**DANIELSON-BASED MODEL LESSON TEMPLATE**

***InTASC Standard #7: Planning for Instruction***

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| **Name:** Gabrielle Sexton | | | | | |
| **Class:** AGED 411 & 485 | | | | **Date:** 10/25/2021 and 11/2/2021 | |
| **REP Sequence Topic:** PVC | | | | **Lesson Title:** Intro to PVC | |
| **RELATIONSHIP TO SEQUENCE**  *(InTASC #5: Application of Content; Danielson 1e: Designing Coherent Instruction: Lesson and unit structure)* | | | | | |
| **Relationship to REP Structure:**   * How does this lesson support selected content standards, enduring understandings, and goals of the unit? * How does this lesson build on the previous in this instructional sequence? * How does this lesson support the next lesson in this instructional sequence? | | | | As this is the first lesson on PVC, the goal is to introduce students to what PVC is, how it is used and how they can use it for different kinds of simple projects. By giving students a basic understanding of how it can be used and how to prime and glue PVC, they will be prepared for the following lab lesson next week where they will be building their own Sling Shots.  In Lab, this lesson will connect to our first PVC lesson and what we learned about. They will now be able to make their own PVC sling shots and apply what we learned in class about priming and gluing. | |
| **CONTENT**  *(Danielson 1a: Demonstrating Knowledge of Content and Pedagogy)* | | | | | |
| **Content Standard Alignment:**  **Script the content standards to which lessons will be aligned. Include an ELA/math Common Core standard:** <http://www.corestandards.org/read-the-standards/>  **If applicable, write out one of the seven Essential Understandings of Montana Indians that will help students make a meaningful cultural connection between IEFA and the content.**  <http://opi.mt.gov/Educators/Teaching-Learning/Indian-Education> | | | | **PST.04.03.04.a.** Compare and contrast the characteristics of materials used in plumbing and water systems (e.g., copper, PVC, PEX, etc.).  **PST.04.03.01.c.** Select materials for a project based upon an analysis of the project and the quality of the materials | |
| **INSTRUCTIONAL OUTCOMES**  *(Framework Domain 1C: Setting Instructional Outcomes)* | | | | |
| **Instructional Outcome (learning)**  *(Danielson 1c: Setting Instructional Goals)*  **Use the SWLT prompt: *Students will learn that*…. to “identify exactly what the students will be expected to *learn*” (Danielson, 2013)**  **In this portion, consider the primary cognitive change you hope students to achieve as a result of the lesson, whether it is internalizing a skill in order to better control a ball or whether it might be making real-world connections with a piece of literature.** | | | Students will learn that…   * Will learn the different uses of PVC for industrial purposes and DIY uses * Will learn how to prime and glue PVC together | |
| **…so…** | | | | |
| **Instructional Outcome (application), AKA: Lesson Objective**:  *(Danielson 1c: Setting Instructional Goals)*  Use the SWBAT prompt, ***Students will be able to*…**.  Use clear, specific sentences containing desired behavior and content for one primary lesson objective. Write from the perspective of **Bloom’s/Webb’s** taxonomies, and make sure to include objectives from the higher levels of Bloom’s or deeper levels of Webb’s | | | …they will be able to…[Bloom’s verb]   * Will be able to identify rigid and flexible PVC, elbows, joints and tees * Will be able to design and create a PVC Sling Shot * Will be able to reflect/analyze why their sling shot worked or didn’t work | |
| **Differentiation Strategies**  *(Framework Domain 1b: Demonstrating Knowledge of Students)* | | | | |
| **What?**  (Describe the differentiated strategy you are proposing. Is it an accommodation or a modification?) | | **Where?**  (List the parts of the lesson plan that will be changed.) Assistive technologies can be noted as changes to materials/resources. | | **Why?**  (Use student achievement along with relevant student strengths and needs—to explain the reason for this strategy.) |
| **Level II** | **Level III** |
| Accommodation: there will written instructions and I will verbally describe them. There will be picture along with any definitions. | Level II Accommodations should be sufficient enough for Level III | Introduction, Materials(handout) and activity | | I feel that this strategy will be most effective for my visual learners as well as all other students. Students will be able to connect an image to a description much easier this way. As well as read and verbally hear instruction which will also help different learning styles that maybe in my classroom. |
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| **ASSESSMENT**  *(Framework Domain 1f: Designing Student Assessments)*   |  |  | | --- | --- | | **Assessment (Formative):**    **Briefly describe the lesson-level** formative assessment for learning (generally non-graded) that you can review after each lesson in order to adjust your instruction for the following lesson to meet needs of individuals or groups of students. This assessment could be very simple (exit ticket, yes/no checklist, etc.), but it must be objective and equal across all students. (Class discussions would not work since all students would not equally address the same criteria.) | For this lesson there will be 2 formative assessments. The first assessment will be a Kahoot game, which I will use as a review tool to see if students have retained what I have gone over so far in the lesson. The Kahoot game will have a mixture of pictures and vocab words that are also in their handout. The second assessment will be hands-on. Students will need to know how to prime and glue before lab next week. For this assessment, students will simply prime and glue scrap PVC pipe together.  In Lab, I will be assessing students on whether they are able to successfully apply what they learned in the classroom and build a sling shot. | | Answer the following questions:   1. How will you measure proficiency (readiness to move on) for each individual student? | I will measure proficiency in the first assessment based on students individual Kahoot scores.  I will measure proficiency in the second assessment by coming around to each student and seeing how well they are able to prime and glue their PVC together. | | 1. How will you determine proficiency (readiness to move on) for the class as whole? | I will determine the whole classes readiness to move on based on if every student is able to answer the Kahoot questions and if every student can show me that they know how to successfully prime and glue PVC together. | | 1. If you determine that the class is proficient, how will you remediate those who have not met individual proficiency standards? | For those who have not met proficiency standards, I will spend some time with after this lesson to understand what and why they aren’t ready to move onto the next lesson. In lab, I will come around and check in with these students often. | |
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**MANAGEMENT**

