

Art and Nature on the Clark Campus Teacher Guide

Outdoor Experience and Guided Discussion:

Route:

1. Reflecting Pools
2. Land Acknowledgement
3. *Teaching a Cow to Draw*
4. *Crystal*
5. Architecture at the Clark
6. Grove of Comingled Birch and Maple Trees
7. Replanted Natalie Jeremijenko Trees

Plan for about two hours, and of course, it's ok to visit only some of the stops. Good walking shoes are required. This outside Art and Nature themed tour at the Clark offers a nice opportunity for writing. We encourage you to invite your students to bring journals and incorporate independent writing time into their experience.

Learning Objectives:

Contemplative experience on the Clark campus

Awareness of how engaging with art and nature can encourage a greater awareness of what it means to be a human being

Relevant Definitions:

The Clark's Working Definition of Art:

Art is... an expression or reflection of human experience, imagination, and values.

Compilation of Dictionary Definitions of Nature:

Nature is... all of the features, forces, and processes of the physical world that happen or exist independent from human intervention (though human beings are also a part of the natural world).

1. Reflecting Pools

The reflecting pools are both a human-made sustainability feature (water conservation) designed to take care of nature and a work of art for humans to enjoy. Does the fact that the reflecting pools serve two purposes impact the way we see them? Think about them? Feel about them? How does what we know influence how we understand the world around us?

LEARNING STANDARDS LINKED TO REFLECTING POOLS		
Depending on the learning objective(s) at the <i>Reflecting Pools</i> , you and your students can touch on or address many learning standards. Below are the MA learning standards that we believe connect most effectively to the feature.		
	<i>From Science and Technology/Engineering Framework</i>	<i>From Arts Framework</i>
Early Child.	<ul style="list-style-type: none"> • PRESCHOOL- ESS2. Earth's Systems: PreK-ESS2-2(MA). Observe and classify non-living materials, natural and human made, in the local environment. • PreK-ESS2-3(MA). Explore and describe different places water is found in the local environment. • KINDERGARTEN- ESS2. Earth's Systems: K-ESS2-2. Construct an argument supported by evidence for how plants and animals (including humans) can change the environment. • GRADE 1- ETS1. Engineering Design: 1.K-2-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change that can be solved by developing or improving an object or tool. • GRADE 2- ESS2. Earth's Systems: 2-ESS2-3. Use examples obtained from informational sources to explain that water is found in the ocean, rivers and streams, lakes and ponds, and may be solid or liquid. 	<p>PRESCHOOL-K- Visual Arts: Connecting: 11. Relate artistic ideas and works to societal, cultural and historical contexts to deepen understanding. With support, identify different types of artwork (e.g., paintings, sculpture, performance, fiber) within their community. (PK-K.V.Co.11)</p> <p>1st-2nd GRADE- Visual Arts: Connecting: 11. Relate artistic ideas and works to societal, cultural and historical contexts to deepen understanding. Identify different types of artwork (e.g., paintings, sculpture, performance, fiber) within their community and other places they have encountered. (1-2.V.Co.11)</p>
Upper Elem.	<ul style="list-style-type: none"> • GRADE 3- ETS1. Engineering Design: 3.3-5-ETS1-1. Define a simple design problem that reflects a need or a want. Include criteria for success and constraints on materials, time, or cost that a potential solution must meet. • GRADE 4- ETS1. Engineering Design: 4.3-5-ETS1-5(MA). Evaluate relevant design features that must be considered in building a model or prototype of a solution to a given design problem. • GRADE 5- ESS2. Earth's Systems: 5-ESS2-1. Use a model to describe the cycling of water through a watershed through evaporation, precipitation, absorption, surface runoff, and condensation. • ETS3. Technological Systems: 5.3-5-ETS3-1(MA). Use informational text to provide examples of improvements to existing technologies (innovations) and the development of new technologies (inventions). Recognize that technology is any modification of the natural or designed world done to fulfill human needs or wants. 	<p>3rd-4th GRADE- Visual Arts: Responding: 8. Interpret intent and meaning in artistic work. Describe contrasting interpretations of an artwork to identify multiple perspectives and diverse community ideas. (3-4.V.R.08)</p> <p>5th-6th GRADE- Visual Arts: Responding: 8. Interpret intent and meaning in artistic work. Use domain-specific vocabulary to identify details about an artistic work. (5-6.V.R.08)</p>
Middle	<ul style="list-style-type: none"> • GRADE 6- ETS1. Engineering Design: 6.MS-ETS1-1. Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution. Include potential 	<p>5th-6th GRADE- Visual Arts: Responding: 8. Interpret intent and meaning in artistic work. Use domain-specific vocabulary to identify details about an artistic work. (5-6.V.R.08)</p>

