

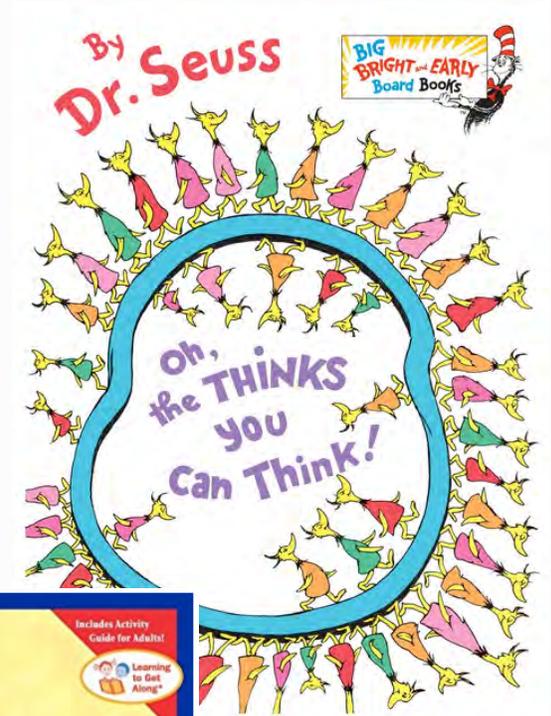
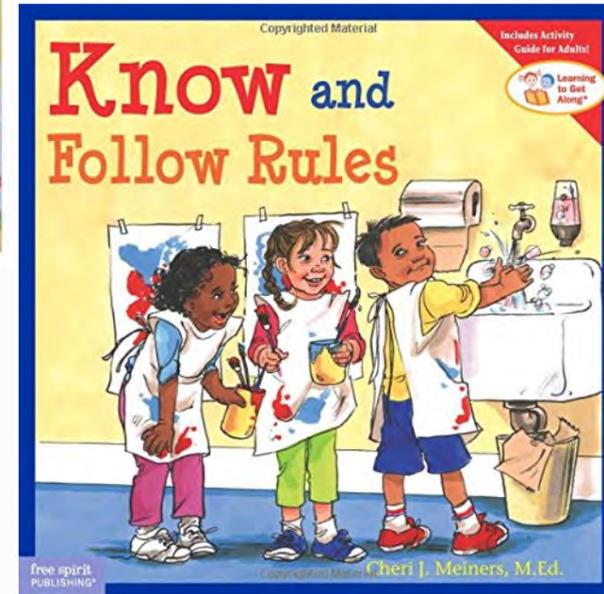
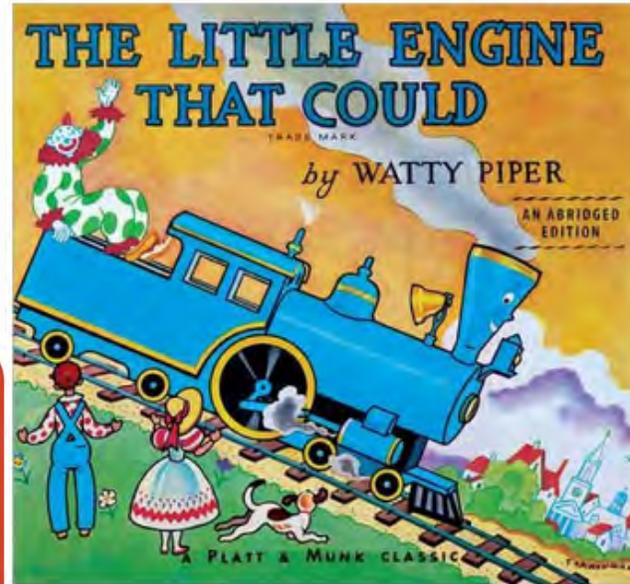
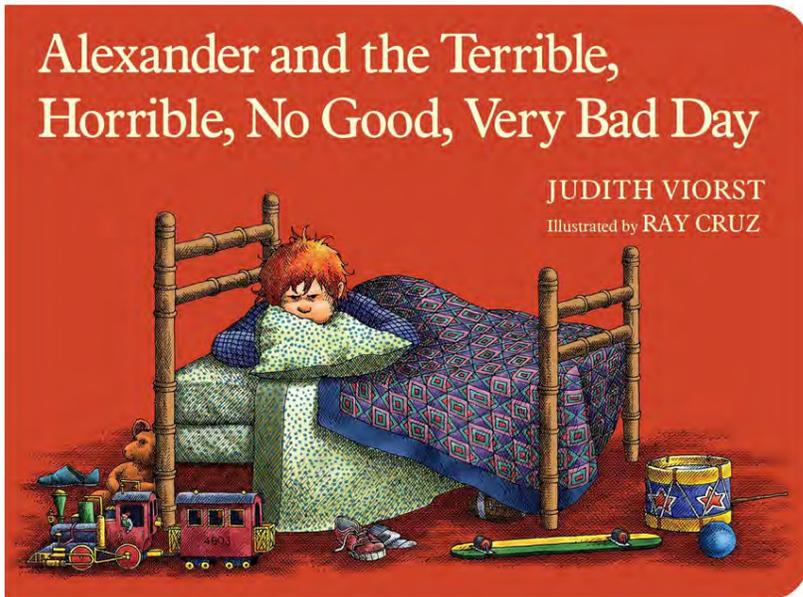
Community Math Night

