

Your Name: Annie Dean

Class Level: EDUC 240

Date: January 17, 2019

Grade Level/Subject: 2nd grade Technology

List of Materials/Resources: Code Hopper, Code Mouse (and batteries), Computers/iPad.

Central Focus:

The purpose of this lesson is for students to leave with a better understanding of the basics of coding. The students will learn coding is a step-by-step process. This lesson will also prompt students to ask higher level questions about technology.

Measurable Learning Objectives/Goals:

Students will demonstrate coding with 90% accuracy. The Students will answer questions through collaborative conversation with 85% accuracy.

Ohio Learning Standards:

SL.2.3 Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.

1. Creativity and innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.

Instructional Activities/Methods:

All four of us (Rikki, Annie, Liegha, and Deanna), stand in front of the class and introduce ourselves to the class. "Hi everyone! My name is *Insert name here*". Go down the line until everyone has been introduced. After everyone has been introduced begin with oral questioning. "does anyone know what coding is?" *wait to see if anyone responds and correct accordingly* then ask the class, "by a show of hands, has any ever heard of or played the game Code Hopper?" *wait a few seconds to see if anyone raises their hands* If they have played it before tell them, "that is so great! But we are going to explain what it is just so everyone is on the same page." "There are little squares in this game. Every square has a action on it you have to complete when you land on it. If you see a square that says to repeat something multiple times, that means, whatever action you did before that square is the same action you have to repeat however many times that square says. Does anyone have any questions so far?" *wait to see if they have any questions and answer accordingly* then explain, "there are other squares that may have questions on them. If you land on this square you have to read the question then answer it by moving to the 'yes' or 'no' square beside it. Then you repeat these patterns until you complete all the squares." *make sure everyone is paying attention* "If you guys do really well we may have enough time to put the squares in different orders and do another round!" "Ready to get started and have some fun?" *go stand in the back of the room or where ever you want the line to start for the game then explain to the students*, "Okay I need a like behind me. BUT! Before you move, you have to be very quiet and walk. If you run or lose control you'll may have to move to the back of the line. So please just walk! Now you may come get in line." *Have students line up* then begin the game* *make sure to observe their interaction and encourage

them throughout this process. By saying things like, You got this! Or wow good job! You all are so smart!.” once the game is finished ask every to return to their seats quietly and walking.*
*once everyone sits down address the class. “Wow that was fun! Did you guys enjoy that game?” “now we are going to split up into two groups to do more fun activities with coding!” *call students out by their clothing color to divide into two groups.* “ If you wearing *color* you are going to go with Ms. Morris and Ms. Smith. *Rikki and Liegha raise their hands.* If you wearing *color* you are with me Ms. Dean and Mrs. Hensee *repeat until every student is chosen*. Once you know what group you are in you can move to your group leaders quietly and walking for further instruction. *students leave to go to their group* * Rikki and Liegha will be introducing the Foos. It is an online game where students code their way through levels. They can choose and complete instructions that are given to them on the screen. While they are doing this activity with their group. Deanna and I will have our group* *you will address my group on this next activity.* Okay, are you all are you reading to have some fun? *wait for some form of response* Great! Today we are doing an activity called Code Mouse. Has anyone ever played with this game before? *wait for responses* We are just going to go over how everything works before you guys get started. I will be explaining and Mrs. Hensee will be demonstrating for you all. On the mouse, Colby, he has buttons for him to move forward, rotate right, reverse, rotate left, action and clear. *Deanna demonstrates*. There are activity cards that have a picture of different mazes for Colby to go through. *Deanna holds them up*. Once you pick a maize you will build it. You will be in small groups so it is important to work together as a team. You then will use the coding cards to create a step-by-step path for Colby to find the cheese *Deanna holds up the coding cards*. Once you finish with the coding cards, turn Colby on. Once he is on, remember yellow is your clear button and green is your start button. The cards are color coated to match the buttons on the mouse. You will click the buttons that match the coding sequence you previously made. After you finish programming Colby, place him on the start of your track, press the green button and watch him go. Anyone have any questions? *wait for responses* Mrs. Hensee and I will come and pair you up with a partner and as soon as we give you your Code Mouse you can begin. *begin to hand out the Code Mouse to the students* *as the students begin working ask questions on what they are doing and how they are doing it. This will help assess their knowledge.* The students will play the game how ever long time will allow. When there is roughly 5 minutes left in the class have the students pack up their Code Mouse. The students will play the game how ever long time will allow. When there is roughly 7 minutes left in the class have the students pack up their Code Mouse. “Okay everyone, great job on this activity! Wasn’t it fun?! wait for responses* Now what I would like for you all to do is pack up your Code Mouse and once you pack it back up, me and Mrs. Hensee will split you guys up and discuss this activity”. ” *Listen for what they discuss. Ask “do you think you have a better understanding of what coding is? Tell me one thing you learned? *This should take them to the end of the period.” Once the bell rings say, “You all did so well! Have a great rest of your day!”

Connection to Prior Knowledge:

Students understand that technology has some form of coding.

Vocabulary/Academic Language:

Vocabulary:

Coding

Technology
Code Hopper
Code Mouse
The Foos

Academic Language:

Applying
Understanding
Remember

Assessments: Formative

Before: Questioning. What is coding? Have you heard of/ played Code Hopper? Have you heard of/ played code mouse? Have you heard of/played The foos?

During: Questioning. How did you do that? What does these buttons do? Can you explain to me what you are doing?

After: Questioning. What's one thing you learned? Do you have a better understanding of coding? What is coding? How could you use this outside of this room?

Special Needs of Students: Differentiation

Enrichment: Harder challenge cards for code mouse.

Intervention: Additional one-on-one help as needed.

Reflection:

- 1.) They were very physical by playing Code Hopper and imitating the actions it asked them to do. By the end of this lesson their language grew and they used words such as, "coding" and "algorithm". This lesson was appropriate because they were able to play and learn at the same time.
- 2.) This lesson went better than I expected. The students picked up on the concepts very quickly and expressed how much they enjoyed the activities. The only issue was, with Code Mouse, some of the mice were not moving in straight lines. Because of that, the mice could not reach their end point or they would confuse the students.
- 3.) If I were to teach this lesson again I would check the mice to make sure they are moving how they are suppose to move. I would also allow the students to do the beginning activity a couple more times before moving on to Code Mouse.
- 4.) The students learned what I wanted them to learn because, at the end of the lesson, I asked each student what was one thing they learned, and if they could tell me a definition of coding. Every student was able to do so.