TOPIC 6: Exponents and Exponential Functions

Higher Order Questions:	Vocabulary:	Skills Previously Taught:
1. How can you identify and apply the appropriate property to simplify exponent expressions? 2. Explain the connection between radicals and exponents. 3. How can you write an exponential equation to represent a real-world situation? 4. Why will an exponential decay situation never equal zero? 5. How do you apply the geometric sequence to find a term in the sequence?	exponents, growth, decay, geometric sequence, common ratio, exponential functions, constant ratio, growth or decay factor, asymptote, rational exponent, radical	• Properties of Exponents • Solve and create linear equations • Graph coordinate pairs • Graph linear equations • Identify functions and write them in function notation • Perform transformations

Day	Date	Section	Topic	Notes/Enrichment
	A: 1/7 B: 1/8	6.0	Properties of Exponents (supplement)	Video Links: Exponent Rules Properties of Exponents Example Delta Math 6-0 Properties of Exponents (basic exponent rules, negative/zero exponents, exponential rules level 1) No Computer – Assign 6-0 Properties of Exponents WS
	A: 1/11 B: 1/12	6.0/6.1	Properties of Exponents (supplement) & Rational Expressions	Video Links: What are rational exponents? Properties of Rational Exponents Delta Math 6-1 Fractional Exponents & Rational Form (exponential and radical form, simplify fractional exponents type 1) From Workbook: pg. 222-224 #'s 7-12, 27-30
	B: 1/13 A: 1/14	6.2	Exponential Functions	Quiz – Exponent Rules – Delta Math (A day only) Video Links: Asymptotes of rational functions Graph an Exponential Function 6.2 MathXL Practice and Problem Solving: Assign #'s 15, 17, 20, 21, 24, 25, 27, 30 From Workbook: pg. 230-234 #'s 5-8, 15-16, 24-25, 29-30

	B: 1/15		B day only use this day for quiz since we have two B days back to back here!	
	B: 1/19 A: 1/20	6.3	Exponential Growth and Decay	3 ACT Math Task Dan Meyer Video Links: What is exponential growth? Exponential Decay word problems 6.3 MathXL Practice and Problem Solving: Assign #'s 15, 16, 20, 23, 28, 30, 32 From Workbook: pg. 238-242 #'s 6-7, 15-17, 20, 23, 30
	A: 1/21 B: 1/22	6.4	Geometric Sequences	Video Links: Finding the common ratio in a geometric sequence Finding the nth term in a geometric sequence 6.4 MathXL Practice and Problem Solving: Assign #'s 16-18, 20-21, 23, 25, 27, 32, 42 From Workbook: pg. 246 – 250 #'s 5-9, 23-25, 27, 32, 42
	A: 1/25 B: 1/26		Topic 6 Review	Topic 6 MathXL Topic Review: Assign #'s
	B: 1/27 A: 1/28		Topic 6 Test – Properties of exponents won't be on test since we quizzed over it and it's not in MathXL	