

Teacher Support

With more classes to teach and less preparation time, manageable, time-saving teacher support is essential. How does *Nelson Mathematics 11* support teachers in delivering the program?

Timing and Planning Charts

Time constraints are an important consideration for teachers, especially when introducing new curriculum or teaching a course for the first time. *Nelson Mathematics 11* offers the following support in the Teacher's Resource:

- A summative chart is provided in the Teacher's Resource that offers suggested teaching times for the different courses.
- **Chapter Overview Charts** assist with planning by providing suggested teaching times for both courses, materials/technology required, and curriculum expectations addressed within each section.

Suggested Teaching Times

The teaching notes for each chapter provide approximate timing suggestion for each section: the number of periods is based on the maximum estimated time.

Chapter or Component	Estimated Time
Review of Essential Skills and Knowledge – Part I	
Chapter 1: Patterns of Growth: Sequences	
Chapter 2: Series and Financial Applications	
Cumulative Review Test 1	
(Financial Applications of Sequences and Series)	
Performance Tasks for Chapters 1 and 2	
(Financial Applications of Sequences and Series)	
Review of Essential Skills and Knowledge – Part II	
Chapter 3: Introducing Functions	
Chapter 4: Quadratic Functions and Rational Expressions	
Cumulative Review Test 2 (Functions)	
Performance Tasks for Chapters 3 and 4 (Functions)	
Review of Essential Skills and Knowledge – Part III	
Chapter 5: Modelling Periodic Functions	
Chapter 6: Extending Skills With Trigonometry	
Cumulative Review Test 3 (Trigonometric Functions)	
Performance Tasks for Chapters 5 and 6 (Trigonometric Functions)	
Review of Essential Skills and Knowledge – Part IV	
Chapter 7: Investigating Loci and Conics	
Performance Tasks for Chapter 7 (Loci and Conics)	
Cumulative Review Test 4 (Year End)	

**Functions and Relations
MCR3U**

Chapter 1: Patterns of Growth: Sequences

Chapter Overview Chart				
SUGGESTED TIMING: Functions and Relations:				
Section	Functions:			
	Timing (min)	Functions and Relations	Functions	Materials / Technology
				Expectations
1.1 Exploring Patterns and Sequences	45-50	45-50	coins SC GSP	FA1.01 FA1.02 FA1.04
1.2 Technology: TI-83+: Generating the Terms of a Sequence	15-20	15-20	GC	FA1.01
1.3 Sequences and Recursive Formulas	50-60	NA	GC SS Reference material on Fibonacci and auto depreciation	FA1.01 FA1.02 OC3.01 OC3.02 OC3.03 OC3.04
1.4 Technology: TI83+: Graphing Sequences	15-40	15-40	GC	FA1.01 OC3.05
1.5 Exploration: Investigating Ways of Cutting Vegetables	10-15	10-15	scissors and paper	FA1.01
1.6 Arithmetic Sequences	30-40	50-60		FA1.03 FA1.04 FA2.04
1.7 Geometric Sequences	50-60	60-70	GP GC	FA1.01 FA1.02 FA1.03 FA1.04
1.8 Compound Interest: Amount and Present Value	60	90-100	SS GC	FA2.01 FA2.02 FA2.03 FA2.05 OC3.01 OC3.02 OC3.03 OC3.04
1.9 Rational Exponents	30	45	SC	OC1.08
1.10 Skill Builder: Simplifying Expressions Involving Exponents	30	40		OC1.08
1.11 Solving Exponential Equations	60-75	90-100	GC GP	FA2.02 FA2.03 OC1.09

BLM - Blackline Masters
CBRL - Calculator Based Ranger/Laboratory
GSP - The Geometer's Sketchpad

GP - Graph Paper
GS - Graphing Software
GC - Graphing Calculator

SC - Scientific Calculator
SS - Spreadsheet Software

Chapter Introduction
Check Your Understanding and Answers
Chapter 1 Test, Solutions, and Scoring Guide
The Chapter Problem: Questions and Solutions
Challenge 1: Solution Guide and Rubric
Challenge 2: Solution Guide and Rubric

Flexible Course Sequencing Choices

The modular organization of *Nelson Mathematics 11* allows teachers flexibility in sequencing the course according to personal preferences and school resources. For example, in schools where access to technology is limited, it is possible to have some classes use the computers or calculators for the sequences and series chapters while other classes work on the functions chapters. The following should be taken into consideration when re-sequencing the chapters:

- The sequences and series chapters are independent of the other chapters in the text and are not required as prerequisites for any of the other chapters. They should be presented in order, but may be used at any point during a semester or school year.

- Chapter 3 introduces functions and function notation and should be completed before working on Chapters 4 through 7.
- The conics work in Chapter 7 may be interwoven throughout the course or may be taught as a single unit. It may be approached as a teacher-led unit, as an independent study units or as a blend of both.
- Chapter 4 may be presented at any time after Chapter 3 is completed.
- As long as Chapter 5 is completed first, Chapter 5 and Chapter 6 need not be taught one after the other.