Art & the Environment
Lesson 2: Changing Landscapes

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Changing Landscapes

How has our landscape changed over time?

Duration:
2 Class Periods

Learning Objectives:
- Introduce students to the Industrial Revolution and its effects on the American landscape.
- Develop an understanding of how Hudson River School artists expressed concerns about industrialization through analyzing primary sources and making connections to today.
- Develop an understanding how a landscape has changed over time through an art activity.

Materials:
- Smart board or computer to project images
- Student worksheets
- Pencils
- Colored Pencils
- Paper or sketchbook
- Clipboards

Description of Lesson Plan:
Educator will introduce students to the Industrial Revolution and lead a discussion about the ways which Hudson River School artists responded to the effects of Industrialization on the landscape. Students will compare and contrast two historic images to analyze how artists convey meaning in their work. Students will examine the ways their region or community has changed over time and complete a sketching activity to document these changes.

Schedule of Activities:
Class 1- Students read the document "The Industrial Revolution in the United States." Teacher leads a discussion about the Industrial Revolution and how Hudson River School artists responded to it using the "Changing Landscapes Powerpoint. Students complete Venn diagram worksheet for evaluation of understanding.

Class 2- Students visit an outdoor site on school grounds, in the community, or at a historic site of park. Students complete a sketching activity depicting the location similar to the way Hudson River School artists drew their scenes.
Introduction to the Industrial Revolution

Required Materials:
- Smart board or computer to project images
- Student worksheets
- Student images

Engage: Ask students “What was the Industrial Revolution?” Allow students to share their responses and keep track of answers on smart board or shared document. Once a sufficient list has been generated, ask students “How did the Industrial Revolution change American society?” Allow students to share their responses and keep track of answers on smart board or shared document.

Explore: Hand out the document “The Industrial Revolution in the United States” and ask students to read it individually. Lead a discussion about the Industrial Revolution and its effects using the Powerpoint “Changing Landscapes” and have students take notes.

Explain: Use the “Changing Landscapes” Powerpoint to explain that Hudson River School artists lived during much of the Industrial Revolution. These artists documented the changes the Industrial Revolution caused to the American landscape in their paintings, sketches, and writings. Explain that you will analyze examples of the documents as a class.

Elaborate: Tell students that Hudson River School artists often traveled to locations to sketch the landscape before completing a painting. Display the sketch of Albany from the East Side of the River by Thomas Cole. Ask students to describe how the landscape looks. Ask students “What evidence of industrialization do you see in the sketch?” Display the Google Earth image of Albany from 2015. Ask students to reflect on how the city looks different today than it did in 1844. Display the sketch of Catskill Landing by Thomas Cole. Ask students to describe how the city looks. Ask students “What evidence of industrialization do you see in the sketch?” Ask students if they see any evidence of how Cole felt about industrialization in the sketch. Display the Google Earth image of Catskill landing from 2015. Ask students to reflect on how the site looks different today than it did in 1844. Display the painting “View of Hudson, NY” by Henry Ary. Discuss how the painting depicts changes to the landscape from industrialization. Discuss how the painting reflects the artists' feelings about industrialization. Analysis could also be in small groups or pairs.
Note the presence of factories within the town, appearance of pollution in the water, the darkness of the clouds over the city.

Display the quote from Thomas Cole’s “Lecture on American Scenery.” Read or have a student read the selected passage out loud. Lead a discussion about the types of changes Cole referred to in his lecture. Discuss the tone of the passage and how it reflected Cole’s feelings about the changing landscape.

**Evaluate:** Have students compare and contrast the painting *Albany from the East Side of the River* by William Hart and the print *Albany, NY* from 1853. Students complete the Venn Diagram worksheet identifying similarities and differences between the images. Have students write a short essay explaining why the images depict the city of Albany differently. Worksheets can be handed in for assessment.
Dark, cloudy sky indicating a potential storm over the region.

Dark, muddy waters potentially showing pollution in Hudson River.

Smoke stacks rise over the city showing evidence of industrialization.

Sail boats, not steamships, shown traveling on the Hudson River.

A lone figure appears to gaze toward the industrialized city.

Blue sky with more light over the green pasture landscape.

Region storm over the Hudson River, indicating a potential industrialization over the city showing smoke stacks rise.
Sketching the Landscape

**Required Materials:**
- Pencils
- Colored Pencils
- Paper or Sketchbook
- Clipboards

**Determine Location:**
Find a good place on school grounds, close to school, or in the community for plein air sketching. Ideal locations should provide students an example of how their communities have been changed over time.

Several historic sites, parks, or nature preserves might provide a good setting for a field trip. Sites to consider depending on your region:
- Albany Pine Bush; Albany, NY
- Thomas Cole National Historic Site; Catskill, NY
- Olana State Historic Site; Hudson, NY
- Saratoga National Historical Park; Stillwater, NY
- Thacher State Park; Voorheesville, NY

**Gather Materials:**
Gather all needed materials and head to selected location. Review any rules or guidelines students should follow.

