Lesson Plan: Home Safe

#### **Primary Subject Area**

Engineering, Social Studies, Visual Art, Speaking and Listening

#### **Grade Levels**

2nd & 3rd Grades

#### **Estimated Length**

One 40-minute lesson + 50-minute optional extension lesson

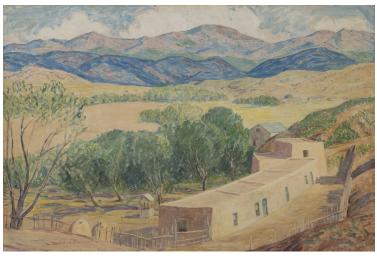
#### **Summary**

Students will discuss the 1930s painting *Nambe Valley*, *Summer* by Sheldon Parsons and explore how residential buildings are designed and constructed in relation to the environment. They will then design and present their own structures in response to natural or local "challenges."

#### **Objectives**

Students will be able to:

- Understand that buildings are designed in response to their environments.
- 2) Analyze the architectural features of a building and decipher its design rationale.
- 3) Interpret a painting as a reflection of a lived environment.
- 4) Design a building to address a specific environmental challenge.



Sheldon Parsons
Nambe Valley, Summer
About late 1930s
Oil on masonite
36" W x 24" H

#### **Materials**

- Front board
- Drawing paper
- Crayons, markers and/or colored pencils
- Timer
- Tape (masking tape recommended)
- <u>Digital image</u> of *Nambe Valley*, *Summer*
- Print-outs of pictures of different residential buildings (see Activity #3)
- Board Marker
- Chart paper (optional)
- List of "design challenges" (see Activity #3)

Based on a lesson by Ms. Rachael Herrera.



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#### **Common Core Standards**

ELA Speaking & Listening		
2nd Grade	3rd Grade	
CCSS.ELA-LITERACY.SL.2.1	CCSS.ELA-LITERACY.SL.3.1	

#### **Next Generation Science Standards**

Engineering, Technology, and Applications of Science		
6th Grade	7th Grade	
<u>K-2-ETS1-1</u>	<u>3-5-ETS1-1</u>	
<u>K-2-ETS-2</u>	<u>3-ESS3-1</u>	

#### **National Arts Standards**

https;//nationalartsstandards.org/

Creating		
2nd Grade	3rd Grade	
VA:Cr1.1.2a	VA:Cr2.1.3a	

Responding		
2nd Grade	3rd Grade	
VA:Re7.1.2a	VA:Re7.2.3a	

Connecting		
2nd Grade	3rd Grade	
VA:Cn10.1.2a	VA:Cn10.1.3a	



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#### Pro —tip:

• Activities #1—3 can be completed together one day as a 35 to 40—minute lesson. Activities #4 and #5 can be used to extend the lesson, and can be done together the next day as a 50 to 55-minute lesson.

#### **Activity #1: Conceptualizing**

<u>Materials:</u>	Duration:
□ Front board	10 minutes
□ Drawing paper	
□ Crayons, markers and/or colored pencils	
□ Tape (masking tape recommended)	

#### **Activity Steps**

- 1) Start with students sitting at their seats. Give each student a piece of drawing paper and coloring tools. Tell them they have 5 minutes to draw a picture of the building where they live.
- 2) As students finish their drawings, post them to the front board.
- 3) Once a display of all student drawings has been assembled for view, ask students: "What similarities and differences do you see between these buildings?"
- 4) As students provide answers, group drawings together to demonstrate similar and different building designs.
- 5) Ask students follow-up questions: point to roof lines, building shapes and sizes, and other design characteristics and ask students why they think houses are designed that way.
  - $\Rightarrow$  For example:
    - Discuss how apartment buildings are designed to house lots of families.
    - Discuss that pitched roofs are designed to bring fresh air inside and to manage rain and snow and help water drain.
    - Discuss how most houses/buildings today (at least in the United States) are square or rectangular in shape because the most accessible and inexpensive building materials, like timber and bricks, are suited to creating those shapes.



