

# **Week Three LESSON PLAN FORMAT**

## **SAS Spring 2019**

Lead Teacher: Katy Lehman

Mentor: Sarah Thompson

Unit Title: All of the Lights

Lesson Title: The Kaleidoscopes

Grade Level: First and Second Grade

Number of Students: 20 Students

### **I. UNIT OVERVIEW (RATIONALE)**

With the flip of a switch the lights will turn on. Every morning the sun rises and there is light. Every night the sun sets and there is darkness. As we walk down the street our shadows follow us. I see through windows. I see my reflection in the mirror. Light, shadow, and reflection are all around us but are seen as magic in the eyes of a child. In the art space we will explore light that is artificial, light that is natural, and when there is no light at all. We will explore the potential that light has to reflect, illuminate, create shadow, and more. Light will become a ‘material’ in our art space, in addition to exploration with sculpture, drawing and painting, cameras, and performance art. Light will guide us as we actively investigate and discover what this magical material can create.

### **II-A. LESSON OVERVIEW (RATIONALE)**

What is a Kaleidoscope? They are optical instruments with two or more reflecting surfaces angled toward each other, so that one or more objects or designs on one end of the mirrors are seen as a regular symmetrical pattern when viewed from the other end, due to repeated reflection. The reflectors are usually enclosed in a tube with colorful pieces of glass, glitter, transparent or opaque materials that are reflected in a viewed pattern. When the tube rotates the materials move around and result in an ever-changing view. Although the definition sounds complex and fancy, the finished product is a simple and fun way to explore reflection, color, light, pattern, and movement. In the art space, we will learn how to create a Kaleidoscope and then explore with a variety of materials that we will use to put inside or onto our Kaleidoscopes. The tiny artists will then journey over to the Arboretum where there is a large Kaleidoscope in the garden. We will be able to collect items in nature to put into a more advanced Kaleidoscope and see

all the different patterns and designs that the reflections can create. We will also be able to use our own Kaleidoscopes in a beautiful outdoor setting.

## **II-B. ESSENTIAL QUESTIONS:**

What is a Kaleidoscope?

How does a Kaleidoscope use reflections?

How do reflections create patterns?

Where do we see patterns?

How do we manipulate light and reflection?

What happens when you look through the Kaleidoscope in the light versus in a dark space?

How can we explore objects found in nature our art?

How can we use loose parts in the art space?

## **III-A. LEARNER OUTCOMES**

1. Students will learn vocabulary words and concepts that will explain Week 3's lesson, in addition to preparing the students for the weeks to follow.
2. Students will be expected to recall vocabulary words they learned during Week 1 and 2's lesson and connect this information and their experiences to Week 3.
3. Students will be expected to answer questions and engage in conversation; therefore, they will learn how to engage in conversation and create an art language.
4. Students will use materials in the classroom to foster their art practice as they explore light, shadow, and reflection.
5. Students will work together with their peers in the art classroom; therefore, the art space will become social practice.
6. As children move around the open space, they will learn that art practice should be playful and experimentive.
7. Students will be expected to sit and listen quietly when they are told; therefore, they will learn how to respect the art space and their peers.
8. Students will be given a wide range of materials to create their artwork; therefore, they will learn how to have artistic freedom to create what they want.
9. Students will be able to document their own work with an ipad.
10. Students will learn what a Kaleidoscope is.
11. Students will learn how to create a Kaleidoscope.
12. Students will explore their natural environment at the Penn State Arboretum; therefore, they will learn how to explore nature and incorporate it into their art. They will also learn how to embrace their outdoor surroundings.

### III-B. NATIONAL ART STANDARDS

VA:Cr1.1.1a. Engage collaboratively in exploration and imaginative play with materials.

VA:Cr1.2.2a. Make art or design with various materials and tools to explore personal interests, questions, and curiosity.

### III-C. PENNSYLVANIA DEPARTMENT OF EDUCATION STANDARDS

Standard - CC.1.5.1.A. Participate in collaborative conversations with peers and adults in small and larger groups.

Standard - 9.1.V.1.E1. Use imagination and creativity to express self through visual arts.

Standard - AL.2.1.B1. Complete multi-step tasks with independence.

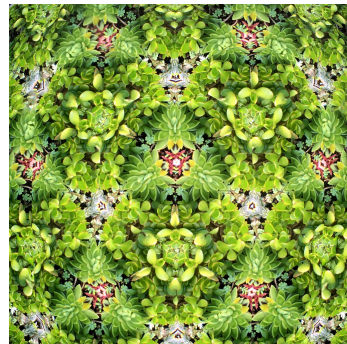
Standard - AL.2.2.E1. Employ new and familiar strategies to recall information for a purpose.