	<p>impacts on people and the natural environment that may limit possible solutions.</p> <ul style="list-style-type: none"> •GRADE 7- LS2. Ecosystems: Interactions, Energy, and Dynamics: 7.MS-LS2-2. Describe how relationships among and between organisms in an ecosystem can be competitive, predatory, parasitic, and mutually beneficial and that these interactions are found across multiple ecosystems. •GRADE 8- ETS2. Materials, Tools, and Manufacturing: 8.MS-ETS2-5(MA). Present information that illustrates how a product can be created using basic processes in manufacturing systems, including forming, separating, conditioning, assembling, finishing, quality control, and safety. Compare the advantages and disadvantages of human vs. computer control of these processes 	<p>7th-8th GRADE- Visual Arts: Responding: 8. Interpret intent and meaning in artistic work. Explain how an artistic work was influenced by the culture or historical context in which it was created. (7-8.V.R.08)</p>
High	<ul style="list-style-type: none"> •GRADES 9-12- EARTH & SPACE SCIENCE- HS-ESS2-5. Describe how the chemical and physical properties of water are important in mechanical and chemical mechanisms that affect Earth materials and surface processes. •HS-ESS3-2. Evaluate competing design solutions for minimizing impacts of developing and using energy and mineral resources, and conserving and recycling those resources, based on economic, social, and environmental cost-benefit ratios. •TECHNOLOGY/ENGINEERING- ETS1. Engineering Design: HS-ETS1-3. Evaluate a solution to a complex real-world problem based on prioritized criteria and tradeoffs that account for a range of constraints, including cost, safety, reliability, aesthetics, and maintenance, as well as social, cultural, and environmental impacts. •ETS4. Energy and Power Technologies HS-ETS4-1(MA). Research and describe various ways that humans use energy and power systems to harness resources to accomplish tasks effectively and efficiently. 	<p>9th-12th GRADE- Proficient Visual Arts: Responding: 7. Perceive and analyze artistic work. Use contextual and aesthetic information to construct interpretations of an artwork or collection of works. (P.V.R.07)</p>

2. Land Acknowledgement

Ask students if they have ever seen or heard of a land acknowledgement before. If so, discuss where and how it may be similar to the Clark’s. Share that each institution or organization crafts their own version (usually with the input of the representatives of the Native people indigenous to the land). Have a discussion about the implications of an institution like an art museum publicly posting such an acknowledgement. Encourage students to consider what an art museum even is and how posting a land acknowledgement may impact their own identity and how we—the visitors—think about what a museum is.

LEARNING STANDARDS LINKED TO LAND ACKNOWLEDGEMENT	
Depending on the learning objective(s) for the <i>Land Acknowledgement</i> , you and your students can touch on or address many learning standards. Below are the MA learning standards that we believe connect most effectively to the activity.	
	<i>From History and Social Science Framework</i>
Early Child.	• PRE-SCHOOL- Civics: fairness, friendship, responsibility, and respect [PreK.T1]: 4. With prompting and support, ask and answer questions about literature and informational social studies texts read aloud, and act

