

Use this chart to keep track of your progress through the *Patterns, Functions, and Algebra* online course.

### Session 1: Algebraic Thinking

- Part A: A Framework for Algebraic Thinking
- Part B: Reasoning About Situations
- Part C: Qualitative Graphs
- Homework

### Session 2: Patterns in Context

- Part A: What Do You See?
- Part B: Patterns in Situations
- Part C: Different Uses of Variables
- Part D: Counting Stairs
- Part E: Summing Up
- Homework

### Session 3: Functions and Algorithms

- Part A: Doing and Undoing
- Part B: Undoing Algorithms
- Part C: Function Machines
- Part D: Number Games
- Part E: Other Kinds of Functions
- Homework

### Session 4: Proportional Reasoning

- Part A: Two Different Meanings of "More"
- Part B: The Mixture Blues
- Part C: Quadperson
- Part D: Speeds, Rates, Steepness, and Lines
- Homework

### Session 5: Linear Functions and Slope

- Part A: Linear Relationships in Patterns
- Part B: Slope
- Part C: Rates
- Part D: Putting It Together
- Part E: Thinking About Technology
- Homework

### Session 6: Solving Equations

- Part A: Equality and Balance
- Part B: False Position and Backtracking
- Part C: Bags, Blocks, and Balance
- Homework

### Session 7: Nonlinear Functions

- Part A: Exploring Exponential Functions
- Part B: Exponential Growth
- Part C: Figurate Numbers
- Part D: Quadratic Functions
- Homework

### Session 8: More Nonlinear Functions

- Part A: Cyclic Functions
- Part B: Inverse Proportions
- Part C: Different Functions
- Homework

### Session 9: Algebraic Structure

- Part A: Comparing Operations
- Part B: Guess My Rule
- Part C: Algebraic Structures
- Part D: Working with Algebraic Structures
- Part E: Summing Up
- Homework

### Session 10: Classroom Case Studies

#### Grades K-2:

- Part A: Classroom Video
- Part B: Developing Algebraic Thinking
- Part C: More Problems
- Part D: Critiquing Student Lessons
- Homework

#### Grades 3-5:

- Part A: Classroom Video
- Part B: Developing Algebraic Thinking
- Part C: Algebraic Patterns
- Part D: More Problems
- Part E: Critiquing Student Lessons
- Homework

#### Grades 6-8:

- Part A: Classroom Video
- Part B: Developing Algebraic Thinking
- Part C: Algebraic Patterns
- Part D: More Problems
- Part E: Critiquing Student Lessons
- Homework