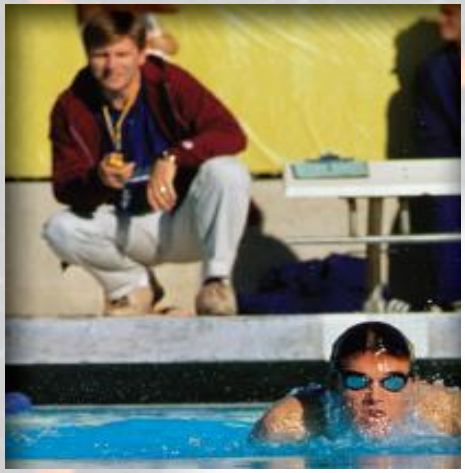
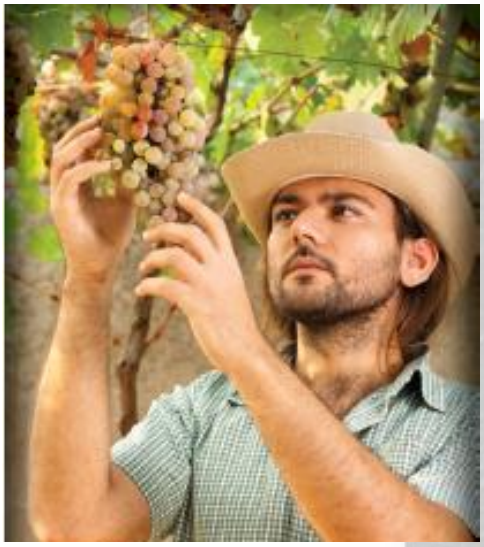
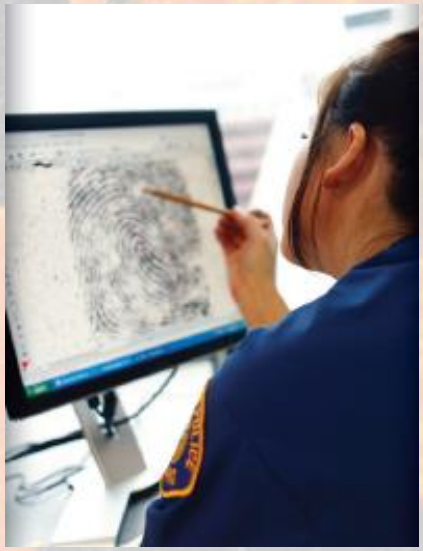
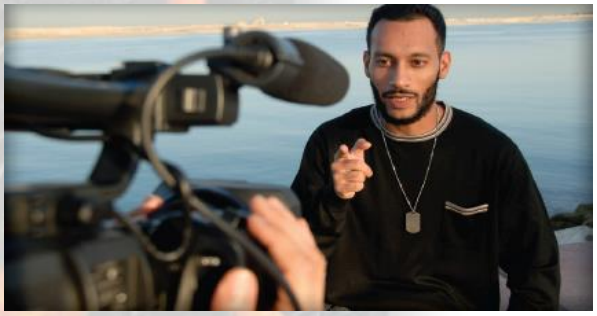
Less than 50 per cent – The average annual percentage of secondary school graduates, across a selection of provinces, completing Grade 11 and 12 level mathematics and science courses.

Spotlight on Science, 2012

Memorial University of Newfoundland requires ALL incoming students to have Grade 12 math and science credits. In general, students without Grade 12 math can expect to be excluded from 40 to 75 per cent of program areas and those without Grade 12 science can expect to be excluded from 30 to 65 per cent of programs at Canadian universities. Students without Grade 11 or 12 math can also expect to be excluded from half of community college programs[8].

Responding to recent research: Provide better roadmaps and clearer pathways throughout school to work.