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#### **Activity #2: Looking**

#### **Materials:**

☐ Projected digital image of Nambe Valley, Summer (or prints of the image)

#### **Duration:**

8—10 minutes

#### **Activity Steps**

- 1) Project <u>image</u> of *Nambe Valley, Summer* on a screen/wall. (If projector is not available, print copies for partners to look at together.)
- 2) Gather students together to look at the painting.
- 3) Ask students: "What do you see in this painting?"

#### Pro—tip:

- If students require prompting, ask:
  - ° "What colors do you see?"
  - ° "What shapes do you see?"
  - ° "Does anything look familiar in the painting?"
- "Does anything look unfamiliar in the painting?"
- 4) Ask students to give thumbs up (for "yes") or a thumbs down (for "no") in response to the following questions. Follow-up each question by asking one student with a thumbs up and one with a thumbs down to explain why they gave their answers.
  - ⇒ "Does the house look like it belongs to its place or environment?"
    - Expand on students' responses to explain:
      - The house is the same color as the land because it is adobe construction. It is made of air-dried mud and straw and bricks.
      - ° Adobe is a construction material commonly used in dry (or arid) places across the world.
  - ⇒ "Does the house look safe and stable?"
    - Expand on students' responses to explain:
      - The wide and flat rectangular shape of the building gives it strength. One-story construction also makes the house sturdy.
      - o If using digital projection, zoom in on the house in the image to show the artist's use of heavy brushstrokes to form its walls. Inform students that adobe walls are usually very thick. Not only does this make house strong, it also makes it well-insulated. Adobe walls store and regulate heat, keeping the house comfortable in both hot and cold temperatures.



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- ⇒ "Is the house built in a safe spot?"
  - Expand on students' responses to:
    - Show how the curve of the house follows the curve of the landscape. The house is built against the hillside,
       sheltering it from wind and weather.
    - Explain that the house is built in a valley—prompt them to notice that all of the houses in the painting are located at the base of the mountains. Ask students if they have any idea why this is the case, and point to the trees and covered well as clues. Explain that valleys are sources of water—water runs down hillsides and collects in low-lying areas, ponds, lakes, streams and/or rivers.
- 5) To close, explain to students that this is a painting called *Nambe Valley, Summer* by an artist named Sheldon Parsons. Nambé (Nambé Owingeh) is a Pueblo community situated at the base of the Sangre de Cristo mountains in New Mexico, just north of Santa Fe. Parsons made this painting almost 100 years ago and in it, he highlights the natural features of the landscape—the valleys, hills, and mountains; the yellow, blue and green colors; the golden light, big sky and billowing clouds. He also records human-made additions to the landscape—alongside the houses and water well, we see fencing and two round "hornos," or outdoor ovens, also made of adobe. His painting captures how people live in relationship to the land. Adobe is a building technique that people from many different places have been using for hundreds and hundreds of years.



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#### **Activity #3: Synthesizing**

# Materials: □ Print-outs of pictures of different residential buildings (see the second step below) □ Front board or chart paper □ Board marker

#### **Duration:**

15—20 minutes

#### **Activity Steps**

- 1) Break students into small groups.
- 2) Give each group a picture of a different style of residential building. You may:
  - ⇒ Provide pictures of housing types found in your local area, both past and present.
  - ⇒ Provide stock images of different dwelling types found around the world, such as:
    - Coastal stilt house
- Steel and glass skyscraper
- Buckingham Palace

• Portable yurt

- Korean Hanok
- 3) Guide the groups through discussion of the following three questions. State the questions aloud, one at a time, providing one—two minutes in between questions for group discussion.
  - ⇒ What makes this building different or special?
  - ⇒ What material was used to make the building?
  - ⇒ Why do you think the building was designed and built this way?
- 4) Gather students back together, and ask for volunteers from each group to share what they discovered about their assigned buildings.
- 5) Ask students to brainstorm, now that they've considered all different kinds of houses, a list of all the environmental factors that need to be considered when designing a house. Write their answers on the front board or chart paper.
  - ⇒ Suggested list:
    - Landscape (or geography)
    - Weather (or climate)
    - Living arrangements (e.g., small families, big families, etc.)



