

ARCHITECTURE AS A LEARNING TOOL

Grade Level: K – 5th

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2018 – 2019 Teaching Artist in Residence

A. Hays Town and the Architectural Image of Louisiana
June 15th, 2018 – December 29th, 2018



Architecture As A Learning Tool Lesson Plan

Grade Level: K–5th Grade

Lesson Description:

Teaching artist Maureen Dugas Foster, who has a master's degree in architecture, will lead students on tours of *A. Hays Town and the Architectural Image of Louisiana* from October 2 to December 21, 2018. Scientists, artists and architects use diagrams, technical drawings and models to convey information and solve design problems. On the tour students will examine blue prints, elevation drawings, renderings and scale models of Town's iconic homes and consider how architects use different types of visual designs and tools in their work.

In a pre-visit activity, students will look at different examples of visual diagrams and create a floor plan of their classroom. At the museum students will study and compare the two museum buildings, including one designed by A. Hays Town. They will discuss the design choices architects make and identify different architectural details and materials. In the museum students will study photographs, floor plans, architectural renderings, and scale models. They will discuss what types of information are conveyed in each of these different visual representations and discuss why they would be useful for architects and their clients. In the museum's classroom, students will complete a building challenge that requires them to follow a construction diagram. They will then have a chance to create their own structure and design drawing. In the post-visit activity students will use what they learned on their museum visit to do additional STEAM challenges involving following and/or creating building plans or drawings.

Overarching Theme/Universal Concept: Drawings, Diagrams, and Visual Communication

Essential Questions:

- What are some ways to communicate information visually?
- How can diagrams, drawings, and models help us convey information and solve problems?

Focus Questions:

- What are some different examples of visual diagrams, drawings and models? What type of information is conveyed by each of these examples?
- How do I read different types of architectural drawings, plans and models? What is a bird's eye view? What is an elevation view?



- What type of drawings and plans do architects create? What tools do they use to create these plans?
- What types of design choices do architects make when creating plans for a building?
- How can I use my knowledge of architectural features and design choices to compare two buildings and make aesthetic judgements?
- How do I build a structure following an architectural drawing or diagram?
- How do I make a diagram that others can follow?

Standards:

Louisiana Science Standards

Science instruction will focus on communicating ideas and solving problems using different types of visual communication including architectural drawings, elevation drawings, site plans, and models.

Science and Engineering Practices

8. Obtaining, Evaluating, and Communicating Information

Describe how specific images support a scientific or engineering idea. Communicate information or design ideas and/ or solution ideas with others in oral and/or written forms using models, drawings, writing, or numbers that provide specific detail about scientific ideas, practices, and/ or design ideas. Communicate scientific and/or technical information orally and or/written formats, including various forms of media as well as tables, diagrams, and charts.

Louisiana Visual Arts Standards:

Art instruction will focus on recognizing and comparing design choices. Students will compare different architectural features and design choices and use this knowledge when explaining aesthetic judgements about the built environment.

VA-AP-E4 Recognize that there are many possibilities and choices in the processes for designing and producing visual arts.

VA-CA-E4 AND VA-CA- M3 Express and explain and justify aesthetic judgments about the created built environment.



Pre-Visit Activity

Discuss: What does an architect do?

Ask students if they know what an architect does. Discuss the difference between an architect and a builder. You may want to read *Iggly Peck, Architect* by Andrea Beaty and David Roberts.

Activity: Floor Plan

Explain that scientists, engineers, artists and architects all use visual methods for communicating information, such as diagrams, maps, scale models, and drawings. As a class look at some different examples together and discuss what information is being conveyed and what information might be left out of the diagram or drawing. Examples include the fire escape floor plan, electrical circuit diagrams, blue prints, and Lego building instructions.

As a class or individually draw a floor plan of your classroom. Younger students may not be familiar with bird's eye view or aerial perspective. You may need to have them imagine they are flying over the classroom or standing on a ladder looking down. Include furniture, doors, windows and rugs. To make the challenge harder for older students you might ask them to create a plan for the entire school. Translating a three-dimensional space into a two-dimensional drawing may be challenging for younger children. In that case the teacher can create a floor plan and have students help figure out where the desks, rugs, and other room items will go on the plan. It may help to walk through the room and show how items are related in the physical space, before drawing them on the floor plan.

