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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	■	■	■	■	■	■	■

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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?			■				

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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	■	■	■				■

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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: DISCIPINARY CORE IDEAS								
Physical Sciences								
PS1.A	Structure and Properties of Matter				■			
PS2.A	Forces and Motion	■						■
PS2.C	Stability and Instability in Physical Systems	■	■					■
PS3.A	Definitions of Energy			■				
PS3.B	Conservation of Energy and Energy Transfer			■				
PS3.D	Energy in Chemical Processes and Everyday Life			■				
Life Sciences								
LS2.A	Interdependent Relationships in Ecosystems			■				
LS2.C	Ecosystem Dynamics, Functioning, and Resilience			■				
LS2.D	Social Interactions and Group Behavior					■		
Earth & Space Sciences								
ESS1.B	Earth and the Solar System			■				
ESS2.A	Earth Materials and Systems			■				
ESS2.D	Weather and Climate			■				
ESS3.A	Natural Resources			■				
ESS3.B	Natural Hazards							■
ESS3.C	Human Impacts on Earth Systems			■				
ESS3.D	Global Climate Change			■				

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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: DISCIPINARY 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 textural 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.

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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.**	■	■	■	■	■	■	■

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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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