Lesson Plan Title: ***Installation Sculpture*** Length: ***3 classes***

**Note:** Before you plan and write art experiences; pre-assess your students based on the proposed concepts, enduring understandings, and objectives of the unit/lesson(s). You may also gather this information from (previous) teachers, by reviewing already completed art work, consulting curriculum materials, etc., to get a better understanding of what content students already know *and* what they willneed to know to be successful.

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| **Pre-Assessment:** ***This will need to be done prior to teaching your lesson.*** Outline the method you will use to determine the skill/knowledge level of your students based on the concepts/enduring understandings/objectives of the lesson. (Hint: turn these into questions.) Be specific in describing what you would recognize as proficient skill/knowledge. |
| * Are students able to:
	+ Use 3D scanning and laser cutting equipment?
	+ Use ZBrush, Rhino, 123D Make software?
* Students will complete questionnaire to provide feedback on proficiency
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| **Performance:****What will students accomplish as a result of this lesson?** This can be presented to students in the form of a story. In this narrative the students take on a role and create a learning product about a specific topic for a certain audience. (RAFT – Role / Audience / Format / Topic) |
| * You are a famous sculptor and you’ve been commissioned to create an installation piece for one of your favorite places. This could be a place that holds special meaning for you, a place that you frequent on a regular basis, or a place you find visually appealing. The owners of the property are so impressed with your work, they’ve given you total control over content and aesthetics as long as the sculpture expresses or conveys the meaning you get from that place. You will make a clay maquette of your sculpture and then use digital fabrication techniques to increase its scale and add additional elements to create a larger model from cardboard. Once finished, you will provide the clients with a short presentation of your final proposal.
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| **Concepts:**List the **big ideas** students will be introduced to in the lesson. These ideas are universal, timeless and transferrable. Examples of concepts used in art might include: Composition, Patterns, Technique, Rhythm, Paradox, Influence, Style, Force, Culture, Space/Time/Energy, Line, Law/Rules, Value, Expressions, Emotions, Tradition, Symbol, Movement, Shape, Improvisation, and Observation **Look for concepts in the standards, content specific curriculum, etc.** |
| * Intent
* Expression
* Connection
* Environment
* technology
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| **Enduring Understanding (s):**Enduring Understandings **show a relationship between two or more concepts**; connected with an active verb. The best enduring understandings not only link two or more concepts; but demonstrate why this relationship is important. Like concepts, they are timeless, transferrable and universal. **Align Standards, Prepared Graduate Competencies (PGCs) and Grade Level Expectations (GLEs) to Enduring Understandings.**  |
| * Artists make connections between their art and the world around them through consideration of resources, environment, and concept. (Standard 1: GLE 2 GLE 3 Explain, Demonstrate, and Interpret a range of purposes of art; Recognize, articulate, and debate that the visual arts are a means for expression; Analyze, interpret, and make meaning of art and design critically using oral and written discourse)
	+ I can create art that is influenced by its environment.
* Artists use intent and new technologies to create art that communicates/expresses meaning.

(Standard 3: GLE 1 GLE 2 Standard 4: GLE 2 Develop and build appropriate mastery in art-making skills using traditional and new technologies;Recognize, interpret, and validate that the creative process builds on the development of ideas through aprocess of inquiry, discovery, and research; Recognize, compare, and affirm that the making and study of art and design can be approached from a variety of viewpoints, intelligences, and perspectives* + I can understand new ways to use technology that will allow me to communicate an idea through art.
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| **Standards: (All lessons should address all standards.)**1. Observe and Learn to **Comprehend**2.Envision and Critique to **Reflect** 3. Invent and Discover to **Create**4. Relate and Connect to **Transfer** |

