Unit 1: Sequences and Series

- **Standard Addressed:**
  - Review of Elementary Algebra Standard
    - EA 3.7 Carry out a procedure to solve literal equations for a specified variable.
  - IA-6.1 Categorize a sequence as arithmetic, geometric, or neither.
  - IA-6.2 Carry out a procedure to write a specified term of an arithmetic or geometric sequence when given the nth term of the sequence.
  - IA-6.3 Carry out a procedure to write a formula for the nth term of an arithmetic or geometric sequence when given at least four consecutive terms of the sequence.
  - IA-6.4 Carry out a procedure to write a formula for the nth term of an arithmetic or geometric sequence when given at least four terms of the sequence.
  - IA-6.5 Represent an arithmetic or geometric series by using sigma notation.
  - IA-6.6 Carry out a procedure to calculate the sum of an arithmetic or geometric series written in sigma notation.
  - IA-6.7 Carry out a procedure to determine consecutive terms of a sequence that is defined recursively.
  - IA-6.8 Carry out a procedure to define a sequence recursively when given four or more consecutive terms of the sequence.
  - IA-6.9 Translate between the explicit form and the recursive form of sequences.

- **Subtopics:** ( ) denotes sections in “Glencoe Algebra 2” textbook
  - Solving literal equations *(prerequisite)*
  - Arithmetic sequences (11.1)
  - Arithmetic series (11.2)
  - Geometric sequences (11.3)
  - Geometric series (11.4)
  - Sequences in explicit and recursive form (11.6, Prentice Hall)

- **Supplementary Material/Textbook pages:**
  - Agile Minds
  - Algebra with Pizzazz
  - Access
  - Prentice Hall

- **Activities/Resources:**

  **Textbook Based Unit Practice**
  *refer to the Lesson or Chapter resources for sections 11.1, 11.2, 11.3, 11.4, 11.6*

  **Sequences**

  **Sigma Notation and Series**
  [http://www.regentsprep.org/Regents/math/algtrig/ATP1b/indexATP1b.htm](http://www.regentsprep.org/Regents/math/algtrig/ATP1b/indexATP1b.htm)
Arithmetic and Geometric Sequences and Series
http://www.regentsprep.org/Regents/math/algtrig(ATP2/indexATP2.htm

Recursive

Finding the Next Term in the Sequence
http://www.purplemath.com/modules/nextnumb.htm