

## COMPUTER GRADE 6 – 9:00-9:40

Monday 1-27-2020

**Topic:** Guidance Career Planning – Rotation B - Strausser

**Objective:** The student will complete career readiness activities using the xello website.

**Assignment:** None

**Upcoming events:** Guidance Career Planning

Tuesday 1-28-2020

**Topic:** No Class Today – Rotation C

**Objective:** None

**Assignment:** None

**Upcoming events:** None

Wednesday 1-29-2020

**Topic:** Guidance Career Planning – Rotation D - Lasko

**Objective:** The student will complete career readiness activities using the xello website.

**Assignment:** None

**Upcoming events:** Guidance Career Planning

Thursday 1-30-2020

**Topic:** Guidance Career Planning – Rotation E - Sepos

**Objective:** The student will complete career readiness activities using the xello website.

**Assignment:** None

**Upcoming events:** Guidance Career Planning

Friday 1-31-2020

**Topic:** Guidance Career Planning – Rotation A - Seige

**Objective:** The student will complete career readiness activities using the xello website.

**Assignment:** None

**Upcoming events:** Guidance Career Planning

## COMPUTER GRADE 3 – 9:45 – 10:25

Monday 1-27-2020

**Topic:** No Class Today – B Rotation

**Objective:** None

**Assignment:** None

**Upcoming events:** None

Tuesday 1-28-2020

**Topic:** Guidance Career Planning – C Rotation – Besic

**Objective:** The student will complete career readiness activities using the ccspark website.

**Assignment:** None

**Upcoming events:** Guidance Career Planning

Wednesday 1-29-2020

**Topic:** Guidance Career Planning – D Rotation - DeAngelo

**Objective:** The student will complete career readiness activities using the ccspark website.

**Assignment:** None

**Upcoming events:** Guidance Career Planning

Thursday 1-30-2020

**Topic:** Guidance Career Planning – E Rotation – Glassman

**Objective:** The student will complete career readiness activities using the ccspark website.

**Assignment:** None

**Upcoming events:** Guidance Career Planning

Friday 1-31-2020

**Topic:** Guidance Career Planning – A Rotation – Truby

**Objective:** The student will complete career readiness activities using the ccspark website.

**Assignment:** None

**Upcoming events:** Guidance Career Planning

## CHS INTRO TO JAVA PROGRAMMING

Monday 1-27-2020

**Topic:** JAVA Fundamentals – 7.3 - Passing Arrays as Arguments to Methods and Useful Array Algorithms and Operations Use classes

**Objective:** The students will read Chapter 7 section 7.3. We will discuss passing a single array element and passing the whole array to a method. The students will import the PassElements.java program and the PassArray.java program. They will compile and run the programs so they can see the results. The students will complete the Checkpoint problems on page 430. We will discuss comparing arrays and some useful array algorithms that compute basic math operations. These will include comparing arrays, summing values in arrays, getting the average of array elements, and finding the highest and lowest array values. The students will import the SalesData.java program and the Sales.java programs. They will compile and run the programs so they can see the results.

**Assignment:** None

**Upcoming Events:** Returning Arrays from Methods

Tuesday 1-28-2020

**Topic:** JAVA Fundamentals – 7.4 – Some Useful Array Algorithms and Operations and 7.5 – Returning Arrays from Methods

**Objective:** The students will continue to read Chapter 7 section 7.4 and also section 7.5. We will discuss partially filled arrays and how to handle them using a sentinel controlled loop. Working with arrays and files and returning arrays from methods will also be discussed. The students will import the PartialArray.java program, the ArrayWriteFile.java program, ArrayReadFile.java program, and the ReturnArray.java program. They will compile and run the programs so they can see the results.

**Assignment:** None

**Upcoming Events:** String Arrays, Arrays of Objects, and the Sequential Search Algorithm

Wednesday 1-29-2020

**Topic:** JAVA Fundamentals – 7.6 – String Arrays, 7.7 – Arrays of Objects, 7.8 – The Sequential Search Algorithm

**Objective:** The students will read Chapter 7 sections 7.6, 7.7, and 7.8. We will discuss how to create String arrays and how to call string methods from an array element. That will include how to create arrays of objects that are instances of classes. We will also discuss what a search algorithm is and what a sequential search algorithm does. The students will import the MonthDays.java program, the ObjectArray.java program and the BankAccount class. The students will create a sequential search algorithm on an array by importing the SearchArray.java program. They will compile and run the programs so they can see the results.

**Assignment:** None

**Upcoming Events:** Two-Dimensional Arrays and Initialize a Two-Dimensional Array

Thursday 1-30-2020

**Topic:** JAVA Fundamentals – 7.9 – Two-Dimensional Arrays and Initialize a Two-Dimensional Array

**Objective:** The students will read Chapter 7 section 7.9. We will discuss what a two-dimensional array is and how it works. The students will learn how to use a two-dimensional array by importing the CorpSales.java program. We will discuss how to initialize a two-dimensional array and how to determine the array's length. The students will learn how to use a two-dimensional array by importing the Lengths.java program. They will compile and run the programs so they can see the results.

**Assignment:** None

**Upcoming Events:** Display all the Elements of a Two-Dimensional Array and Pass Two-Dimensional Arrays to Methods

Friday 1-31-2020

**Topic:** JAVA Fundamentals – 7.9 – Two-Dimensional Arrays

**Objective:** The students will continue to read Chapter 7 section 7.9. We will discuss how to display all the elements of a two-dimensional array. In addition, the students will learn how to sum all the elements of the array, how to sum all the rows of the array, and how to sum all the columns of the array. They will create a TwoDimMath.java program with the help of the teacher. They will compile and run the program so they can see the results. We will discuss how to pass two-dimensional arrays to methods. The students will import a Pass2Darray.java program. They will compile and run the program so they can see the results. Two-dimensional arrays can be ragged, which means each row can have its own length. The students will create a RaggedArray.java program with the help of the teacher. They will compile and run the program so they can see the results.

**Assignment:** None

**Upcoming Events:** Arrays with Three or More Dimensions and the Selection Sort and the Binary Search Algorithm

## GAME MAKER PROGRAMMING

Monday 1-27-2020

**Topic:** Endless Runner Game

**Objective:** An endless runner game is similar to the Flappy Birds game. The teacher will introduce the concept of an endless runner and show some examples that other people have

created. The students will download the Endless Runner resources from the Google classroom shared folder. The students will create and name scenes, objects, and variables using proper programming conventions. They will create a new game scene, the player object and an object for the platform. They will drag and drop the platform and player objects from the Objects tab and place them within their scene. They will complete steps 1-6 in the instructions with the help of the teacher.

**Assignment:** Save the game as “Endless Runner”

**Upcoming Events:** Adding more elements to the Endless Runner game

Tuesday 1-28-2020

**Topic:** Endless Runner Game

**Objective:** The students will begin creating events to make their game functional. They will animate the player when it jumps and make the platforms move on their own. They will make the character play the Run animation when it is on the floor and make the platforms endless. The students will work on step 7 in the instructions with the help of the teacher.

**Assignment:** Save the game as “Endless Runner”

**Upcoming Events:** Adding more elements to the Endless Runner game

Wednesday 1-29-2020

**Topic:** Endless Runner Game

**Objective:** The students will add states to our game. States describe the status of our game. It can be considered as a flag, to detect when the character is in action or when the character has fallen off the platform. This is needed to decide a “Game Over” state and therefore, restarting the game. They will learn about scene variables and sub-events. They will add code to restart the game. The students will work on step 7 in the instructions with the help of the teacher.

**Assignment:** Save the game as “Endless Runner”

**Upcoming Events:** Adding more elements to the Endless Runner game

Thursday 1-30-2020

**Topic:** Endless Runner Game

**Objective:** The students will add a scoring system and a game over system to their game. The students will work on step 7 in the instructions with the help of the teacher.

**Assignment:** Save the game as “Endless Runner”

**Upcoming Events:** Adding more elements to the Endless Runner game

Friday 1-31-2020

**Topic:** Endless Runner Game

**Objective:** The students will make their game more challenging by increasing the speed of the platforms as the score get higher. The students will finish the Endless Runner game.

**Assignment:** Save the game as “Endless Runner”

**Upcoming Events:** Endless Runner game project

## COMPUTER 7

Monday 1-27-2020

**Topic:** Google Sheets Basics

**Objective:** The students will continue to work with the Google Sheets program. They will learn about page settings including page color, page layout, and movement in the pages. In addition, they will learn how to insert images, shapes, and clipart. They will work with Word Art, charts, borders and shading, formulas, and the spell checker feature of Sheets. They will create a new sheet and compute sales, commission rates, and pay for a week using the sum, Min, max, avg, and count formulas.

**Assignment:** None

**Upcoming Events:** Google Sheets Project

Tuesday 1-28-2020

**Topic:** Google Spreadsheets

**Objective:** The students will be given a package of Fruit Snacks in a sealed plastic bag and asked to estimate (guess) how many of each color they have. The estimates will be recorded on a Google spreadsheet, noting how many of each color they have in their bags. They will set up the spreadsheet with columns/row labeled “Estimate” and “Actual”. Then they will record their guesses in the “Estimate” column, count the actual number of that particular color Fruit Snack, and record the number in the “Actual” column. As each color is counted and recorded, the students will change the text color to correspond to the color of the Fruit Snacks.

**Assignment:** None

**Upcoming Events:** Alice Programming

Wednesday 1-29-2020

**Topic:** Google Spreadsheets

**Objective:** The students will calculate the average of all the different colors of the Fruit Snacks using functions. They will find totals, averages, minimums, and maximums of all the

Fruit Snacks. They will also convert the Fruit Snack spreadsheet into a bar graph and give it a title. Students will answer the following question. What are the odds of finding a certain color?

**Assignment:** Complete Fruit Snack Spreadsheet and submit it to our online classroom for grading.

**Upcoming Events:** Alice Programming

Thursday 1-30-2020

**Topic:** Alice Programming

**Objective:** The students will create a short scene based on the movie Finding Nemo with Nemo, a clownfish, Dory, a blue tang, and Bruce, a shark. They will learn:  
How to pick a template (background) for their Alice world.  
How to create objects from classes (classifications) in Alice.  
How to position objects in Alice.  
How to run a procedure to move an object in Alice while they are setting up the scene.  
The instructions are located at <http://ice-dl.cc.gatech.edu/?q=node/849>.

**Assignment:** None

**Upcoming Events:** Alice Alien Game

Friday 1-31-2020

**Topic:** UFO Alien Rescue Game

**Objective:** The students will create a simple game in Alice 3 and learn some basic concepts in computer programming. The goal of the game is to drive around a UFO and pick up the aliens. They will learn how to create Objects and Change Properties, add Conditional Statements, Create and Use Variables, How to Handle Events, and Create Procedures and Add Parameters. We will begin by creating the project and setting up the camera. We will also create the UFO.

**Assignment:** None

**Upcoming Events:** Moving the UFO with the Arrow Keys