HALTON CATHOLIC DISTRICT SCHOOL BOARD CDSB

Engaging Your Adolescent Learner in Math

Grades 7-8

What Does Math Class Look Like Today?

If you peeked inside your child's math class, you might notice students:

- Working on their own, in pairs, in small groups, independently, and with teacher direction.
- Engaged in a wide variety of tasks and math practicing skills, solving problems about real-life situations, and applying math concepts.
- Using a variety of tools, such as paper and pencil, chart paper, markers, and digital devices to demonstrate, write and record their math thinking.
- Talking about connections they have made personally or exploring new math concepts and skills.
- Sharing their strategies for solving a problem.

Why Is Math Different Now? – By Dr. Raj Shah

The Importance of Talk

Talk is fundamental to both knowing and learning mathematics. Students need opportunities in small-group and whole-class settings to discuss their thinking, questions, and arguments.

Group work also provides students with a learning environment that encourages more discussion versus a teacher-led lesson only. Students should have regular opportunities to collaboratively work on and talk about problem-solving with their peers.

Number Talks

Number talks provide students with a different perspective on mathematics, and helps them understand critical numerical relationships. Talks also foster classrooms in which students feel encouraged to share their thinking, and discussions help to strengthen listening skills in the classroom.

Number talk video – By Jo Boaler

Fostering a Collaborative Environment that Encourages Risk Taking

Research indicates that a "growth mindset" plays a large factor in student success in mathematics. When students embrace challenge rather than shy away for fear of failure, their mathematical performance improves.

How can you support the development of a growth mindset in your child?

- Growth Mindsets
- Mindsets and Mistakes
- With Math I Can video

Fact Fluency: Why is my child learning different ways and using different strategies to 'do' mathematics?

Listed below are a few helpful articles that explain a series of math strategies that were developed to help children learn math. Children benefit from learning number facts through these practices rather than focusing solely on memorization:

- Fluency without Fear
- From Direct Modelling to Proficiency

At-Home Support (Grades 7-8)

Homework and parental involvement can positively impact student learning and their behaviour towards math, particularly in elementary school.

Here are some helpful resources to support your child with math at home:

- Partnering With Your Teen
- Success Maker
- Gap Closing ePractice
- Youcubed
- Encouraging Math Learning at Home (OECTA Resource)
- Tap Into Teen Minds
- Homework Help: Free Online Supports
- Inspiring Your Child to Love and Learn Math: Countless Opportunities (Intermediate)
- Online Manipulatives to Support Learning
- Math Is Visual