Yale 2016 PIER Summer Institute: Ancient Cities, Modern Inquiries

Building Understanding: Housing and Humanity

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Subject Area(s): History
Grade Level(s): 6th
Time Allotment: 2 class periods of 45 - 65 minutes

Lesson Description:

This lesson will help students explore, hypothesize, and explain how physical and social environments affect housing and cities both historically and today. This lesson also presents opportunity for STEAM education as students will design and build small houses with various materials.

Learning Context:

This lesson is part of a unit on early civilizations of the Middle East and Africa but will also help students make connections with modern day issues of housing and development. Before this lesson, students will have had one "hook" lesson on the general geography and demographics of the Middle East and why it is important that we study the Middle East today. After this lesson, students will progress through a series of lessons designed to "invent and grow" a society (mimicking the rise of civilizations). As students progress through the building of a society from smaller to larger, they will ask, investigate, and answer questions about civilizations. Ideally, each lesson looks at how historical peoples have answered these questions but also draws similarities and differences with the way modern peoples struggle with these issues. Each lesson looks at history and makes connections to modern day societies. The progression of lessons is (briefly) as follows: Designing housing, designing a city, designing citizenship rules and governance for the city, designing the distribution of goods and services in a city (economics), designing social hierarchies and class systems, designing laws and punishments for the city, designing trade and war/peace policies for the city, managing ecological pressures of the city/society. Students will draw from the examples of Mesopotamia, Greece, Egypt, Persia, Babylon, Rome, and other civilizations to guide their discussions and exploration.

Compelling Question(s): *What question(s) will guide student inquiry during the lesson/unit?*

1. How does physical geography affect where people live?
2. What can housing tell us about a particular society's physical and social environment? Alternatively: How do the physical and social environments of a culture affect that culture's housing?
3. How do our houses today reflect our society's values? What messages do we send with our houses today?

Content Standards: *What standards are addressed through the teaching of this lesson/unit?*

From C3 Framework:
D2. Geo2.3-5 Use maps, satellite images, photographs and other representations to explain relationships between the locations of places and regions and their environmental characteristics.
D2. Geo4.3-5 Explain how culture influences the way people modify and adapt to their environments
D2.Geo6.3-5 Describe how environmental and cultural characteristics influence population distributions in specific places or regions.
D2 Geo 8.3-5 Explain how human settlements and movements relate to location and use of variou natural resources
D2His2.3-5 Compare life in specific historical time periods to life today.
D3 His 4.3-5 Use evidence to develop claims in response to compelling questions.

Lesson Objectives/Learning Intentions:

Objective 1: Be able to describe and support, with evidence, specific ways that the physical environment affects where people live.
Objective 2: Be able to describe specific ways that the physical environment affects people's housing structures and design choices and how those may change over time.
Objective 2: Be able to describe how cultural values can be reflected in a society's housing structures and how those may change over time.

Lesson Vocabulary:

Content Vocabulary	Skill/Process Vocabulary
Mesopotamia Population Density Economics Partition	

Supporting Questions:

These questions are intended to contribute knowledge and insights to the inquiry behind the compelling question. These questions should provide students with the opportunity to explore content essential to advance the inquiry. Supporting questions should also serve to support development of formative assessment tasks (progress monitoring) and teacher or student selection of resources/teaching materials.

Supporting Question 1	**Supporting Question 2**	**Supporting Question 3**
Where are the world's people and where aren't they? Where are the world's big cities? Why are they there?	*What determines the building materials used in housing? How do building materials influence the design of a house?*	*How do things such as family size, wealth, religion, and social classes, affect housing?*
Formative Assessment	**Formative Assessment**	**Formative Assessment**
Group will present their hypothesis and evidence as to why people do/don't inhabit a certain place on earth.	Group will present their house along with a response sheet and describe why they designed it the way they did. They will discuss, as a whole class, why the houses look different.	After showing students various housing structures, group will discuss, as a class how wealth, religion, social class might affect housing. Teacher will conduct a "gimme 5" poll (each student raises # of fingers 1-5 to indicate their confidence level in understanding the discussion)
Materials/Resources	**Materials/Resources**	**Materials/Resources**
Map of population density Internet access	Map of Middle East/North Africa Home building kit (kits with various materials: clay, sticks, stones) "Building Understanding" Instructionand response sheet	Photos or slide show of various housing (igloo, huts, clay brick buildings, brick buildings, stone castles, Long houses, dugout home, modern day "slums" and modern day mansions, etc.)

Summative Assessment/Performance Task:

The unit test will have two open-response question: 1. "Explain how the environment shapes where people live and the type or design of housing they build." and 2. "Explain how social factors such as religion, wealth, and social class affects people's housing choices."

