Teacher Observation

Domain 1: Planning and Preparation

Fft 2013 – HEDI – 1a:

Component	Ineffective	Developing	Effective	Highly Effective
1a: Demonstrating Knowledge of Content and Pedagogy **Indicators:** **1. Lesson and unit plans that reflect important concepts in the discipline** **2. Lesson and unit plans that accommodate prerequisite relationships among concepts and skills** **3. Clear and accurate classroom explanations** **4. Accurate answers to students' questions** **5. Feedback to students that furthers learning** **6. Interdisciplinary connections in plans and practice.**	In planning and practice, the teacher makes content errors or does not correct errors made by students. The teacher displays little understanding of prerequisite knowledge important to student learning of the content. The teacher displays little or no understanding of the range of pedagogical approaches suitable to student learning of the content. **Critical Attributes:** 1. The teacher makes content errors. 2. The teacher does not consider prerequisite relationships when planning. 3. The teacher's plans use inappropriate strategies for the discipline.	The teacher is familiar with the important concepts in the discipline but displays a lack of awareness of how these concepts relate to one another. The teacher indicates some awareness of prerequisite learning, although such knowledge may be inaccurate or incomplete. The teacher's plans and practice reflect a limited range of pedagogical approaches to the discipline or to the students. **Critical Attributes:** 1. The teacher's understanding of the discipline is rudimentary. 2. The teacher's knowledge of prerequisite relationships is inaccurate or incomplete. 3. Lesson and unit plans use limited instructional strategies, and some are not suitable to the content.	The teacher displays solid knowledge of the important concepts in the discipline and how these relate to one another. The teacher demonstrates accurate understanding of prerequisite relationships among topics. The teacher's plans and practice reflect familiarity with a wide range of effective pedagogical approaches in the subject. **Critical Attributes:** 1. The teacher can identify important concepts of the discipline and their relationships to one another. 2. The teacher provides clear explanations of the content. 3. The teacher answers students' questions accurately and provides feedback that furthers their learning. 4. Instructional strategies in unit and lesson plans are entirely suitable to the content.	The teacher displays extensive knowledge of the important concepts in the discipline and how these relate both to one another and to other disciplines. The teacher demonstrates understanding of prerequisite relationships among topics and concepts and understands the link to necessary cognitive structures that ensure student understanding. The teacher's plans and practice reflect familiarity with a wide range of effective pedagogical approaches in the discipline and the ability to anticipate student misconceptions. **Critical Attributes:** 1. The teacher cites intra- and interdisciplinary content relationships. 2. The teacher's plans demonstrate awareness of possible student misconceptions and how they can be addressed. 3. The teacher's plans reflect recent developments in content-related pedagogy.

Notes and Evidence:
During your pre-observation conference, we discussed the student learning outcomes/objectives and CCS learning outcomes of your lesson. We also discussed the data you used when determining the outcome/objective(s) of the lesson. You provided the following statement:

"Gamemaker Course Learning goal:
- The students will understand the basics of conductivity and Makey Makey controllers by summarizing their work in a written assignment.
- The students will apply their knowledge of circuits and Makey Makey controllers by demonstrating the ability to create a basic video-game controller.

CCSS Standards:
ELA-L.RST.11-12.3: Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.
ELA-L..RST.11-12.9: Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.

CSTA Standards:
CT.L3B-08 Use models and simulations to help formulate, refine, and test scientific hypotheses.   CT.L3B-09 Analyze data and identify patterns through modeling and simulation.
CD.L3A-04 Compare various forms of input and output.
CD.L3B-02 Identify and describe hardware

ISTE Standards:
3.A. Plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.
4.C Develop, test and refine prototypes as part of a cyclical design process.

          These outcomes were informed by my knowledge that understanding the relationship between hardware and software is crucial for a game designer. Since this is a topic that is new for all students, (an informal poll showed that none have done this before), all students will be starting at the beginning and receiving an introduction to the material, including a brief review of circuits.
          We started our circuit review in the previous class, and will continue in the following class. Students indicated that they had studied circuits before, but that it had been a long time and they did not all feel comfortable with the subject. I will be reinforcing this knowledge with the way it specifically relates to using the Makey Makeys
          In addition to meeting these technical goals, students will also be developing skills such as research strategies and testing and following multistep procedures, which are crucial skills that can be used in many disciplines. Students will need to express their learning and be able to communicate with others to create and test their work."

Rubric Score: 4/4

Fft 2013 – HEDI – 1a: N/A

Component	Insufficient Evidence
N/A	

Fft 2013 - HEDI - 1a: Critical Attributes

- Highly Effective - The teacher cites intra- and interdisciplinary content relationships.
- Highly Effective - The teacher's plans demonstrate awareness of possible student misconceptions and how they can be addressed.
- Highly Effective - The teacher's plans reflect recent developments in content-related pedagogy.

Fft 2013 - HEDI - 1b:

Component	Ineffective	Developing	Effective	Highly Effective
1b: Demonstrating Knowledge of Students **Indicators:** **1. Formal and informal information about students gathered by the teacher for use in planning instruction** **2. Student interests and needs learned by the teacher for use in planning** **3. Teacher participation in community cultural events** **4. Teacher-designed opportunities for families to share their heritages** **5. Database of students with special needs.**	The teacher displays minimal understanding of how students learn - and little knowledge of their varied approaches to learning, knowledge and skills, special needs, and interests and cultural heritages - and does not indicate that such knowledge is valuable. **Critical Attributes:** 1. The teacher does not understand child development characteristics and has unrealistic expectations for students. 2. The teacher does not try to ascertain varied ability levels among students in the class. 3. The teacher is not aware of students' interests or cultural heritages. 4. The teacher takes no responsibility to learn about students' medical or learning disabilities.	The teacher displays generally accurate knowledge of how students learn and of their varied approaches to learning, knowledge and skills, special needs, and interests and cultural heritages, yet may apply this knowledge not to individual students but to the class as a whole. **Critical Attributes:** 1. The teacher cites developmental theory but does not seek to integrate it into lesson planning. 2. The teacher is aware of the different ability levels in the class but tends to teach to the "whole group." 3. The teacher recognizes that students have different interests and cultural backgrounds but rarely draws on their contributions or differentiates materials to accommodate those differences. 4. The teacher is aware of medical issues and learning disabilities with some students but does not seek to understand the implications of that knowledge.	The teacher understands the active nature of student learning and attains information about levels of development for groups of students. The teacher also purposefully acquires knowledge from several sources about groups of students' varied approaches to learning, knowledge and skills, special needs, and interests and cultural heritages. **Critical Attributes:** 1. The teacher knows, for groups of students, their levels of cognitive development. 2. The teacher is aware of the different cultural groups in the class. 3. The teacher has a good idea of the range of interests of students in the class. 4. The teacher has identified "high", "medium", and "low" groups of students within the class. 5. The teacher is well informed about students' cultural heritages and incorporates this knowledge in lesson planning. 6. The teacher is aware of the special needs represented by students in the class.	The teacher understands the active nature of student learning and acquires information about levels of development for individual students. The teacher also systematically acquires knowledge from several sources about individual students' varied approaches to learning, knowledge and skills, special needs, and interests and cultural heritages. **Critical Attributes:** 1. The teacher uses ongoing methods to assess students' skill levels and designs instruction accordingly. 2. The teacher seeks out information from all students about their cultural heritages. 3. The teacher maintains a system of updated student records and incorporates medical and/or learning needs into lesson plans.

Notes and Evidence:
During your pre-observation conference, we discussed your knowledge of all the students in your class. We discussed strategies for differentiating instruction to meet the lesson objective. You provided the following statement:

"I have three students in the class for whom English is their second language. Early in the year, I discussed with the students their preferences for learning. The students have let me know that they prefer to have instructions given on paper, rather than orally. These students often work together through projects and do not always understand my oral directions or explanations the first time.
Another student in the class is Joe. Joe's IEP states that his reading comprehension and decoding skills are below average, therefore, Joe sometimes struggles to convert the written instructions correctly into a working program and does better with oral directions. Joe is creative and exploratory and often works alone on his projects.
I have another student, AJ, who is autistic and very quiet. AJ is respectful and stays on task, but sometimes will not ask for help when she is stuck. AJ also chooses to work alone. It was stated to me in her case that she often has trouble speaking or conversing in a group where she does not feel comfortable.
The last student with an IEP is Andre, who is diagnosed with ADHD. I have not seen any signs of this in my classroom, as this class is of great interest to Andre, and he stays on topic and is very involved in his work.
The three other students in the class are generally respectful and very interested in programming. In general the class is mostly independent work, with students asking each other for assistance when needed.
All students in the class often go above and beyond the resources given, and I like to provide them with exploratory ways that they can connect the work we do in class to their interests. Students will search the internet for ways to do advanced programming and have designed characters and games that fit their interests. In this unit, they will eventually design a controller that is especially created for the game that they have been working on in class.
Overall, there is a wide variety of students in the small class, and I align my lessons to include choice for the students. For each assignment, there is verbal instruction from me, written instruction for the students to refer to, and some also include video instruction as well. Students are also encouraged to seek out the answers to their questions from each other by working in groups or by looking online. This is a skill that I am deliberately teaching, because in computer science, it is absolutely necessary to know how to find the answer - and it is probably more important than knowing the answer itself.
Because much of the class is then independent work, I am able to go around the room to check in on students, give them individual help as needed, and to guide them towards extra topics that may be of interest to them. By allowing the students choice and flexibility in their learning styles, I am able to make sure the lesson is tailored to meet the needs of all students while meeting the minimum objectives and learning goals for the course."