*(Framework Domain 2D: Managing Student Behavior)*

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| **Lesson-specific Targeted Management Strategies**  *Danielson 2d: expectations, monitoring student behavior, response to student misbehavior)*  Address management strategies that will be important for this lesson. Whole-class activities will require different strategies than stations, for example. What expectations will you need to outline for students during this lesson? What will you need to monitor as the lesson proceeds? What responses have you planned for any student inability to follow the expectation? | While this lesson does have a good amount of content in the beginning its important for them to have this information so that they can be successful in the following lab lesson. So, I will be reiterated that throughout the lesson. But to help keep students engaged during this part of the lesson, I will give candy out to those answering questions or showing me that they are paying attention and participating. Before the end of class, I will tell the students that they should wear clothing that they don’t care if primer and glue gets on them.  In lab, it will be super important that I go over safety first and require that students wear safety glasses while they are working on their sling shots and during our competition. I will expect that students are respectful of each other’s personal space, glue only their PVC, wear safety glasses and do not shoot each other with their sling shots.  Before students arrive to lab, I will have priming and gluing stations set up with plastic over tables so that primer and glue doesn’t ruin tables. I will also have set up an area for them to shoot their sling shots safely for our competition. |

**METHODS AND INSTRUCTIONAL STRATEGIES**

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| **CLASSROOM INSTRUCTIONS** *(Framework Domain 1e: Designing Coherent Instruction)* | |
| **Introduction, AKA: Anticipatory Set or Focusing event (Time Stamp): 5 minutes**  Describe the specific question, story, video clip, scenario, skit, etc. you will use to capture students’ attention. Focus on engagement. | There will be some kind of welcoming prompt for students to answer on the board when they first come into the classroom.  Starting class with the objectives for the lesson and lead into asking the class: “If they have ever worked with PVC? What kinds of projects they’ve made with PVC? If they know what PVC is or made out of?”  During this time, I will pass out guided note handout for them to follow along with and fill out as we go through the slides. |
| **Instructional Strategies/Activities (Time stamp each segment): 20-25 minutes**  Create a detailed (sufficient for a substitute teacher) and carefully sequenced outline of the content you intend to explore during the class session. In the outline:   * The “I do, we do, you do” format can help you with sequencing * Make sure to use varied instructional strategies to convey the content of your lesson(s) * Identify the questions, illustrations, examples, vocabulary, types of student participation, etc. you have planned for use in your lesson * Explain how you will provide opportunities for students to apply the content. | For the instructional portion of the lesson, we will learn about what PVC is made out of, different forms of PVC (rigid and flexible), what it is used for industrially, different kinds of DIY projects. On one slide there will be a few different pictures of PVC projects and I will ask the class to tell me which one they think is industrial use, DIY use, rigid and flexible.  Next we will go over elbows, joints and tees and how to use the primer and glue used for PVC. I will have some elbows, joints and tees to pass around the classroom as I go over them. Which will lead into the final instructional portion, priming and gluing. I’ll go over why we prime and how we prime and glue PVC. For the next part, I will have some scrap pieces of PVC for students to practice priming and gluing so that they are prepared for Lab next week. After all students are able to prime and glue successfully, I will pass out the blueprint of the Sling shot. I will show my sling shot and demonstrate the way it works. Followed by explaining the competition in lab. |
| **Wrap Up/Synthesis/Closure (Time stamp): Last few minutes of class**  How will you bring your class to a close by revisiting the goal for your lesson? (reviewing key points, doing a final check for understanding, targeting connections between previous and future lessons, etc.) Focus on continuing engagement. This closure should not be working on an assignment, cleaning up, etc. | To wrap up the lesson, I will have a Kahoot that will be a review of everything I went over in class.  If there isn’t enough time left in class to get through the Kahoot I will have the class write down 3 things they learned from the lesson and what they think will be challenging about building the sling shots in lab. |

