**Level 1: Play the Simon Game**

**Outline**

Play the original Simon game to establish a mind-set around basic game systems. Research the history of game systems. Decompose the Simon game from perspective of input/output devices and processes.

**Objectives**

* Icebreaker activity to establish community and classroom norms.
* To realize that computers have evolved to take various forms in modern society.
* To begin thinking about computers as a collection of input/output devices and processes.

**Materials & Resources**

* Simon game obtained from teacher

**Questions**

1. Play the Simon game in your group while taking note of the following game-play items:
   1. What was your personal best score?
   2. What was the personal best score in your group?
   3. What makes it a good game?
   4. In what ways is it similar to modern computer games?
2. Play the Simon game in your group while taking note of the rules of the game:
   1. How do users input information into the game?
   2. How does the game output feedback to the players?
   3. What are the game options for starting the game?
   4. What are the end conditions for stopping the game?

**Level 2: Simon History**

**Materials & Resources**

* Simon game obtained from teacher
* Suggested web resource: http://americanhistory.si.edu/collections/search/object/nmah\_1302005

**Questions**

1. Research the history of the Simon game, focusing on the following questions:
   1. Who created Simon and when was it created?
   2. What previous game was it based on?
   3. What was the first game system and when was it released?
   4. What games did it have on it?
2. In your group, discuss the following questions:
   1. What is the oldest game system you have played on?
   2. How are old games different from current games?
   3. How are old games similar to current games?
3. Compare the Simon Game to other classic handheld game systems like the Nintendo DS:
   1. List some similarities.
   2. List some differences.
4. Compare the Simon Game to modern console game systems:
5. List some similarities.
6. List some differences.

**Level 3: Inside the Simon Game**

**Materials & Resources**

* Simon game obtained from teacher
* Presentation Slides: Simon Vs. Light Switch

**Questions**

1. Consider a basic light switch:
   1. What are some input devices?
   2. What are some output devices?
   3. How do the inputs affect the outputs?
2. Consider the Simon Game:
   1. What are some input devices?
   2. What are some output devices?
   3. How do the inputs affect the outputs?
3. How is Simon similar to a light switch?

1. How is Simon different from a light switch?

1. Research on-line about what is physically inside the game and the components inside the package:
2. What electronics devices and components provide the logic and computer processing?
3. What electronics devices and components collect physical input from the user?
4. What electronics devices and components provide output (sight and sound) to the user?
5. Research on-line about program logic (e.g. software) that is inside the game and recent projects to emulate (duplicate) the game on modern computers. Summarize your findings below: