Week One: Introductions and Microsoft Word

Objectives for the week
- Begin to gauge and assess where students' digital literacy and computer literacy skills are at. The following weeks of programming can be shaped to reflect what is learned in week one.
- Try to establish some sort of routine with the students for what to expect each week.
- Figure out what sorts of things they might want to explore (again to help shape future summer programming).

Learning Outcomes
- Students will be able to know the basics of Microsoft Word in order to create a nametag for the summer.
- Students will be able to draw basics shapes in Microsoft Word in order to create documents in the future.
- Students will be able to find images using Google Image search and copy those items into documents in Word in order to increase their computer literacy skills for future projects and assignments.

Schedule

	Tuesday 5/31	Wednesday 6/1	Thursday 6/2
K-2	Name tags introduction	Continued name tags	Challenge: Staff name tags
3-5	Name tags introduction	Continued name tags	Challenge: Staff name tags
Middle school	Educational exploration	Create a nametag	Educational exploration

Projects and observations on the week
- Students in K-5 worked their way through Microsoft Word to complete at least two nametags – one for themselves and another for their Roblox username and password. On Thursday, we had a Challenge – could the students create a nametag for a staff member?
- Challenge idea went pretty well – better with the 3-5 students than the K-2. While both groups kind of sneered at the Challenge idea, by the end of their 45 minutes session, it was hard to tear them away from the computers and we had many 3-5 students asking if they could continue to work on their nametags on Friday or next week.
- Definitely need to put in more computer literacy skills in the next few weeks (dock location, right click, Internet basics).

Roadblocks
- Lack of independent problem solving
- Not enough Miss Hailley to go around
- Disinterest, impatience, and short attention span
- Getting the middle schoolers to buy in to educational exploration and computer projects
- Lack of a network means that students must return to their computers each day to keep working on their projects.

Week Two: Demystifying Technology & Internet Basics

Objectives for the week
- Begin to demystify technology by exploring the inside of the computer
- Begin to cut through technology jargon with conversation on desktop, dock/taskbar, applications, browsers vs. search engines, windows/tabs, and URLS.

Learning Outcomes
- Students will be able to name, locate, and define seven major computer components (hard drive, RAM, CPU, motherboard, video card, power supply, and CD/optical drive) in order to better understand how a computer works and be more confident in using them.
- Students will be able to identify and differentiate between different computer jargon such as browser vs. search engine, tabs, and URLs in order to be capable and confident users.

Schedule

	Monday 6/6	Tuesday 6/7	Wednesday 6/8	Thursday 6/9
K-2	Computer hardware videos	Demystifying computers – opening them up	Mouse/mice explanation	Review and desktop, dock/taskbar, and browser explanation
3-5	Computer hardware videos	Demystifying computers – opening them up	Desktop, dock/taskbar, windows/tab, browser, URLS	Review and presentation/project on computer components
Middle school	Computer hardware videos and opening up a computer	Explanation of desktop, dock/taskbar, windows/tabs, browsers, URLs	Educational exploration	Review and educational exploration

Projects and observations on the week
- By the end of the week, lots of eye rolling about the constant review of computer hardware and lack of Roblox playing. However, they are slowly remembering the parts!
- Hard to get middle schoolers on board with exploring their own projects. Roblox Studio is the favorite.
- Flexibility with K-2 and 3-5 is KEY to having good 45 minute sessions.

Roadblocks
- Not enough Miss Hailley to go around and lack of communication between Miss Hailley and other high school staff members (need to get them on board).
- Kids like to gravitate towards ABCya when they get stuck or don't know what to do next. Need to make sure I have more clear objectives and projects to last the WHOLE week and the flexibility to change things around to fit specific (more advanced) students in each group.

Week Three: Roblox Studio turned Google Maps

Objectives for the week
- Begin some design thinking which will turn into lessons on Roblox Studio and the building of worlds and obstacle courses.
- Spend time discovering and exploring Google Maps, bringing together their real world with a digital map world.

Learning Outcomes
- Students will be use Google Maps to locate important locations to them in order to better see the connections between the real world and the digital world.
- Students will be able to use the street view to move themselves through this digital world in order to expose them to a platform they haven't used before.

Schedule

	Monday 6/13	Tuesday 6/14	Wednesday 6/15	Thursday 6/16
K-2	Observation of Roblox games	Google maps and street view	Google maps continued	Physical map making and Roblox
3-5	Search engines and observation of Roblox obby games	Google maps and street view	Google maps continued	Mapbox project and Roblox
Middle school	Search engines, privacy, & educational exploration	Educational exploration	Educational exploration	No computer time (4H cooking class)

Projects and observations on the week
- So day one's attempt to work on drawing a level in an obstacle course or an aerial map of a Roblox world DID NOT WORK. Too close to just playing Roblox.
- Search engine exercise worked somewhat well. Hard to show every student individually the differences between different search engines. At the very least, they know other search engines exist.
- Google Maps, if anything, is super fascinating to the kids. They spent two full days exploring the website and trying to find their homes (past and present).
- Mapbox worked well for 3-5th graders, although it was tough to get some of them on board right away. Could have explained the project better.

Roadblocks
- Still struggles to listen to directions, especially without an instructor stand with a projector to help the kids follow along with.
- Middle school group is taking off with doing their own thing. I'm getting more comfortable with that fact, although I wish they would do a little exploration and step outside their comfort zone. We shall see.

