Functions Podcast Project

For this project, you will be discussing in depth one of the three types of functions: Linear, Quadratic, or Exponential. You will be working with a partner to complete this project. Your function will be assigned by the teachers. However, you can choose your partner for this project. Make sure you choose a partner that is going to do an equal amount of work and put forth the effort. Choose wisely!

Each project is to have the following:

- _____ Title your Podcast and state your individual names. This should take place at the beginning of your video.
- Video Podcast representation including the following:
 - Flipgrid (website and app snapchat for education)
 - WeVideo (best video editing software for Chromebook)
- _____ Provide a definition of the function using your notes (not your phone or Google). The following pages below will help point you in the right direction.
 - Linear Functions page 13-14
 - Quadratic Functions page 27-28
 - Exponential Functions page 32-33
- _____ Write all basic forms of equations that represent your functions. See pages above. (no numbers...just variables)
- _____ Discuss & define the important vocabulary and key characteristics for your Function.
- _____ Describe what your function looks like on the graph.
- _____ Using the back side of this sheet as your guide, make sure you discuss and incorporate each of the following into your podcast and explain why it is important for the function and/or explain what it represents.
- _____ Make sure your presentation is neat, legible and presentable.

- Linear Functions
 - ____ Definition
 - _____ Basic forms (slope-intercept & standard form)
 - _____ What does the graph look like (verbally & visually)?
 - _____ What type of slopes do linear functions have?
 - o _____ Key Vocabulary: Domain, Range, X-Intercept, Y-Intercept
 - ____ Ways to solve when comparing linear functions: graphing, substitution, & elimination.
- Quadratic Functions
 - ____ Definition
 - ____ Basic Forms (standard & vertex)
 - _____ What does the graph look like (verbally & visually)?
 - ____ Key Vocabulary: Vertex, Axis of Symmetry, Min/Max, Direction of Opening, Domain, Range, X-Intercept, Y-Intercept
 - _____ Ways to solve: factoring, quadratic formula, graphing
- Exponential Functions
 - ____ Definition
 - _____ Basic forms (exponential standard form, growth and decay)
 - _____ What does the graph look like (verbally & visually)?
 - Key Vocabulary: Increase/Decrease, Domain, Range, X-Intercept, Y-Intercept, Asymptote
 - \circ _____ Ways to solve: exponential growth, compound interest, exponential decay, half-life