Rubric Score: 4/4

Fft 2013 - HEDI - 1b: N/A

Component	Insufficient Evidence
N/A	

Fft 2013 - HEDI - 1b: Critical Attributes

- Highly Effective - The teacher uses ongoing methods to assess students' skill levels and designs instruction accordingly.
- Highly Effective - The teacher maintains a system of updated student records and incorporates medical and/or learning needs into lesson plans.

Fft 2013 - HEDI - 1c:

Component	Ineffective	Developing	Effective	Highly Effective
1c: Setting Instructional Outcomes **Indicators:** **1. Outcomes of a challenging cognitive level**	The outcomes represent low expectations for students and lack of rigor, and not all of these outcomes reflect important learning in the discipline. They are stated as student activities,	Outcomes represent moderately high expectations and rigor. Some reflect important learning in the discipline and consist of a combination of outcomes and activities. Outcomes reflect	Most outcomes represent rigorous and important learning in the discipline and are clear, are written in the form of student learning, and suggest viable methods of assessment.	All outcomes represent high-level learning in the discipline. They are clear, are written in the form of student learning, and permit viable methods of assessment. Outcomes reflect

2. Statements of student learning, not student activity
3. Outcomes central to the discipline and related to those in other disciplines
4. Outcomes permitting assessment of student attainment
5. Outcomes differentiated for students of varied ability.

rather than as outcomes for learning. Outcomes reflect only one type of learning and only one discipline or strand and are suitable for only some students. **Critical Attributes:** 1. Outcomes lack rigor. 2. Outcomes do not represent important learning in the discipline. 3. Outcomes are not clear or are stated as activities. 4. Outcomes are not suitable for many students in the class.	several types of learning, but the teacher has made no effort at coordination or integration. Outcomes, based on global assessments of student learning, are suitable for most of the students in the class. **Critical Attributes:** 1. Outcomes represent a mixture of low expectations and rigor. 2. Some outcomes reflect important learning in the discipline. 3. Outcomes are suitable for most of the class.	Outcomes reflect several different types of learning and opportunities for coordination, and they are differentiated, in whatever way is needed, for different groups of students. **Critical Attributes:** 1. Outcomes represent high expectations and rigor. 2. Outcomes are related to "big ideas" of the discipline. 3. Outcomes are written in terms of what students will learn rather than do. 4. Outcomes represent a range of types: factual knowledge, conceptual understanding, reasoning, social interaction, management, and communication. 5. Outcomes, differentiated where necessary, are suitable to groups of students in the class.	several different types of learning and, where appropriate, represent both coordination and integration. Outcomes are differentiated, in whatever way is needed, for individual students. **Critical Attributes:** 1. The teacher's plans reference curricular frameworks or blueprints to ensure accurate sequencing. 2. The teacher connects outcomes to previous and future learning. 3. Outcomes are differentiated to encourage individual students to take educational risks.

Notes and Evidence:
During your pre-observation conference, we discussed the instructional outcomes of your lesson. We discussed how the lesson aligns within your current unit of study. You provided the following statement:

"The current unit of study is on hardware design, which is an important component in game design. Before this unit, students learned the basics of the Scratch programming language, and then worked to create a game for the user focusing on software user design. This unit will build upon the design elements of the previous unit, but with a focus on the tangible controller. Students will also understand the difference between hardware and software, which is a key component in computer science.

In this specific lesson, students will also understand the basics of conductivity and circuits. They will demonstrate their knowledge by creating a basic controller with a Makey Makey and submitting written information. A Makey Makey is a tool for hardware design which lets the students create their own input device. Just as we learned the scratch programming language before designing a video game, students need to know how to use the Makey Makey tool before learning how to design an input device.

After students learn how to use this tool, they can use it to extend their learning by designing and implementing their own video game controllers. This will be the culmination of this unit. The skills learned by creating the controllers will help students understand input and hardware better, and will also be helpful if they decide to pursue other computer science classes such as robotics."

Rubric Score: 4/4

Fft 2013 - HEDI - 1c: N/A

Component	Insufficient Evidence
N/A	

Fft 2013 - HEDI - 1c: Critical Attributes

- Highly Effective - The teacher's plans reference curricular frameworks or blueprints to ensure accurate sequencing.
- Highly Effective - The teacher connects outcomes to previous and future learning.
- Highly Effective - Outcomes are differentiated to encourage individual students to take educational risks.

Fft 2013 - HEDI - 1d:

Component	Ineffective	Developing	Effective	Highly Effective
1d: Demonstrating Knowledge of Resources **Indicators:** **1. Materials provided by the district** **2. Materials provided by professional organizations** **3. A range of texts** **4. Internet resources** **5. Community resources** **6. Ongoing participation by the teacher in professional education courses or professional groups** **7. Guest speakers.**	The teacher is unaware of resources to assist student learning beyond materials provided by the school or district, nor is the teacher aware of resources for expanding one's own professional skill. **Critical Attributes:** 1. The teacher uses only district-provided materials, even when more variety would assist some students. 2. The teacher does not seek out resources available to expand her own skill. 3. Although the teacher is aware of some student needs, he does not inquire about possible resources.	The teacher displays some awareness of resources beyond those provided by the school or district for classroom use and for extending one's professional skill but does not seek to expand this knowledge. **Critical Attributes:** 1. The teacher uses materials in the school library but does not search beyond the school for resources. 2. The teacher participates in content-area workshops offered by the school but does not pursue other professional development. 3. The teacher locates materials and resources for students that are available through the school but does not pursue any other avenues.	The teacher displays awareness of resources beyond those provided by the school or district, including those on the Internet, for classroom use and for extending one's professional skill, and seeks out such resources. **Critical Attributes:** 1. Texts are at varied levels. 2. Texts are supplemented by guest speakers and field experiences. 3. The teacher facilitates the use of Internet resources. 4. Resources are multidisciplinary. 5. The teacher expands his/her knowledge through professional learning groups and organizations. 6. The teacher pursues options offered by universities. 7. The teacher provides lists of resources outside the classroom for students to draw on.	The teacher's knowledge of resources for classroom use and for extending one's professional skill is extensive, including those available through the school or district, in the community, through professional organizations and universities, and on the Internet. **Critical Attributes:** 1. Texts are matched to student skill level. 2. The teacher has ongoing relationships with colleges and universities that support student learning. 3. The teacher maintains a log of resources for student reference. 4. The teacher pursues apprenticeships to increase discipline knowledge. 5. The teacher facilitates student contact with resources outside the classroom.

Notes and Evidence:
During your pre-observation conference, we discussed the instructional materials, including technology, you would employ to meet the learning outcomes/objectives of the lesson. You provided the following statement:

"While there is a tutorial on Makey Makey's website, the lessons and materials created for this lesson are all create by me. This is because I did not feel there was a good lesson out there that took into account my students' current knowledge and educational goals. This is true in general for this entire course.

To deliver my materials to students, I use a variety of technology and tools to enhance my teaching. The first that I will use in this lesson is a PearDeck presentation. This will allow me to demonstrate the lesson and to receive formative assessment of students during the presentation to make sure they understood the topics from yesterday as well as the topics presented today. The application will also allow students to follow along with the presentation on their iPads so they can better see what is going on. I will also use written instructions with images so that students who prefer to do so, can walk through the instructions one-by-one. This presentation is available to students after

the class, so they can review.

  The second piece of technology used to deliver the material is CodeOYO. The students required and exploratory challenges are all posted on CodeOYO, and they have been logging in to complete the challenges and earn badges throughout the year. In addition to holding the challenges and badges, CodeOYO also hosts "courses" where I can upload the content for students to follow at their own pace. For this lesson, students will complete a CodeOYO challenge with the reflective questions to earn a badge of completion. Students who are unable to complete the challenge on the first time will be given unlimited retries to gain mastery. In addition, I have provided the Makey Makey information which includes the presentation and additional resources, as a course for those students who need additional instruction or review.