April 2019



When you think about learning math, which book is most like you?

Why?



Agenda

- Welcome, introductions, and overview (15 minutes)
- Math attitudes and growth mindset (15 minutes)
- Math stations (1 hour and 15 minutes)
- Wrap-up and prizes (15 minutes)

Why math?

Math success opens doors to college and careers.

The technical and professional jobs of the future demand more mathematical knowledge and problem solving skills.



Children who believe they can be successful in math are more willing to put in effort, even when they struggle, and this results in better performance.ⁱ

Success in elementary school math predicts future achievement in middle and high school math and other subjects.^{ii, iii}

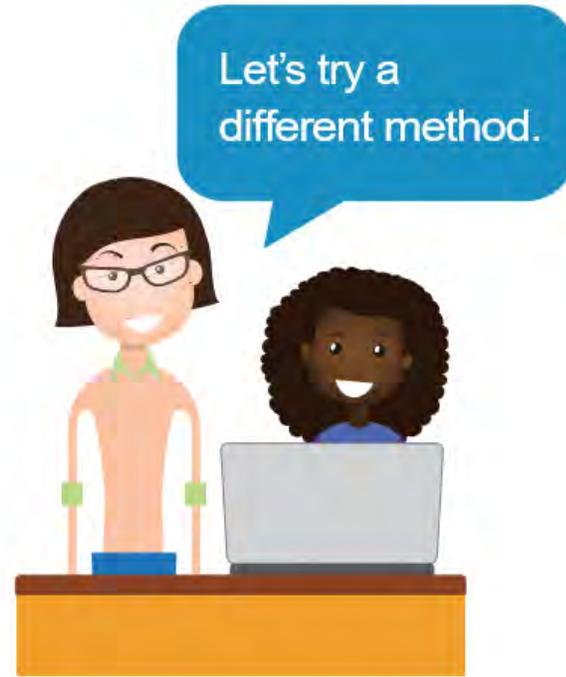
Students who complete higher level math in high school earn higher incomes in the future.^{iv}

The number of STEM (science, technology, engineering, and mathematics) jobs is growing and half of all STEM jobs are available to workers without a four-year college degree. STEM jobs pay 10% more than other jobs available to these workers.^v

