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| **Class** | **PreCalculus** | **Topic** | **Analyzing Graphs of Functions and Relations** | **Lesson** | 2 | **Of** | 1 |

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| **Objective** | Students will:   * Analyze graphs of functions and relations ( x and y – intercepts, zeros, symmetry, even and odd functions) |
| **“I Can” Statement** | I can analyze graphs of functions and relations ( x and y – intercepts, zeros, symmetry, even and odd functions) |

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| **Common Core Standards** | CCSS.MATH.CONTENT.HSF.IF.C.7.A  Graph linear and quadratic functions and show intercepts, maxima, and minima.  CCSS.MATH.CONTENT.HSF.IF.C.7.B  Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions.  CCSS.MATH.CONTENT.HSF.IF.C.7.C  Graph polynomial functions, identifying zeros when suitable factorizations are available, and showing end behavior.  CCSS.MATH.CONTENT.HSF.IF.C.7.D  (+) Graph rational functions, identifying zeros and asymptotes when suitable factorizations are available, and showing end behavior.  CCSS.MATH.CONTENT.HSF.IF.C.8  Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function.  CCSS.MATH.CONTENT.HSF.IF.C.8.A  Use the process of factoring and completing the square in a quadratic function to show zeros, extreme values, and symmetry of the graph, and interpret these in terms of a context.  CCSS.MATH.CONTENT.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. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.\* |

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| Bell **Work** | See 1-2 Bell work |

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| **Procedures** | 1. Start and lead student discussion related to the bell work.  2. Distribute the Guided Notes  3. Present lesson or play a video lesson.  4. Use an Online Activity if time permitted.  5. Distribute Lesson Assignment. |

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| **Assessment** | Bell Work 1-2  Assignment 1-2  Exit Quiz 1-2 |

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| **Additional Resources** | See Online Activities |