**Level 1: Play the Simon Game**

*1. Play the Simon game in your group while taking note of the following game-play items:*

A) 5

B) 3

C) It’s addictive, like it looks boring, but something keeps telling you to beat your own score. Sounds stupid but yea it’s pretty addictive, simple but great.

D) It requires a form of input, unlike checking if the user is clicking their mouse button or pressing the space bar to jump, this only works with 4 buttons.

*2. Play the Simon game in your group while taking note of the rules of the game:*

A) They press one of the 4 colored buttons, Green, Blue, Yellow, and Red

B) By highlighting a selected color, like green twice, and red 1 time.

C) Two Player, and Single Player

D) If you press the wrong color, inputting the pattern the game first showed you.

**Level 2: Simon History**

*1. Research the history of the Simon game, focusing on the following questions:*

A) Ralph Baer is the creator of the Simon game.

B) The Simon game was based off Atari’s Touch Me game.

C) Magnavox Odyssey

D) It had a total of 28 games. But it came with 13 different games. (Table Tennis, Ski, Simon Says, Tennis, Analogic, Hockey, Submarine, Wipeout, Volleyball, Soccer,)

*2. In your group discuss the following questions:*

A) The Nintendo 64

B) There are much smaller and less graphically pleasing. Like some games were not even a megabyte, while now games are gigabytes in size. A big one is that they were 2D while most games nowadays are 3D.

C) They still have to be programmed in some language. They all would have something called a game loop, this is used to repeat certain methods like updating, drawing graphics, and handling user input.

**Level 3: Inside the Simon Game**

*1. Research online about what is physically inside the game and the components inside the package.*

A) MB4850 Microprocessor, MB Simon PCB

B) The 4 buttons

C) R1- 680K Resistor with 5% tolerance, R2 - 22K resistor with 5% tolerance, C1 - .1uF ceramic capacitor, C2 – 47nF capacitor, U1 – MB4850 Microprocessor, U2- SN75494N Hex Digit Driver, speakers and LEDs

*2. Research on-line about program logic (e.g. software) is inside the game and recent projects to emulate the game on modern computers.*

* JavaScript and HTML canvas can be used to make a clone of the Simon game on modern computers, more specifically on the browser. Like if a statement is true, run this.

*3. Compare the Simon Game to other classic handled game systems like the Nintendo DS.*

1. Low End, meaning that they would have minimal graphics. Games would probably be only a few kB in size.
2. One big difference is that depending on the console / system they may have different gaming methods. For example the Nintendo DS was cartridge based while some others could only have one game where it was built in.

*4. Compare the Simon Game to modern console game systems.*

1. They both play games, they all have start up methods, shut down methods, they still perform task which allow the user to play the game; except that modern game consoles are so much more advanced.
2. Modern game consoles have much more advanced functions like WIFI, 8GB of ram, great CPUs, excellent GPUs which allows games to be played at 4K. Games can be played through a disc or bought though the online store.