**NORTH COAST ARTS INTEGRATION PROJECT LESSON PLAN EXAMPLE**

**Arts Integration Lesson Name:** Shadow Science  **Date:**

**Artist:**   **Timeline:**

**Teacher:** **Course:**

**School Site:**  **Grade Level:** 4th

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| **PROJECT OVERVIEW** |
| Students will collaboratively research, write and perform science-inspired scripts using shadow puppets they have designed and constructed. |

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| **CORE and VAPA STANDARDS and NON STANDARD BASED OBJECTIVES** |
| **Next Generation Science Standards**  **ETS1.C:** Optimizing The Design Solution - Different solutions need to be tested in order to determine which of them best solves the problem, given the criteria and the constraints.  **ETS1.B:** Developing Possible Solutions  At whatever stage, communicating with peers about proposed solutions is an important part of the design process, and shared ideas can lead to improved designs.  **Science and Engineering Practices**  1. Asking questions and defining problems  2. Developing and using models  6. Constructing explanations and designing solutions  8. Obtaining, evaluating, and communicating information  **ELA Anchor Standards (SWBAT)**   1. Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content. (Writing Anchor 2) 2. Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation. (Writing Anchor 7) 3. Present information, findings, and supporting evidence such that listeners can follow the line of reasoning…(Speaking/ Listening Anchor 4) 4. Make strategic use of visual displays to express information and enhance understanding of presentations. (Speaking/ listening Anchor 5) 5. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words. (Reading Anchor 7)   **THEATRE ART**  **Artistic Perception**  **1.2** Demonstrate how voice (diction, pace, and volume) may be used to explore multiple possibilities for a live performance.  **Creative Expression**  **2.2(6)** Use effective vocal expression, gesture, facial expression, and timing to create character.  **2.2(2)** Retell familiar stories, sequencing story points and identifying character, setting, and conflict.  **2.3** Write and perform scenes or one-act plays that include monologue, dialogue, action, and setting together with a range of character types.  **Historical and Cultural Context**  **3.1** Design and create masks, puppets, props, costumes, or sets in a selected theatrical style drawn from world cultures, such as Javanese shadow puppets or Kabuki masks.  **3.4** Identify and describe objects of art from different parts of the world observed in visits to a museum or gallery (e.g., puppets, masks, containers).  **Connections, Relationships, and Applications**  **5.1** Use theatrical skills to dramatize events, communicate concepts or ideas from other curriculum areas.  **5.2** Develop problem-solving and communication skills by participating collaboratively in theatrical experiences.  **5.3** Exhibit team identity and commitment to purpose when participating in theatrical experiences.  **VISUAL ART**  **Connections, Relationships, and Applications**  **5.3** Construct diagrams, maps, graphics, timelines and illustrations to communicate ideas or tell a story about an historical event. |

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| **ASSESSMENT** |
| **Teacher, artist and students may use the** [**rubric**](https://docs.google.com/document/d/1bC0jGedmdQRWbgOMdQsqFSVDZjR2XKXrxEoqH0MZ7R0/edit?usp=sharing) **and the** [**reflection form**](https://docs.google.com/document/d/1COQ3qRd8hUzMx_SrrKr_ACF_G4Xfi5UjPP0c2yYLHUc/edit?usp=sharing)**. (on the web at www.artsintegration.net/shadow-puppets.html)** |

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| **CORE VOCABULARY** | **ART VOCABULARY** |
| Light  Source  Translucent  Opaque  Transparent  Reflection  Absorption  Beginning, middle, end  Who, what, where, when and why (the five Ws) | Action  Gesture  Manipulation  Blocking  Scenery  Shape  Space (Positive/negative)  Scale and proportion  Silhouette  Pattern  Overlap |
| **SHARED VOCABULARY** | |
| Narrative, Script, Symbol, Character, Setting, Voice, Projection, Profile | |

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| **STRATEGIES FOR ELICITING PRIOR KNOWLEDGE/**  **CONNECTING CONTENT TO STUDENTS LIVES** |
| “Have you ever used your hands to play with shadows on the wall?”  “Have you ever noticed how your shadow can be really long on the sidewalk?”  “Are shadows sometimes fun or scary?”  Builds upon VAPA Standards for 3rd grade, (1.2, 2.1, 2.2, 5.1, 5.2). |

