Think about something you are good at doing.

With a partner, discuss one or more of these questions:

- What is it that you are good at?
- How did you get to be good at this?
- What obstacles, if any, did you encounter?
- What did you do when you faced those obstacles?
- What has given you satisfaction about this endeavor?
The Perils and Promise of Praise
Carol S. Dweck

Fixed Mindset

- Do not recover well from setbacks
- Believe that intellectual ability is a fixed trait
- Seek tasks that prove their intelligence
- Reject opportunities to learn if they might make mistakes
- Are afraid of effort because effort makes them feel dumb
Intellectual ability can be developed through **effort** and education

Believe anyone can be good at anything because your abilities are entirely due to your actions/effort

Believe in themselves that they just haven’t gotten it “yet”

When faced with challenges, escalate efforts and look for new learning strategies

_The Perils and Promise of Praise_
Carol S. Dweck
What comes to mind when you think about this?
Imagine being asked to learn something new and challenging...

Would you be afraid of failing?

Would you want to avoid it?

Would you feel discouraged if you didn’t succeed quickly and think about quitting?

Would you worry that others might think you are not smart or capable?
Would you work hard to learn information to help you conquer the challenge?

Would you take risks and try out new ways of doing things?

Would you use self-motivating statements such as ‘the harder it gets the harder I try’?

Would you adjust your goals and set new goals?
The Power of Yet

Why is this so powerful?
Failure Adults MUST Care about the Process

Hard work

Guidance to learn from a mistake is critical

Struggle

Supports are varied but required

Resilience is built through this journey

Psychology Today Blog
Put yourself in your child’s head
What feelings are you hearing your child express about mathematics?
If your Child has a:

• **Fixed Mindset**-
  They feel defeated and overwhelmed because they are struggling and they don’t know how to struggle.

  They don’t know how to learn math because it “came so easily” when they were younger.

• **Growth Mindset**-
  They are struggling with the concepts and their achievement but are not defeated. They want to get help and they are open to having to work hard at math.

  They want help in the form of how to understand the math—not how to get out of the class.
Understanding progression

Child easily understands concepts
Process memorization more than concept understanding
Fog

Achievement progression

Child has only known success in mathematics
Grades continue to suggest success
Current grades are not consistent with prior achievement
Mathematics understanding is highly correlated to the developmental stage of the student.
Algebra goes way beyond solving for X

Students need to be able to answer WHY?
Readiness for Algebra

• A big fat misconception that exists is:
  – Smart kids go to algebra in 7th grade
  – Please do not confuse readiness with being smart

Mathematical maturity is not social maturity
So what happens if a student is enrolled in Algebra too early?

- Lots of memorization – “when you see this, do this”
- Default is to learn a process, not a concept
- Probably will leave without enduring understandings
- Differences in middle school vs. high school
  - Team mentality, grading policies
Understanding progression

Child easily understands concepts

Process memorization more than concept understanding

Fog

Achievement progression

Child has only known success in mathematics

Grades continue to suggest success

Current grades are not consistent with prior achievement
The Good News: Mindset can be changed.

“People are made, not born”
-- Carol Dweck
Now what??

Communicate with your child:
- They have to believe in themselves—do they?
- You have to believe in them that they can work hard—and it will be hard
  - Support them with the correct types of praise
  - Help them set priorities to maintain work/life balance (schoolwork, extracurriculars, family responsibility)
- Leverage resources that exist at school or privately
Model a Growth Mindset

- Regularly talk about things you have learned or challenges you have faced from childhood to adulthood.
- Reframe failures to setbacks and criticism to feedback.
- Emphasize effort/process rather than achievement/outcome.
What to Praise

- Effort
- Struggle
- Applying strategies
- Taking risks
- Improvement
- Persistence in the face of setbacks
How might these comments reinforce a growth mindset?

“You worked really hard on _______. I like how you take on a challenge.”

“I admire that you kept trying even when it got difficult!”

“I know that ________ seems difficult, but you are growing your brain each time you practice.”
How parents can reinforce a growth mindset

- Work with your child to identify strategies for improvement.
- Involve your child in the problem-solving process.
- If your child identifies an area of weakness or is struggling, help him/her establish a concrete plan for improvement.
- Follow up with your child, and help him/her evaluate the process and refine the solution if necessary.
Summary

Kids are capable of succeeding in higher level mathematics.

They will need to work hard.

Your mindset and their mindset are critical to their success.

Growth and failure are part of life. They give you opportunities to learn and to change.
Resources


Carol Dweck videos:  
- [https://www.youtube.com/watch?v=kXhbtCcmsyQ](https://www.youtube.com/watch?v=kXhbtCcmsyQ)  
- [https://www.youtube.com/watch?v=NWv1VdDeoRY](https://www.youtube.com/watch?v=NWv1VdDeoRY)

The Power of Belief - Mindset and Success: Eduardo Briceno at TEDxManhattanBeach  
[http://www.youtube.com/watch?feature=player_embedded&v=pN34FNbOKXc](http://www.youtube.com/watch?feature=player_embedded&v=pN34FNbOKXc)