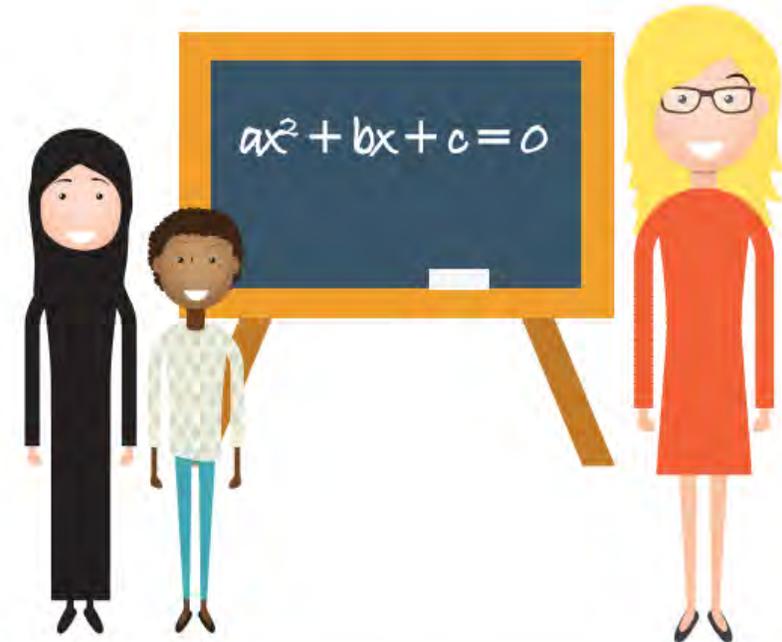
Families can support children in developing math skills for the future by^{iv}:



praising effort and modeling positive math attitudes.



encouraging children to seek help and try new strategies when they are stuck.



confronting stereotypes about who is good at math.

Math attitudes



**“Who is putting all the Math books
in the Horror section?”**

CartoonStock.com

Adult attitudes toward math can influence a child's math achievement

Multiple studies suggest that **adults' reactions** to a student's work **will impact the student's achievement and attitudes** toward the subject.

Students may feel you have **low expectations** for them, which **can lead to lower motivation and lower expectations** for their own success in math.

Math Attitudes Matter

Fixed mindset

The belief that a person is born with the intelligence they have and there is not much you can do to change it.

Growth mindset

The belief that a person can increase their intelligence through hard work and persistence. You can work your brain like your muscles.

Praise effort and learning

1. Not everyone is a math person; you're so good at other subjects.

2. Well done, you've worked really hard on that problem.



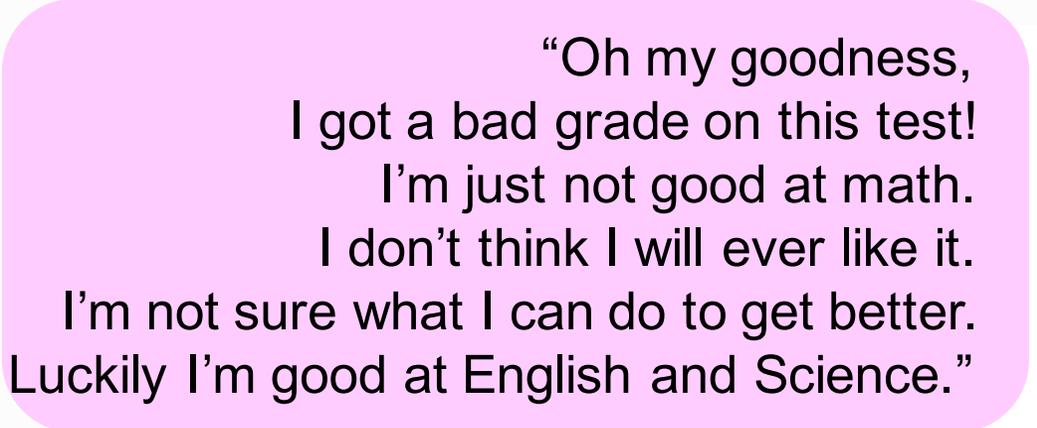
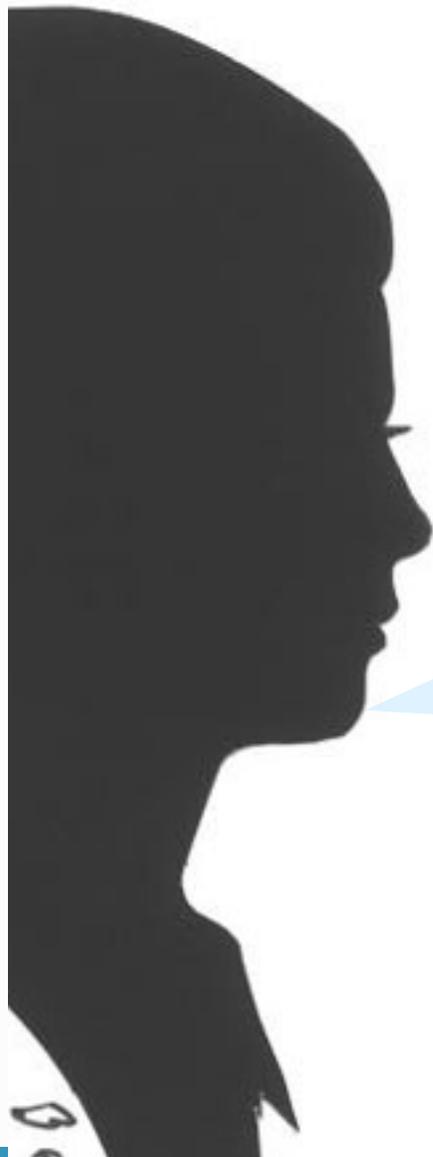
Praise effort and learning