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| **PREPARATION** | **MATERIALS** |
| Establish group work norms  Create puppet prototypes  Collect art materials  Build or find shadow light source/screen- (see note below under “Materials”) | **Instructional**  [PowerPoint (PPtx) on Shadow Puppetry.](https://docs.google.com/presentation/d/18i6uDsKz2kHQvZqQ2pWKEs3LusNbgGYR7txcckbMO7c/edit?usp=sharing)  Laptop and digital projector.  Overhead projector or screen and light source  Visual support materials including:   * Books on shadow puppets * Actual examples of shadow puppets * Project prototypes   **Art materials**   * Drawing paper * Pencils * Erasers * Rulers * File folders; and/or cardboard sheets and/or poster board * Scissors * X-acto knives and/or snap-off box cutters * Cutting mats and/or cutting boards * Hole punches (office and decorative) * Paper fasteners (AKA brads) and/or snaps * Transparent tape and masking tape * Colored gel for theatre lights and/or colored plastic wrap * Bamboo skewers and/or wooden dowels * Shadow screens - can make with PVC (four T’s, two 90° elbows, four caps, 3 ten foot pieces of PVC- cut PVC into two 6’ lengths, two 3’ lengths, four short legs (about 8 inches each). Assemble as shown in the picture on the website. * Light source- clamp light, flashlight, or overhead projector. * Extension cord (if necessary) |

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| **RESOURCES** |
| * The Visual and Performing Arts Framework for California Public Schools, K – 12. California Department of Education, Sacramento, 2004. * Currell, D. (2007), Shadow Puppets and Shadow Play. Crowood Press Ltd. Ramsbury, Marlborough Wilthshire England. * Tejada, I. (1993), Brown Bag Ideas from Many Cultures. Davis Publications, Inc. Worcester, MA.   Google search on “Shadow Puppetry” |