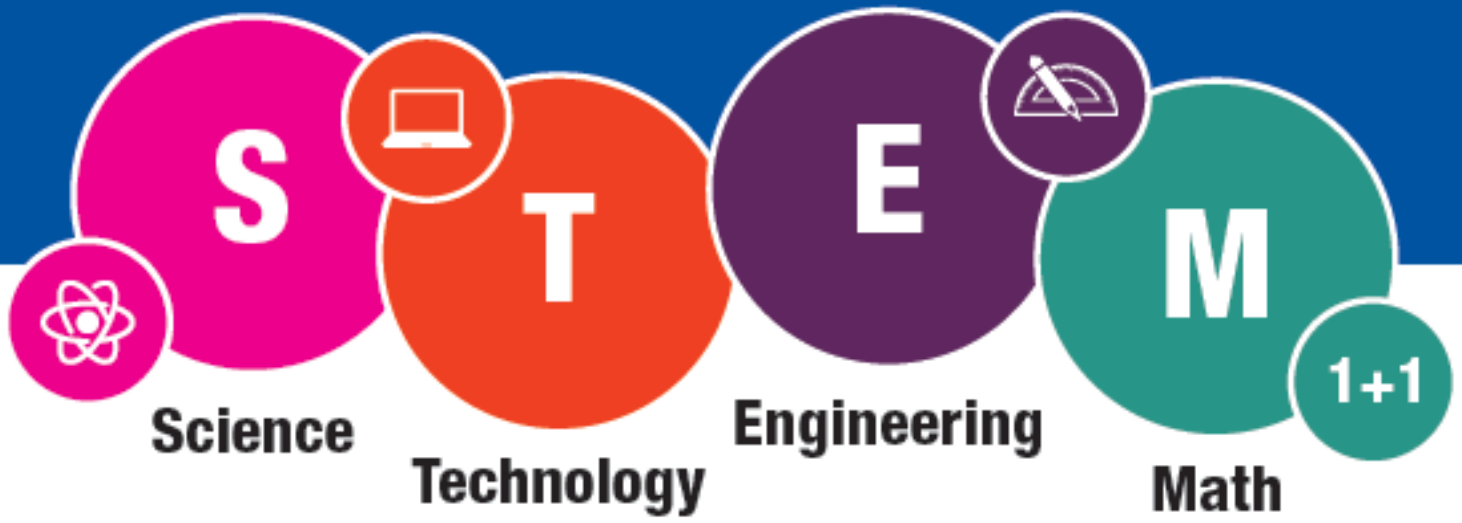


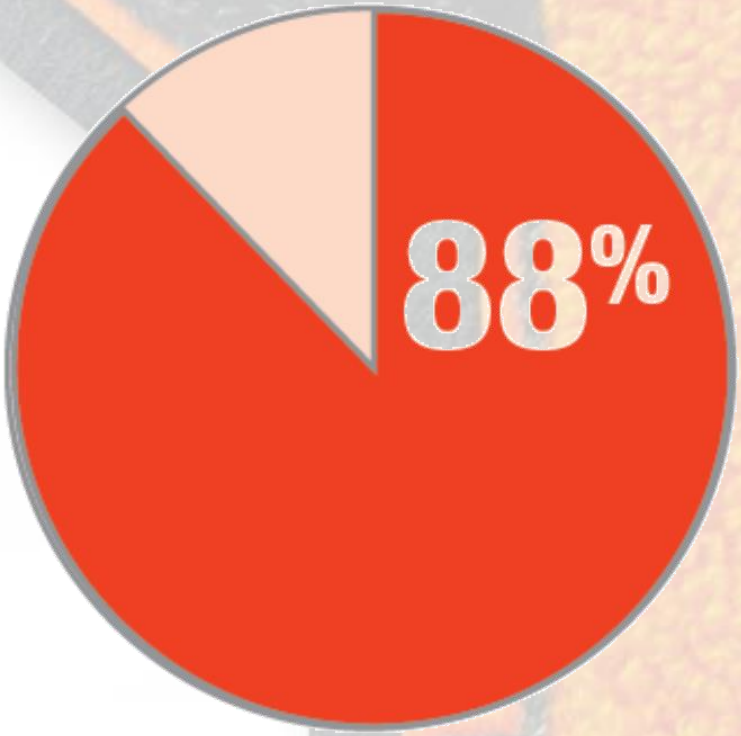

Responding to recent research

Responding to recent research

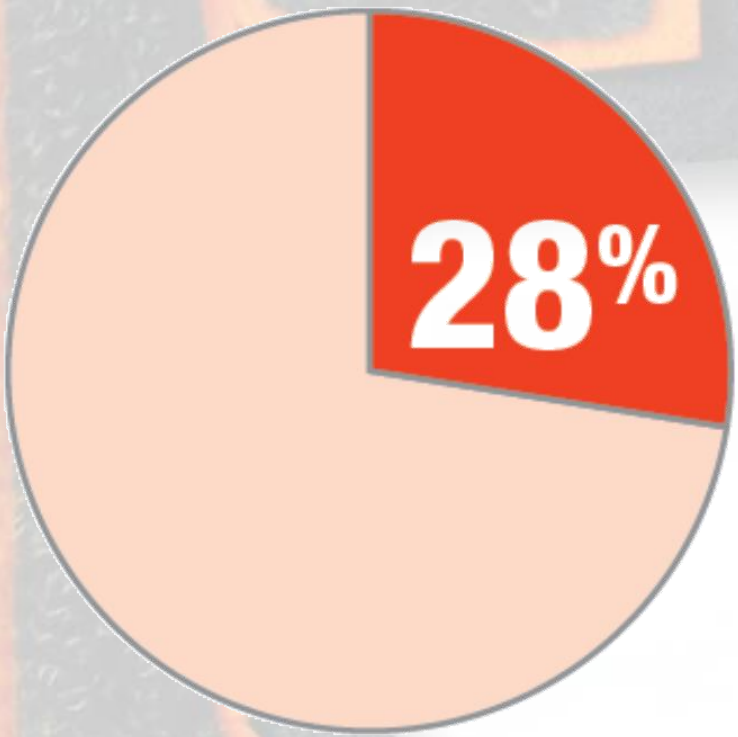
Parents are influential, but not having *the talk* with their kids



