Northside High School

Algebra 2 Curriculum

Unit 2: Foundational

Unit Length: 15 days

Domain: Interpreting Functions

- Cluster 19:Interpret functions that arise in applications in terms of the context.

Domain: Building Functions

- Cluster 22:Build new functions from existing functions.

Standards:

- *HSF.IF.B.4:
    - For a function that models a relationship between two quantities: interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship.
    - Note: Key features may include but not limited to: **intercepts**; **intervals where the function is increasing**, **decreasing**, **positive**, or **negative**; **relative maximums and minimums**; **symmetries**; **end behavior**.
- *HSF.IF.B.6:
    - For a function that models a relationship between two quantities: calculate and interpret the **average rate of change** of a function (presented algebraically or as a table) over a specified **interval**; estimate the **rate of change** from a graph.
- *HSF.BF.B.3:
    - Write a function that describes a relationship between two quantities: identify the effect on the graph of replacing f(x) by f(x) + k, kf(x), f(kx) and f(x + k) for specific values of k (k. a **constant** both positive and negative); find the value of given the graphs of the **transformed functions**; experiment with multiple transformations and illustrate an explanation of the effects on the graph with or without technology.
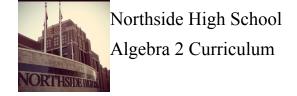
Guaranteed Viable Curriculum.
Vocabulary to Emphasize is highlighted in **bold** script.

Learning Goal	Notes	Bellwork/Exit	Practice
Students will explore and use key attributes of graphs and be able to describe key attributes using function and interval notation notation.	Interval Note Attributes of Function Note	Pre-assessment CFA 1 Attributes of Functions with Key CFA 1 Attributes of Function with Key	Worksheet: Functions, Domain/Range, Order of Operations with Key. Worksheet: Attributes of Functions with Key. PAP Worksheet: LTF Calculating Average Rate of Change with Key.
Students will calculate and interpret the average rate of change over an interval and be able to compare and make conjectures with the Results. Five Days Total		Characteristics of Functions Quick Check Template free from TPT (Might be used as Bellwork). Pre-assessment CFA 2 Calculate Average Rate of Change with Key. CFA 2 Attributes with Average Rate of Change with Key.	Task: Average Rate of Change Fish Population Graph. Task: Average Rate of Change Temperature Change Table. Task: Interpreting and Reading a Graph Warming and Cooling Data.
Students will understand and exhibit the relationship between the transformation of graph of a function and describe key attributes of the transformed Function. 10 Days	Note Vertical Transformations. Note Horizontal Transformations.	Pre-assessment CFA 3 Transformations. CFA 3 Transformations with Key.	Worksheet (2): Moving the Monsters Part 1 and 2 with Key. PAP Transformation Extension with Key. Transformation of Functions Activity free from TPT. Might be a good review. Matching Activity using the Absolute Function and Transformation free from TPT. Additional Transformation Worksheets.

Review: Regular Summative Test

● Regular Summative Test.

Review: PAP Summative Test

● PAP Summative Test.