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| **LAB INSTRUCTIONS** *(Framework Domain 1e: Designing Coherent Instruction)* | |
| **Introduction, AKA: Anticipatory Set or Focusing event (Time Stamp): 5 minutes**  Describe the specific question, story, video clip, scenario, skit, etc. you will use to capture students’ attention. Focus on engagement. | In the first 5 minutes of lab, I will review what we went over in lab and ask students to pair up with a student who wasn’t able to attend our first classroom lesson and fill them in on what they missed. |
| **Instructional Strategies/Activities (Time stamp each segment):**  Create a detailed (sufficient for a substitute teacher) and carefully sequenced outline of the content you intend to explore during the class session. In the outline:   * The “I do, we do, you do” format can help you with sequencing * Make sure to use varied instructional strategies to convey the content of your lesson(s) * Identify the questions, illustrations, examples, vocabulary, types of student participation, etc. you have planned for use in your lesson * Explain how you will provide opportunities for students to apply the content. | Once we’ve review what we already know, I will handout a set of instructions to help them build their sling shots. I made this in fusion360. Next I will go over our safety rules and the rules of our competition.  I will have priming and gluing stations already set up before they come into class with all the materials, they are going to need except their marshmallows so there is no safety concerns before our competition.  Now that I’ve gone over the instructions, I will let students decide if they would like to pair up in groups or do this individually.  They will have 15-20 minutes to build their sling shots and have a few practice shots.  During this time, I will set up our 2 competition categories. Accuracy and distance. While I am doing this, I will be coming around to check on each group or individual and help them if they need it.  After 20 minutes I will call everyone back and we will spend up to the last 5 minutes of class doing our competition. |
| **Wrap Up/Synthesis/Closure (Time stamp): Last 5 minutes of class**  How will you bring your class to a close by revisiting the goal for your lesson? (reviewing key points, doing a final check for understanding, targeting connections between previous and future lessons, etc.) Focus on continuing engagement. This closure should not be working on an assignment, cleaning up, etc. | During the last 5 minutes of class, I will open it up for discussion for students to talk about what they struggled with or what they would have changed about the design of their sling shot to make it shoot farther or be more accurate. |

**MATERIALS/RESOURCES**

*(Framework Domain 1d: Demonstrating Knowledge of Resources)*

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| **Instructional Materials/Resources:**  *(Framework Domain 1d: Demonstrating Knowledge of Resources)*  List all materials and resources required by teacher and/or students, include anything you will need to collect and use: e.g. paper-based materials (such as text books or instruction sheets), technology equipment, science equipment or supplies, and art materials. | * Primer and Glue * 5 pieces of PVC per sling shot * 2 elbows per sling shot * 1 tee per sling shot * Rubber bands * 1 mask per sling shot * Marshmallows to shoot * Target to shoot at * Scrap PVC for students to practice with * Worksheet * Instructions for building sling shot * Kahoot game |

Intro to PVC Worksheet October 25, 2021

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Fill in the blanks below

PVC stands for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

There are \_\_\_\_\_ million tons produced every year.

PVC has two basic forms \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_.

**Rigid**

Pros:

Cons:

**Flexible**

Cons:

Pros:

**Primer and Glue**

Primer is used to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the PVC.

Primer will stain whatever you get it on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_!

Wait then apply the glue.

Glue is used to create an bond.

\_\_\_\_\_\_\_\_ the surface of the PVC, quickly \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ which causes the PVC pieces to \_\_\_\_\_\_\_\_ together.

After applying the glue \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ attach your PVC together.

What are 3 things you learned today?

What do you think will be challenging about construction your sling shots?