  For building materials, we will use the Makey Makey kit, one for each student, which will allow students to interface with the computer and create their own hardware. The Makey Makey kit includes a Makey Makey, a USB cord, and Alligator clips to connect objects to the board. I will also have various creative materials, including aluminum foil, graphite pencils, fruits, vegetables, play-doh, coins, and cardboard. After guiding the students with the banana, I want them to experiment and make their controller their own. In future lessons, I will tell students that they can bring in objects from their home to support their designs.

  The materials are broken into two categories, those that are necessary to create the physical controller, and those that are used for delivering information to students. The objects for the physical controller include the Makey Makey and the various props. These items are important because students are more likely to understand the connection between hardware and software and the design process if they are hands on. By physically creating hardware just as they have physically created software, they will feel connected to the entire computer process

  The other instructional materials including the PearDeck and written instructions are used for students to understand the process of the lesson. The information will be available to students in several ways (lecture, demo, written instructions, online resources, peer help and teacher help). This will help differentiate the lesson so that each student can meet the learning objective of being able to understand and use a Makey Makey so that they can later create their own hardware controller."

Rubric Score: 4/4

Fft 2013 - HEDI - 1d: N/A

Component	Insufficient Evidence
N/A	

Fft 2013 - HEDI - 1d: Critical Attributes

- Highly Effective - The teacher has ongoing relationships with colleges and universities that support student learning.
- Highly Effective - The teacher maintains a log of resources for student reference.
- Highly Effective - The teacher facilitates student contact with resources outside the classroom.

Fft 2013 - HEDI - 1e:

Component	Ineffective	Developing	Effective	Highly Effective
1e: Designing Coherent Instruction **Indicators:** **1. Lessons that support instructional outcomes and reflect important concepts** **2. Instructional maps that indicate relationships to prior learning** **3. Activities that represent high-level thinking** **4. Opportunities for student choice** **5. Use of varied resources** **6. Thoughtfully planned learning groups** **7. Structured lesson plans.**	Learning activities are poorly aligned with the instructional outcomes, do not follow an organized progression, are not designed to engage students in active intellectual activity, and have unrealistic time allocations. Instructional groups are not suitable to the activities and offer no variety. **Critical Attributes:** 1. Learning activities are boring and/or not well aligned to the instructional goals. 2. Materials are not engaging or do not meet instructional outcomes. Instructional groups do not support learning. 3. Lesson plans are not structured or sequenced and are unrealistic in their expectations.	Some of the learning activities and materials are aligned with the instructional outcomes and represent moderate cognitive challenge, but with no differentiation for different students. Instructional groups partially support the activities, with some variety. The lesson or unit has a recognizable structure; but the progression of activities is uneven, with only some reasonable time allocations. **Critical Attributes:** 1. Learning activities are moderately challenging. 2. Learning resources are suitable, but there is limited variety. 3. Instructional groups are random, or they only partially support objectives. 4. Lesson structure is uneven or may be unrealistic about time expectations.	Most of the learning activities are aligned with the instructional outcomes and follow an organized progression suitable to groups of students. The learning activities have reasonable time allocations; they represent significant cognitive challenge, with some differentiation for different groups of students and varied use of instructional groups. **Critical Attributes:** 1. Learning activities are matched to instructional outcomes. 2. Activities provide opportunity for higher-level thinking. 3. The teacher provides a variety of appropriately challenging materials and resources. 4. Instructional student groups are organized thoughtfully to maximize learning and build on students' strengths. 5. The plan for the lesson or unit is well structured, with reasonable time allocations.	The sequence of learning activities follows a coherent sequence, is aligned to instructional goals, and is designed to engage students in high-level cognitive activity. These are appropriately differentiated for individual learners. Instructional groups are varied appropriately, with some opportunity for student choice. **Critical Attributes:** 1. Activities permit student choice. 2. Learning experiences connect to other disciplines. 3. The teacher provides a variety of appropriately challenging resources that are differentiated for students in the class. 4. Lesson plans differentiate for individual student needs.

Notes and Evidence:
During your pre-observation conference, we discussed how your instructional strategies would promote higher levels of thinking and student engagement. You provided the following statement:

  "In the beginning of the lesson I will use a PearDeck presentation to engage the students. This class of students in particular is quiet and not prone to class discussion. There are several reasons for this, including students for whom English is their second language, students who have learning or developmental disabilities which affect their propensity towards speech, or simply introverts who are uncomfortable speaking in a classroom setting. PearDeck allows students to participate in a low-stress environment. By having students respond to the PearDeck questions, I can see who understands and who doesn't quickly. I can also use the students' answers as a springboard into a discussion, which allows me to keeps students engaged and interested. This also keeps students engaged in the learning material, and I can see if students have logged off of the presentation or if they are not answering correctly.

  Additionally, a hands on lesson allows students to experiment and play with materials on their own, using trial and error to determine how to connect and interface with objects. During this lesson, students are given choice as to the materials and mediums that they use to create their work. They are also encouraged to work in small groups if they would like, which allows them to collaborate or practice their explanation skills as they work together to complete the challenges and to come up with ideas for their projects. By giving students choice and having them work with their hands will keep students engaged, and the scaffolding of the assignment from a demonstration to individual work leads students to higher level thinking.

Finally, the skills learned in this lesson will lead to students designing their own controllers later in the unit, which will require high-level thinking for the designing and testing process. Students will use the information they know about understanding the Makey Makey and then use it to design a controller that matches their individual game that they have programmed in Scratch. They will be given a lot of choice and leeway into creating their controller, and we will work together to achieve their vision."

Rubric Score: 4/4

Fft 2013 - HEDI - 1e: N/A

Component	Insufficient Evidence
N/A	

Fft 2013 - HEDI - 1e: Critical Attributes

- Highly Effective - Activities permit student choice.
- Highly Effective - Learning experiences connect to other disciplines.
- Highly Effective - The teacher provides a variety of appropriately challenging resources that are differentiated for students in the class.
- Highly Effective - Lesson plans differentiate for individual student needs.

Fft 2013 - HEDI - 1f:

Component	Ineffective	Developing	Effective	Highly Effective
1f: Designing Student Assessments **Indicators:** **1. Lesson plans indicating correspondence between assessments and instructional outcomes** **2. Assessment types suitable to the style of outcome** **3. Variety of performance opportunities for students** **4. Modified assessments available for individual students as needed** **5. Expectations clearly written with descriptors for each level of performance** **6. Formative assessments designed to inform minute-to-minute decision making by the teacher during instruction.**	Assessment procedures are not congruent with instructional outcomes and lack criteria by which student performance will be assessed. The teacher has no plan to incorporate formative assessment in the lesson or unit. **Critical Attributes:** 1. Assessments do not match instructional outcomes. 2. Assessments lack criteria. 3. No formative assessments have been designed. 4. Assessment results do not affect future plans.	Assessment procedures are partially congruent with instructional outcomes. Assessment criteria and standards have been developed, but they are not clear. The teacher's approach to using formative assessment is rudimentary, including only some of the instructional outcomes. **Critical Attributes:** 1. Only some of the instructional outcomes are addressed in the planned assessments. 2. Assessment criteria are vague. 3. Plans refer to the use of formative assessments, but they are not fully developed. 4. Assessment results are used to design lesson plans for the whole class, not individual students.	All the instructional outcomes may be assessed by the proposed assessment plan; assessment methodologies may have been adapted for groups of students. Assessment criteria and standards are clear. The teacher has a well-developed strategy for using formative assessment and has designed particular approaches to be used. **Critical Attributes:** 1. All the learning outcomes have a method for assessment. 2. Assessment types match learning expectations. 3. Plans indicate modified assessments when they are necessary for some students. 4. Assessment criteria are clearly written. 5. Plans include formative assessments to use during instruction. 6. Lesson plans indicate possible adjustments based on formative assessment data.	All the instructional outcomes may be assessed by the proposed assessment plan, with clear criteria for assessing student work. The plan contains evidence of student contribution to its development. Assessment methodologies have been adapted for individual students as the need has arisen. The approach to using formative assessment is well designed and includes student as well as teacher use of the assessment information. **Critical Attributes:** 1. Assessments provide opportunities for student choice. 2. Students participate in designing assessments for their own work. 3. Teacher-designed assessments are authentic, with real-world application as appropriate. 4. Students develop rubrics according to teacher-specified learning objectives. 5. Students are actively involved in collecting information from formative assessments and provide input.

Notes and Evidence:
During your pre-observation conference, we discussed your plan for assessing student achievement. You provided the following statement:

"One goal of this class is to understand the basics of conductivity and Makey Makey controllers. Students will demonstrate this by creating a circuit and summarizing their work in a written assignment on CodeOYO. The questions asked will let me know if students understand the basics of conductivity and how it relates to the creation of their controller. While I expect most students to complete the assignment today, students who cannot complete it or who show misconceptions will be able to recomplete the assignment until they earn the badge.
     In class, I will be able to monitor achievement first through the PearDeck Questions. Students responses will appear on my iPad, and I will be able to know if there are large misconceptions in the class, or if a few students are not understanding (and who those students are). I will be able to modify my instruction given to the class in real time.
     The second way I will be able to monitor achievement is by watching students create their circuit controllers. It will be very clear which students are working, which students are off task, and which are struggling. This lesson in particular is very obvious when students have mastered a concept because I will hear their computers making noise. Since students will be working independently, I will be able to walk around, monitor progress, answer questions, and seek out students who do not seem to be making progress or who are drifting off-task.
     I will work with students who struggle with the assessments next class, to give them a mini-lesson to increase their understanding and to try to help them complete the assessment to demonstrate mastery of this objective."

