



CENTER FOR ARCHITECTURE

THE LANGUAGE OF ARCHITECTURE Student Day Resource Packet
Pre & Post Visit Activities ▪ Vocabulary & Resource Lists ▪ Curriculum Connections

Before Your Visit :

Prepare your students for their visit with these introductory pre-visit activities.

- 1 Engage your students in a conversation about architecture to help them understand the important role of the built environment. You can introduce this topic by using the one of the books from the *Additional Resource Lists* on Page 2 or by using the *What is Architecture Discussion Questions* on Page 3.
- 2 Introduce the visual *Language of Architecture Flashcards* on Page 4 (front) and Page 5 (back) to your students so they can be active members during our discussion at the Center for Architecture.
- 3 Take your students on a neighborhood walk to look at familiar buildings through the lens of architecture. Encourage your students to identify different building materials and look for shapes in their neighborhood architecture.

During Your Visit :

The program begins by comparing and contrasting two different types of houses. Through observation and discussion, students will be introduced to a visual language used by architects. The design educator will facilitate a conversation to help students understand that the language of architecture is a language that uses shapes, 3D forms, materials, patterns, colors, and details to communicate instead of letters, words, and sentences. With this idea in mind, students will be asked to take on the role of “design detectives,” looking for clues to “read” a building and decipher its meaning. We will practice this observational skill by looking at a variety of urban building examples, discussing both their function as well as their individual building parts. Weather permitting, the design educator will lead a short walk through Greenwich Village to sketch and observe new architectural details.

During the second half of the workshop, students will use this new knowledge to design their own scale model of a building. Throughout this process, students will be asked to consider their design choices as they relate to their building's use or function.

After Your Visit :

Continue the learning by facilitating these suggested extension activities.

- 1 **Writing Activity:** Use the *My Building Design* activity on Page 8 to help your students think critically about their design process at the Center for Architecture.
- 2 **Pamphlet Design:** Give your students an opportunity to share their critical observation skills by drawing and writing about a favorite building in their neighborhood. Students can use the template on Page 6 (front) and Page 7 (back) to make their own tri-fold pamphlet filled with their observations.
- 3 **Blueprint Activity:** Using a white pencil on blue construction paper, students can create a “blueprint” of a building façade, using terms from the *Language of Architecture Vocabulary List* on Page 2 to label each part.
- 4 **City Design:** Ask your students to expand the scale of their design by using the models they made at the Center to create a larger neighborhood or city as a class. How do their individual models relate to each other and what additional systems need to be added to make the city successful? Transportation? Parks?

Language of Architecture Vocabulary List

Arch	A very strong shape that is curved, usually made from stone or metal.
Column	A vertical piece of structure that supports weight.
Cornice	The decorated part that sticks out from the top of a building.
Keystone	The center stone at the top of an arch that “locks” the other stones in place, creating a stable structure.
Lintel	The horizontal piece of structure over a door or window that supports the weight of the wall above it.
Ornamentation	Decoration added to a building that can give a hint about its importance or use.
Pediment	A triangle over a door or window often supported by columns.
Quoins	The larger stones used at the corner of a building, adding strength or decoration.
Sill	The horizontal piece of structure under a door or window.

Additional Resources: Picture Books

[Andrew Henry's Meadow](#)

Doris Burn. San Juan Publishing, 2005.

[Architects Make Zigzags: Looking at Architecture from A to Z](#)

Roxie Munro. The Preservation Press, 1986.

[Brick: Who Found Herself in Architecture](#)

Joshua David Stein. Phaidon Press, 2018.

[Building Stories](#)

Isabel Hill. Star Bright Books, 2011.

[Iggy Peck, Architect](#)

Andrea Beaty. Abrams Books for Young Readers, 2007.

[The Visual Dictionary of Buildings](#)

Roger Tritton. DK Publishing, 1993

[Under Every Roof, A Kid's Style and Field Guide to the Architecture of American Houses](#)

Patrician Brown Glenn. John Wiley and Sons, 1993

Additional Resources: Curriculum Guides

[Architecture And Children: A Teachers Guide](#)

Anne P. Taylor, The School Zone, 1991.

[Architecture In Education](#)

Marcy Abhau, ed. with Rolaine Copeland and Greta Greenberger. Foundation for Architecture, 1990

[Architecture Is Elementary: Visual Thinking Through Architectural Concepts](#)

Nathan B. Winters. Peregrine Smith Books, 1986.

[Beginning Experiences in Architecture: A Guide for the Elementary School Teacher](#)

George E. Trogler. New York: Van Nostrand Reinhold Co., 1972.

[Mapmaking with Children: Sense of Place Education For the Elementary Years](#)

David Sobel. Heinemann Publishers, 1998.

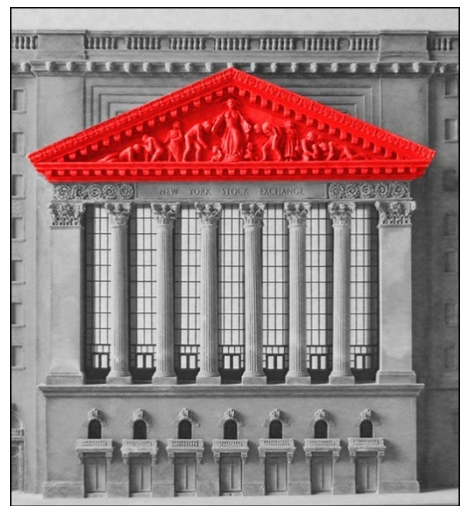
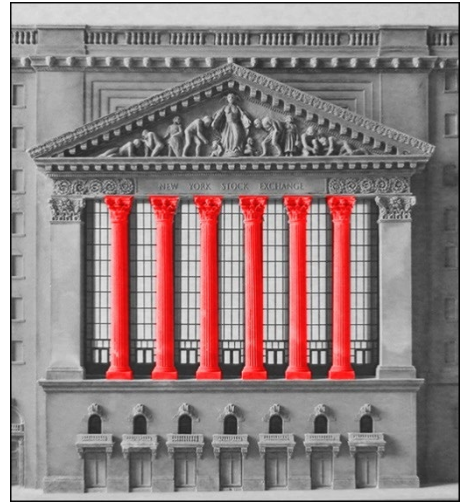
What is Architecture Discussion Questions

Architecture is the art and science of designing a building or other element of the built environment. Your students are equipped to grapple with this abstract idea because they have direct, personal experience with architecture. Their school, their homes, subway stations, and favorite restaurants are all examples of architecture that can be used to think about the discussion questions below:

WHO?	Who creates architecture?
	<i>Architects usually work together with engineers and other professionals to create buildings. The architect creates the overall design and makes sure that all the parts of the building work together. When the design is complete, the architect oversees the building's construction by a team of builders.</i>
	Who uses architecture?
	<i>Buildings are used by people. It helps to think about a specific building to answer this question. For example, your school is used by students, parents, teachers, administrators, custodians, and probably many others!</i>
WHAT?	What materials and shapes are used to make architecture?
	<i>Buildings are made from construction materials such as brick, stone, wood, steel, and glass. Certain 2D and 3D shapes are strong enough to support the weight of these heavy materials.</i>
	What are the different uses for a building?
	<i>Buildings can be used for almost any activity! Think about the buildings in your neighborhood to brainstorm a list. Architects organize these different activities into different groups called building types or building programs.</i>
WHEN?	When do architects make a new design?
	<i>Architects are usually asked by a client or owner to design a new building for them. Sometimes an architect might notice a problem in a building, neighborhood, or city and create a design to fix it.</i>
	When was a particular building built?
	<i>Sometimes there are clues in the design to help you figure out a time period. Other times, you may have to research when a building was built or discover that it has been repurposed or changed from its original design.</i>
WHERE?	Where can buildings be located?
	<i>Buildings can be located almost anywhere, but architects need to design buildings to suit the climate and place. They need to think about the weather, sun and shade, dangers like earthquakes and floods, and how people will get to the building.</i>
	Where can you enter a building? Where can you see inside or outside of the building?
	<i>It's very important for people to both move and see between inside and outside. Architects pay a lot of attention to doors and windows for this reason.</i>
HOW?	How do architects create buildings?
	<i>Architects begin by meeting with the client or owner to see what needs to be included in the building. They create drawings and models of their design to test out their ideas and see how the different parts of the building will fit together. They go through many drafts of their design before it is ready to build.</i>
	How do people become architects?
	<i>People who want to be architects like to use math, engineering, art, science, technology, and social studies to solve problems. After graduating from an architecture school, they work as an intern architect for a few years and take an exam to show that they know how to safely design buildings.</i>

Language of Architecture Flashcards (Front)

Cut out the flashcards below and use them to learn 9 different building parts!



Language of Architecture Flashcards (Back)

Columns

Sills

Lintels

Pediment

Keystone

Arch

Ornamentation

Quoins

Cornice

This building is special because...

Texture Rubbing

Material:

Texture Rubbing

Material:

Building Sketch

**CENTER FOR
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Building Name:

Building Use:

Address:

Report By:

Entrance

What does the entrance tell you about the building?

Entrance Sketch

Windows

What do the windows tell you about the building?

Window Sketch

Details and Ornament

What do these details tell you about the building?

