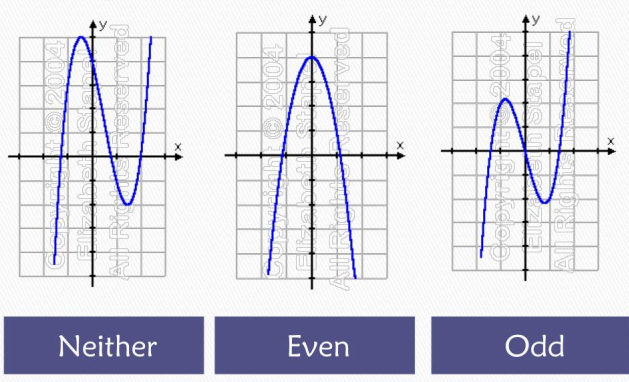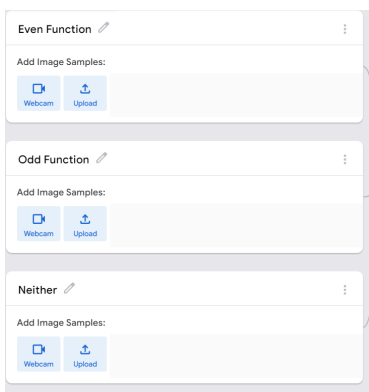| ALGEBRA II	July 22nd, 2024

Unit: Polynomial Functions

Materials: Guided notes, materials for activity, laptop, cutouts of polynomial functions

Vocabulary: function, even, odd, neither, symmetry.

Common Core Standards; CCSS.MATH.CONTENT.HSF.BF.B.3

- Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $k\,f(x)$, $f(kx)$, and $f(x + k)$ for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. **Include recognizing even and odd functions from their graphs** and algebraic expressions for them.

Learning Target:	I can analyze polynomial functions and determine if they are even or odd by using computational thinking and creating a machine.
Do Now: 5-8 mins	Students are provided with functions that are labeled EVEN, ODD, NEITHER. Task1: Students are given cutouts of 10 polynomial functions and they need to sort them. (Here, students use pattern recognition, to figure out what makes the labeled functions their name, and use their findings to decide how to sort the graphs.
Activity *1:Teaching the Machine* 25 minutes	Students are already seated in groups and will be presented with the tool "TEACHABLE MACHINE". Students will be asked to create three "CLASSES": EVEN, ODD, NEITHER. Students will teach the machine how to recognize if a function is even or odd by using their sorted graphs from the do now.

Part 2: *Using the Machine* *10 minutes*	Students will be given 20 more graphs (CUTOUTS, from DELTAMATH) and then will sort them, this time, using their outputs from their teachable machine. Students will share their work in a Jamboard/ Lumio.
Exit Activity *5 minutes*	Create your own even and odd functions, label them, and test the model's accuracy.