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| **Unit:** Methodology | **Turn In List:** **1. Terms** |
| *“I will vow to format code so that it is readable and easy to interpret. Good developers don’t try to hide things in source code.”* | |

**Conditions and Formatting Code: Using proper format while introducing conditions in code**

**Content Objectives:** Students will be able to identify and format code appropriately while using appropriate methods with return values.

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| **Starter Activity** |
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| Students will modify etch\_a\_sketch with keyPressed and saveFrame. |

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| **Key Terms:** | |
| White Space | USED FOR CODE FORMATTING- THEN IT IS REMOVED WITH COMPILING |
| Camel or Pascal Case | Camel case is all lower characters for variables and methods except for second words or phrases which are upper. |
| Condition | Used for decision making in apps- create a branch |
| If | Start a decision-making tree with a Boolean question |
| If else | Another condition after the first is statement |
| Boolean Expression | Any expression that evaluates to true or false |
| Boolean Variable | Data type for true or false |

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| **Assignment:** |
| Students will explore methods with a return type. Consider the following:  C = (F – 32) \* (5 / 9)  \_\_\_\_\_\_ tempConverter(float \_\_\_\_\_\_\_\_) {  \_\_\_\_\_ \_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  }  Answer: |
| For this assignment students will create a conversion app that utilizes a method with a return value and the position of the mouse or a line on the screen controlled by the keyboard (or both). Make sure to include the following:   * Title and developer info (your name) * Onscreen instructions * Reference line or shape * Numbered increments and tic marks on screen (hint: use loop) * Updated total as the mouse moves or the arrow keys are pressed   Appropriate conversions may include any of the following:   * Any distance measurement i.e. miles to km etc. * Any volume measurement * Any currency conversion * Math functions i.e. squares or squareroots * Etc. |

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

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| // Noah El Mansouri | Conversion App | 23 Sept 2024  void setup() {  size(400, 200);  }  void draw() {  background(127);  line(0, 150, width, 150);  for (int i=0; i<width + 10; i+=50) {  line(i, 145, i, 155);  textAlign(CENTER);  text(i-200,i,140);  }  ellipse(mouseX,150,8,8);  text(mouseX-200,mouseX,200);    text("Cel" + farToCel(mouseX-200),width/2,100);  text("Far" + celToFar(mouseX-200),width/2,80);  }  float farToCel(float tempFar) {  tempFar = (tempFar-32) \* (5.0/9.0);  return tempFar;  }  float celToFar(float tempCel) {  tempCel = (tempCel \* 9/5) + (32);  return tempCel;  } |