	<p>out or give examples of characters who show fairness, friendship, kindness, responsibility, and respect for one another.</p> <ul style="list-style-type: none"> • KINDERGARTEN- Civics: classroom citizenship [K.T1]: 2. Take on responsibilities and follow through on them, being helpful to and respectful of others. • GRADE 1- Civics: communities, elections, and leadership [1.T1]: 1. Demonstrate understanding of the benefits of being part of a group and explain what it means to be a member of a group; follow the group's rules, limits, responsibilities and expectations, and explain reasons for rules to others. • History: unity and diversity in the United States [1.T3]: 1. Provide evidence to explain some of the ways in which the people of the United States are unified (e.g., share a common national history) and diverse (e.g., have different backgrounds, hold different beliefs, and have different celebrations, cultural traditions, and family structures).
Upper Elem.	<ul style="list-style-type: none"> • GRADE 3- The geography and Native Peoples of Massachusetts [3.T2]: 3. Explain the diversity of Native Peoples, present and past, in Massachusetts and the New England region. b. the locations of tribal territories in the state. • GRADE 4- The Northeast [4.T4a]: 5. Describe the diverse cultural nature of the region, including contributions of Native Peoples, Africans, Europeans and various other immigrant groups from other regions of the world in the later 20th and 21st centuries.
	<i>From English Language Arts and Literacy Framework</i>
Middle	<ul style="list-style-type: none"> • GRADE 6- Speaking and Listening Standards: Comprehension and Collaboration: 1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly. c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion. • GRADE 7- Speaking and Listening Standards: Comprehension and Collaboration: 1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and clearly expressing their own. c. Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed. • GRADE 8- Speaking and Listening Standards: Comprehension and Collaboration 1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly. c. Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas
High	<ul style="list-style-type: none"> • GRADES 9-10- Speaking and Listening Standards: Comprehension and Collaboration: 1. Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. c. Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions. • GRADES 11-12- Speaking and Listening Standards: Comprehension and Collaboration: 1. Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. c. Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives.

3. *Teaching a Cow to Draw*

Like the reflecting pools, this work of art has a dual purpose—it is both a barrier separating the lower campus from the cow pasture, and it is a work of art. Does the playful nature of this art object change how you think about art? Ask your students what they think!

Background on the Work:

When conceptual artist Analia Saban first visited the Clark, she was struck by the cows who pastured in our meadows. *Could the fence that contained the animals also entertain, or even educate them?* Saban reinterpreted the existing fence to illustrate different principles of art composition, including the rule of thirds, the golden ratio, and two- and three-point linear perspective. This 620-foot-long drawing in space is both a tongue-in-cheek gesture—implicating a new, nontraditional audience outside the museum’s walls—as well as a device that frames new views on the landscape for the campus’ human visitors. Saban pays homage to *Teaching a Plant the Alphabet* (1972), a work by her mentor, the late conceptual artist, John Baldessari, in which the artist offered an English lesson to a potted banana plant.

Background on the Artist:

Analia Saban (born 1980, in Buenos Aires) explores the intersections and overlap between traditional media and new technologies, disrupting conventional techniques of drawing, painting, weaving, and sculpture to probe the capacity of an object and the myriad meanings found within its form. Saban lives and works in Los Angeles.

LEARNING STANDARDS LINKED TO <i>TEACHING A COW TO DRAW</i>		
Depending on the learning objective(s) for <i>Teaching a Cow to Draw</i> , you and your students can touch on or address many learning standards. Below are the MA learning standards that we believe connect most effectively to the artwork.		
	<i>From Mathematics Framework</i>	<i>From Arts Framework</i>
Early Child.	<ul style="list-style-type: none"> •PRESCHOOL- Geometry: PK.G: A. Identify and describe shapes (squares, circles, triangles, rectangles). 1. Identify relative positions of objects in space, and use appropriate language (e.g., beside, inside, next to, close to, above, below, apart). •2. Identify various two-dimensional shapes using appropriate language. •KINDERGARTEN- Geometry K.G: A. Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres). 1. Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to. 	<p>Preschool–K- Visual Arts: Responding: 8. Interpret intent and meaning in artistic work. Describe what is seen in an artwork (e.g., “I see a dot; I see yellow in the corner; I see a round part”), interpret a possible meaning, and explain why the meaning makes sense. (PK-K.V.R.08).</p> <p>1st-2nd GRADE- Visual Arts: Responding: 7. Perceive and analyze artistic work. With support, identify the basic elements within an artwork (including, color, line, shape). (1-2.V.R.07)</p>