Responding to recent research

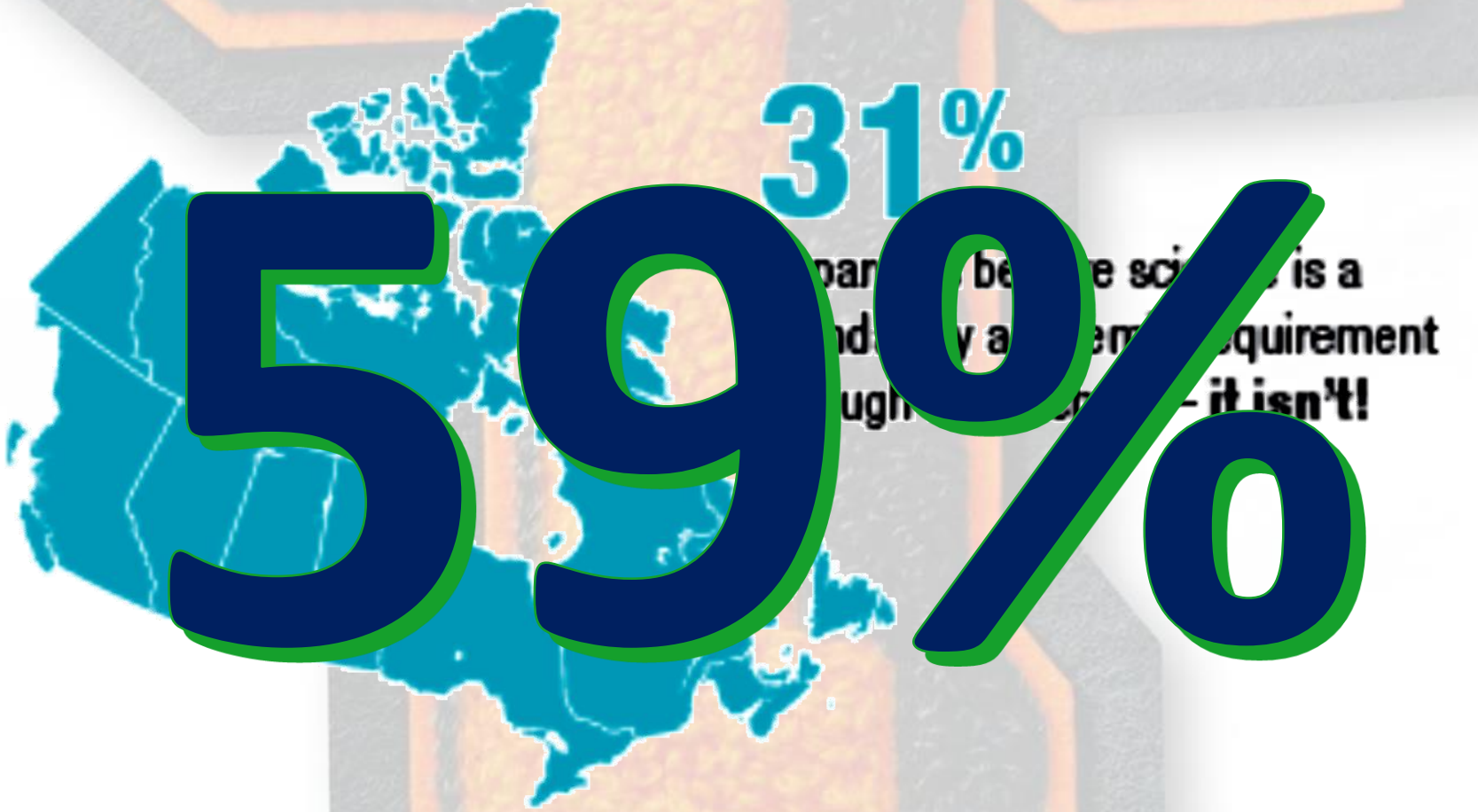


of Canadian parents believe that they can help guide their children's learning.



BUT only a small percentage of parents actually discuss the value of a STEM education with their children.