Rubric Score: 4/4

Fft 2013 - HEDI - 1f: N/A

Component	Insufficient Evidence
N/A	

Fft 2013 - HEDI - 1f: Critical Attributes

- Highly Effective - Assessments provide opportunities for student choice.
- Highly Effective - Students participate in designing assessments for their own work.
- Highly Effective - Teacher-designed assessments are authentic, with real-world application as appropriate.
- Highly Effective - Students are actively involved in collecting information from formative assessments and provide input.

Domain 2: The Classroom Environment

Fft 2013 - HEDI - 2a:

Component	Ineffective	Developing	Effective	Highly Effective
2a: Creating an Environment of Respect and Rapport **Indicators:** **1. Respectful talk, active listening, and turn-taking** **2. Acknowledgment of students' backgrounds and lives outside the classroom** **3. Body language indicative of warmth and caring shown**	Patterns of classroom interactions, both between teacher and students and among students, are mostly negative, inappropriate, or insensitive to students' ages, cultural backgrounds, and developmental levels. Student interactions are characterized by sarcasm, put-downs, or conflict. The teacher does not deal with	Patterns of classroom interactions, both between teacher and students and among students, are generally appropriate but may reflect occasional inconsistencies, favoritism, and disregard for students' ages, cultures, and developmental levels. Students rarely demonstrate disrespect for one another. The teacher	Teacher-student interactions are friendly and demonstrate general caring and respect. Such interactions are appropriate to the ages, cultures, and developmental levels of the students. Interactions among students are generally polite and respectful, and students exhibit respect for the teacher. The teacher	Classroom interactions between the teacher and students and among students are highly respectful, reflecting genuine warmth, caring, and sensitivity to students as individuals. Students exhibit respect for the teacher and contribute to high levels of civility among all members of the class. The net result is an environment where

by teacher and students
4. Physical proximity
5. Politeness and encouragement
6. Fairness.

disrespectful behavior.	attempts to respond to disrespectful behavior, with uneven results. The net result of the interactions is neutral, conveying neither warmth nor conflict.	responds successfully to disrespectful behavior among students. The net result of the interactions is polite, respectful, and business-like, though students may be somewhat cautious about taking intellectual risks.	all students feel valued and are comfortable taking intellectual risks.
Critical Attributes: 1. The teacher is disrespectful toward students or insensitive to students' ages, cultural backgrounds, and developmental levels. 2. Students' body language indicates feelings of hurt, discomfort, or insecurity. 3. The teacher displays no familiarity with, or caring about, individual students. 4. The teacher disregards disrespectful interactions among students.	**Critical Attributes:** 1. The quality of interactions between teacher and students, or among students, is uneven, with occasional disrespect or insensitivity. 2. The teacher attempts to respond to disrespectful behavior among students, with uneven results. 3. The teacher attempts to make connections with individual students, but student reactions indicate that these attempts are not entirely successful.	**Critical Attributes:** 1. Talk between the teacher and students and among students is uniformly respectful. 2. The teacher successfully responds to disrespectful behavior among students. 3. Students participate willingly, but may be somewhat hesitant to offer their ideas in front of classmates. 4. The teacher makes general connections with individual students. 5. Students exhibit respect for the teacher.	**Critical Attributes:** 1. The teacher demonstrates knowledge and caring about individual students' lives beyond the class and school. 2. There is no disrespectful behavior among students. 3. When necessary, students respectfully correct one another. 4. Students participate without fear of put-downs or ridicule from either the teacher or other students. 5. The teacher respects and encourages students' efforts.

Notes and Evidence:
Several statements you made during the class to students included the following:

"You got it to work? Let me see. Nice!"
"Thank you, ____."
"Great work!"
"Is this exciting?"
"Great work! See you tomorrow."

Rubric Score: 4/4

Fft 2013 - HEDI - 2a: N/A

Component	Insufficient Evidence
N/A	

Fft 2013 - HEDI - 2a: Critical Attributes

- Highly Effective - There is no disrespectful behavior among students.
- Highly Effective - When necessary, students respectfully correct one another.
- Highly Effective - Students participate without fear of put-downs or ridicule from either the teacher or other students.
- Highly Effective - The teacher respects and encourages students' efforts.

Fft 2013 - HEDI - 2b:

Component	Ineffective	Developing	Effective	Highly Effective
2b: Establishing a Culture for Learning **Indicators:** **1. Belief in the value of what is being learned** **2. High expectations, supported through both verbal and nonverbal behaviors, for both learning and participation** **3. Expectation of high-quality work on the part of students** **4. Expectation and recognition of effort and persistence on the part of students** **5. High expectations for expression and work products.**	The classroom culture is characterized by a lack of teacher or student commitment to learning, and/or little or no investment of student energy in the task at hand. Hard work and the precise use of language are not expected or valued. Medium to low expectations for student achievement are the norm, with high expectations for learning reserved for only one or two students. **Critical Attributes:** 1. The teacher conveys that there is little or no purpose for the work, or that the reasons for doing it are due to external factors. 2. The teacher conveys to at least some students that the work is too challenging for them. 3. Students exhibit little or no pride in their work. 4. Students use language incorrectly; the teacher does not correct them.	The classroom culture is characterized by little commitment to learning by the teacher or students. The teacher appears to be only "going through the motions," and students indicate that they are interested in the completion of a task rather than the quality of the work. The teacher conveys that student success is the result of natural ability rather than hard work, and refers only in passing to the precise use of language. High expectations for learning are reserved for those students thought to have a natural aptitude for the subject. **Critical Attributes:** 1. The teacher's energy for the work is neutral, neither indicating a high level of commitment nor ascribing the need to do the work to external forces. 2. The teacher conveys high expectations for only some students. 3. Students exhibit a limited commitment to complete the work on their own; many students indicate that they are looking for an "easy path". 4. The teacher's primary concern appears to be to complete the task at hand. 5. The teacher urges, but does not insist, that students use precise language.	The classroom culture is a place where learning is valued by all; high expectations for both learning and hard work are the norm for most students. Students understand their role as learners and consistently expend effort to learn. Classroom interactions support learning, hard work, and the precise use of language. **Critical Attributes:** 1. The teacher communicates the importance of the content and the conviction that with hard work all students can master the material. 2. The teacher demonstrates a high regard for students' abilities. 3. The teacher conveys an expectation of high levels of student effort. 4. Students expend good effort to complete work of high quality. 5. The teacher insists on precise use of language by students.	The classroom culture is a cognitively busy place, characterized by a shared belief in the importance of learning. The teacher conveys high expectations for learning for all students and insists on hard work; students assume responsibility for high quality by initiating improvements, making revisions, adding detail, and/or assisting peers in their precise use of language. **Critical Attributes:** 1. The teacher communicates passion for the subject. 2. The teacher conveys the satisfaction that accompanies a deep understanding of complex content. 3. Students indicate through their questions and comments a desire to understand the content. 4. Students assist their classmates in understanding the content. 5. Students take initiative in improving the quality of their work. 6. Students correct one another in their use of language.

Notes and Evidence:
As soon as the class started, students were quietly sitting at their computer stations logging onto the PearDeck presentation.
Students seemed surprised when you introduced the lesson by stating, "My bananas are now an input!" Throughout the lesson, students took the initiative in improving the quality of their work. Students went to the Makey Makey site themselves as well as your CodeOYO class to improve the quality of their work.

See the attached artifacts.

Rubric Score: 4/4

Fft 2013 - HEDI - 2b: N/A

Component	Insufficient Evidence
N/A	

Fft 2013 - HEDI - 2b: Critical Attributes

- Highly Effective - The teacher communicates passion for the subject.
- Highly Effective - The teacher conveys the satisfaction that accompanies a deep understanding of complex content.
- Highly Effective - Students indicate through their questions and comments a desire to understand the content.
- Highly Effective - Students assist their classmates in understanding the content.
- Highly Effective - Students take initiative in improving the quality of their work.

