

LUMINOUS SCIENCE LESSON: A5

PAINTING LANTERNS

Instructional Objectives: Students practice painting using India ink, wax and colored paint to make meaning in art-making related to garden entities and variables. Students work towards a whole class installation using a single garden variable.

- **Before this lesson** - Complete the following lessons:
S4: Identifying Measurable Variables
C2: Networking Using the Radio with Garden Data
- **With this lesson** - The following lessons can be combined with or taught concurrently with these lessons:
A4: Papering Lanterns
S5A: Experiment Design and Variable Manipulation
C3: Reading Sensors and Collecting Data
C4A: Data Visualization Techniques

TEACHER PREP

Before completing this activity teachers should:

Mix dye if using powdered dye, set up 3-4 stations with white and colored lights plugged in and ready for student use, gather additional materials.

STUDENT PREP

Before completing this activity students should:

Identify and develop an investigation question, discuss variables related to their class investigation question, have an understanding of Nebuta lanterns, have developed ideas of stories their class installation lanterns could tell about the garden, have lanterns that have been papered.

MATERIALS LIST:

- Classroom Supplies**
 - Lab notebook or journal
 - Pencils
 - Paper

- India Ink**
- Paint Brushes**
- Watercolor or Dye**
- Water**
- Paint trays and water cups**
- Paraffin wax in crockpot**



STANDARDS

- Studio Arts** Understand Arts Community
 - Envision
 - Express
 - Stretch and Explore

ACTIVITY INSTRUCTIONS:

5 Discuss and share examples with the class of how artists can use abstraction, pattern, and imagination to make connections between their art and real life concepts and to bring meaning to their work. Review the variables that the class selected for their installation. Ask students how they think that variable affects the plant or how it works within the plant. Prompt them to imagine creative ways to visually represent this variable

5 Discuss materials in the Nebuta tradition with the class. Show students how to use wax and demonstrate safety precautions necessary for the classroom.

15 Have students practice painting on their lanterns with India ink and wax, try different brushes, and try different effects such as using wax first or india ink first. Instruct students to only cover half of the lantern and to think about the garden variable.

5 Discuss color mixing such as how to make secondary colors from primary colors. Also discuss saturation using water.

15 Have students practice adding color to their lanterns, encourage students to examine what their patterns look like on top of the lights using the stations with white and colored lights.

5 Ask students to share out any findings about how the paint and wax worked, how it interacted with the lights, or how they used the paint and wax to add meaning into their sketches. Ask students how they might you use these techniques for their final lantern project.

5 Clean up

Tip: Consider adding in color theory or design principles as an extension.

Tip: If students are nervous about painting on their own lanterns they can practice first by painting on scrap paper.