After the activity, discuss what the challenges were. Discuss what items it might be hard to show on a floor plan. Ask students why it might be useful to have a floor plan and what someone might learn about their classroom from a floor plan. Who might want a floor plan of their classroom? How might a teacher use a floor plan? What labels might they add to the plan? Close the discussion by asking students how creating floor plans would be useful for an architect.

Key Terms

Architect: a person who designs buildings

Architecture: the art and science of designing buildings and structures

Blue print: a design plan or technical drawing



Design: to decide how something will look or function, usually by making a drawing or plan for it

Façade: the exterior faces of a building

Plans: a set of drawings or two-dimensional diagrams used to describe a place or object, or to communicate building instructions.



Prepare for Visiting the Museum

Explain to students that they will be taking a field trip to the art museum to view an exhibit about A. Hays Town and to see examples of scale drawings and models. On their visit to the museum, they will compare the two museum buildings, one of which is designed by Town. Discuss how to act respectfully in the museum.

- Observe and be attentive.
- Gather information by asking questions and recording information.
- Protect the space and art work for others to enjoy.
- Walk slowly and move carefully when exploring the galleries.
- Be respectful of the design and work space choices of others.

The class can also research online about the museum to preview the exhibit and gallery spaces.

<http://www.hilliardmuseum.org/>



At the Museum

Before entering the museum, students will compare and contrast the architectural features of the museum's two buildings, including one designed by A. Hays Town. They will locate the buildings and their own position on a site map. Students will draw examples of the architectural features they find and discuss different design choices. Students will write in their graphic organizer about which building they prefer and support their choice by discussing the design choices made by the architects.

Gallery Tour

In the gallery students will examine the recreation of A. Hays Town's work area and discuss the tools that architects use to create blue prints and artistic renderings. In the exhibit, students will discuss different types of building materials and their impact on a building's design. Students will view the different methods of representing and organizing information that architects use to express their design choices and solve problems. Examples of different methods include blue prints, renderings, elevation drawings, and scale models. Students will identify the difference between bird's eye view plans and street view plans. Students will discuss what types of information each of these methods convey and how they might be helpful in solving design problems.

STEAM Activity

In the museum's classroom, students will locate their position on the building's floor plan and look at how different architectural features are represented in the floor plan. Students will do a warm up building activity. In small groups, students will construct a structure following a simple floor plan or diagram. After the warm up activity, students will reflect and discuss any challenges they encountered and what they learned from the activity. Students will then create a building diagram, elevation drawing, sketch, or material list of a structure of their own design. They will share their designs and discuss their design choices and the type of information that their diagram, drawing or list conveys.

Materials List

- Cardboard tubes
- Assorted pieces of cardboard of different sizes
- Printed diagram
- Pencils
- Rulers
- Colored pencils
- Drafting triangles (optional)
- Architect's scale (optional)



Post-visit Activity

Design Challenge

After visiting the museum, set up a design challenge in the classroom. Have younger students practice building structures and creating plans or drawings of their creations. You can use any building materials available — recycled materials, Legos, and blocks. Or you can set up a station with plans that you or students have created and building materials. Students can try building structures or patterns according to the plans. Older students can create plans for a classmate to follow. Have students offer constructive criticism and suggestions for refining or altering drawings.

Discuss

Have students share plans with each other and discuss how easy or difficult it was to follow and create the plans. Ask them what information was hardest to convey? Would creating additional drawings help to convey that information? Ask students to explain their design choices in creating their structures and plans. Use the rubric below to assess students.

Use either the K-2 or 3-5 rubric to assess projects depending on your grade level.



Resources

A. Hays Town Resources

Sachs, David H. "A. Hays Town" <https://64parishes.org> *Encyclopedia of Louisiana*. Ed. David Johnson. Louisiana Endowment for the Humanities, 25 Jan 2011. 19 Sep 2018.

<https://64parishes.org/entry/a-hays-town>

A. Hays Town: From House to Home by Nick Campbell (Video from Exhibition)

<https://www.youtube.com/watch?v=grJtzTgzooE&t=93s>

Vetter, Cyril E. and Philip Gould. *The Louisiana Houses of A. Hays Town*. LSU Press, 1999.

Other Architecture Resources

Beaty, Andrea, and David Roberts. *Iggy Peck, Architect*. New York: Abrams Books for Young Readers, 2007. Print.

Archkidecture Website- Lesson Plans and Projects

<http://archkidecture.org>

Building Big Website- Projects and Computer Activities

<https://www.pbs.org/wgbh/buildingbig/>

