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| **Unit:** Basics | **Turn In List:** **1. Terms and 2. Pde for Zoog, history of the computer** |
| *“I will be able describe the major events leading to the evolution of computer technology.”* | |

**Computer History: How it all began.**

**Content Objectives:** Students will be able to site the major events leading to modern technologies related information and information processing. We will also explore custom functions (methods) in Processing.

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| **Starter Activity** |
| void setup(){  //Set the size of the window  size(700,700);  background(0);    }  void draw(){  //Draw a white background  // background(255);  drawZoog(mouseX, mouseY);  drawZoog(int(random(width)),int(random(height)));  }    void drawZoog(int x, int y){  //Set CENTER mode  ellipseMode(CENTER);  rectMode(CENTER);    //Draw Zoog's body  stroke(0,200,100);  fill(100,50,200);  rect(x,y,20,100);    //Draw Zoog's head  stroke(100,50,200);  fill(0,200,100);  ellipse(x,y-30,60,60);    //Draw Zoog's eyes  fill(random(100));  ellipse(x-19,y-30,16,32); //Left eye  ellipse(x+19,y-30,16,32); //Right eye    //Draw Zoog's legs  stroke(0,200,100);  line(x-10,y+50,x-20,y+60);  line(x+10,y+50,x+20,y+60);  }   1. Students will change the code so that the entire body moves with the mouse in proportion. 2. Students will color background and body parts to their own preference. 3. Students will add four elements either to the character or the background that are fitting for the scene. 4. Students will increase the dimensions of the canvas to a width height between 500-900 pixels.   What would your approach be for making more Zoogs? |

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| **Key Terms:** | |
| Vacuum Tube | First generation of the modern computer. Tubes are expensive, require a lot of power, fail often, and are very large. Happened in the early 1940’s |
| Transistor | Made computers smaller, faster, cheaper, energy-efficient, and more reliable than the vacuum tubes. Lasted longer. Many together could be used to make calculations and store info. Late 1940’s and mid 50’s |
| Integrated Circuit | Even cheaper, smaller, and energy efficient. Made up of multiple transistors. 1956-1963 |
| Microprocessor | The backbone for computers since 1970 to today. Has millions or even billions of transistors: Nearly atomic level. Reached the maximum speed of processing. (5 gigahertz) Some computers have multiple cores (btw: CPU – central processing unit) |
| Punch Card | Some predates the vacuum tubes. One of the first ways to program. 1801 |
| Mainframe | A large computer in a closet, with wires going out to individual work stations. Easier to maintain. |
| PC | personal (individual) computer. Keyboard and mouse |

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| **Coding Terms:** | |
| Function/methods | Something you write that carries out a set of instructions with a name. (a recipe). You just have to call the name to run the method |
| parameter | Additional information given to the method to help it run better. |
| Function call | Calling a name of a method, and passing in any of the arguments needed for the parameters |

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| **History and Background:** |
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| **Assignment Tutorial (Setup and Class Demonstration):** |
| The students will create a visual timeline in a new 900 x 400 document spotlighting 8 key events in the history of computers using <http://en.wikipedia.org/wiki/History_of_the_computer> as a reference. Use a custom function for each event to place on the timeline. You will need to refer to the “text()” function and the “String()” class in Processing reference. Create 4 events above and 4 events below the timeline and include a title (see example below).  Macintosh HD:Users:kkapptie:Desktop:Screen Shot 2013-09-16 at 9.40.28 AM.png |

Notes (Points of interest, mistakes, lessons learned, web resources, and thoughts):

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