	<ul style="list-style-type: none"> •2. Correctly name shapes regardless of their orientation or overall size. •GRADE 1- Geometry 1.G: A. Reason with shapes and their attributes. 1. Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes that possess defining attributes. •GRADE 2- Geometry 2.G: A. Reason with shapes and their attributes. 1. Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.12 Identify triangles, squares, rectangles, rhombuses, trapezoids, pentagons, hexagons, and cubes. 	
Upper Elem.	<ul style="list-style-type: none"> •GRADE 3- Geometry 3.G A. Reason with shapes and their attributes. 1. Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Compare and classify shapes by their sides and angles (right angle/non-right angle). Recognize rhombuses, rectangles, squares, and trapezoids as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories. •GRADE 4- Geometry 4.G: A. Draw and identify lines and angles, and classify shapes by properties of their lines and angles. 2. Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles •GRADE 5- Geometry 5.G: B. Classify two-dimensional figures into categories based on their properties. 3. Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles. •4. Classify two-dimensional figures in a hierarchy based on properties. 	<p>3rd-4th GRADE: Visual Arts: Connecting: 11. Relate artistic ideas and works to societal, cultural and historical contexts to deepen understanding. Describe ways art is different from other objects in everyday life and why that matters. (e.g., what the role of artistic intent is in visual arts). (3-4.V.Co.11)</p>
Middle	<ul style="list-style-type: none"> •GRADE 6- Geometry 6.G: A. Solve real-world and mathematical problems involving area, surface area, and volume. 1. Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems. •GRADE 7- Geometry 7.G A. Draw, construct, and describe geometrical figures and describe the relationships between them. 1. Solve problems involving scale drawings of geometric figures, such as computing actual lengths and 	<p>5th-6th GRADE- Visual Arts: Responding: 8. Interpret intent and meaning in artistic work. Use domain-specific vocabulary to identify details about an artistic work. (5-6.V.R.08)</p> <p>7th-8th GRADE- Visual Arts: Responding: 7. Perceive and analyze artistic work. Analyze elements of a work that are indicative of the historical or cultural context in which it was created. (7-8.V.R.07)</p>

	<p>areas from a scale drawing and reproducing a scale drawing at a different scale.</p> <ul style="list-style-type: none"> • GRADE 8- Geometry 8.G: B. Understand and apply the Pythagorean Theorem. 6. a. Understand the relationship among the sides of a right triangle. b. Analyze and justify the Pythagorean Theorem and its converse using pictures, diagrams, narratives, or models. 7. Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions. 	
High	<ul style="list-style-type: none"> • GRADES 9-12- Modeling with Geometry GEO.G-MG. A. Apply geometric concepts in modeling situations. 1. Use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder). • 3. Apply geometric methods to solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios). 	<p>9th-12th GRADE- Proficient Visual Arts: Connecting: 10. Synthesize and relate knowledge and personal experiences to make art. Describe how visual arts influences one's approach to other academic disciplines (e.g., how knowledge of changing art movements help contextualize history). (P.V.Co.10)</p>

4. *Crystal*

This sculpture was made specifically for the Clark and for this spot by contemporary German artist, Thomas Schütte. It was his first full-scale architectural artwork in the United States.

It was intended to be a temporary installation (on view through summer 2018) but was so beloved that the artist agreed it could stay indefinitely. The Clark will dismantle *Crystal* once it is no longer structurally sound.

Questions for Discussion:

WHAT does the *Crystal* do to this space? Does it interrupt the natural environment or enhance it? (Fun fact: the doors originally swung in and not out, but the Haley Farm cows who graze in this pasture came in and got struck! Does that change your perception?)

Would you call this art? Is it a 'sculpture'? Architecture? Something else?

How does what we call something impact how we think about it?

How does the way it is made impact your experience?

Background on Materials:

Radiata pine (fast growing and transported over water, likely from New Zealand), and zinc-coated copper cladding which oxidizes. The wood is treated with a chemical closely related to vinegar called acetylation it changes the structure of the wood, so it won't sustain growth of mold, rot, or insects and it won't swell.

Background on the Artist:

Thomas Schütte is best known for his large-scale public sculptures that reimagine the role of statuary and monuments and question who and/or what we celebrate. Schütte wants his art to make people think about the experience of making and viewing. He even wanted anything that happens to or in *Crystal* to be allowed—camping, graffitiing, etc.), but the Clark removes graffiti that is hateful or inappropriate.