Lesson Activities:

1.Divide the class into groups of 3-5 students and give groups a map of population density with unpopulated areas labeled OR project a population density map on board.
https://commons.wikimedia.org/wiki/File:World_human_population_density_map.png
Assign each group an area and ask them to determine, using their background knowledge, maps textbooks, or internet resources, why so few people live in the "bare" areas. Each group presents hypothesis and evidence to class (approx. 10 min)

2. Distribute or project on board physical map of the world OR of the U.S. and place 10 biggest cities on the map.
Physical map of U.S.
Map of 10 most populous U.S. cities
Physical map of World
Ask each group to hypothesize why people are clustered in those places. Encourage use of resources such as textbook and internet to support their hypothesis. Present hypothesis and evidence to the class. (approx. 10 min)

3. Distribute, to each group a map of Middle East and North Africa,
Map of Middle East/North Africa
a building kit, (note: ideally, building kits have different materials including clay, rocks, sticks, straw, larger sticks (logs), leather bits (or paper), however identical kits of clay and sticks should still produce different designs) and an activity instruction and response sheet.
Instruction and Response sheet
Groups will select a location on the map and build a house for a family. Groups will fill out the response sheet. (See instructions and response sheet) (approx. 30 min)

4. Each group shares their house design and response OR each group displays structure and response sheet in a "museum" format and class walks around observing/reading about the structures (approx 10 min)

5. Whole class discussion: Why are the structures all different? Why do you think there are different materials in the building kits? Allow for questions about the structures. Teacher should address any misconceptions and direct the discussion and objectives as appropriate. (Idea is to get kids to understand that physical environment affects materials used and design of structures). (approx. 10- 15 min)

6. View photos of different structures as examples of how various societies have used the natural resources they have to build housing (Igloos, longhouses, dugouts, huts, adobe, brick, etc). Invite students to consider how the materials we use today may have changed (trade and access to large variety of materials) (approx. 10 min)
Building Understanding slide show

7. OPTIONAL (extending the lesson and use of technology) Invite students to use Google Earth to view their own houses or houses around the world today. Students can informally

share their findings. (approx. 10 min)

8. Present slide show again, but on second viewing discuss social factors that influence housing design with focus on economics and social class. Continue slide show with examples of housing developments that showcase values such as: uniformity, eco design, ostentatious displays of wealth, slums, security (walled houses and gated communities) multigenerational housing, shared bedrooms vs. private bedrooms etc. Various student activity and/or assessments during this discussion and slide show could include: students pair and share for each example, each student writes a sentence about each slide, groups discuss and/or write about each slide. (approx. 20 min)

9. OPTIONAL homework or (extending the lesson) - Design a house that reflects your personal values. Students could draw, 3D model, Minecraft or GoogleDraw, a house. Allow for opportunity to explain or present housing design and values.

Resources:
Links to resources can be found in the lesson instructions. Note that "Building Understanding" Instructions and Response sheet" point values are blank for customization to your classroom

You will need to create your own building kits with house building materials. Ideally the kits will contain different materials to get at the idea that the materials of an area influence design. Kits might include clay, sticks, "logs", "leather" (paper), stones, straw, and other appropriate materials, however even identical kits should still produce different designs.

Google Slides presentation:
Link to Building Understanding slide show

Additional Suggested Resource:
Menzel, Peter, and Charles C. Mann. Material World: A Global Family Portrait. San Francisco: Sierra Club, 1994. Print.

This book shows families around the world standing outside of their homes with their possessions. It is intended to compare and contrast housing and the way people live around the world.

“Building Understanding” Instructions and Questions
_____ points (See rubric)

Names of Group Members _____

Step 1:
Using the map provided, choose a location that would be most suitable for building a house. Place an X at your location. You may use a book or the internet if you need additional information and evidence on which to base your decision. In the space below, please explain why you chose this location.

Step 2:
Using the materials in your building kit, build a scale model of a house that would be suitable for a family living in ancient times. You may want to sketch your design on scratch paper before building it.

Step 3:
In the space below, explain the design of your house and why you chose to make it this way. Consider addressing such things as shape of house, size of house, use and location of windows and/or doors, partitioning of the house into rooms (if you chose to do so). You may sketch a “birds-eye” view of your floorplan if that would be helpful.

“Building Understanding” Rubric

Group Members _____

	Excellent	Good	Needs Improvement	Not Demonstrated
Step 1: Location Selection	Group had at least 3 reasons for their choice supported by evidence from map or other sources	Group had at least 2 reasons for their choice supported by evidence from map or other sources	Group had at least 1 reason for their choice supported by evidence from map or other sources	Group did not have reasons for their choice or choice was unsupported by evidence from map or other sources
Step 2: Building	Building was completed in time allotted and showed great effort and/or very thoughtful design	Building was nearly completed in time allotted and showed some thought in design	Building was incomplete or did not show thoughtful design	Building was incomplete and did not show thoughtful design.
Step 3: Explanation of design	Group thoroughly explained all aspects of their design choices.	Group explained most aspects of their design choices.	Group explained some aspects of their design choices.	Group failed to explain their design choices.
Group dynamics	All group members contributed significantly to the writing and performance	All group members contributed some to the writing and performance	Some group members were left out of the writing and performance. Group was dominated by 1 or 2 people.	Group did not work well together. Members were dominating or left out completely.
Individual contribution	Member contributed significantly to writing and performance	Member contributed some to writing and performance	Member contributed little to writing and performance	Member made no contribution significantly to writing and performance