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| **Objectives/Outcomes/Learning Targets:**Objectives **describe a learning experience** with a **condition → behavior (measurable) → criterion.** Aligned to: Bloom’s – Standards – GLEs - Art learning and, when appropriate, Numeracy, Literacy and Technology. **Should be written as:** Objective. (Bloom’s: \_\_\_\_\_ - Standard: \_\_\_\_\_ - GLE: \_\_\_\_\_ -Art learning: \_\_\_\_\_ -Numeracy, Literacy, and/or Technology) |
| * **Given basic understanding of 3D rendering in Rhino** SWBAT *alter* a 3D scan of their maquette. Blooms: Apply, Create, Understand. Standard: 3 GLE 1, Art Learning: materials/techniques, conceptual ideation, features/characteristics.
* **Given access to equipment (3D scanner, 123D Make, Rhino, Laser cutter, Photoshop )** SWBAT *envision, plan, and create* aninstallation that conveys the artist’s relationship to a chosen environment. Blooms: Apply, Create. Standards: 3 GLE 2, Art Learning: materials/techniques, conceptual ideation/personal grounding.
* SWBAT to **use images, finished installation and research on an environment** to *propose their artwork* to a group of panelists. Blooms: Transfer, Apply Standard 3 Gle 1 Standard 4 GLE 1, Art learning: conceptual ideation/personal grounding
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| **Differentiation:** Explain specifically how you have addressed the needs of exceptional students at both end of the skill and cognitive scale. Describe the strategies you will use for students who are already proficient and need growth beyond what you have planned for the rest of the class, as well as modifications for students with physical and/or cognitive challenges. **Students must still meet the objectives**. |

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| **Differentiation:**(Multiple means for students to access content and multiple modes for student to express understanding.) | **Access** (Resources and/or Process) | **Expression** (Products and/or Performance) |
| Handouts with shortcuts and software information provided. Ideation guide to facilitate brainstorming |  |
| **Extensions for depth and complexity:** | **Access** (Resources and/or Process) | **Expression** (Products and/or Performance) |
| Students may use more complex tools/processes in Rhino to render their model | Students may use video editing software to place their model in a video for their presentation |

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| **Literacy:**List terms (vocabulary) specific to the topic that students will be introduced to in the lesson **and describe how literacy is integrated into the lesson.** |
| * Vocabulary: Maquette, 3D rendering, installation art
* Literacy:
	+ Ideation worksheet - writing down ideas and plan for final artwork
	+ Reflective activity - researching and recording information, creating plan for presentation
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| **Materials:** Must be grade level appropriate. **List** everything you will need for this lesson, including art supplies and tools. (These are the materials students will use.) **List all materials in a bulleted format.** |
| * Sketchbook
* Clay and sculpting tools
* Cardboard
* Glue guns
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| Resources: List all visual aids and reference material (books, slides, posters, etc. Be specific; include title, artist, etc. Make reference to where the material can be found. (These are the resources used by the teacher to support/develop the lesson.) List all resources in a bulleted format. |
| * Software
	+ 123dMake
	+ Zbrush
	+ Rhino5
* Rachel Whiteread “Embankment”
* Ai Weiwei “Konzerthaus Life Vests”
* Richard Serra “Tilted Arc”
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| **Preparation:** What do you need to prepare for this experience? **List steps of preparation in a bulleted format.** |
| * Pickup cardboard and cut into 2’ x 3’ pieces
* Gather art materials and tools
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| Safety: Be specific about the safety procedures that need to be addressed with students. List all safety issue in a bulleted format. |
| * Do not look directly at the laser while 3D scanning
* Follow all safety precautions while using the laser cutter
	+ Turn on auxiliary exhaust fan before use
	+ Don’t leave machine unattended during operation
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| **Action to** **motivate/Inquiry Questions:**Describe how you will begin the lesson to **stimulate student’s interest**. How will you pique their curiosity and make them interested and excited about the lesson? **What inquiry questions will you pose?** Be specific about what **you will say and do** to motivate students and get them thinking and ready to participate. Be aware of the varying range of learning styles/intelligences of your students. Some ideas might include: telling a story, posing a series of questions, role-playing, etc. |
| * Show images of installation sculptures and prompt discussion with these questions:
	+ What is installation art?
	+ Why did theses artists create these pieces?
	+ How do they change or alter the feeling of the space?
	+ How do you think the occupants or users of the space feel about the art?
	+ Should the artist consider the viewer’s opinion?
* Tell performance story as described on page one
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| **Ideation/Inquiry:** Ideation is the creative process of generating, developing, and communicating new ideas, where an idea is understood as a basic element of thought that can be visual, concrete or abstract.List and describe inquiry questions *and* processes you will engage students in to help them develop ideas and plans for their artwork. |
| * Students will be shown examples of installation sculptures and discuss inquiry questions.
* Ideation handouts with the following prompts will be provided to the students:
	+ List/describe some of your favorite places or places that hold important or special meaning for you
	+ Pick several places and list/describe/draw attributes about each of these places (smell, color, texture, emotion, personal meaning)
	+ How could you incorporate or convey these attributes into a piece of art?
	+ How might your art interact with or influence these places?
	+ How do you want the viewer’s/occupants of the space to be affected by your art?
	+ List/describe/draw your ideas
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| **Instruction:** Give a detailed account **(in bulleted form)** of **what** you will teach. **Be sure to include approximate time for each activity and instructional methodology: skills, lecture, inquiry, etc.** Include motivation and ideation/inquiry where appropriate; including what student will understand as a result of the art experience |

