

The Impact of Urbanization

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Grade Level 7-High School
Duration 2 class periods

National Standards

Element 1: The World in Spatial Terms

1. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information

3. How to analyze the spatial organization of people, places, and environments on Earth's surface

Element 4: HUMAN SYSTEMS

9. The characteristics, distribution, and migration of human populations on Earth's surface

12. The processes, patterns, and functions of human settlement

Element 5: Environment and Society

14. How human actions modify the physical environment

Element 6: The Uses of Geography

17. How to apply geography to interpret the past

AZ Standards

ELA Writing Production and Distribution of Writing

7.W.4, 8.W.4, and 11-12.W.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

Research to Build and Present Knowledge

7.W.7 Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.

8.W.7 Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.

11-12.W.7 Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

Arizona Social Science Standards

Geography The use of geographic representations and tools helps individuals understand their world.

7.G1.1 Use and construct maps and other geographic representations to explain the spatial patterns of cultural and environmental characteristics. Key tools and representations such as maps, globes, aerial and other photos, remotely sensed images, tables, graphs, and geospatial technology

8.G1.1 Use geographic tools and representations to analyze historical and modern political and economic issues and events. Key tools and representations such as maps, globes, aerial and other photos, remotely sensed images, tables, graphs, and geospatial technology

Human-environment interactions are essential aspects of human life in all societies.

7.G2.1 Explain how cultural demographic patterns, economic decisions, and human adaptations shape the identity of nearby and distant places.

8.G2.2 Evaluate how political, social, and economic decisions throughout time have influenced cultural and environmental characteristics of various places and regions.

HS.G2.1 Analyze interactions within and between human and physical systems.

HS.G2.2 Evaluate how political and economic decisions throughout time have influenced cultural and environmental characteristics of various places and regions.

Global interconnections and spatial patterns are a necessary part of geographic reasoning.

7.G4.3 Analyze how changes in population distribution patterns affect changes in land use in places and regions

Overview

According to an article by Stephanie Buck <https://timeline.com/american-settlers-climate-change-5b7b68bd9064> European settlers found about 1,000,000,000 (1B) acres of forest in what

is now the U.S. (including Alaska). Since 1600, the U.S. land covered by forest has been reduced to 286 million acres and converted to other uses (mostly agricultural). But some of arboreal land has been changed into urban

landscapes with an environment quite different from the quiet forests.

Purpose

In this lesson, students will learn how urbanization has impacted the landscape of American cities and the city environment. They will kinesthetically apply the idea of population density to learning about New York City's growth from 1790 to 2000. They will then research an American city and storyboard or replicate its urbanization.

Materials

- The Impact of Urbanization PowerPoint
- Images for Urbanization Activity (ideally, laminated for use in multiple classes over the years) or items that can represent people, trees, houses, city services, apartments, offices, etc.
- Option One: Storyboarding Urbanization worksheet and Scoring Guide
- Option Two: Buckeye Urbanization Over Time worksheet and Scoring Guide
- Construction paper and art supplies (glue, scissors, markers, etc.)

Objectives

The student will be able to:

1. Analyze how urbanization and population growth impact the environment and landscape of American cities.
2. Apply the term population density to learn about population growth.

Procedures

Note: For the floor activity, you may want to round the figures up and down and not have to cut so many "happy faces" or whatever you use to represent people. But for the 1790 figures, you should cut 1 "happy face" or whatever you are using to represent people.

When you get to #8 in the Procedures, there are two options. If your school is in or near Buckeye, AZ, you can follow the second option.

SESSION ONE and TWO

1. Set up the class in a horseshoe shape where there is enough space on the floor to represent the current land area of New York

City (large enough for 30 images to be laid out).

2. Project slides 1-2 and discuss the essential question. Then project slides 3-5.
3. Project slide 6 and have students guess the locations and time period: New York City, Philadelphia, Boston during the 1800s.
4. Project slide 7 and discuss the idea of population density. Project slides 8-15 and follow the prompts on the slides. Be sure to emphasize that this area is only 1 square mile of New York City. It is not the whole city. Each square mile of the city would statistically look like this.
5. Project slides 16-17 and discuss how population growth and urbanization of New York City resulted in more buildings being constructed and how that impacted the environment (noise, transportation concerns, pollution, need for more services like trash disposal, schools, and fire protection, etc.).
6. Project slides 18-20 and have the students compare the images of New York City, Philadelphia, Boston during the 1800s and pictures of those cities today.
7. Project slides 21-23 of Buckeye, Arizona, and discuss how this urbanization happened in Arizona as well--only most of the growth was in the last 100 years.

Option One: (any city)

8. Distribute Storyboarding Urbanization worksheet and Scoring Guide. Project slides 24 and 25 and explain their assignment and how it will be graded.
9. Give students time to work on their storyboards.
10. If time, have students share their work using a document camera so classmates can learn from others' projects.

Option Two: (Buckeye, AZ)

8. Have students get into groups of 3-5 people and assign them a picture of Buckeye from the slides.
9. Distribute The Buckeye Urbanization worksheet and Scoring Guide. Project slides 26 and 27 and then explain their assignment and how it will be graded.
10. Give students time to work on their replicas of Buckeye, Arizona reflecting a certain time period.
11. Finally, the students will write a summary including: a description of their replica on construction paper, inferences as to what the kind of impact the environment of Buckeye had on its growth, and explain why the urbanization happened.

Assessment

The storyboard or Buckeye replica and summary can be graded using the Scoring Guide. Mastery will be considered a score of 80% or higher.

Extensions

Add immigration/migration statistics to the study of the population density of New York City. When did immigration/migration have the greatest impact on the environment and landscape of NYC? What kinds of cultural impacts resulted from this migration/immigration?

Have the students research their storyboarded cities (or Buckeye, AZ) for negative and positive

impacts on the local environment and the people living there.

If several groups do the same city, have the groups compare their ideas. What was the same? What was different?

Sources

City of New York & Boroughs:
Population & Population Density from 1790
<http://www.demographia.com/dm-nyc.htm>

Buckeye Historical Museum
<https://www.buckeyeaz.gov/residents/buckeye-valley-museum>