### IV. ART / ARTIST(S) OF RELEVANCE:

Mattia Paco Rizzi <http://www.mattiapacorizzi.com/homepage/art/kaleidoscope-art-installation-mirror/>

High Definition Kaleidoscope Video <https://vimeo.com/228220703>

The Arboretum <https://arboretum.psu.edu/gardens>





## V. PREREQUISITES:

*What skills and knowledge must students already be able to do before this lesson?  
What concepts have to be mastered in advance to accomplish the lesson objectives?*

1. Students need to know how to draw with markers.
2. Students need to know how to use paint and paintbrushes.
3. Students need to know how to use glue and apply materials onto each other with the glue.
4. Students need to know how to use scissors.
5. Students need to understand the difference between artificial and natural light.
6. Students need to understand reflections.
7. Students need to know how to turn on a switch, light bulb, and flashlight.
8. Students need to know how to use an Ipad, camera, and video camera.
9. Students need to be able to walk to a different location outdoors.
10. Students need to know how to explore with outdoor materials.

## VI. INTERDISCIPLINARY CONNECTIONS:

This lesson relates to Science and Language Arts. The lesson connects to Science because children will continue to learn about the scientific terms natural light, artificial

light, shadows, darkness, transparent, translucent, opaque and reflections, in addition to being introduced to new terms such as Kaleidoscopes and patterns. They will learn how Kaleidoscopes are created, used, and how they utilize reflective materials and a wide range of artistic objects to create colorful, unique patterns. They will also be able to step outdoors, exploring nature and all the objects found in nature. They will be able to tie together their natural environment and their artwork. This also connects to the Language Arts, because in learning new scientific concepts they are also learning new vocabulary words. They will also be asked to discuss synonyms and/or antonyms of these words to broaden their vocabulary. The art space will generate conversation and broaden their scientific and artistic knowledge.

## **VII. MATERIALS NEEDED FOR LESSON**

1. Sketchbooks
2. Lamps
3. Light box
4. Loose parts
5. Very large rolls of white paper
6. Tape
7. Camera/Video Camera
8. Ipad
9. Tubes
10. Mirror board sheets
11. Acetate
12. Glitter
13. Gems
14. Feathers
15. Multisurface Markers
16. Scotch Tape
17. Colorful Cellophane
18. Scissors

## **VIII. SAFETY HAZARDS:**

1. There will be lamps and light fixtures placed throughout the room. Students need to be careful they do not run into or bump over the light fixtures. Students cannot touch the light bulbs.

2. Students will be allowed to hold flashlights. Students are not allowed to shine the light in another individual's eyes. Students are only allowed to use the flashlight for its proper use and not as a weapon/violent object.
3. The shadow screen will be set up in the room for the students to put on a performance behind the screen. Students cannot move the screen without asking and should keep their hands off especially if their hands are covered in chalk and charcoal because the screen should be as plain and white as possible.
4. Students will be able to use scissors to cut materials. They need to properly hold the scissors and only use them when they are sitting at the table working on their artwork.
5. Students will be able to move to different stations in the room to explore different art experiences; therefore, they must make sure they move around the room in a respectful manner and only use the materials for each station at that given station.
6. There will be an Ipad, a camera, and video camera in the room that the students will be able to use to document their artwork and experiences; therefore, they must properly use these technological devices.
7. The tables will be removed and the ground will be covered in white paper. Students need to be careful they do not run and fall on the possibly slippery paper. Students need to be careful they do not trip over any rips in the paper.
8. Students will be walking to the arboretum. They need to dress properly, walk on the sidewalk in a line, and listen to directions.
9. At the arboretum they will be able to play outdoors, but they need to make sure they are being careful not to fall over stones or get tangled in plants.

## IX. TEACHER ACTIONS / EXPECTED LEARNER ACTIONS

Time	Teacher Actions	Expected Learner Actions
9:00-9:15	Welcome students and parents into the space and sign them in. Guide students to their sketchbook.	Student's enter and are shown where their sketchbook is and are allowed to sit wherever they please on the floor. Use markers and paint to create in their sketchbooks. This introduces them to the materials that they will use later in the lesson.