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| Day 1 | **Instruction** - The teacher will... (Be **specific** about what concepts, information, understandings, etc. will be taught.) **Identify instructional methodology. KNOW (Content) and DO (Skill)**(ADAM) * Show images of installation sculptures and prompt discussion with questions:
	+ Rachel Whiteread “Embankment”
		- What is installation art?
			* 3D work that is site-specific and designed to transform/alter the perception of a space
		- How do artists change or alter the feeling of the space?
			* Adjust scale of objects, force or allow for interaction
	+ Ai Weiwei “Konzerthaus Life Vests”
		- How do artists change or alter the feeling of the space?
			* Incorporate symbolism into space
		- Why did theses artists create these pieces?
			* Make viewers think, bring focus to social/political issues, make personal statements
	+ Richard Serra “Tilted Arc”
		- How do you think the occupants or users of the space feel about the art? Open-ended
		- Should the artist consider the viewer’s opinion? Open-ended
* Tell performance story: “You are a famous sculptor and you’ve been commissioned to create an installation piece for one of your favorite places. This could be a place that holds special meaning for you, a place that you frequent on a regular basis, or a place you find visually appealing. The owners of the property are so impressed with your work, they’ve given you total control over content and aesthetics as long as the sculpture expresses or conveys the meaning you get from that place. You will make a clay maquette of your sculpture and then use digital fabrication techniques to increase its scale and add additional elements to create a larger model from cardboard. Once finished, you will provide the clients with a short presentation of your final proposal.”
* Introduce and guide students through worksheet
	+ List places and attributes
	+ Develop ideas for sculpture
* Break class into groups, review project requirements and schedule, answer questions
* Schedule
	+ Class 1 - Ideation and brainstorming, design and build clay maquette, research as needed
	+ Class 2 - Introduction to software and equipment, working with rendering software to make adjustments to model, preparing model for laser cutter, research as needed
	+ Class 3 - Assembling model, research as needed, preparing and delivering proposal presentation
* Requirements/guidelines
	+ Clay maquette should be around 6” in dimensions
	+ Cardboard will loose some fine detail
	+ Presentation will require overview or demonstration of the history/culture/environment of the selected place. Perform research as necessary during classes
* Work time to develop ideas and build clay maquettes
* Clean-up
 | **Learning** - Students will... i.e.: explore ideation by making connections,comparing, contrasting; synthesize possibilities for each painting technique; etc. (Be **specific** about what will be the **intended result** of the instruction as it relates to learning.) **UNDERSTAND***Analyzing, thinking independently, making plausible inferences**Thinking independently, making plausible inferences, and comparing and contrasting ideas**Thinking independently and collaboratively, making reasoned decisions* | **15 min****20 min****10 min****2 hrs****10 min** |
| Day 2 | * (ANDRES)

