

**Lesson Plan Title**

Visualizing Environmental Changes

**Grade Level**

6th Grade

**Subject Area**

Science

**MSCCRS**

L.6.3.3 Analyze cause and effect relationships to explore how changes in the physical environment (limiting factors, natural disasters) can lead to population changes within an ecosystem.

**Art Form**

Visual Art

**MSCCR Creative Arts Standards**

VA: Re7.2.6 Perceive and analyze artistic work.

a. Analyze ways that visual components and cultural associations suggested by images influence ideas, emotions, and actions.

VA: Re8.1.6 Interpret intent and meaning in artistic work.

a. Interpret art by distinguishing between relevant and non-relevant contextual information and analyzing subject matter, characteristics of form and structure, and use of media to identify ideas and mood conveyed.

VA: Cn11.1.6 Relate artistic ideas and works with societal, cultural, and historical context to deepen understanding.

a. Analyze how art reflects changing times, traditions, resources, and cultural uses.

**Duration**

2 hours - Can be divided into 2 sessions

**Materials**

Access to multiple Alexis Rockman prints, found on his website:

<http://alexisrockman.net/projects/> (You may print out the artwork or have students view it on a computer)

**Objectives**

Students will observe and then analyze artwork by Alexis Rockman.

Students will draw conclusions about the artwork.

Students will examine cause/effect relationships of environmental changes shown in the artwork and how those affect populations.

## **Vocabulary**

Limiting factors  
Population  
Ecosystem  
Natural disasters  
Man-made disasters

## **Art Vocabulary**

Value  
Background  
Foreground

## **Lesson Description**

1. The first part of the lesson consists of teaching students how to “read” artwork. Emphasize that analyzing and appreciating artwork is more than simply saying, “I like this because it’s pretty” or “I don’t like this because it’s boring.” Instead, it is looking at the artists’ intentions behind the colors, shapes, and objects he/she included in the work. Only after observing each visual aspect of the artwork can we start to understand the meaning behind the entire piece.

Begin with this work, *Fragments* by Alexis Rockman, to model analyzing a piece of art:

<http://alexisrockman.net/wp-content/uploads/2014/07/Fragments64x96.jpg>

Allow students to make observations about the painting. Keep in mind, at this point, they are only observing things - not analyzing them for meaning. They are simply stating what they see.

- 1) Quantity, size, color (including value - i.e., lightness/darkness) of various objects
- 2) Placement of the objects
- 3) Background/foreground

After students have made a good number of observations, citing all of the important details in this artwork (rainforest on one side, man-made road, bulldozer, pollution, etc.), you can begin to ask about the meaning the artist had in mind when he created this, such as:

- 1) Symbolism of objects (e.g., colors of the sky, animals’ point of view)
- 2) Meaning of the placement of objects (e.g., the road, the patch of trees still standing, the height of the rainforest versus the depth of the man-made destruction)
- 3) The emotion the painting evokes (e.g., is the artist trying to send a message to make the viewer feel a certain way?)

2. Now that you have guided students through analyzing *Fragments*, tie this painting back into science standards. What kind of ramifications does the man-made destruction have on the populations of the rainforest? What are the cause/effect relationships at play in real life? What are the short- and long-term consequences of this destruction for this ecosystem?

3. Split students into small groups to look at more of Alex Rockman's work. (Links to more paintings that are applicable to this lesson can be found in the resources section. You can print them out or have students view them on a computer.) For 1 - 2 minutes, have them simply make observations, as was done in the guided lesson. Walk around and facilitate as needed. Then have them discuss the meanings behind the art and how it relates to science in terms of natural/man-made disasters limiting populations. Encourage discussion, in detail, about the cause/effect relationships of the disasters and the short and long-term consequences to organisms in these environments.
4. Have students prepare a short presentation to explain their findings about their assigned artwork to the class, with a particular emphasis on population changes that would be caused by the disasters shown in the artwork.
5. To wrap up the lesson, ask students to discuss/write about the piece that affected them the most and why. Ask them to name specific details from the artwork that pulled them in emotionally. Was the emotional aspect intensified because the artwork depicted a real-life disaster that affects populations?

### Recommended Resources

More information about critiquing artwork: <https://artsedge.kennedy-center.org/educators/how-to/tipsheets/student-critique.aspx>

Links to applicable Alexis Rockman paintings for this lesson:

1. *Concrete Jungle VI*, 1992 <http://alexisrockman.net/wp-content/uploads/2014/07/ConcreteJungleIV36x84.jpg>
  2. *Concrete Jungle One*, (no year) <http://alexisrockman.net/wp-content/uploads/2014/07/concretejungleone.jpg>
  3. *The Beach, Demerara River Delta*, 1994-96 <http://alexisrockman.net/wp-content/uploads/2014/07/Beach96x64.jpg>
  4. *Cascade*, 2015 [http://alexisrockman.net/wp-content/uploads/2018/03/Cascade\\_72x144\\_veryLo-Res-e1524023068642.jpg](http://alexisrockman.net/wp-content/uploads/2018/03/Cascade_72x144_veryLo-Res-e1524023068642.jpg)
  5. *Gowanus*, 2013 [http://alexisrockman.net/wp-content/uploads/2014/09/Gowanus\\_72x90.jpg](http://alexisrockman.net/wp-content/uploads/2014/09/Gowanus_72x90.jpg)
  6. *Prairie*, 2002 <http://alexisrockman.net/wp-content/uploads/2014/07/Prairie.jpg>
- There are many more on his website if you need more prints.

### Extended Learning Activities

Many of Alexis Rockman's works also lend themselves to standards L.6.3.4 and L.6.3.5. Browse his projects gallery for more prints to use with these lessons.

**Sources**

Melanie Rick, Kennedy Center teaching artist

Art prints: <http://alexisrockman.net/projects/>

**Tips**

If you are going to have students view the art online, I would suggest giving them a direct link to their painting to avoid them seeing the one section of mature artwork Alexis Rockman has posted.

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