**Distribute Materials:**
Once on site distribute materials to students. Allow students to walk around the area (within identified boundaries) to find the landscape they want to draw.

**Create a Sketch:**
Each student should create their initial sketch using pencil. Colored pencils can be used to fill in and complete the sketches.

**Group Share:**
Students will share their sketches and discuss the landscapes they chose to draw.
The Industrial Revolution in the United States

The Industrial Revolution took place over more than a century, as production of goods moved from home businesses, where products were generally crafted by hand, to machine-aided production in factories. This revolution, which involved major changes in transportation, manufacturing, and communications, transformed the daily lives of Americans as much as—and arguably more than—any single event in U.S. history.

An early landmark moment in the Industrial Revolution came near the end of the eighteenth century, when Samuel Slater brought new manufacturing technologies from Britain to the United States and founded the first U.S. cotton mill in Beverly, Massachusetts. Slater’s mill, like many of the mills and factories that sprang up in the next few decades, was powered by water, which confined industrial development to the northeast at first. The concentration of industry in the Northeast also facilitated the development of transportation systems such as railroads and canals, which encouraged commerce and trade.

The technological innovation that would come to mark the United States in the nineteenth century began to show itself with Robert Fulton’s establishment of steamboat service on the Hudson River, Samuel F. B. Morse’s invention of the telegraph, and Elias Howe’s invention of the sewing machine, all before the Civil War. Following the Civil War, industrialization in the United States increased at a breakneck pace. This period, encompassing most of the second half of the nineteenth century, has been called the Second Industrial Revolution or the American Industrial Revolution. Over the first half of the century, the country expanded greatly, and the new territory was rich in natural resources. Completing the first transcontinental railroad in 1869 was a major milestone, making it easier to transport people, raw materials, and products. The United States also had vast human resources: between 1860 and 1900, fourteen million immigrants came to the country, providing workers for an array of industries.
The American industrialists overseeing this expansion were ready to take risks to make their businesses successful. Andrew Carnegie established the first steel mills in the U.S. to use the British “Bessemer process” for mass producing steel, becoming a titan of the steel industry in the process. He acquired business interests in the mines that produced the raw material for steel, the mills and ovens that created the final product and the railroads and shipping lines that transported the goods, thus controlling every aspect of the steel making process.

Other industrialists, including John D. Rockefeller, merged the operations of many large companies to form a trust. Rockefeller's Standard Oil Trust came to monopolize 90% of the industry, severely limiting competition. These monopolies were often accused of intimidating smaller businesses and competitors in order to maintain high prices and profits. Economic influence gave these industrial magnates significant political clout as well. The U.S. government adopted policies that supported industrial development such as providing land for the construction of railroads and maintaining high tariffs to protect American industry from foreign competition.

American inventors like Alexander Graham Bell and Thomas Alva Edison created a long list of new technologies that improved communication, transportation, and industrial production. Edison made improvements to existing technologies, including the telegraph while also creating revolutionary new technologies such as the light bulb, the phonograph, the kinetograph, and the electric dynamo. Bell, meanwhile, explored new speaking and hearing technologies, and became known as the inventor of the telephone.

For millions of working Americans, the industrial revolution changed the very nature of their daily work. Previously, they might have worked for John D. Rockefeller, in a small shop, or outdoors, crafting raw materials into products, or growing a crop from seed to table. When they took factory jobs, they were working for a large company. The repetitive work often involved only one small step in the manufacturing process, so the worker did not see or appreciate what was being made; the work was often dangerous and performed in unsanitary conditions. Some women entered the work force, as did many children. Child labor became a major issue.

Dangerous working conditions, long hours, and concern over wages and child labor contributed to the growth of labor unions. In the decades after the Civil War, workers organized strikes and work stoppages that helped to publicize their problems. One especially significant labor upheaval was the Great Railroad Strike of 1877. Wage cuts in the railroad industry led to the strike, which began in West Virginia and spread to three additional states over a period of 45 days before being violently ended by a combination of vigilantes, National Guardsmen, and federal troops. Similar episodes occurred more frequently in the following decades as workers organized and asserted themselves against perceived injustices.

The new jobs for the working class were in the cities. Thus, the Industrial Revolution began the transition of the United States from a rural to an urban society. Young people raised on farms saw greater opportunities in the cities and moved there, as did millions of immigrants from Europe. Providing housing for all the new residents of cities was a problem, and many workers found themselves living in urban slums; open sewers ran alongside the streets, and the water supply was often tainted, causing disease. These deplorable urban conditions gave rise to the Progressive Movement in the early twentieth century; the result would be many new laws to protect and support people, eventually changing the relationship between government and the people.