<table>
<thead>
<tr>
<th>Program Title: Ecology Illuminated</th>
<th>Teaching Artist Name: Nyssa Collins</th>
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<tbody>
<tr>
<td>Grade Level: 2-8</td>
<td>Maximum Student Participants: 25</td>
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<td>Length of Program:</td>
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<td></td>
<td>Total Days: 5</td>
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<td>Length of session(s): 1hr</td>
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<tr>
<td>Arts Focus: Shadow Puppetry</td>
<td>Curriculum Focus: Ecology</td>
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**Primary Learning Goal(s):**
(What should students learn during this residency, workshop, or performance?)
- Learn about the tradition of shadow puppetry
- Learn how to make paper puppets and bring them to life with overhead projectors
- Study the networks that link living things (which may include): food chains, ecosystem diversity, species relationships, biomes, and human influence
- Illustrate a concept of ecology using shadow puppetry

**Connecting NC Essential Arts Standard**
*Identify at least one NC Essential arts standards being addressed by the program and primary learning goal.*
2.V.3 Create art using a variety of tools, media, and processes, safely and appropriately.

3.CX.2 Understand the interdisciplinary connections and life applications of the visual arts.
   - 3.CX.22 Understand how to use information learned in other disciplines, such as math, science, language arts, social studies, and other arts in visual arts.

4.CX.2 Understand the interdisciplinary connections and life applications of the visual arts.
   - 4.CX.2.3 Understand individual roles, while applying collaborative skills in creating art.

5.V.2 Apply creative and critical thinking skills to artistic expression.
   - 5.V.2.1 Evaluate solutions to artistic problems, including their effectiveness
   - 5.V.2.3 Create realistic, imaginative, abstract, and non-objective art.

**Connecting Common Core State Standard(s)**
*Identify at least one common core standards in math or language arts being addressed through your residency for the grade level specified above.*

**CCSS.ELA-Literacy.RI.2.3**
Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.

**CCSS.ELA-Literacy.RI.3.7**
Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).
Connecting NC Essential Standard(s)
Identify at least one NC Essential science, social studies, information & technology, healthful living, or world languages standards being addressed by the residency and primary learning goal. Science - Ecosystems

5.L.2 Understand the interdependence of plants and animals with their ecosystem.
5.L.2.1 Compare the characteristics of several common ecosystems, including estuaries and salt marshes, oceans, lakes and ponds, forests, and grasslands.
5.L.2.2 Classify the organisms within an ecosystem according to the function they serve: producers, consumers, or decomposers (biotic factors).
5.L.2.3 Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem.

Program Overview (Describe the activities you will present each day of the residency, or for the timeframe of the workshop/performance in order to develop participant understanding of the primary learning objective and the connecting arts and core curriculum standards. (Include approximate length of each activity).

Day 1
-Introduction to Shadow Puppetry - Mini shadow show, tour of equipment and materials
  30 minutes
-Introduction of project, selection of groups and topics
  10 minutes

Day 2
-Project research - identify essentials for project: organisms, environment, relationship, actions
-Discuss narrative and information to be communicated with group; storyboard shadow show as a team; critically analyze story for simplicity and effectiveness in Communication.
  60 minutes

Day 3
-Puppet creation demonstration
  15 minutes
-Finalize storyboard and make a list of puppets to create. Divide tasks.
  15 minutes
  -Create puppets! Younger students will draw puppets (which I will cut at home); older students will cut puppets. Puppets based on descriptions, essential actions, and images
  30 minutes

Day 4
-Finish cutting puppets! Experiment with their effectiveness and refine and recut as needed.
-Rehearse storyboarded show with group; define roles and flow of puppet show.
  60 minutes

Day 5
-Dress rehearsals! Practice with group and fix any problems with puppets and flow.
  30 minutes
-Performances! and discussion.
  30 minutes
Materials: *List materials that will be required to conduct this program.*
- Science/Ecology literature and images
- Overhead projectors (two)*
- Drawing paper
- Pencils, erasers, white colored pencils
- Black cardstock paper
- Scissors
- X-acto Knives (if students are cutting at school)
- Reeds (puppet sticks)
- Black duct tape and hot glue
- Cutting mats
- Shadow Puppet Screen*

*provided by artist

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<th>Teacher Involvement</th>
<th>Program Evaluation</th>
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| **Teacher(s) role:** *Describe the role of the classroom teacher before, during, and/or after the sessions and activities.*
  - Before the residency: give students a background on the aspect of ecology they wish to be further studied during shadow puppet residency. Define essential terms and give them a list of topics to choose from. Provide literature and images for research during residency. Discuss with artist current studies of ecology to narrow in the focus of the project.
  - During the residency: assist students in research, help facilitate teamwork between students, help edit storyboards for essential elements, help monitor for safety when using x-acto knives.
  - After the residency: Critically discuss content of student’s performances; reflect on other ecological relationships not portrayed.
| **Evaluation Tool(s):** *Describe how you will evaluate your program’s success. Address at what points you will check in throughout the residency to determine student learning and participation levels.*
  - A successful residency will culminate in each student group working collaboratively to clearly illustrate a topic in ecology; this will be the final point of checking the success of the residency, but there will be many checkpoints prior. Students must first work as a group to fill out ecology research worksheets. They will then use this information to create a storyboard, and create a list of puppets. Students will then create puppets and refine them through experimentation. They will define performance roles and rehearse together before performing for the class. At each of these levels, their work will be reviewed by teacher and artist, and they will be given advisement for clarification or refining. After the performance, each student will be asked to explain or write the ecological relationship they portrayed.* |
**Teacher-Artist Orientation:** *Outline your orientation checklist, including any questions, suggestions, collaboration ideas and any information you will provide to teachers/staff as part of this program.*

- **Questionnaire before residency:**
  What topics in ecology are students currently studying/do you wish them to delve deeper into?
  What is the level of the class in terms of fine motor skills and cooperation (to gauge whether students are capable of using x-acto knives and writing their own stories, or if aspects of this needs to be done by the artist outside of class.)
  Would you like to pre-group the students in the class, or preselect topic ideas?

- **(Optional) to be provided:**
  Ecology information sheets, shadow puppet videos, storyboard worksheets, sample storyboards, ecology research worksheets

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**Extension Activities:** *Describe the tools you will leave behind for teachers and staff to develop and implement after you have left the classroom.*

Students will be left with additional research and storyboarding worksheets. They can then work individually or in groups to illustrate these through comic strips. I will also leave the teacher a hand-out on cutting shadow puppets and creating shadow shows.

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**Resources:** *List resources consulted or used during the residency (books, DVD’s, music, web resources, and other supporting materials)*

For their research on ecological relationships, students will require some sort of ecology literature. This may be in digital or print form. They will also need access to images of the organisms they are going to create, best found through books with good pictures or google images. I may show videos of shadow puppet performances if time and technology permit.

**Space Requirements:**

| **Standard Classroom** |

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**Technical Needs:** Electrical outlets, computer access (preferred, not required)

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**Program Variations Available:** *Describe any flexibility in the program or other variations of the program offered, etc.*

- Two dimensional cardboard puppets can be used (simpler)
- Cardboard masks and paper mache (cardboard sculpting) can be used – uses geometry and 3D critical thinking
- Variations in subject matter explored are many! There are many scientific, historical, mathematical, and literary concepts that can be explored in this medium.

**Additional Comments**