<p><b>9:15-9:20</b></p>	<p>Play introduction game for names in circle formation: Each child says their name and does a dance move. After everyone has gone around the circle we all do our dance move together.</p> <p>Sun Salutation to grab attention and create routine. Do this with teacher in the front of the room by the window and children all facing teacher. (This will be consistent every week to develop routine and an understanding of the Sun Salutations).</p>	<p>Students are standing, quiet and all facing the teacher in a circle or randomly dispersed around the room that has open floor.</p> <p>Students participate in the dancing name game introduction.</p> <p>Students are taught the sun salutation routine and understand that we will begin SAS each week with the sun salutation.</p>
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<p><b>9:20-9:30</b></p>	<p>Re-emphasize the class rules.</p> <p>Re-emphasize the vocabulary words Artificial Light, Natural Light, Shadow, Darkness, and Reflection.</p> <p>Ask students to raise their hand and explain the words.</p> <p><b>Reiterate main ideas from SAS Week 1 &amp; 2:</b></p> <p>Natural light comes from the sun, artificial lights come from electricity such as the flashlight and lamps.</p> <p>Shadows are made from objects in nature, humans, man-made things.</p> <p>When something blocks the light it creates a shadow. Our shadows follow us on the ground as we walk.</p> <p>There are many different definitions for reflections. Reflections in the mirror, reflections from the sun bouncing off of one object/surface and onto another, and reflections of color. Certain materials reflection color and light in different ways.</p> <p>Some materials and objects allow light to pass right through, some will</p>	<p>Sun Salutation to grab attention and create routine. Do this with teacher in the front of the room by the window and children all facing teacher. (This will be consistent every week to develop routine and an understanding of the Sun Salutations). Students sit quietly on the open space floor looking at the teacher.</p> <p>They are allowed and encouraged to raise their hands to ask or answer questions. They will engage in an open conversation and dialogue with the teacher and each other.</p>
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	<p>reflect back and others will absorb the light.</p> <p><b>Re-ask main questions from SAS</b></p> <p><b>Week 1 &amp; 2:</b></p> <p>What is natural light versus artificial light?</p> <p>When do you see shadows?</p> <p>How does light shine through materials and objects and not others?</p> <p>What are transparency, opaqueness, and translucency?</p> <p>How does light reflect off of mirrors?</p> <p>What colors can be created through reflections?</p> <p>What patterns can be created through reflections?</p> <p><b>Introduce Kaleidoscopes:</b></p> <p>Kaleidoscopes can be an advanced or a simple object that ties together science and art. A tube that has mirror or reflective sheets with colorful materials or designs inside. You peer your eye into a see-through hole in the tube and when you rotate or spin the tube the colorful materials and designs change patterns from the reflective interior.</p> <p><b>Main Questions to ask:</b></p> <p>What is a Kaleidoscope?</p> <p>How does a Kaleidoscope use reflections?</p> <p>How do reflections create patterns?</p> <p>Where do we see patterns?</p> <p>How do we manipulate light and reflection?</p> <p>What happens when you look through the Kaleidoscope in the light versus in a dark space?</p>	
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<p><b>9:30-9:40</b></p>	<p>Show students how to create a Kaleidoscope. First show them my already-made example then show them the step-by-step process of how to make one. Have all materials available and go over what each material will do and how to utilize it.</p> <p>To make the Kaleidoscope:</p> <ol style="list-style-type: none"> <li>1. Take a cardboard tube, three rectangular mirror sheets, and two acetate circles.</li> <li>2. Tape the three mirror sheets together with the white side facing out and the mirror side facing in.</li> <li>3. Stick the triangular shaped mirror sheets inside of the cardboard tube.</li> <li>4. Tape one of the acetate circles to the end of the tube.</li> <li>5. Explore with materials to put inside of the triangular mirror sheets.</li> <li>6. Then tape the second acetate circle on the other end of the tube.</li> <li>7. Decorate the outside of the Kaleidoscope</li> </ol> <p>After the main Kaleidoscope structure is complete, there will be an array of materials for the students to put inside the Kaleidoscope and use to decorate the outside of the Kaleidoscope. This will result in a material exploration and students making their Kaleidoscope unique and personal. We will bring back materials they have used in past weeks and introduce new materials as well.</p>	<p>Students stand around the tables and attentively watch the teacher create the Kaleidoscope and explore the different materials.</p> <p>Students are allowed and encouraged to ask questions about materials and Kaleidoscope creation process.</p>
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<b>9:40-10:05</b>	<p>Help students as they create their Kaleidoscopes. Offer help if they need and make sure they are using materials in a safe manner.</p> <p>Teacher will document the students with the video and photo camera as they work and create.</p>	<p>Students will sit at the table (or on the floor if they please) to create their Kaleidoscopes.</p> <p>Students will be able to decorate their Kaleidoscopes how they please.</p> <p>Students will be able document and take photos of their Kaleidoscopes with the iPad.</p>
<b>10:05-10:10</b>	<p>Teacher will explain to the students that we are walking to the Arboretum. They will be able to bring their Kaleidoscopes.</p> <p>Help students put on warm clothes and form a safe line to walk there.</p>	<p>Students will put on their warm clothes, take a bathroom or drink break if they need, and begin to form a line and prepare to walk to the Arboretum.</p>
<b>10:10-10:20</b>	<p>Walk to the Arboretum. Stand in a safe line and walk on the sidewalk. Teacher at front and back of the line.</p> <p>On the walk, talk to students about what they learned, experienced, and saw.</p>	<p>Walk to the Arboretum. Stand in a safe line and walk on the sidewalk one behind the other.</p> <p>On the walk, students can talk about what they learned, experienced, and saw.</p>
<b>10:20-10:40</b>	<p>Explain to students the rules in the Arboretum. They are allowed to explore and play in the garden area. Encourage them to use their Kaleidoscopes in different areas and looking at different natural elements.</p> <p>Show students the advanced Kaleidoscope that is already in the Arboretum and encourage them to use and play with it.</p>	<p>Students listen to the teacher as the rules are explained.</p> <p>They are able to explore and play in the garden area of the Arboretum. They will play with their own Kaleidoscopes, the natural items in the Arboretum, and the advanced Kaleidoscope.</p>