LEARNING STANDARDS LINKED TO CRYSTAL		
Depending on the learning objective(s) for <i>Crystal</i> , you and your students can touch on or address many learning standards. Below are the MA learning standards that we believe connect most effectively to the artwork.		
	<i>From Mathematics Framework</i>	<i>From Arts Framework</i>
Early Child.	<ul style="list-style-type: none"> • PRESCHOOL- Geometry PK.G: A. Identify and describe shapes (squares, circles, triangles, rectangles). 1. Identify relative positions of objects in space, and use appropriate language (e.g., beside, inside, next to, close to, above, below, apart). • KINDERGARTEN- Geometry K.G: A. Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres). 1. Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to. • GRADE 1- Geometry 1.G: A. Reason with shapes and their attributes. 1. Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes that possess defining attributes. • GRADE 2- Geometry 2.G: A. Reason with shapes and their attributes. 1. Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. 12 Identify triangles, squares, rectangles, rhombuses, trapezoids, pentagons, hexagons, and cubes. 	<p>Preschool–K- Visual Arts: Responding. 8. Interpret intent and meaning in artistic work. Describe what is seen in an artwork (e.g., “I see a dot; I see yellow in the corner; I see a round part”), interpret a possible meaning, and explain why the meaning makes sense. (PK-K.V.R.08).</p> <p>1st-2nd GRADE- Visual Arts: Responding. 7. Perceive and analyze artistic work. With support, identify the basic elements within an artwork (including, color, line, shape). (1-2.V.R.07)</p>
Upper Elem.	<ul style="list-style-type: none"> • GRADE 3- Geometry 3.G A. Reason with shapes and their attributes. 1. Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Compare and classify shapes by their sides and angles (right angle/non-right angle). Recognize 	<p>5th-6th GRADE- Visual Arts: Responding 8. Interpret intent and meaning in artistic work. Use domain-specific vocabulary to identify details about an artistic work. (5-6.V.R.08)</p>

	<p>rhombuses, rectangles, squares, and trapezoids as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.</p> <ul style="list-style-type: none"> •Measurement and Data 3.MD: B. Represent and interpret data. 4. Generate measurement data by measuring lengths of objects using rulers marked with halves and fourths of an inch. Record and show the data by making a line plot (dot plot), where the horizontal scale is marked off in appropriate units—whole numbers, halves, or fourths. (•GRADE 4- Measurement and Data 4.MD: C. Geometric measurement: Understand concepts of angle and measure angles. 6. Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure. •GRADE 5- Geometry 5.G: Classify two-dimensional figures into categories based on their properties. 3. Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. 	
Middle	<ul style="list-style-type: none"> •GRADE 6- Geometry 6.G: A. Solve real-world and mathematical problems involving area, surface area, and volume. 1. Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems. •GRADE 7- Geometry 7.G: B. Solve real-life and mathematical problems involving angle measure, area, surface area, and volume. 6. Solve real-world and mathematical problems involving area, volume, and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms. • GRADE 8- Geometry 8.G: C. Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres. 9. Know the formulas for the volumes of cones, cylinders, and spheres, and use them to solve real-world and mathematical problems 	<p>5th-6th GRADE- Visual Arts: Responding 8. Interpret intent and meaning in artistic work. Use domain-specific vocabulary to identify details about an artistic work. (5-6.V.R.08)</p> <p>7th-8th GRADE- Visual Arts: Responding: Responding: 7. Perceive and analyze artistic work. Analyze elements of a work that are indicative of the historical or cultural context in which it was created. (7-8.V.R.07)</p>
High	<ul style="list-style-type: none"> •GRADES 9-12- Modeling with Geometry GEO.G-M: A. Apply geometric concepts in modeling situations. 1. Use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder). 	<p>9th-12th GRADE- Proficient Visual Arts: Connecting: 10. Synthesize and relate knowledge and personal experiences to make art. Describe how visual arts influences one's approach to other academic disciplines (e.g., how knowledge of changing art movements help contextualize history). (P.V.Co.10)</p>

5. Architecture at the Clark

Lead a discussion of how architecture can be considered art and how architecture influences our perception of space/place and nature.

Questions for Discussion:

How does the materiality of these buildings tie into or stand out from the natural setting? Including the new concrete, glass, and steel of the Clark Center (designed by architect Tadao Ando), the white marble of Museum Building from the 1950s, and the red granite of the Manton building that housing offices and our art library.