Detail or Ornament Sketch

My Building Design

Designer:
Building Name:
Use:
Location:
Material:

Description

Special Features

About the Architect

Student Day Curriculum Connections

New York State Learning Standards for the Arts: Learning Standards for the Arts at Three Levels		Building Bridges	Geodesic Dome	Green Architecture	Language of Arch.	Neighborhood Design	Scale Model Building	Skyscrapers
1	Creating, Performing and Participating in the Arts	■	■	■	■	■	■	■
2	Knowing and using Arts Materials and Resources	■	■	■	■	■	■	■
3	Responding to and Analyzing Works of Art	■	■	■	■			■
4	Understanding the Cultural Dimensions and Contributions of the Arts	■	■	■	■			■

NYC Blueprint For Teaching and Learning in Visual Arts: Five Strands of Art Learning		Building Bridges	Geodesic Dome	Green Architecture	Language of Arch.	Neighborhood Design	Scale Model Building	Skyscrapers
I.	Art Making	■	■	■	■	■	■	■
II.	Literacy in Visual Arts	■	■	■	■	■	■	■
III.	Making Connections	■	■	■	■	■	■	■
IV.	Community and Cultural Resources	■	■	■	■	■	■	■
V.	Careers and Lifelong Learning	■	■	■	■	■	■	■

Common Core State Standards for Mathematics: Standards for Mathematical Practice		Building Bridges	Geodesic Dome	Green Architecture	Language of Arch.	Neighborhood Design	Scale Model Building	Skyscrapers
1	Make sense of problems and persevere in solving them.	■	■	■		■	■	■
2	Reason abstractly and quantitatively.					■	■	
3	Construct viable arguments and critique the reasoning of others.			■	■	■		
4	Model with mathematics.	■	■		■	■	■	■
5	Use appropriate tools strategically.	■				■	■	
6	Attend to precision.	■				■	■	

NYC K-5 Science Scope & Sequence + NYC 6-12 Science Scope & Sequence		Building Bridges	Geodesic Dome	Green Architecture	Language of Arch.	Neighborhood Design	Scale Model Building	Skyscrapers
K Unit 2	Exploring Properties How do we observe and describe objects and the physical properties of objects?				■			
Grade 1 Unit 2	Properties of Matter How do we describe the properties of matter?				■			
Grade 2 Unit 2	Forces & Motion What causes objects to move?	■						■
Grade 3 Unit 2	Energy How does the use of various forms of energy affect our world?			■				
Grade 3 Unit 3	Simple Machines How do simple machines help us in our daily lives?	■						■
Grade 6 Unit 4	Interdependence What factors affect the interdependence of living and nonliving things?			■				
Grade 7 Unit 2	Energy & Matter What materials are best to conserve and efficiently use energy?			■				
Grade 8 Unit 4	Humans and the Environment: Needs and Tradeoffs How can energy resources affect the future planning for the continuity of life on Earth?			■				

New York State P-12 Science Learning Standards		Building Bridges	Geodesic Dome	Green Architecture	Language of Arch.	Neighborhood Design	Scale Model Building	Skyscrapers
DIMENSION 1: SCIENTIFIC AND ENGINEERING PRACTICES								
1	Asking questions (for science) and defining problems (for engineering)	■	■	■	■	■	■	■
2	Developing and using models	■	■	■	■	■	■	■
3	Planning and carrying out investigations	■	■	■	■	■	■	■
4	Analyzing and interpreting data	PV		PV		PV		
5	Using mathematics and computational thinking	PV		PV		■	■	
6	Constructing explanations (for science) and designing solutions (for engineering)	■	■	■		■	■	■
7	Engaging in argument from evidence	■		■				■
8	Obtaining, evaluating, and communicating information	■		■		■		
DIMENSION 2: CROSSCUTTING CONCEPTS								
1	Patterns	■	■	■	■			■
2	Cause and effect: Mechanism and explanation	■		■				■
3	Scale, proportion, and quantity	■	■	■	■	■	■	■
4	Systems and system models	■	■	■		■		■
5	Energy and matter: Flows, cycles, and conservation			■				
6	Structure and function	■	■	■	■	■	■	■
7	Stability and change	■	■	■				■

