**Level 1: Dialogue Based Output**

1. Use the Eclipse (Juno or later) IDE. Use Eclipse from the applications folder on the classroom computers.
2. Follow the instructions in the “Hello World SWT” tutorial
   1. Create a new Java project
   2. Import SWT into your project following the tutorial
      * <https://wiki.eclipse.org/FAQ_How_do_I_configure_an_Eclipse_Java_project_to_use_SWT%3F>
   3. Display a dialog box with a “Hello World” title (or something more useful)

**Level 2: Dialogue Based Input**

1. Research how to use SWT to read user input into your program.
2. Read string data
   1. Read a user typed string from a dialogue box
   2. Display the string in another dialogue box
3. Read integer data
   1. Read a user typed integer number from a dialogue box
   2. Multiply the number by 5
   3. Display the result in another dialogue box

**Level 3: Factorial Calculator**

1. Research the meaning of a “factorial” related to mathematics. Research the equation to calculate a factorial.
2. Design an algorithm (program method) using variables, loops, and conditionals to calculate a factorial for any number.
   1. Resource: <https://www.java-made-easy.com/java-for-beginners.html>
3. Write a program to calculate a factorial as follows:
   1. Get user input for a number using a dialogue box
   2. Calculate the factorial using your algorithm (method)
   3. Display the result in a dialogue box