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- 6) Ask students to list the design features of houses that are shaped by the environmental factors they just identified. Write their answers on the front board or chart paper.
  - ⇒ Suggested list:
    - Position or location
    - Shape
    - Size
    - Building materials
    - Roof line



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#### **Activity #4: Applying**

## Materials □ List of "design challenges" (see second step below) □ Drawing paper □ Crayons, colored pencils, and/or markers

#### **Duration**

25—30 minutes

#### **Activity Steps**

- 1) Have students design a structure to address a specific environmental challenge or opportunity. Their design can take the form of a sketch or drawing, and they can address natural issues such as weather or local issues such as space (e.g., a vacant lot) or culture.
- 2) Suggestions for facilitating this activity:
  - ⇒ Engage the whole class in brainstorming a list of "design challenges" together and have students choose which challenge they would like to pursue.
  - ⇒ Prepare a list of design challenges ahead of time. Write each challenge on a separate piece of scrap paper. Fold the scrap papers in half and combine them in a bowl. Have students draw a challenge at random.
  - ⇒ Ideas for design challenges:
    - Wind

• On an iceberg

• In a tree

• Always light

• On a cliff

Underground

Always dark

• Underwater

• On the sun

#### Pro-tip:

• Further extend the lesson by giving students an additional period to construct miniature prototypes/maquettes of their designs using recycled materials (such as paper tubes, popsicle sticks, cartons, etc.)



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#### **Activity #5: Presenting and Reflecting**

#### **Materials**

☐ Student sketches from Activity #4

#### Duration

20—25 minutes

#### **Activity Steps**

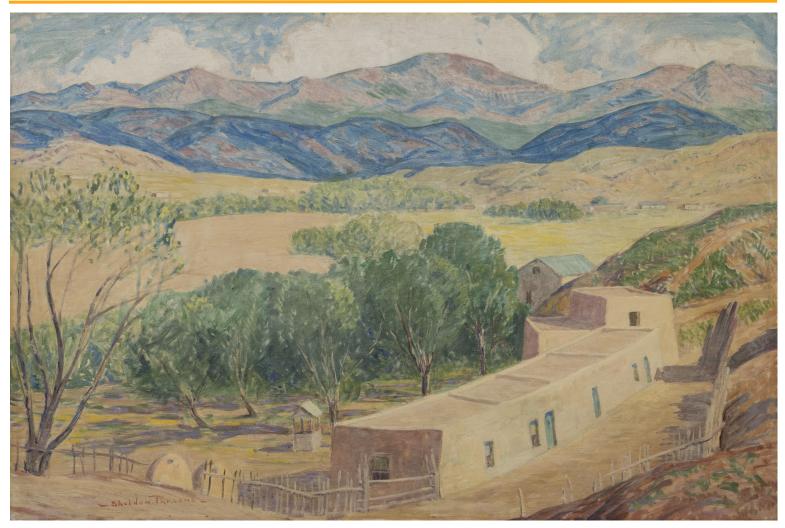
- 1) Facilitate presentation of student work either through:
  - ⇒ Show-and-Tell: One by one, have students present their sketches to the class, explaining their designs and rationale, and answering one or two questions from their peers.
  - ⇒ Gallery Walk:
    - ° Have students display their sketches at their seats/desks.
    - ° Have students rotate through the seats/desks one-by-one, spending a designated amount of time at each station.

#### Pro—tip:

- Use instrumental music to cue students. Tell them to look closely while the music is playing and move to the next sketch in line when the music stops.
- 2) Gather students together to reflect on what they learned. Ask:
  - $\Rightarrow$  What did you learn today?
  - ⇒ What are you wondering about after today's lesson?



## GALLUP NEW DEAL ART | Lesson Plan: Home Safe



Sheldon Parsons

Nambe Valley, Summer

About late 1930s

Oil on masonite

36" W x 24" H