

**Richmond Public Schools**  
**Department of Curriculum and Instruction**  
**Curriculum Pacing and Resource Guide – Unit Plan**



**Course Title/ Course #: Math Grade 7**

**Unit Title/ Marking Period # (MP): 2**

**Start day:**

**Meetings (Length of Unit): 7 days**

<b><i>Desired Results ~ What will students be learning?</i></b>
<b><u>Standards of Learning/ Standards</u></b>
<b>SOL 7.2</b> The student will describe and represent arithmetic and geometric sequences using variable expressions.
<b><u>Essential Understandings/ Big Ideas</u></b>
When are variable expressions used? <b>Variable expressions can express the relationship between two consecutive terms in a sequence.</b>
<b><u>Key Essential Skills and Knowledge</u></b>
<ul style="list-style-type: none"><li>• Analyze arithmetic and geometric sequences to discover a variety of patterns.</li><li>• Identify the common difference in an arithmetic sequence.</li><li>• Identify the common ratio in a geometric sequence.</li><li>• Given an arithmetic or geometric sequence, write a variable expression to describe the relationship between two consecutive terms in the sequence.</li></ul>

<b><u>Vocabulary</u></b>	
<b><u>Academic Vocabulary</u></b>	<b><u>Content Vocabulary</u></b>
Expression Sequence Arithmetic Geometric Common Ratio Common Difference Ratio	Simplify Model Illustrate Identify Evaluate
<b><i>Assessment Evidence ~ What is evidence of mastery? What did the students master &amp; what are they missing?</i></b>	
<b><u>Assessment/ Evidence</u></b>	
Interactive Achievement –5 – 10 questions	
<b><i>Learning Plan ~ What are the strategies and activities you plan to use?</i></b>	
<b><u>Learning Experiences/ Best Practice</u></b>	
<b>Teacher Resources:</b> <ul style="list-style-type: none"> <li>• Use Frayer Model and/or Marzano for new vocabulary terms</li> <li>• Task Cards to review concepts when students are finished working on an activity</li> <li>• Given a common ratio or difference, have students create a sequence.</li> </ul>	

**Interactive Student Video:**

- [Finding the Common Difference](#)
- [What is an Arithmetic Sequence](#)
- [What is the Common Difference](#)

**Technology Integrations**

**Resources**

**Text:**

**Virginia Math Connects, Course 2**, ©2012, Price, et al, McGraw-Hill School Education Group 1:  
*Sequences, page(s) 44- 50; Geometric Sequences, page(s) 821-822*  
**Virginia, SOL Coach, New Gold Edition, Mathematics, Grade 7,**  
*Arithmetic and Geometric Sequences, page(s) 43-49*

**Virginia Department of Education Lesson Plan(s):**  
[Arithmetic and Geometric Sequence](#)  
[Round Robin](#)

**Cross Curricular Connection**

**Materials**

**Manipulatives**

**Technology Resources**

LCD Projector  
Speakers  
Computer w/Internet Connection and SmartBoard  
Software  
SmartBoard  
Computer Cart

**Student Supplies**

Whiteboards/Markers  
Frayer Model/ Marzano  
Interactive Student Notes