Fft 2013 - HEDI - 2c:

Component	Ineffective	Developing	Effective	Highly Effective
2c: Managing Classroom Procedures **Indicators:** **1. Smooth functioning of all routines** **2. Little or no loss of instructional time** **3. Students playing an important role in carrying out the routines** **4. Students knowing what to do, where to move.**	Much instructional time is lost due to inefficient classroom routines and procedures. There is little or no evidence of the teacher's management of instructional groups and transitions and/or handling of materials and supplies effectively. There is little evidence that students know or follow established routines, or that volunteers and paraprofessionals have clearly defined tasks. **Critical Attributes:** 1. Students not working with the teacher are not productively engaged. 2. Transitions are disorganized, with much loss of instructional time. 3. There do not appear to be any established procedures for distributing and collecting materials. 4. A considerable amount of time is spent off task because of unclear procedures. 5. Volunteers and paraprofessionals have no defined role and/or are idle much of the time.	Some instructional time is lost due to partially effective classroom routines and procedures. The teacher's management of instructional groups and transitions, or handling of materials and supplies, or both, are inconsistent, leading to some disruption of learning. With regular guidance and prompting, students follow established routines, and volunteers and paraprofessionals perform their duties. **Critical Attributes:** 1. Students not working directly with the teacher are only partially engaged. 2. Procedures for transitions seem to have been established, but their operation is not smooth. 3. There appear to be established routines for distribution and collection of materials, but students are confused about how to carry them out. 4. Classroom routines function unevenly. 5. Volunteers and paraprofessionals require frequent supervision.	There is little loss of instructional time due to effective classroom routines and procedures. The teacher's management of instructional groups and transitions, or handling of materials and supplies, or both, are consistently successful. With minimal guidance and prompting, students follow established classroom routines, and volunteers and paraprofessionals contribute to the class. **Critical Attributes:** 1. Students are productively engaged during small-group or independent work. 2. Transitions between large- and small-group activities are smooth. 3. Routines for distribution and collection of materials and supplies work efficiently. 4. Classroom routines function smoothly. 5. Volunteers and paraprofessionals work with minimal supervision.	Instructional time is maximized due to efficient and seamless classroom routines and procedures. Students take initiative in the management of instructional groups and transitions, and/or the handling of materials and supplies. Routines are well understood and may be initiated by students. Volunteers and paraprofessionals make an independent contribution to the class. **Critical Attributes:** 1. With minimal prompting by the teacher, students ensure that their time is used productively. 2. Students take initiative in distributing and collecting materials efficiently. 3. Students themselves ensure that transitions and other routines are accomplished smoothly. 4. Volunteers and paraprofessionals take initiative in their work in the class.

Notes and Evidence:
Your classroom procedures were very effective. Your transitions from whole class discussion to individual student work back to whole class discussion were seamless. Students took initiative in obtaining their own instructional materials from the center of the room. Students also ensured their project materials were properly stored at the end of the class.

Rubric Score: 4/4

Fft 2013 - HEDI - 2c: N/A

Component	Insufficient Evidence
N/A	

Fft 2013 - HEDI - 2c: Critical Attributes

- Highly Effective - With minimal prompting by the teacher, students ensure that their time is used productively.
- Highly Effective - Students take initiative in distributing and collecting materials efficiently.
- Highly Effective - Students themselves ensure that transitions and other routines are accomplished smoothly.

Fft 2013 - HEDI - 2d:

Component	Ineffective	Developing	Effective	Highly Effective
2d: Managing Student Behavior **Indicators:** **1. Clear standards of conduct, possibly posted, and possibly referred to during a lesson** **2. Absence of acrimony between teacher and students concerning behavior Teacher awareness of student conduct** **3. Preventive action when needed by the teacher** **4. Absence of misbehavior** **5. Reinforcement of positive behavior.**	There appear to be no established standards of conduct, or students challenge them. There is little or no teacher monitoring of student behavior, and response to students' misbehavior is repressive or disrespectful of student dignity. **Critical Attributes:** 1. The classroom environment is chaotic, with no standards of conduct evident. 2. The teacher does not monitor student behavior. 3. Some students disrupt the classroom, without apparent teacher awareness or with an ineffective response.	Standards of conduct appear to have been established, but their implementation is inconsistent. The teacher tries, with uneven results, to monitor student behavior and respond to student misbehavior. **Critical Attributes:** 1. The teacher attempts to maintain order in the classroom, referring to classroom rules, but with uneven success. 2. The teacher attempts to keep track of student behavior, but with no apparent system. 3. The teacher's response to student misbehavior is inconsistent: sometimes harsh, other times lenient.	Student behavior is generally appropriate. The teacher monitors student behavior against established standards of conduct. Teacher response to student misbehavior is consistent, proportionate, and respectful to students and is effective. **Critical Attributes:** 1. Standards of conduct appear to have been established and implemented successfully. 2. Overall, student behavior is generally appropriate. 3. The teacher frequently monitors student behavior. 4. The teacher's response to student misbehavior is effective.	Student behavior is entirely appropriate. Students take an active role in monitoring their own behavior and/or that of other students against standards of conduct. Teacher monitoring of student behavior is subtle and preventive. The teacher's response to student misbehavior is sensitive to individual student needs and respects students' dignity. **Critical Attributes:** 1. Student behavior is entirely appropriate; any student misbehavior is very minor and swiftly handled. 2. The teacher silently and subtly monitors student behavior.

| | | | | 3. Students respectfully intervene with classmates at appropriate moments to ensure compliance with standards of conduct. |

Notes and Evidence:
Student behavior was entirely appropriate.

Rubric Score: 4/4

Fft 2013 - HEDI - 2d: N/A

Component	Insufficient Evidence
N/A	

Fft 2013 - HEDI - 2d: Critical Attributes

- Highly Effective - Student behavior is entirely appropriate; any student misbehavior is very minor and swiftly handled.
- Highly Effective - The teacher silently and subtly monitors student behavior.

Fft 2013 - HEDI - 2e:

Component	Ineffective	Developing	Effective	Highly Effective
2e: Organizing Physical Space **Indicators:** **1. Pleasant, inviting atmosphere** **2. Safe environment** **3. Accessibility for all students** **4. Furniture arrangement suitable for the learning activities** **5. Effective use of physical resources, including computer technology, by both teacher and students.**	The classroom environment is unsafe, or learning is not accessible to many. There is poor alignment between the arrangement of furniture and resources, including computer technology, and the lesson activities. **Critical Attributes:** 1. There are physical hazards in the classroom, endangering student safety. 2. Many students can't see or hear the teacher or see the board. 3. Available technology is not being used even if it is available and its use would enhance the lesson.	The classroom is safe, and essential learning is accessible to most students. The teacher makes modest use of physical resources, including computer technology. The teacher attempts to adjust the classroom furniture for a lesson or, if necessary, to adjust the lesson to the furniture, but with limited effectiveness. **Critical Attributes:** 1. The physical environment is safe, and most students can see and hear the teacher or see the board. 2. The physical environment is not an impediment to learning but does not enhance it. 3. The teacher makes limited use of available technology and other resources.	The classroom is safe, and students have equal access to learning activities; the teacher ensures that the furniture arrangement is appropriate to the learning activities and uses physical resources, including computer technology, effectively. **Critical Attributes:** 1. The classroom is safe, and all students are able to see and hear the teacher or see the board. 2. The classroom is arranged to support the instructional goals and learning activities. 3. The teacher makes appropriate use of available technology.	The classroom environment is safe, and learning is accessible to all students, including those with special needs. The teacher makes effective use of physical resources, including computer technology. The teacher ensures that the physical arrangement is appropriate to the learning activities. Students contribute to the use or adaptation of the physical environment to advance learning. **Critical Attributes:** 1. Modifications are made to the physical environment to accommodate students with special needs. 2. There is total alignment between the learning activities and the physical environment. 3. Students take the initiative to adjust the physical environment. 4. The teacher and students make extensive and imaginative use of available technology.

Notes and Evidence:
There was a total alignment between the learning activities and the physical environment. The computer stations were set up around the perimeter of the room, leaving space in the center of the room for demonstration purposes and material distribution and collection. Students were able to freely access all resources in the room.

Rubric Score: 4/4

Fft 2013 - HEDI - 2e: N/A

Component	Insufficient Evidence
N/A	

Fft 2013 - HEDI - 2e: Critical Attributes

- Highly Effective - There is total alignment between the learning activities and the physical environment.
- Highly Effective - Students take the initiative to adjust the physical environment.
- Highly Effective - The teacher and students make extensive and imaginative use of available technology.