Responding to recent research



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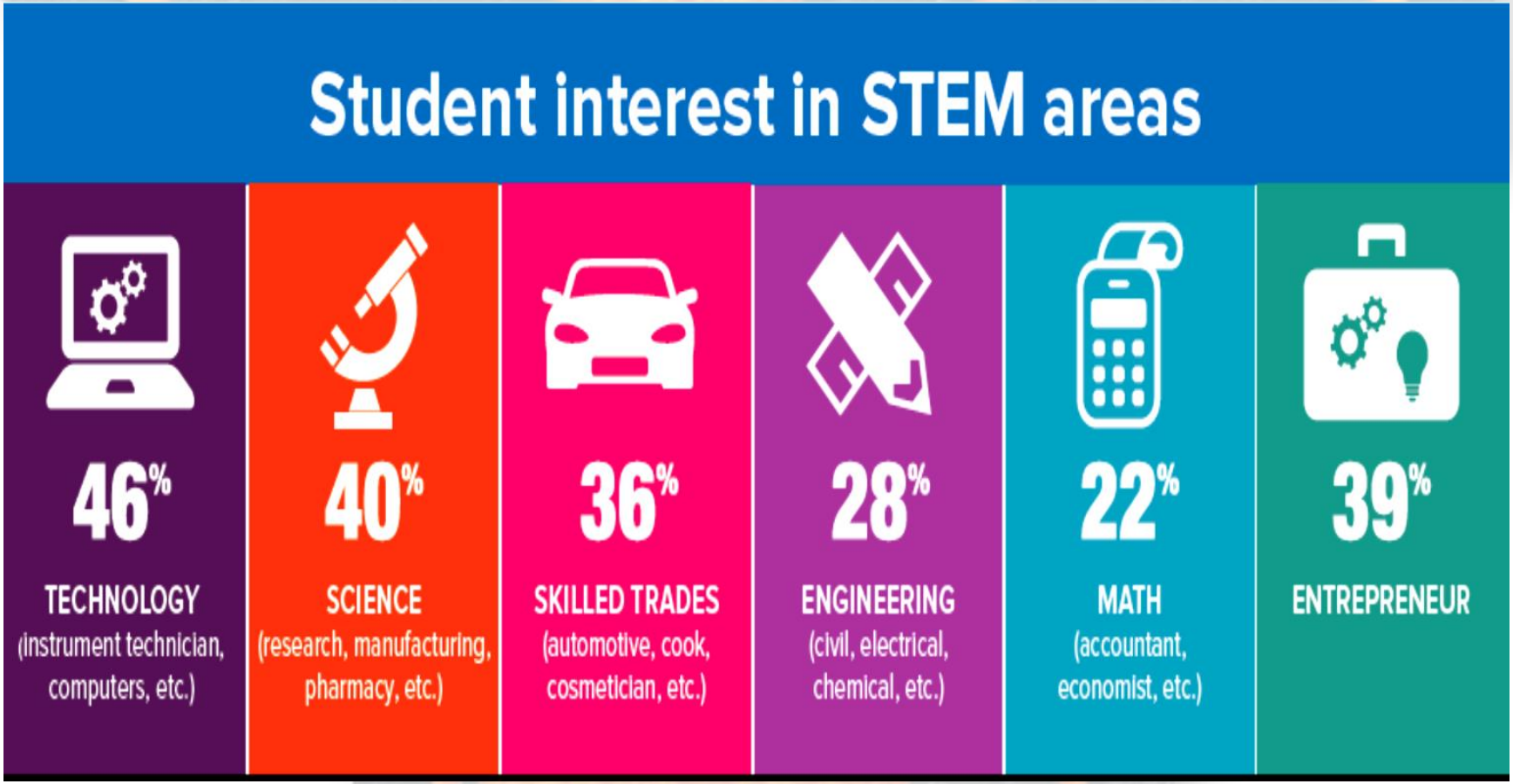

Development Process

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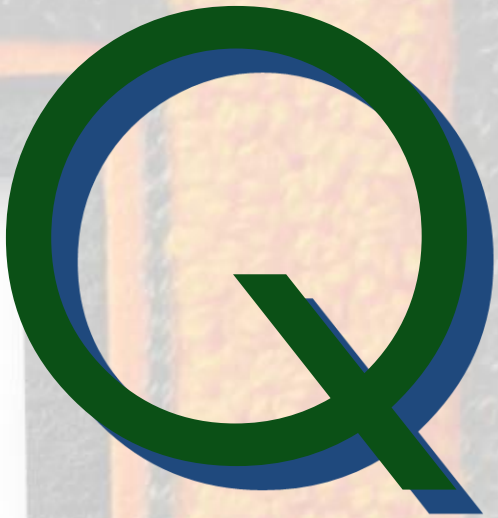
Choose a path that includes math



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References

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- Sheldon, S. & Espstein, J. (2005). Involvement counts: family and community partnerships and mathematics achievement. The Journal of education Research, 98(4), 196-206.