**Name:** Michael Randazzo

**Class:** Intro to Computer Science

**Unit:** Algorithm Writing/Conditional Applications

**Lesson Topic:** Day 2 Using the Guessing Game Algorithm

**Lesson Objective:** Convert an algorithm to working code

**SWBAT:**
- Write a working guessing game program based on their writing algorithm

**Standards:**
- 9-12.CT.9 Systematically test and refine programs using a range of test cases, based on anticipating common errors and user behavior.
- 9-12.CT.5 Modify a function or procedure in a program to perform its computation in a different way over the same inputs, while preserving the result of the overall program.
- 9-12.CT.4 Implement a program using a combination of student-defined and third-party functions to organize the computation.
- 9-12.CT.8 Develop a program that effectively uses control structures in order to create a computer program for practical intent, personal expression, or to address a societal issue.

**Teaching Tools:**
- Visual Studio 2019, Smart Notebook, Google Docs

**Procedures:**
- **Do Now: Students will reopen their guessing game algorithm from the previous day**
- As a class students will share the elements of the algorithm and as a class teacher will construct a general algorithm for the project
    - Since this is the first project of the unit there should be a lot of scaffolding.
    - This will be when the teacher will review some of the key components needed for the project. Ex: conditional formatting, generating a random number in a range, displaying the proper text
    - **Teacher Prompt:** Be sure to format for students how to generate a random number between 1-50:  Int((MAX - MIN + 1) * Rnd() + MIN)
- In groups, Students will create a design window for the project and implement the algorithm for checking a guess on a button click. Test your code to make sure it works as intended. If a group finishes early they will be prompted to complete the bonus assignment as well.
    - Students should work together to create the working code. They will have the majority of the period to do so.
    - **Teacher Prompt:** Teacher should assist students with the 3 main components a) generating the random number correctly, getting the user input correctly, formatting the conditionals. When groups are finished teacher will play their guessing game to determine if it works correctly