

§127.789 Computer Science KP (Advanced) (Gift and Talents Students)

1. Introduction to Java

Overview of Java

Setting up the Environment (Software Center is what we use at Klein Collins ISD)

2. Basics of Java Programming

Java Syntax and Structure

Data Types and Variables

Operators

3. Control Flow Statements

Conditional Statements

Looping Constructs

Break, Continue, and Return Statements

4. Object-Oriented Programming (OOP)

Basics

Understanding OOP Concepts

Defining Classes and Objects

Methods

Constructors

5. Working with Data

Arrays

Strings

Collections Framework (Introduction)

6. Exception Handling

7. Input and Output (I/O)

Java Input/Output Basics

File Handling

8. Java Utility Libraries

Math Class

Random Class