What kind of feeling do the different structures give? Open? Closed? Formal? Welcoming?

Can your students see how each building suggests a different idea about what an art museum is (as suggested in the Self-Guide)?

LEARNING STANDARDS LINKED TO ARCHITECTURE	
Depending on the learning objective(s) for the <i>Architecture</i> , you and your students can touch on or address many learning standards. Below are the MA learning standards that we believe connect most effectively to the buildings on our campus.	
<i>From English Language Arts and Literacy Framework</i>	
Early Child.	<ul style="list-style-type: none"> •PRESCHOOL- Pre-K Speaking and Listening Standards [SL]: Presentation of Knowledge and Ideas: 4. Describe personal experiences; tell stories. •6. Speak audibly and express thoughts, feelings, and ideas. •KINDERGARTEN- Kindergarten Speaking and Listening Standards [SL]: Comprehension and Collaboration: 2. Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood. •Presentation of Knowledge and Ideas: 6. Speak audibly and express thoughts, feelings, and ideas clearly. •GRADE 1- Grade 1 Speaking and Listening Standards [SL]: Comprehension and Collaboration: 2. Ask and answer questions about key details in a text read aloud or information presented orally or through other media. •Presentation of Knowledge and Ideas 4. Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly and using appropriate vocabulary. •GRADE 2- Grade 2 Speaking and Listening Standards [SL]: Comprehension and Collaboration: 3. Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.
Upper Elem.	<ul style="list-style-type: none"> •GRADE 3- Grade 3 Speaking and Listening Standards [SL]: Presentation of Knowledge and Ideas 4. Report on a topic, text, or solution to a mathematical problem, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace and using appropriate vocabulary. •GRADE 4- Grade 4 Speaking and Listening Standards [SL]: Comprehension and Collaboration 1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly. d. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion •GRADE 5- Grade 5 Speaking and Listening Standards [SL]: Comprehension and Collaboration 1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly. d. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.
Middle	<ul style="list-style-type: none"> •GRADE 6- Grade 6 Speaking and Listening Standards [SL]: Presentation of Knowledge and Ideas 4. Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate vocabulary, eye contact, volume, and pronunciation. •GRADE 7- Grade 7 Speaking and Listening Standards [SL]: Presentation of Knowledge and Ideas 4. Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate vocabulary, eye contact, volume, and pronunciation

	<ul style="list-style-type: none"> •GRADE 8- Grade 8 Speaking and Listening Standards [SL]: Presentation of Knowledge and Ideas 4. Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate vocabulary, eye contact, volume, and pronunciation.
High	<ul style="list-style-type: none"> •GRADES 9-10- Grades 9-10 Speaking and Listening Standards [SL]: Presentation of Knowledge and Ideas 4. Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, vocabulary, substance, and style are appropriate to purpose, audience, and task. •GRADES 11-12- Grades 11-12 Speaking and Listening Standards [SL]: Presentation of Knowledge and Ideas 4. Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, vocabulary, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.

6. Grove of Comingled Birch and Maple Trees

Walk across the Pasture Trail Walk and you will come upon what seems like a small grove of trees.

These birch and maple trees are called volunteer trees—they grew right where their seeds were dropped by the wind rather than having been purposely planted by a person. Many horticulturists believe that it is unhealthy for different types of trees to grow so close together, competing for nutrients. But new research about “tree communication” (through their root systems) suggests that may actually not be the case at all and that in fact the trees take care of each other. In fact, it seems that the trees take care of and protect each other rather than compete.

Questions for Discussion:

Do the trees look healthy to you and your class?

Can these trees be considered a work of art? Encourage your students to think about the similarities and differences between art and nature. As your students discuss their ideas, share the Clark’s definitions of art and nature (found at the beginning of this resource) with them. Do they agree? Did any of the students notice the graffiti on the trees? Does that change their opinions? There are no right answers to this debate and the conversation will likely raise more questions than it will answer.

