

## Loving the Math, Living the Math

### VIEWING SEGMENTS

(Student clips on DVD 3, which link to certain segments, are in italics after the titles)

#### DVD 1

##### Introduction (5:00)

##### Loving the Math: Conditions for Creating A Math Learning Culture

- Attitudes About Mathematics (2:52) *Grade 8: Group A*
- Growth Mindsets (5:11) *Grade 8: Group B*
- Student and Teacher Efficacy (4:48) *Grade 8: Group C*
- Engaging Students in Mathematics (3:00) *Grade 8: Group D*
- Creating a Collaborative Culture (3:48) *Grade 7: Group J*
- Developing and Taking an Inquiry Stance (6:08) *Grade 7: Group F*

##### Living the Math: Features of Matthew's Mathematics Program

- The Three-Part Lesson
  - An Overview (5:24)
  - Activating Student Thinking (3:47) *Grade 8: Group G*
  - Selecting Engaging Problems
    - Different Directions (3:57) *Grade 7: Group M*
    - A Variety of Solutions (2:20) *Grade 7: Group I*
    - Contextual and Non-contextual Problems (2:44)
  - Consolidating the Mathematical Thinking
    - Finishing the Thinking and Planning for Consolidation (3:06)
    - Consolidating the Important Ideas (5:13)
  - Flexibility: The Three Parts of a Lesson Blur (2:03)
- The Importance of Practice (4:43)
- A Mini Lesson: Making the Mathematics Explicit (8:17)
- Exploring Mathematics through Wondering (6:56)
- Exploring Mathematics through Investigations (7:28)
- Puzzles and Games (4:18)
- Assessment
  - Assessment for Learning (6:04) *Grade 7: Group N*
  - Assessment and Technology (2:01)
  - Assessing Mathematical Thinking through Observations and Conversations (4:45) *Grade 8: Group E*
- Reflective Thoughts (2:02)

#### DVD 2

##### Understanding the Mathematics

- The Curriculum
  - Understanding the Mathematics (4:36)
  - Understanding Developmental Growth in Curriculum Expectations (4:52)
- The Strands (2:05)
- Manipulatives and Multiple Representations (3:32)
- Estimating and Making Sense of Numbers (5:11) *Grade 7: Group K*
- Computational Fluency (6:32)
- Questioning in the Moment (1:24)
- Questioning in the Moment: Glimpses of Grade 8 Students Solving the Movie Theatre Problem (12:40)
- The Development of Proportional Reasoning
  - Proportional Reasoning in the Primary and Junior Grades (3:05)
  - Proportional Reasoning in Grade 6 (6:30)
  - Proportional Reasoning in Grade 7 (7:58) *Grade 7: Group L*
  - Proportional Reasoning in Grade 8 *Grade 8: Group H*

- Proportional Reasoning in Grade 8 *Grade 8: Group H*
  - Analyzing Student Thinking (6:20)
  - Overall Assessment and Next Steps: For the Unit and High School (4:48)

**The Role of Technology**

- The Value of Technology – Twitter as a Vehicle for Professional Learning (4:42)
- The Value of Technology – Twitter for Activating Student Thinking (2:19)
- Grade 6 Problem Solving with Technology (3:46)
- Technology in the Mathematics Classroom
  - Technology for Discovering New Frontiers (4:28)
  - Enhancing Problem Solving with Technology (4:40)
    - Glimpses of Students Incorporating Technology (12:24)
  - Technology and Collaboration (1:33)
  - The Benefits of Technology: Infused Learning (4:10)
  - The Challenges of Technology (1:53)

**DVD 3**

**Student Clips**

Student Group	Links to
Grade 8: Group A (13:06)	Attitudes in Mathematics
Grade 8: Group B (7:33)	Growth Mindsets
Grade 8: Group C (7:24)	Student and Teacher Efficacy
Grade 8: Group D (9:21)	Engaging Students in Mathematics
Grade 8: Group E (9:38)	Assessing Mathematical Thinking through Observations and Conversations
Grade 8: Group F (10:23)	Developing and Taking an Inquiry Stance
Grade 8: Group G (8:36)	Activating Student Thinking
Grade 8: Group H (6:07)	Proportional Reasoning in Grade 8
Grade 7: Group I (6:02)	Selecting Engaging Problems: A Variety of Solutions
Grade 7: Group J (11:57)	Creating a Collaborative Culture
Grade 7: Group K (5:04)	Estimating and Making Sense of Numbers
Grade 7: Group L (10:29)	Proportional Reasoning in Grade 7
Grade 7: Group M (8:33)	Selecting Engaging Problems: Different Directions
Grade 7: Group N (3:53)	Assessment for Learning