Domain 3: Instruction

Fft 2013 - HEDI - 3a:

Component	Ineffective	Developing	Effective	Highly Effective
3a: Communicating with Students **Indicators:** **1. Clarity of lesson purpose** **2. Clear directions and procedures specific to the lesson activities** **3. Absence of content errors and clear explanations of concepts and strategies** **4. Correct and imaginative use of language.**	The instructional purpose of the lesson is unclear to students, and the directions and procedures are confusing. The teacher's explanation of the content contains major errors and does not include any explanation of strategies students might use. The teacher's spoken or written language contains errors of grammar or syntax. The teacher's academic vocabulary is inappropriate, vague, or used incorrectly, leaving students confused. **Critical Attributes:** 1. At no time during the lesson does the teacher convey to students what they will be	The teacher's attempt to explain the instructional purpose has only limited success, and/or directions and procedures must be clarified after initial student confusion. The teacher's explanation of the content may contain minor errors; some portions are clear, others difficult to follow. The teacher's explanation does not invite students to engage intellectually or to understand strategies they might use when working independently. The teacher's spoken language is correct but uses vocabulary that is either limited or not fully appropriate to the students' ages or backgrounds. The teacher rarely takes opportunities to explain	The instructional purpose of the lesson is clearly communicated to students, including where it is situated within broader learning; directions and procedures are explained clearly and may be modeled. The teacher's explanation of content is scaffolded, clear, and accurate and connects with students' knowledge and experience. During the explanation of content, the teacher focuses, as appropriate, on strategies students can use when working independently and invites student intellectual engagement. The teacher's spoken and written language is clear and correct and is suitable to students' ages and interests.	The teacher links the instructional purpose of the lesson to the larger curriculum; the directions and procedures are clear and anticipate possible student misunderstanding. The teacher's explanation of content is thorough and clear, developing conceptual understanding through clear scaffolding and connecting with students' interests. Students contribute to extending the content by explaining concepts to their classmates and suggesting strategies that might be used. The teacher's spoken and written language is expressive, and the teacher finds opportunities to extend students' vocabularies, both

learning. 2. Students indicate through body language or questions that they don't understand the content being presented. 3. The teacher makes a serious content error that will affect students' understanding of the lesson. 4. Students indicate through their questions that they are confused about the learning task. 5. The teacher's communications include errors of vocabulary or usage or imprecise use of academic language. 6. The teacher's vocabulary is inappropriate to the age or culture of the students.	academic vocabulary. **Critical Attributes:** 1. The teacher provides little elaboration or explanation about what the students will be learning. 2. The teacher's explanation of the content consists of a monologue, with minimal participation or intellectual engagement by students. 3. The teacher makes no serious content errors but may make minor ones. 4. The teacher's explanations of content are purely procedural, with no indication of how students can think strategically. 5. The teacher must clarify the learning task so students can complete it. 6. The teacher's vocabulary and usage are correct but unimaginative. 7. When the teacher attempts to explain academic vocabulary, it is only partially successful. 8. The teacher's vocabulary is too advanced, or too juvenile, for students.	The teacher's use of academic vocabulary is precise and serves to extend student understanding. **Critical Attributes:** 1. The teacher states clearly, at some point during the lesson, what the students will be learning. 2. The teacher's explanation of content is clear and invites student participation and thinking. 3. The teacher makes no content errors. 4. The teacher describes specific strategies students might use, inviting students to interpret them in the context of what they're learning. 5. Students engage with the learning task, indicating that they understand what they are to do. 6. If appropriate, the teacher models the process to be followed in the task. 7. The teacher's vocabulary and usage are correct and entirely suited to the lesson, including, where appropriate, explanations of academic vocabulary. 8. The teacher's vocabulary is appropriate to students' ages and levels of development.	within the discipline and for more general use. Students contribute to the correct use of academic vocabulary. **Critical Attributes:** 1. If asked, students are able to explain what they are learning and where it fits into the larger curriculum context. 2. The teacher explains content clearly and imaginatively, using metaphors and analogies to bring content to life. 3. The teacher points out possible areas for misunderstanding. 4. The teacher invites students to explain the content to their classmates. 5. Students suggest other strategies they might use in approaching a challenge or analysis. 6. The teacher uses rich language, offering brief vocabulary lessons where appropriate, both for general vocabulary and for the discipline. 7. Students use academic language correctly.

Notes and Evidence:
You clearly communicated the objective of the lesson to students via multiple platforms including your PearDeck presentation, the Makey Makey site, and your codeOYO class. Your verbal discussion was completely aligned with the language utilized in the various platforms.

Some vocabulary that you focused on in your lesson included:

input
conductive
open vs. closed circuit
alligator clips
perishable

See the attached artifacts.

Rubric Score: 4/4

Fft 2013 - HEDI - 3a: N/A

Component	Insufficient Evidence
N/A	

Fft 2013 - HEDI - 3a: Critical Attributes

- Highly Effective - If asked, students are able to explain what they are learning and where it fits into the larger curriculum context.
- Highly Effective - The teacher explains content clearly and imaginatively, using metaphors and analogies to bring content to life.
- Highly Effective - The teacher points out possible areas for misunderstanding.
- Highly Effective - The teacher invites students to explain the content to their classmates.
- Highly Effective - Students suggest other strategies they might use in approaching a challenge or analysis.
- Highly Effective - The teacher uses rich language, offering brief vocabulary lessons where appropriate, both for general vocabulary and for the discipline.
- Highly Effective - Students use academic language correctly.

Fft 2013 - HEDI - 3b:

Component	Ineffective	Developing	Effective	Highly Effective
3b: Using Questioning and Discussion Techniques **Indicators:** **1. Questions of high cognitive challenge, formulated by both students and teacher** **2. Questions with multiple correct answers or multiple approaches, even when there is a single correct response** **3. Effective use of student responses and ideas** **4. Discussion, with the teacher stepping out of the central, mediating role** **5. Focus on the reasoning exhibited by students in discussion, both in give-and-take with the teacher and with their classmates** **6. High levels of student participation in discussion.**	The teacher's questions are of low cognitive challenge, with single correct responses, and are asked in rapid succession. Interaction between the teacher and students is predominantly recitation style, with the teacher mediating all questions and answers; the teacher accepts all contributions without asking students to explain their reasoning. Only a few students participate in the discussion. **Critical Attributes:** 1. Questions are rapid-fire and convergent, with a single correct answer. 2. Questions do not invite student thinking. 3. All discussion is between the teacher and students; students are not invited to speak directly to one another. 4. The teacher does not ask students to explain their thinking. 5. Only a few students dominate	The teacher's questions lead students through a single path of inquiry, with answers seemingly determined in advance. Alternatively, the teacher attempts to ask some questions designed to engage students in thinking, but only a few students are involved. The teacher attempts to engage all students in the discussion, to encourage them to respond to one another, and to explain their thinking, with uneven results. **Critical Attributes:** 1. The teacher frames some questions designed to promote student thinking, but many have a single correct answer, and the teacher calls on students quickly. 2. The teacher invites students to respond directly to one another's ideas, but few students respond. 3. The teacher calls on many students, but only a small	While the teacher may use some low-level questions, he poses questions designed to promote student thinking and understanding. The teacher creates a genuine discussion among students, providing adequate time for students to respond and stepping aside when doing so is appropriate. The teacher challenges students to justify their thinking and successfully engages most students in the discussion, employing a range of strategies to ensure that most students are heard. **Critical Attributes:** 1. The teacher uses open-ended questions, inviting students to think and/or offer multiple possible answers. 2. The teacher makes effective use of wait time. 3. Discussions enable students to talk to one another without ongoing mediation by teacher.	The teacher uses a variety or series of questions or prompts to challenge students cognitively, advance high-level thinking and discourse, and promote metacognition. Students formulate many questions, initiate topics, challenge one another's thinking, and make unsolicited contributions. Students themselves ensure that all voices are heard in the discussion. **Critical Attributes:** 1. Students initiate higher-order questions. 2. The teacher builds on and uses student responses to questions in order to deepen student understanding. 3. Students extend the discussion, enriching it. 4. Students invite comments from their classmates during a discussion and challenge one another's thinking.

| | | | 4. The teacher calls on most students, even those who don't initially volunteer.
 5. Many students actively engage in the discussion.
 6. The teacher asks students to justify their reasoning, and most attempt to do so. | 5. Virtually all students are engaged in the discussion. |

the discussion.	number actually participate in the discussion. 4. The teacher asks students to explain their reasoning, but only some students attempt to do so.

Notes and Evidence:
Some of the questions you asked during the lesson included,

"What is one way to provide user input to a computer or video game?"
"How do you think a Makey Makey works?"
"What does conductive mean?"
"Which one of the following materials do you think is conductive and could be used in our circuits?"
"Is there anyone that still hasn't gotten their second bongo to work?"
"Does that make sense?"

Rubric Score: 3/4

Fft 2013 - HEDI - 3b: N/A

Component	Insufficient Evidence
N/A	

Fft 2013 - HEDI - 3b: Critical Attributes

- Effective - The teacher uses open-ended questions, inviting students to think and/or offer multiple possible answers.
- Effective - The teacher makes effective use of wait time.
- Effective - The teacher calls on most students, even those who don't initially volunteer.
- Effective - Many students actively engage in the discussion.
- Effective - The teacher asks students to justify their reasoning, and most attempt to do so.