Week Four: Coding Unplugged Activities

Objectives for the week
- Start to introduce coding in a way that is meaningful and sustaining.
- Build confidence in concepts that will lead to further activities and projects.
- Gauge where students are to determine next steps in programming.

Learning Outcomes
- Students will be able to understand what a program is in order to continue to understand how a computer works.
- Students will be able to complete unplugged activities in order to understand concepts better long-term.

Schedule

	Monday 6/20	Tuesday 6/21	Wednesday 6/22	Thursday 6/23
K-2	Marching orders – programming language activity	Marching orders (continued)	Four week review & Roblox	*Miss Hailley out of town*
3-5	Marching orders – programming language activity	Graph paper programming	Four week review & Roblox	*Miss Hailley out of town*
Middle school	1st day of CAD Literacy program, educational exploration	Educational exploration	2nd day of CAD Literacy program, educational exploration	*Miss Hailley out of town*

Projects and observations on the week
- The K-2nd graders did better at marching orders than the 3-5th grade group. For both groups, the concept of directions were sometimes hard to follow. It helped to have a staff member be the "super computer" who drew the "program" on the whiteboard.
- On Wednesday, students were quizzed on concepts and when each student successfully answered one question, the group got to play on Roblox.
- CAD Literacy group went pretty well. The middle schoolers seemed engaged, more the second day than the first. Will be curious to see how the program continues.
- Did get a handful of middle schoolers to look at some of the coding website. I launched it as a suggestion and was pleased with the handful of students who gave it a try.

Roadblocks
- Not sure how to continue. Want to start some online coding activities, but am struggling with sustainability and projects.

Week Five: Coding Continued

Objectives for the week
- Continue to build on Week 4 objectives, building off of skills acquired in Week Four.
- Introduce block coding on the computer through websites such as Code.org, Lightbot, and Scratch.

Learning Outcomes
- Students will be able to successfully pass at least half of the levels in a Code.org Hour of Code program in order to build on their coding experience and knowledge.
- Students will face challenges and difficulties with block coding in order to remember that sticking it out is important and that we all fail sometimes.
- Students will be able to transfer skills acquired in Week Four into block coding and then take those experiences into Scratch in order to build a meaningful and sustainable experience with coding.

Schedule

	Monday 7/4	Tuesday 7/5	Wednesday 7/6	Thursday 7/7
K-2	*UNCC Closed for Fourth of July*	Code.org Hour of Code	Code.org continued	Scratch Intro
3-5	*UNCC Closed for Fourth of July*	Code.org Hour of Code	Code.org (or Lightbot) continued	Scratch Intro
Middle school	*UNCC Closed for Fourth of July*	Educational exploration	CAD Literacy Program *(no free computer time)*	Code.org/Code Combat/Lightbot and educational exploration

Projects and observations on the week
- Code.org was surprisingly more successful than initially anticipated. The K-5th graders enjoyed the various programs in the Hour of Code section. Favorites included Minecraft, Flappy Bird, and Star Wars.
- On day two of Code.org, many 3-5th graders mentioned that Code.org was hard. While some wanted to give up, others stuck it out and tried again. It seemed that those students who tried again and again did better overall and were very excited when they passed a partially difficult level. Also had a good level of excitement from staff, which was great!
- Lightbot was by far the hardest challenge the 3-5th graders encountered (I didn't even attempt it with the K-2 group). This required a higher level of thinking and perhaps over time, these levels could be passed.
- Scratch was a pretty good intro. Asked the kids to do a few things with their sprite before setting them loose in the program. Will plan on doing more on this website in the following weeks.

Week Six: Scratch

Objectives for the week
- Build off of two weeks of coding activities to introduce Scratch as another way to code.
- Encourage students to create code instead of simply completing Code.org related tasks in their Hour of Code.
- Set up situations for students to work with others and learn about Scratch together.

Learning Outcomes
- Students will be able to work with their peers to problem solve using Scratch and build projects together in order to learn cognitive and socio-emotional aspects of digital literacy.
- Students will demonstrate their ability to use block coding to make a sprite move across their screen in order to continue to build their coding skills.

Schedule

	Monday 7/11	**Tuesday 7/12**	**Wednesday 7/13**	**Thursday 7/14**
K-2	Scratch exploration	Scratch partner activity	Scratch partner activity	Roblox Free Day
3-5	Scratch exploration	Scratch partner activity	Scratch partner activity	Roblox Free Day
Middle school	Educational exploration	Educational exploration (CAD field trip in PM)	CAD Literacy Program & educational exploration	Educational exploration

Projects and observations on the week
- Scratch has been mildly successful. Students struggle with being creative and making something without exact instructions. It's a slow process and if I had more time, we would continue to use Scratch, block by block.
- The partner activity on Tuesday and Wednesday was a struggle in some aspects and a success in other ways. There were groups of students who excelled and others that did not do so well.
- Partners were asked to do one of the tutorials Scratch presents to new users. There were step by step instructions that hopefully showed students some basic block patterns in Scratch. The hope was that with partners they could problem solve and create one of those tutorial projects.
- On Tuesday, a group of middle schoolers headed to the University for a CAD literacy field trip. It was a great event and I think the kids got a neat experience out of it.