LEARNING STANDARDS LINKED TO <i>BIRCH TREE</i>	
Depending on the learning objective(s) for <i>Birch Tree</i> , you and your students can touch on or address many learning standards. Below are the MA learning standards that we believe connect most effectively to this natural object.	
	From English Language Arts and Literacy Framework
Early Child.	<ul style="list-style-type: none"> •PRE-SCHOOL- Pre-K Speaking and Listening Standards [SL]: Presentation of Knowledge and Ideas: 4. Describe personal experiences; tell stories. •6. Speak audibly and express thoughts, feelings, and ideas.

	<ul style="list-style-type: none"> •KINDERGARTEN- Kindergarten Speaking and Listening Standards [SL]: Comprehension and Collaboration: 2. Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood. •Presentation of Knowledge and Ideas: 6. Speak audibly and express thoughts, feelings, and ideas clearly. •GRADE 1- Grade 1 Speaking and Listening Standards [SL]: Comprehension and Collaboration: 2. Ask and answer questions about key details in a text read aloud or information presented orally or through other media. •Presentation of Knowledge and Ideas 4. Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly and using appropriate vocabulary. •GRADE 2- Grade 2 Speaking and Listening Standards [SL]: Comprehension and Collaboration: 3. Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.
Upper Elem.	<ul style="list-style-type: none"> •GRADE 3- Grade 3 Speaking and Listening Standards [SL]: Presentation of Knowledge and Ideas 4. Report on a topic, text, or solution to a mathematical problem, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace and using appropriate vocabulary. •GRADE 4- Grade 4 Speaking and Listening Standards [SL]: Comprehension and Collaboration 1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly. d. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion •GRADE 5- Grade 5 Speaking and Listening Standards [SL]: Comprehension and Collaboration 1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly. d. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.
Middle	<ul style="list-style-type: none"> •GRADE 6- Grade 6 Speaking and Listening Standards [SL]: Presentation of Knowledge and Ideas 4. Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate vocabulary, eye contact, volume, and pronunciation. •GRADE 7- Grade 7 Speaking and Listening Standards [SL]: Presentation of Knowledge and Ideas 4. Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate vocabulary, eye contact, volume, and pronunciation •GRADE 8- Grade 8 Speaking and Listening Standards [SL]: Presentation of Knowledge and Ideas 4. Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate vocabulary, eye contact, volume, and pronunciation.
High	<ul style="list-style-type: none"> •GRADES 9-10- Grades 9-10 Speaking and Listening Standards [SL]: Presentation of Knowledge and Ideas. 4. Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, vocabulary, substance, and style are appropriate to purpose, audience, and task. •GRADES 11-12- Grades 11-12 Speaking and Listening Standards [SL]: Presentation of Knowledge and Ideas 4. Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, vocabulary, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.

7. Replanted Natalie Jeremijenko Trees

Upside down trees from *Tree Logic* at Mass MoCA in North Adams, MA)

Questions for Discussion:

How do these trees make you feel about the relationship between human beings and the larger natural world? Are the lessons learned from *Tree Logic* worth the injury to the involved trees? Does it make a difference that the trees seem to heal?

Think about these trees in contrast to the dead birch tree—how do they add to our understanding of how nature ‘takes its course’? The differences and similarities between art and nature?

Background on *Tree Logic*:

Natalie Jeremijenko is an artist and a scientist whose background includes studies in biochemistry, physics, neuroscience, and precision engineering. She is an active member of the net.art movement, and her work primarily explores the interface between society, the environment and technology. She has alternatively described her work as ‘X Design’ (short for experimental design) and herself as a ‘thinker’, a combination of thing-maker and thinker.

In *Tree Logic*, the art of the piece is not found in its condition at any single point in time, but in the change of the trees over time. Trees are dynamic natural systems, and *Tree Logic* reveals this dynamism. The familiar, almost iconic shape of the tree in nature is the result of the interplay between gravitropic and phototropic forces: the tree grows away from the earth and towards the sun. When inverted, the six trees in this experiment still grow away from the earth and towards the sun—so the natural predisposition of trees might well produce the most unnatural shapes over time, raising questions about what the nature of the natural is.

Re-enter the trail system off the road where the Jeremijenko Trees have been replanted to descend the wooded trails back down to the Clark campus.