Fft 2013 - HEDI - 3c:

Component	Ineffective	Developing	Effective	Highly Effective
3c: Engaging Students in Learning **Indicators:** **1. Student enthusiasm, interest, thinking, problem solving, etc.** **2. Learning tasks that require high-level student thinking and invite students to explain their thinking** **3. Students highly motivated to work on all tasks and persistent even when the tasks are challenging** **4. Students actively "working," rather than watching while their teacher "works"** **5. Suitable pacing of the lesson: neither dragged out nor rushed, with time for closure and student reflection.**	The learning tasks/activities, materials, and resources are poorly aligned with the instructional outcomes, or require only rote responses, with only one approach possible. The groupings of students are unsuitable to the activities. The lesson has no clearly defined structure, or the pace of the lesson is too slow or rushed. **Critical Attributes:** 1. Few students are intellectually engaged in the lesson. 2. Learning tasks/activities and materials require only recall or have a single correct response or method. 3. Instructional materials used are unsuitable to the lesson and/or the students. 4. The lesson drags or is rushed. 5. Only one type of instructional group is used (whole group, small groups) when variety would promote more student engagement.	The learning tasks and activities are partially aligned with the instructional outcomes but require only minimal thinking by students and little opportunity for them to explain their thinking, allowing most students to be passive or merely compliant. The groupings of students are moderately suitable to the activities. The lesson has a recognizable structure; however, the pacing of the lesson may not provide students the time needed to be intellectually engaged or may be so slow that many students have a considerable amount of "downtime." **Critical Attributes:** 1. Some students are intellectually engaged in the lesson. 2. Learning tasks are a mix of those requiring thinking and those requiring recall. 3. Student engagement with the content is largely passive; the learning consists primarily of facts or procedures. 4. The materials and resources are partially aligned to the lesson objectives. 5. Few of the materials and resources require student thinking or ask students to explain their thinking. 6. The pacing of the lesson is uneven - suitable in parts but rushed or dragging in others. 7. The instructional groupings used are partially appropriate to the activities.	The learning tasks and activities are fully aligned with the instructional outcomes and are designed to challenge student thinking, inviting students to make their thinking visible. This technique results in active intellectual engagement by most students with important and challenging content, and with teacher scaffolding to support that engagement. The groupings of students are suitable to the activities. The lesson has a clearly defined structure, and the pacing of the lesson is appropriate, providing most students the time needed to be intellectually engaged. **Critical Attributes:** 1. Most students are intellectually engaged in the lesson. 2. Most learning tasks have multiple correct responses or approaches and/or encourage higher-order thinking. 3. Students are invited to explain their thinking as part of completing tasks. 4. Materials and resources support the learning goals and require intellectual engagement, as appropriate. 5. The pacing of the lesson provides students the time needed to be intellectually engaged. 6. The teacher uses groupings that are suitable to the lesson activities.	Virtually all students are intellectually engaged in challenging content through well-designed learning tasks and activities that require complex thinking by students. The teacher provides suitable scaffolding and challenges students to explain their thinking. There is evidence of some student initiation of inquiry and student contributions to the exploration of important content; students may serve as resources for one another. The lesson has a clearly defined structure, and the pacing of the lesson provides students the time needed not only to intellectually engage with and reflect upon their learning but also to consolidate their understanding. **Critical Attributes:** 1. Virtually all students are intellectually engaged in the lesson. 2. Lesson activities require high-level student thinking and explanations of their thinking. 3. Students take initiative to adapt the lesson by (1) modifying a learning task to make it more meaningful or relevant to their needs, (2) suggesting modifications to the grouping patterns used, and/or (3) suggesting modifications or additions to the materials being used. 4. Students have an opportunity for reflection and closure on the lesson to consolidate their understanding.

Notes and Evidence:
During the class, students were engaged in the lesson. The pacing of the lesson was adequate and provided the students the time needed to be intellectually engaged. During the PearDeck presentation, all students thoughtfully participated in answering the questions. While students were working independently on creating their circuits, you had individual conferences with each student and encouraged them to explain their thinking.

Rubric Score: 3/4

Fft 2013 - HEDI - 3c: N/A

Component	Insufficient Evidence
N/A	

Fft 2013 - HEDI - 3c: Critical Attributes

Fft 2013 - HEDI - 3d:

Component	Ineffective	Developing	Effective	Highly Effective
3d: Using Assessment in Instruction **Indicators:** **1. The teacher paying close attention to evidence of student understanding** **2. The teacher posing specifically created questions to elicit evidence of student understanding** **3. The teacher circulating to monitor student learning and to offer feedback** **4. Students assessing their own work against established criteria.**	Students do not appear to be aware of the assessment criteria, and there is little or no monitoring of student learning; feedback is absent or of poor quality. Students do not engage in self- or peer assessment. **Critical Attributes:** 1. The teacher gives no indication of what high-quality work looks like. 2. The teacher makes no effort to determine whether students understand the lesson. 3. Students receive no feedback, or feedback is global or directed to only one student. 4. The teacher does not ask students to evaluate their own or classmates' work.	Students appear to be only partially aware of the assessment criteria, and the teacher monitors student learning for the class as a whole. Questions and assessments are rarely used to diagnose evidence of learning. Feedback to students is general, and few students assess their own work. **Critical Attributes:** 1. There is little evidence that the students understand how their work will be evaluated. 2. The teacher monitors understanding through a single method, or without eliciting evidence of understanding from students. 3. Feedback to students is vague and not oriented toward future improvement of work. 4. The teacher makes only minor attempts to engage students in self- or peer assessment.	Students appear to be aware of the assessment criteria, and the teacher monitors student learning for groups of students. Questions and assessments are regularly used to diagnose evidence of learning. Teacher feedback to groups of students is accurate and specific; some students engage in self-assessment. **Critical Attributes:** 1. The teacher makes the standards of high-quality work clear to students. 2. The teacher elicits evidence of student understanding. 3. Students are invited to assess their own work and make improvements; most of them do so. 4. Feedback includes specific and timely guidance, at least for groups of students.	Assessment is fully integrated into instruction, through extensive use of formative assessment. Students appear to be aware of, and there is some evidence that they have contributed to, the assessment criteria. Questions and assessments are used regularly to diagnose evidence of learning by individual students. A variety of forms of feedback, from both teacher and peers, is accurate and specific and advances learning. Students self-assess and monitor their own progress. The teacher successfully differentiates instruction to address individual students' misunderstandings. **Critical Attributes:** 1. Students indicate that they clearly understand the characteristics of high-quality work, and there is evidence that students have helped establish the evaluation criteria. 2. The teacher is constantly "taking the pulse" of the class; monitoring of student understanding is sophisticated and continuous and makes use of strategies to elicit information about individual student understanding. 3. Students monitor their own understanding, either on their own initiative or as a result of tasks set by the teacher. 4. High-quality feedback comes from many sources, including students; it is specific and focused on improvement.

Notes and Evidence:
You used formative assessment throughout the lesson via your PearDeck presentation, codeOYO class, and one on one teacher-student conferencing. You continuously monitored student progress and elicited evidence of student learning.

See the attached artifacts.

Rubric Score: 3/4

Fft 2013 - HEDI - 3d: N/A

Component	Insufficient Evidence
N/A	

Fft 2013 - HEDI - 3d: Critical Attributes

Fft 2013 - HEDI - 3e:

Component	Ineffective	Developing	Effective	Highly Effective
3e: Demonstrating Flexibility and Responsiveness **Indicators:** **1. Incorporation of students' interests and daily events into a lesson** **2. The teacher adjusting instruction in response to evidence of student understanding (or lack of it)** **3. The teacher seizing on a teachable moment.**	The teacher ignores students' questions; when students have difficulty learning, the teacher blames them or their home environment for their lack of success. The teacher makes no attempt to adjust the lesson even when students don't understand the content. **Critical Attributes:** 1. The teacher ignores indications of student boredom or lack of understanding. 2. The teacher brushes aside students' questions. 3. The teacher conveys to students that when they have difficulty learning, it is their fault.	The teacher accepts responsibility for the success of all students but has only a limited repertoire of strategies to use. Adjustment of the lesson in response to assessment is minimal or ineffective. **Critical Attributes:** 1. The teacher makes perfunctory attempts to incorporate students' questions and interests into the lesson. 2. The teacher conveys to students a level of responsibility for their learning but also his uncertainty about how to assist them. 3. In reflecting on practice, the teacher indicates the desire to	The teacher successfully accommodates students' questions and interests. Drawing on a broad repertoire of strategies, the teacher persists in seeking approaches for students who have difficulty learning. If impromptu measures are needed, the teacher makes a minor adjustment to the lesson and does so smoothly. **Critical Attributes:** 1. The teacher incorporates students' interests and questions into the heart of the lesson. 2. The teacher conveys to students that s/he has other approaches to try when the	The teacher seizes an opportunity to enhance learning, building on a spontaneous event or students' interests, or successfully adjusts and differentiates instruction to address individual student misunderstandings. Using an extensive repertoire of instructional strategies and soliciting additional resources from the school or community, the teacher persists in seeking effective approaches for students who need help. **Critical Attributes:** 1. The teacher seizes on a teachable moment to enhance a lesson.