1. You got a higher grade on this assignment. You must have worked really hard.

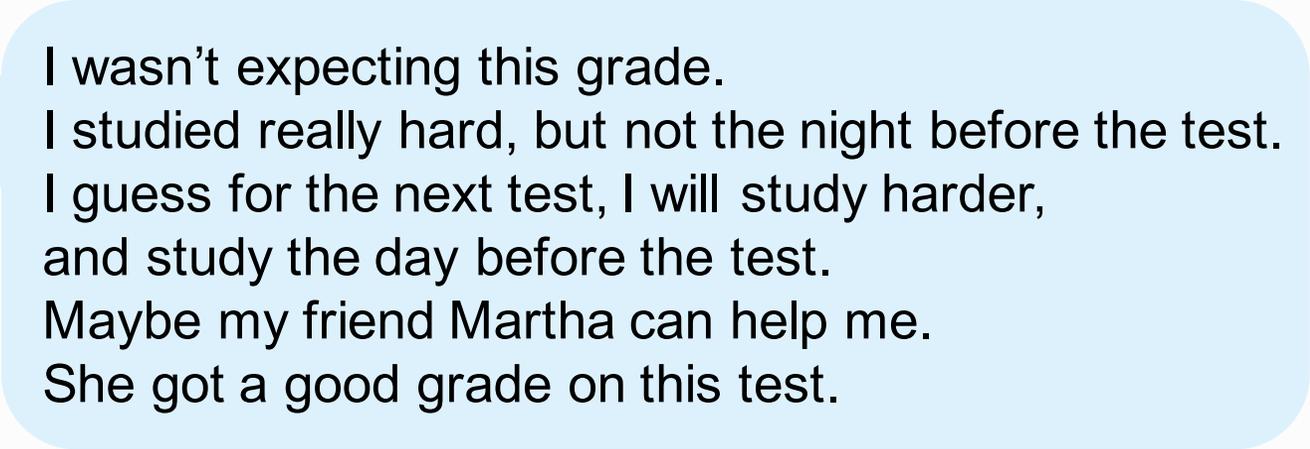


2. You got a higher grade on this assignment. You must be really smart.

Lisa's students



“Oh my goodness,
I got a bad grade on this test!
I’m just not good at math.
I don’t think I will ever like it.
I’m not sure what I can do to get better.
Luckily I’m good at English and Science.”



I wasn't expecting this grade.
I studied really hard, but not the night before the test.
I guess for the next test, I will study harder,
and study the day before the test.
Maybe my friend Martha can help me.
She got a good grade on this test.



Take-home message



Adult attitudes toward math can influence a child's math achievement.

Family and teacher feedback is **important** for math learning. **Changing your mindset and feedback** can help your children succeed at math.

Praise effort and learning

Math night station activities

Station 1:
Geometry

Station 4:
Numbers and
operations

Cafeteria

Station 2:
Algebraic
thinking

Station 3:
Base 10

Suggestions for the Stations

Let the children lead.



It's OK to go slowly.

It's OK to use fingers.



Show your thinking.

Make mistakes!



Have fun!

Station 1:
Geometry

Station 4:
Numbers and
operations

Cafeteria

Station 2:
Algebraic
thinking

Station 3:
Base 10

Wrap-up and raffle