<p>New York State P-12 Science Learning Standards (continued)</p>	<p>Building Bridges</p>	<p>Geodesic Dome</p>	<p>Green Architecture</p>	<p>Language of Arch.</p>	<p>Neighborhood Design</p>	<p>Scale Model Building</p>	<p>Skyscrapers</p>
<p>DIMENSION 3: DISCIPLINARY CORE IDEAS</p>							
<p>Physical Sciences</p>							
<p>PS1.A Structure and Properties of Matter</p>				■			
<p>PS2.A Forces and Motion</p>	■						■
<p>PS2.C Stability and Instability in Physical Systems</p>	■	■					■
<p>PS3.A Definitions of Energy</p>			■				
<p>PS3.B Conservation of Energy and Energy Transfer</p>			■				
<p>PS3.D Energy in Chemical Processes and Everyday Life</p>			■				
<p>Life Sciences</p>							
<p>LS2.A Interdependent Relationships in Ecosystems</p>			■				
<p>LS2.C Ecosystem Dynamics, Functioning, and Resilience</p>			■				
<p>LS2.D Social Interactions and Group Behavior</p>					■		
<p>Earth & Space Sciences</p>							
<p>ESS1.B Earth and the Solar System</p>			■				
<p>ESS2.A Earth Materials and Systems</p>			■				
<p>ESS2.D Weather and Climate</p>			■				
<p>ESS3.A Natural Resources</p>			■				
<p>ESS3.B Natural Hazards</p>							■
<p>ESS3.C Human Impacts on Earth Systems</p>			■				
<p>ESS3.D Global Climate Change</p>			■				

New York State P-12 Science Learning Standards (continued)	Building Bridges	Geodesic Dome	Green Architecture	Language of Arch.	Neighborhood Design	Scale Model Building	Skyscrapers
DIMENSION 3: DISCIPLINARY CORE IDEAS (continued)							
Engineering, Technology, and Applications of Science							
ETS1.A Defining and Delimiting and Engineering Problem	■	■	■				■
ETS1.B Developing Possible Solutions	■	■	■	■	■	■	■
ETS1.C Optimizing the Design Solution		■	■	■	■	■	■
ETS2.A Interdependence of Science, Engineering, and Technology	■	■	■	■	■	■	■
ETS2.B Influence of Engineering, Technology, and Science on Society and the Natural World	■	■	■	■	■	■	■

Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects	Building Bridges	Geodesic Dome	Green Architecture	Language of Arch.	Neighborhood Design	Scale Model Building	Skyscrapers
COLLEGE AND CAREER READINESS ANCHOR STANDARDS FOR READING*							
1 Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.	■		■	■		■	■
2 Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.			■	■			
7 Integrate and evaluate content presented in diverse formats and media, including visually and quantitatively, as well as in words.	■	■	■	■	■	■	■
COLLEGE AND CAREER READINESS ANCHOR STANDARDS FOR WRITING							
1 Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.				PV	PV		

*At the Center for Architecture, we consider visual representations (i.e., photos, drawings, models, etc.) to be texts with their own set of vocabulary. Through this lens, we practice “reading a building” to consider its design and purpose.

PV These standards are met by completing the suggested extension activities found in the Student Day Resource Packet.

Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects (continued)	Building Bridges	Geodesic Dome	Green Architecture	Language of Arch.	Neighborhood Design	Scale Model Building	Skyscrapers
COLLEGE AND CAREER READINESS ANCHOR STANDARDS FOR WRITING (continued)							
2 Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.			PV	PV	PV		
7 Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	PV	PV	PV	PV	PV		PV
COLLEGE AND CAREER READINESS ANCHOR STANDARDS FOR SPEAKING AND LISTENING							
1 Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.	■	■	■	■	■	■	■
2 Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.	■	■	■	■	■	■	■
4 Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.					■		
5 Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.					■		
COLLEGE AND CAREER READINESS ANCHOR STANDARDS FOR LANGUAGE							
4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.	■	■	■	■	■		■
6 Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.	■	■	■	■	■	■	■

New York State K-8 Social Studies Framework: Social Studies Practices		Building Bridges	Geodesic Dome	Green Architecture	Language of Arch.	Neighborhood Design	Scale Model Building	Skyscrapers
A	Gathering, Using, and Interpreting Evidence	■		■	■			■
B	Chronological Reasoning and Causation	■						■
C	Comparison and Contextualization				■			
D	Geographic Reasoning	■		■	■	■		■
F	Civic Participation					■		

NYC K-8 Social Studies Scope & Sequence + NYC 9-12 Social Studies Scope & Sequence		Building Bridges	Geodesic Dome	Green Architecture	Language of Arch.	Neighborhood Design	Scale Model Building	Skyscrapers
K Unit 3	Geography, People and the Environment What makes a community?				■			
Grade 1 Unit 3	The Community What is a community?				■			
Grade 2 Unit 2	New York City Over Time How and why do communities change over time?	■						■
Grade 2 Unit 3	Urban, Suburban and Rural Communities How are communities the same and different?	■			■			■
Grade 8 Unit 2	A Changing Society and the Progressive Era How do people, policies and technological advances shape a nation?							■
Grade 10 Unit 6	Globalization and the Changing Environment Is globalization a force for progress and prosperity?			■				

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