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| **CONTENT INTEGRATION AND ELA LESSONS**   * Students should complete the research and script development before creating the puppets. * The teacher identifies content standards and resources for student use. * There are several resources on the NCAIP website [www.artsintegration.net/shadow-puppets.html](http://www.artsintegration.net/shadow-puppets.html) to assist with script development.   **Introduce the** [**Rubric**](https://docs.google.com/document/d/1bC0jGedmdQRWbgOMdQsqFSVDZjR2XKXrxEoqH0MZ7R0/edit?usp=sharing) **(on the web at** [**www.artsintegration.net/shadow-puppets.html**](http://www.artsintegration.net/shadow-puppets.html)**)**  At this point, emphasize the “Content” and “Script” rows and save the other rows for later.  **Introduce the goal of the project: *You will demonstrate understanding of \_\_\_\_\_\_\_\_\_\_ (the topic) with the puppets and script you create. You will perform the presentation in a way that confirms your understanding and informs others.***  Assign or have students choose their content. Facilitate research and script development. Frames or storyboards can be used to support this process which are available on the website [www.artsintegration.net/shadow-puppets.html](http://www.artsintegration.net/shadow-puppets.html).  **VISUAL AND PERFORMING ARTS LESSONS**  *Seat students in groups for this project. Provide a seating chart if you have a collaborating artist. Introduce the artist to the students with the name preferred by the artist. (first name, or Mr. Ms..)*  **Day 1 Slideshow and exploration time**  **Present** [**Slideshow**](https://docs.google.com/presentation/d/1ugV_i6ujMC8pEIFkHUrmwSUJjZrnIOfFE1C2Ob1yxgI/edit?usp=sharing) **(on the web at** [**www.artsintegration.net/shadow-puppets.html**](http://www.artsintegration.net/shadow-puppets.html)**)**  **Slide 1 – *“Have you ever used your hands to play with shadows on the wall?” “Have you ever noticed how your shadow can be really long on the side walk?” “Are shadows sometimes fun or scary?”***  *Students usually have experienced making shadows with their hands and this is a good hook into this project.*  **2- *“What do you notice? What is going on in this photo?”*** *Two people are holding up a scene of a house, land and trees with their hand and sticks. Two other people are controlling shadow puppets of two people in this landscape.*  **3- “*How does a shadow puppet work?”*** *People stand behind a paper, curtain, or sheet, in a dark room, set up a light behind them and hold the puppets up to the sheet to create a shadow.*  **4 – “*Where do shadow puppets come from?”*** *They are used all over the world and are created out of many different materials. This one is from the country of Indonesia and made from leather. They can also be made from paper, wood, or other thin rigid material.*  **5-17 – “*What do you see, wonder and think about these photographs?”*** *For each slide, ask students what they see, what they wonder and what they think about the photograph. The three verbs are connected, for example “I* ***see*** *a large red, gold and black butterfly. I* ***wonder*** *if those colors can be seen when it is projecting a shadow. I* ***think*** *they can not be seen because that puppet is made from leather which is not translucent.”*  **18 – Play a minute or so of this video and stop occasionally to ask, “How did they do that?”**  *For example, why are their hands so large? (overhead projector) How did they make the house gray and the people black?, (house is farther from screen or made from a different material).*  ***[19-21 optional]***  **19 – *“There are seven ‘Elements of Art’. The elements of art are like the building blocks of art. They are the ingredients that artists like you use to create works of art. We are about to see two videos on two elements of art that are important when learning about shadow puppets. The first video describes the element of shape.”***  **21 –Play video** *and discuss how the shadow puppets have shapes that are usually recognizable as the characters in the performance. They can be realistic or stylized. The shapes can have holes in them (called “negative space”) to let the light shine through. You can even put colored film over the holes so the holes are colored.*  **22 *“The second video describes the element of space.”* Play video.**  *Discuss the use of the whole space of the shadow puppet screen. Some characters will enter the screen from one side, walk along the bottom of the space and then walk out on the other side of the screen. Some characters might fly so they might be on the top of the screen space. Scenery can be anywhere on the screen. Discuss* ***positive and negative space*** *(as it relates to the areas on the shadow puppets that students cut away so that light is able to shine through.)*  **Demonstrate** a shadow puppet on the screen preferably with a moving part like an arm or a leg. Demonstrate how to create moving parts by taking two rectangular pieces of cardstock, punching a hole near the end of each and securing them with fasteners. Then attach a stick to each and demonstrate how it moves on the screen. (card stock, hole punches and fastener). Ask students “What things might move?” (arms, legs, mouth, eyes, body, etc) Ask what will happen if they use TWO fasteners at the same joint. (the joint can’t move) Demonstrate if this is unclear.  **Exploration time- as time allows**  **Work Time Expectations (use whatever is the class norm- these three are a good start)**   * **Be safe** (walk with point of scissor in your hand is safer than walking with scissors pointing outward; telling people their puppets are bad is not safe as it can hurt their feelings; being aware of tripping hazards like extension cords is safe) * **Be respectful**  (sharing is respectful, waiting for your turn is respectful, etc) * **Be responsible** (cutting from shapes from side of cardboard instead of center is responsible, putting away materials at end of class is responsible, etc)   **Distribute** scissors, a small amount of cardstock, hole punches 1-2 sticks and one fastener. Direct students to **explore** how to create a moving part for their puppet. While they may try to make a whole puppet, that is not required. The time today is for free exploration of the materials. If they make two rectangles that are attached and move, that is fine. If they create a face with a moving mouth, that’s even better but not critical. It is important that students explore the materials without feeling pressured to create final puppets. Teachers should use their best judgment regarding the time they have for this activity but make sure to clearly teach work time expectations.  **Establish** a clean up routine that includes putting puppets from a table group into a large folder of some kind. Train students how to return scissors, trash/usable cardboard and other supplies.  **Reflect** with students on what they learned today: skills, how to care for the work space, shadow puppet techniques, etc  **Day 2 Drawing and first iteration of puppet**   1. **Ask students what worked well during the last lesson.** Students can share puppets they felt moved well or were interesting to look at.  **Ask students what was challenging.** Students share what they had difficulty with. Have them demonstrate against a screen what they found challenging or worked well. Invite constructive criticism from the class. (Discuss with the class how constructive criticism offers solutions and suggestions such as, “It might look better if the hand was larger so we could see it better” and not just “That looks bad.”)   **2. Describe overview of the project**   * Explain that over the next few classes students will: * Sketch their puppets and scenery on drawing paper * Cut out their sketches * Transfer their drawings to cardboard sheets by outlining * Cut out * Add color to negative space(colored plastic and masking tape) * Assemble their puppet * Attach rods (masking tape and bamboo skewers) * Optional – Decorate (colored pencil or paint which is not seen in the shadow) * Rig scenery (attach to shadow screen) * Explain that today students will begin drawing their puppets and scenery.   **3. Demonstrate** on drawing paper how to sketch their puppets(s) and scenery; explain that the sketches will serve as patterns for the final product. Show how a full sized puppet sketch will have edges that touch on three sides of the paper. (Smaller characters like mice don’t need to be full sized but this ‘three sides’ rule helps ensure that puppets are sufficiently large.) Provide explicit scissor/ knife instruction. Explain that if students want individual parts of the puppet to move, (i.e., arms and legs), they will need to draw those parts separately. They should reuse the sticks they had for their prototypes the day before. Also discuss how to create scenery (stable areas on the shadow screen that indicates the setting)  Vocabulary: *pattern, overlap, positive and negative space, scale and proportion, scenery*.  **Requirements**   1. Puppet shape should touch 3 sides of file folder unless the scale of the character is much smaller than other puppets in the presentation 2. Shows negative space 3. Realistic (looks similar to photo)or stylized artistically and consistently throughout the presentation.   **4. Distribute** drawing paper.  **5. Instruct** students to begin sketching their puppets. The sketch should touch three sides of the paper. Remind students to think about relative scale, or size while they are sketching as well as include negative space design ideas. Offer suggestions (i.e., designs that facilitate movement); assist with sketching separate parts.  **6. Distribute** file folders or cardboard. Students can clip the drawing on top of the file folder and cut both sheets at the same time or transfer their drawing to the file folder.  **7**. **Students cut out** the file folder and any moving parts. Interior cuts can either be made with scissors and then taped over to close or box cutter/X-acto knives can be used to cut interior shapes, (*negative space*).  **Day 3-5 Finishing puppets**  **Recall- Strengths and challenges of our last lesson**  **Recall- Requirements and understandings of our last lesson**  **Review the** [**Rubric**](https://docs.google.com/document/d/1bC0jGedmdQRWbgOMdQsqFSVDZjR2XKXrxEoqH0MZ7R0/edit?usp=sharing) **(on the web at** [**www.artsintegration.net/shadow-puppets.html**](http://www.artsintegration.net/shadow-puppets.html)**)**  Call attention to the puppet design and construction.  **Instruction: How to attach the sticks –** fold tape over skewer leaving a flexible tab on top, tape tab to puppet. Demonstrate moving puppet using one stick or two as needed. There are some puppets that may require more than one person to operate.  **Work time goal:** prepare all the puppets and scenery that your group will need for your performance.  **Day 6 Theatre instruction**  **Recall- Strengths and challenges of our last lesson**  **Review** [**Rubric**](https://docs.google.com/document/d/1bC0jGedmdQRWbgOMdQsqFSVDZjR2XKXrxEoqH0MZ7R0/edit?usp=sharing) **(on the web at www.artsintegration.net/shadow-puppets.html)**  **THEATRE STANDARDS**  **Demonstrate** how voice (diction, pace, and volume) may be used to explore multiple possibilities for a live performance. Demonstrate effective vocal expression, gesture, and timing to create character.  **Demonstrate** how puppets should enter/ exit appropriately and realistically. (Characters usually walk forward and don’t magically appear.)  **Demonstrate** blocking by showing puppets that unrealistically “fly in the air” rather than remaining grounded. This is an inappropriate use of “space”.  **Show** how puppets can interact with each other appropriately and realistically.  **Students can practice** their performances against a wall, window or screen. All the groups can practice their scripts and performances simultaneously. Teacher and collaborating artist should roam, listen to performances and offer feedback on what is working well and what could be improved. Students are preparing to perform for each other the next day.  **Day 7 Dress rehearsal**  **Recall- Strengths and challenges of our last lesson**  **Recall- theater expectations of the voice and movement for the puppets.**  **Set up** a screen at the front of the room. Create a list of the order of presentations. Allow students to organize their puppets and scenery. Explain the expectations for being good audience members. Remind them that these are not final performances but rather a “dress rehearsal” in which difficulties will be identified and solutions suggested. The audience members will be expected to look both for what groups do well (so other groups can do that with their performance) as well as look for ways the groups can improve their performances. (provide helpful suggestions)  **After each performance**, ask the audience for both things. First, what did the group do well and secondly, what suggestions do people have for making the performance EVEN better. Review the rubric as needed.  **Day 8 Reflect and revise**  **Recall- What happened on last lesson? Does your group recall what people said you did well? Did you see things that another group did that you would like to do in your performance as well? Do you remember**  **Have the table groups self-evaluate** using the rubric. What did they hear others suggest to them from the day before?  Today the groups get to reflect and revise their performances. Fix puppets, add scenery, change the script, improve dramatic voice, etc.  The rest of this day is spent rehearsing with their revisions.  **Day 9 Final performances**  These performances are best if the student have a chance to perform for others such as younger group of students, a group of parents, or a nursing home. Having an audience different from their classmates can greatly improve the performances. |
| **ARTS INTEGRATION CHECKLIST** |
| SCORE: \_\_\_\_\_\_\_\_\_\_ out of 12  Comments: |