	Document the children as they explore and play.	
<b>10:40-10:50</b>	<p>Collect the children and form a line.</p> <p>Walk back to the Patterson Building in line and on the sidewalk. One teacher in front and one in the back.</p> <p>When arrive back at the classroom, teacher will ask them to share their experiences.</p>	<p>Children come back together and begin to walk back to Patterson Building.</p> <p>When arrive back in the classroom, children can share their experiences, continue playing with their Kaleidoscopes, or play in their sketchbooks.</p>
<b>10:50-11:00</b>	Also at this time, teacher will greet parents as they arrive and help collect children's shoes and jackets and sign them out.	Children will be putting away their materials, keeping their Kaleidoscope in the classroom to save for the exhibition, putting on their shoes and coats, and leaving with a guardian.
<b>11:00</b>	Clean up the art space.	Children have all been picked up.

## **X. ENDING THE LESSON**

### **X-A. Closure of Lesson:**

At the end of this lesson, *The Kaleidoscopes*, students will have created their own Kaleidoscopes, exploring different materials, and learning how to make and use Kaleidoscopes. Students will have explored a natural environment with the Kaleidoscope and learn how to incorporate elements from nature into their art. We will close this lesson with a conversation about what we saw and experienced with the personally-made Kaleidoscopes and the advanced Kaleidoscope in the Arboretum. We will talk about the difference between our Kaleidoscope and the one in the Arboretum. We will talk about the difference between what the inside of the Kaleidoscopes looked like indoors

compared to outdoors when the light shines through them. Students will be able to document their creations and save the Kaleidoscopes to be shown in the exhibition.

### **X-B. Transition to Next Lesson:**

In week three, The Kaleidoscopes, we will have continued to explore light and its ability to make reflections with different objects, materials, and mediums. We will have explored Kaleidoscopes and learned how reflections can create new patterns and designs. We will have explored a natural environment and learned how elements from nature can be incorporated into our artwork. In the coming weeks we will continue to explore light, shadow, reflections, and our natural environment.

## **XI. REFERENCES TO MATERIALS CONSULTED**

This section is similar to a “references” section of an academic paper. You need to account for any and all resources that you have used to conceptualize and write your lesson plan (e.g., websites, books, exhibition materials, movies, etc.)

Mattia Paco Rizzi <http://www.mattiapacorizzi.com/homepage/art/kaleidoscope-art-installation-mirror/>

High Definition Kaleidoscope Video <https://vimeo.com/228220703>

The Arboretum <https://arboretum.psu.edu/gardens>

<https://www.merriam-webster.com/dictionary/kaleidoscope>

## **XII. THE CLASSROOM AS A THIRD TEACHER**

The classroom will play a huge role in how the children create and explore in the art space. The room will be set up so that a majority of the tables are removed from the space. There will be 6 tables pushed together to create 2 long tables and there will be an array of materials on the tables for students to explore and create their Kaleidoscopes. On the second half of the room, there will be large white sheets of paper that cover the floor. Children will be able to move freely around the open space and actively engaging with their artwork while also listening to music. They will be able to work in their sketchbooks or on their Kaleidoscopes on the tables or on the floor, giving the children freedom and encouraging them to be more spontaneous and explorative with their art practice. The class will also journey over to the Arboretum that will act as a second classroom. The children will be able to play and explore the natural elements of the

landscape and utilize all of the plants, statues, tools, spaces and activities that are already in the Arboretum. Students will be able to merge their artwork with their environment.