**Introduction Slide 1-2:** Review what was done last class (creating clay maquettes of installation pieces that relate to a specific environment) Introduce what will be done this class (altering 3D scans of maquettes using software and preparing models to be laser cut) **What can be accomplished in Rhino? Slide 3** Show students the work I am currently doing in Rhino and emphasize that I am barely scraping the surface of what this program is capable of. **What is Rhino? Slide 4**Read slide giving a brief introduction to what Rhino is and how it can be used **The basics of Rhino: The story of the paintbrush and the hammer Slide 7-8**Walk through each of the listed tools on Rhino, creating a Say See Do format of instruction. Tools to go over will be: ■The program will do EXACTLY what you tell it to doCan’t paint if you are holding a hammer-look at the command barOsnapCreate Basic ShapesSplit shapesJoin/Group Control Points-F10 F11 Transform tool The program will do EXACTLY what you tell it to do–*Can’t paint if you are holding a hammer-look at the command bar***Rhino individual practice exercise Slide 8**Students will download an image from the internet and insert it into Rhino using the “pictureframe tool” and trace it using the tools that have just been introduced **Manipulation of 3D object (Work time) Slide 9**Orient students to the 3D view of Rhino and the following tools Gumball onShaded viewOnly need to “group” not “join” for 123D Make **123D Make Slide 10**Have students orient their attention to the screen and demonstrate how to import and object into 123D make and determine/change the cutting directions. **Wrap Up Slide 11-12**In the last 5 minutes of class have students present their newly designed sculptures in 123D make in the build view  | *Students will be oriented to the work of last class and the objectives for today.**Students will examine the work done in Rhino make inferences about what can be done in their own work.**Students will learn and actively practice the Rhino skills* *Students will individually apply their Rhino skills by tracing an image from the internet and rendering the shapes in the image* *Students will use 2D rendering knowledge of Rhino to expand to 3D by observing and actively practicing**Transfer base knowledge to a different 3D rendering program* *Students will participate in a working critique making connections between their own work and the work of their classmates*  | **15 min****10 min****30 min** **75min****10 min****10 min** |
| Day 3 | * (MONSE)
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| **Student reflective/inquiry activity:** Sample questions and activities (i.e. games, gallery walk, artist statement, interview) intended to promote deeper thinking, reflection and refined understandings precisely related to the grade level expectations. How will students reflect on their learning? A participatory activity that includes students in finding meaning, inquiring about materials and techniques and reflecting about their experience as it relates to objectives, standards and grade level expectations of the lesson.) |
| * Students will give a short presentation (6-8min) to the clients to sell them on their proposed sculpture. This should/may include the following:
	+ Overview of the environment/community’s culture
	+ Artist’s motivation for this sculpture and how they want it to interact with the environment/community
	+ Photograph showing how the proposed sculpture will interact with its environment and the community
	+ Scaled cardboard model for reference
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| **Post-Assessment (teacher-centered/objectives as questions):** Have students achieved the objectives and grade level expectations specified in your lesson plan? | **Post-Assessment Instrument:**How well have students achieved the objectives and grade level expectations specified in your lesson plan? Include your rubric, checklist, rating scale, etc. |
| * Did student use Rhino to *alter* a 3D scan of their maquette.
* Did student use digital fabrication equipment (3D scanner, 123D Make, Rhino, Laser cutter, Photoshop ) to *envision, plan, and create* aninstallation that conveys the artist’s relationship to a chosen environment.
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| Criteria | Complete  | Incomplete |
| Plan and Envision:Groups included attributes from ideation that reflects their chosen environment | Students used multiple attributes from various group members’ ideation that connect with their environment. | Students lacked connections to ideation sheet and were unsuccessful in connecting to their environment  |
| Technology: Use Rhino5 and 123D Make to alter and create an installation from cardboard | Students successfully altered their maquette on rhino and were able to use 123d Make to have a successful lasercut design. | Students were unable to use Rhino and 123d Make to have a successful laser cut design.  |
| Presentation/Proposal  | Students used images of process, environmental connections and other resources to propose their installation to a group of panelists.  | Students used no other examples besides their installation to propose an installation to a group of panelists.  |

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| **Self-Reflection:** ***After the lesson is concluded*** write a brief reflection of what went well, what surprised you, and what you would do differently. Specifically address: (1) To what extent were lesson objectives achieved? (Utilize assessment data to justify your level of achievement.) (2) What changes, omissions, or additions to the lesson would you make if you were to teach again? (3)What do you envision for the next lesson? (Continued practice, reteach content, etc.) |
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**Appendix:** Include all handouts, prompts, written materials, rubrics, etc. that will be given to students.

8/9/15 Fahey