	RED	YELLOW	GREEN
<u>*Unit 4 – Exponential Relations Unit*</u> (A) Simplifying Exponential Expressions – The Algebra of Exponential Relations • Apply laws of exponents (product rule, quotient rule, power of a power, power of a product, power of a quotient) • Evaluate expressions with integral exponents, including zero and negative exponents (B) Solving Exponential Equations – The Algebra of Exponential Relations • Solve systems involving exponential functions graphically and numerically • Solve exponential equations algebraically using involving common bases (or having to convert to common bases) (C) Compare and contrast growth and decay models: • How are the patterns in exponential data & linear data different? • How do linear and exponential relations differ and how are they similar? (D) The Graphing & Evaluation of Exponential Relations • Graph the parent graph of $y = 2^x$ and $y = 0.5^x$ (or $y = 2^{-x}$) with and without technology • Apply simple transformations of exponential relations – initially use only vertical and horizontal translations (E) The Applications of Exponential Relations • Write equations for exponential growth & decay functions in a variety of contexts. • Apply equations for exponential functions to solve a variety of contextual problems. • Explain and discuss the meaning of exponential functions in various contexts. (F) Consolidate and expand your understanding of domain and range in the context of exponential functions.			

	RED	YELLOW	GREEN

Unit 5 – Quadratic Relations
 	
(A) Quadratic Relations – Graphic Perspective
 	
• Identify whether or not a relation is quadratic.
• Use a quadratic relation to find unknown values, especially in application problems.
• Graph quadratic relations (parabolas) and be able to find and identify key features of the graph, including
  ○ x-intercepts/zeros/solutions/root
  ○ the y-intercept
  ○ the vertex (maximum/minimum point)
  ○ the axis of symmetry
• Understand that the equations of quadratic relations can be written in multiple forms (standard form, factored form, vertex form)
• Given a quadratic relation in ANY form, identify the vertex and graph the parabola.
 	
(B) Quadratic Relations – Algebraic Perspective
 	
• Understand the connection between the algebra of quadratic relations and the graphs of quadratic relations
• Understand the connection between roots and factors and intercepts
• Understand how factoring and solving are two different concepts, but that solving MAY involve the factoring process
• Solve quadratic equations by factoring.
• Use quadratic equation solving techniques in application problems.
• Understand that the equations of quadratic relations can be written in multiple forms (standard form, factored form, vertex form) and that algebraic operations allow us to convert between forms
• Solve systems of equations involving both linear and quadratic functions.			

	RED	YELLOW	GREEN
<u>*Unit 6 – Descriptive Statistics*</u> (A) Represent and Interpret Data: • Represent and interpret data using bar graphs. • Represent and interpret data using stem-and-leaf plots and frequency distribution tables for both discrete and continuous data • Represent and interpret data using frequency histograms and frequency polygons. • Represent and interpret data using cumulative frequency graphs. • Represent and interpret data using box-and-whisker plots. • Use visual representations of data to make observations, make conclusions and ask questions about the data and its representation. • Make conclusions & observation s about data or about the context of the data when presented with a variety of data representations • Be aware that data representations could be presented in such a manner as to inform, but also to misinform!! (B) Calculate Statistical Measures: • Calculate measures of central tendency (mean, median, mode) for discrete data, by hand or by using the calculator. • Estimate measures of central tendency (mean, median, mode) for discrete data, when presented frequency histograms, frequency tables or cumulative frequency distributions. • Calculate measures of central tendency (mean, median, mode) for continuous data, by hand or by using the calculator. • Estimate measures of central tendency (mean, median, mode) for discrete data, when presented frequency histograms, frequency tables or cumulative frequency distributions. • Calculate as well as estimating measures of spread, including the range and interquartile range, given that the data could be represented in a variety of ways (list of data, frequency tables, grouped data, cumulative frequency graph) • Identify the lower and upper quartiles of a set of data, by hand or by using the calculator, given that the data could be represented in a variety of ways (list of data, frequency tables, grouped data, cumulative frequency graph)			

Unit Objectives to Study | JUNE EXAM PREP

Links to Study Resources:

Unit 4 – Exponential Relations	Unit 5 – Quadratic Relations	Unit 6 - Statistics
Exponential Relations Mid-Unit QUIZ from 2014 Exponential Relations Unit TEST from 2014 Exponential Relations Unit Review Questions from Nelson 11 Textbook Here is a link to the Exponential Relations UNIT TEST PREP, as given to you earlier this semester	Quadratic Relations Mid-Unit QUIZ from 2014 Quadratic Relations TEST from 2014 Quadratic Relations Mid-Unit REVIEW questions from Nelson 10 Textbook Quadratic Relations UNIT TEST Review questions from Nelson 10 Textbook	Statistic Chapter 5 REVIEW exercises from the Haese & Harris book Statistics Review Assignment.