			2. The teacher conveys to students that she won't consider a lesson "finished" until every student understands and that she has a broad range of approaches to use. 3. In reflecting on practice, the teacher can cite others in the school and beyond whom he has contacted for assistance in reaching some students. 4. The teacher's adjustments to the lesson, when they are needed, are designed to assist individual students.
4. In reflecting on practice, the teacher does not indicate that it is important to reach all students. 5. The teacher makes no attempt to adjust the lesson in response to student confusion.	reach all students but does not suggest strategies for doing so. 4. The teacher's attempts to adjust the lesson are partially successful.	students experience difficulty. 3. In reflecting on practice, the teacher cites multiple approaches undertaken to reach students having difficulty. 4. When improvising becomes necessary, the teacher makes adjustments to the lesson.	

Notes and Evidence:
During the PearDeck presentation, there were several times you demonstrated flexibility and responsiveness. In particular, when the students were divided in their answers regarding the definition of conductive, you delved deeper into the conversation. You discussed various materials and how various materials have different conductive properties.

You also demonstrated flexibility and responsiveness when you conferenced with a student in the class that was struggling to get her second bongo to work. You clarified how see could add herself to the circuit.

Rubric Score: 4/4

Fft 2013 - HEDI - 3e: N/A

Component	Insufficient Evidence
N/A	

Fft 2013 - HEDI - 3e: Critical Attributes

- Highly Effective - The teacher seizes on a teachable moment to enhance a lesson.
- Highly Effective - The teacher conveys to students that she won't consider a lesson "finished" until every student understands and that she has a broad range of approaches to use.
- Highly Effective - The teacher's adjustments to the lesson, when they are needed, are designed to assist individual students.

Domain 4: Professional Responsibilities

Fft 2013 - HEDI - 4a:

Component	Ineffective	Developing	Effective	Highly Effective
4a: Reflecting on Teaching **Indicators:** **1. Accurate reflections on a lesson** **2. Citation of adjustments to practice that draw on a repertoire of strategies.**	The teacher does not know whether a lesson was effective or achieved its instructional outcomes, or the teacher profoundly misjudges the success of a lesson. The teacher has no suggestions for how a lesson could be improved. **Critical Attributes:** 1. The teacher considers the lesson but draws incorrect conclusions about its effectiveness. 2. The teacher makes no suggestions for improvement.	The teacher has a generally accurate impression of a lesson's effectiveness and the extent to which instructional outcomes were met. The teacher makes general suggestions about how a lesson could be improved. **Critical Attributes:** 1. The teacher has a general sense of whether or not instructional practices were effective. 2. The teacher offers general modifications for future instruction.	The teacher makes an accurate assessment of a lesson's effectiveness and the extent to which it achieved its instructional outcomes and can cite general references to support the judgment. The teacher makes a few specific suggestions of what could be tried another time the lesson is taught. **Critical Attributes:** 1. The teacher accurately assesses the effectiveness of instructional activities used. 2. The teacher identifies specific ways in which a lesson might be improved.	The teacher makes a thoughtful and accurate assessment of a lesson's effectiveness and the extent to which it achieved its instructional outcomes, citing many specific examples from the lesson and weighing the relative strengths of each. Drawing on an extensive repertoire of skills, the teacher offers specific alternative actions, complete with the probable success of different courses of action. **Critical Attributes:** 1. The teacher's assessment of the lesson is thoughtful and includes specific indicators of effectiveness. 2. The teacher's suggestions for improvement draw on an extensive repertoire.

Notes and Evidence:
During your post-observation conference, you reflected on the lesson. You provided the following statements:

Answer to Q1:
"Overall, I felt that my students were productively engaged throughout the lesson. During the PearDeck presentation everyone was responding and during the project phase students were on task and working. Students were excited by the prospect of "Banana Bongos" and wanted to participate and do it for themselves. I think that this was a strength of this lesson.

In terms of improvement, I think the beginning may have felt a little slow for some of the students as I got everyone logged on, but the "do now" helped with that somewhat. I also tried to hand out materials at this point to reduce the dead time. Additionally, when progressing through the lesson as a group, I noticed some students were moving a bit faster than others. I specifically tried to accommodate this by giving them verbal instructions for the next steps, before moving the class forward.

One thing I could've done is to have a separate assignment, perhaps brainstorming their own controller, that students could do while they were waiting for others to complete each step. This would have allowed me to keep a pace where all students can work with me together, while making sure no students are getting bored.

Answer to Q2:
"I had two goals for this lesson

- The students will apply their knowledge of circuits and Makey Makey controllers by demonstrating the ability to create a basic video-game controller.
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The students will understand the basics of conductivity and Makey Makey controllers by summarizing their work in a written assignment.

For the first objective, each student was able to recreate a Makey Makey circuit to make a basic controller. I know this because I was able to observe in the classroom and see the students creating the circuits and playing their "banana bongos". I walked around the classroom, and for the students who were struggling like AJ, I made sure to work with them until they understood the lesson and were able to understand and create a bongo controller.

The second objective was to reflect on the lesson and summarize their understanding in the class. Students submitted this work through the CodeOYO platform where I could review after class. This had different mastery levels. The students fell into 3 groups, those who submitted the questions with thoughtful answers that demonstrated reflection, those who submitted answers that showed misconceptions, and those who were not able to complete all three questions.

The next day I used this data to differentiate and to teach a second mini-lesson to help enhance comprehension, while letting the students who demonstrated knowledge move to experimenting for their own controllers. This objective was also an objective of the following lesson. This course is mastery based, and students can resubmit challenges until they have passed. After the second class, all students were able to pass the challenge and were able to move on to the exploratory phase of the larger project. For much of the project I have students work on independent work after mastery is achieved on a certain topic, so I can focus more of my energy to explaining the concept to those who are struggling to understand.

Answer to Q3:
"Overall I think the lesson went well, but I believe there is always room for improvement.

I felt the lesson went a bit fast, and if doing the lesson again, I might split the content over two days. I do not want students to feel rushed and I want them to understand the basic information well. We continued the work in the second class, and I felt that after that class, the objectives were met by all students. I know this because all students were able to successfully recreate a circuit and answer the questions on CodeOYO. In the future, I might split up some of the intro vocabulary and information about circuits to one day and then doing the demo a second day would allow the students more time to explore the Makey Makeys and finish the questions asked in one class period.

I also was unsure how well "moving together" went. I felt it was a little fast for some students and a little slow for others. I am torn between two possible scenarios, and would most likely talk to colleagues for insight on which way to proceed.
- Move slower as a group, and have students have another activity, such as a brainstorming, that they do while they are waiting for others to finish each step. This has the benefit of keeping everyone together to hear insights from me while no one is un-engaged. The drawback of this is for students who are switching tasks may have trouble going back and forth easily and staying engaged on the right topic.
- The second option would be to move all of the content to self-paced and then to help students as needed. Many of the lessons are done this way in this class, and the students respond well to it. It does have the drawback of not being able to say the big concepts that no one knows as a class.
I lean towards the first approach as I'd like to keep students together for one day, as much of the class is already self paced.

Additionally, I would change some of the instruction given to the class. I felt that the explanation I gave to AJ was very clear, and next year I would like to give that explanation to the entire class. This year I gave the lesson as a mini-lesson to students who had not yet shown mastery, which proved to be very successful and well-received.

In the future in this class, I would like to pair the LEP students with other students in the class, and in general get students to collaborate with students that they don't usually interact with. This activity would have been a great activity to have students paired with someone that they don't usually work with to collaborate and work together. I will do this in the class next year, and will work this year to find meaningful ways to facilitate more student interactions."

Rubric Score: 4/4

Fft 2013 - HEDI - 4a: N/A

Component	Insufficient Evidence
N/A	

Fft 2013 - HEDI - 4a: Critical Attributes

- Highly Effective - The teacher's assessment of the lesson is thoughtful and includes specific indicators of effectiveness.
- Highly Effective - The teacher's suggestions for improvement draw on an extensive repertoire.

Areas of Strength:

Thank you for welcoming me into your classroom.

I commend you for your preparedness, delivery, and reflection of this lesson. In particular, the structures you have created in your classroom allow meaningful, rigorous, and effective learning to occur.

I also commend you for your use of instructional technology and various digital platforms.

Recommendations:

I recommend you continue to encourage students to initiate higher-order questions during the lesson. Continue to explore ways of further developing strategies to ensure students invite comments from their classmates during a class discussion.

I also recommend you have students serve as resources for each other. For example, we discussed strategies, such as flexible grouping, for working with the three ENL students in your class.

In regards to assessment, I recommend you encourage students to provide high-quality feedback to each other.

The rating of this observation is 3.8.