

In the Nature of Materials

By: Janet Payne

ESSENTIAL QUESTION

How do natural resources, climate, and landforms affect how plants, animals, and people live?

ABOUT THIS LESSON

Students will apply their knowledge about the regions and natural resources in California with the design principles of Frank Lloyd Wright.

GRADE LEVEL

Upper Elementary (grades 3 - 5)

CLASSROOM TIME

Two or three class sessions (presentation plus building activities)

RESOURCES

- [Power Point Presentation](#)
- [Video on Frank Lloyd Wright](#)
- [Video on folding a paper house](#)

BACKGROUND

In 4th grade, I teach a social studies unit entitled *Reflections of Where We Live* which describes the different aspects of human activity and the physical features of the environment in which they live. Students also have background knowledge of the natural regions of California and the natural resources available in each region.

OBJECTIVES

Students will:

- Evaluate images of various structure to determine the region of origin and the materials utilized
- Create a building that will fit into a natural region of their choice.

STANDARDS

CCSS.ELA-Literacy

- RI.4.1 – Key Ideas and Details: Refer to details and examples in a text when explaining -what the text says explicitly and when drawing inferences from the text.

California History-Social Studies Standards

- 4.1.3. Describe the various regions of California, including how their characteristics and physical environments (e.g., water, landforms, vegetation, climate) affect human activity.
- 4.1.5. Use maps, charts, and pictures to describe how communities in California vary in land use, vegetation, wildlife, climate, population density, architecture, services, and transportation.

California Art Content Standards

- 4.VA:Cr1.1 Brainstorm individual and collaborative approaches to a create art or design problem.
- 4.VA:Cr2.3 Document, describe and represent regional constructed environments
- 4.VA:Cr3 Revise artwork in progress on the basis of insights gained through peer discussion

LESSON

Warm-up

With the whole class, display the Power Point presentation, The Nature of Materials, to review regions, resources, and architecture from our social studies unit. Students will discuss each slide with their elbow partner and volunteers will share their ideas with the class. Display Frank Lloyd Wright quote (slide 6). *What do you think FLW was trying to say? How would his ideas influence his architecture?*

Presentation

Video link on slide 7 – *Why Frank Lloyd Wright was a Genius Architect* (depending on the age and maturity level of your students, you may want to skip the video from 4:30 to 6:00 when FLW's affair and the murders at Taliesin are discussed). Ask the following questions: *How do images influence our view of the world? Why do artists follow or break from established traditions? What role does persistence play in revising, refining, and developing works of art?*

Practice

Students will create a paper house or building. Distribute paper to students and show the following video: [paper house](#). Students will design a house or building based on a natural region of their choosing. They will need to decide what type of materials it would be made of, the pitch of the roof, as well as the placement and design of the doors and windows. Students will write a paragraph describing their design: *What will the structure be used for? How will it fit into the environment?*

POST LESSON ACTIVITIES

In our school STEM lab, students will use a variety of materials (blocks, Legos, small cardboard boxes, toilet paper tubes, etc.) to create a building based on Frank Lloyd Wright's design ideas and principals.

Reading comprehension articles on Frank Lloyd Wright are available on ReadWorks and Newsela:

- [A House Over Falling Water](#)
- [Frank Lloyd Wright - Designed S.C. Johnson Research Tower Finally Goes Public](#)
- Additional biographies on Frank Lloyd Wright: <https://www.getepic.com/>
 - Epic is an online digital library for kids. They have two books on Frank Lloyd Wright. One book, by Kate Riggs and Jennifer Fandel, is for upper elementary students. A second book, by Doraine Bennett, is for younger students.

ASSESSMENT OPTIONS

Writing

Students will write a paragraph(s) describing the region where their building will be located and why? What materials will be used? How will natural resources be utilized? Why would someone want to live in this house and in this region?

Reading

Students will be assessed on the quizzes on ReadWords and Newsela.