LEARNING STANDARDS LINKED TO REPLANTED NATALIE JEREMIJENKO TREES		
Depending on the learning objective(s) for <i>REPLANTED NATALIE JEREMIJENKO TREES</i> , you and your students can touch on or address many learning standards. Below are the MA learning standards that we believe connect most effectively to the artwork.		
	<i>From Science and Technology/Engineering Framework</i>	<i>From Arts Framework</i>
Early Child.	<ul style="list-style-type: none"> • PRE-SCHOOL- LS2. Ecosystems: Interactions, Energy, and Dynamics: PreK-LS2-2(MA). Using evidence from the local environment, explain how familiar plants and animals meet their needs where they live. • KINDERGARTEN- LS1. From Molecules to Organisms: Structures and Processes: K-LS1-2(MA). Recognize that all plants and animals grow and change over time. • GRADE 1- LS3. Heredity: Inheritance and Variation of Traits 1-LS3-1. Use information from observations (first-hand and from media) to identify similarities and differences among individual plants or animals of the same kind. • GRADE 2- LS2. Ecosystems: Interactions, Energy, and Dynamics 2-LS2-3(MA). Develop and use 	<p>Pre-K–K Visual Arts Standards. Responding. 8. Interpret intent and meaning in artistic work. Describe what is seen in an artwork (e.g., “I see a dot; I see yellow in the corner; I see a round part”), interpret a possible meaning, and explain why the meaning makes sense. (PK-K.V.R.08).</p> <p>1st-2nd Grade Visual Arts Standards. Responding. 7. Perceive and analyze artistic work. With support, identify the basic elements within an artwork (including, color, line, shape). (1-2.V.R.07)</p>

	models to compare how plants and animals depend on their surroundings and other living things to meet their needs in the places they live.	
Upper Elem.	<ul style="list-style-type: none"> •GRADE 3- LS3. Heredity: Inheritance and Variation of Traits: 3-LS3-2. Distinguish between inherited characteristics and those characteristics that result from a direct interaction with the environment. Give examples of characteristics of living organisms that are influenced by both inheritance and the environment. •GRADE 4- LS1. From Molecules to Organisms: Structures and Processes: 4-LS1-1. Construct an argument that animals and plants have internal and external structures that support their survival, growth, behavior, and reproduction. •GRADE 5- LS1. From Molecules to Organisms: Structures and Processes: 5-LS1-1. Ask testable questions about the process by which plants use air, water, and energy from sunlight to produce sugars and plant materials needed for growth and reproduction. 	<p>3rd-4th Connecting. 11. Relate artistic ideas and works to societal, cultural and historical contexts to deepen understanding. Describe ways art is different from other objects in everyday life and why that matters. (e.g., what the role of artistic intent is in visual arts). (3-4.V.Co.11)</p> <p>5th-6th Responding 8. Interpret intent and meaning in artistic work. Use domain-specific vocabulary to identify details about an artistic work. (5-6.V.R.08)</p>
Middle	<ul style="list-style-type: none"> •GRADE 7- LS1. From Molecules to Organisms: Structures and Processes: 7.MS-LS1-4. Construct an explanation based on evidence for how characteristic animal behaviors and specialized plant structures increase the probability of successful reproduction of animals and plants. •GRADE 8- LS1. From Molecules to Organisms: Structures and Processes: 8.MS-LS1-5. Construct an argument based on evidence for how environmental and genetic factors influence the growth of organisms. 	<p>5th-6th GRADE- Responding 8. Interpret intent and meaning in artistic work. Use domain-specific vocabulary to identify details about an artistic work. (5-6.V.R.08)</p> <p>7th-8th GRADE- Visual Arts: Responding: Responding: 7. Perceive and analyze artistic work. Analyze elements of a work that are indicative of the historical or cultural context in which it was created. (7-8.V.R.07)</p>
High	<ul style="list-style-type: none"> •GRADES 9-12- LS2. Ecosystems: Interactions, Energy, and Dynamics: HS-LS2-7. Analyze direct and indirect effects of human activities on biodiversity and ecosystem health, specifically habitat fragmentation, introduction of non-native or invasive species, overharvesting, pollution, and climate change. Evaluate and refine a solution for reducing the impacts of human activities on biodiversity and ecosystem health. 	<p>9th-12th GRADE- Proficient Visual Arts: Connecting: 10. Synthesize and relate knowledge and personal experiences to make art. Describe how visual arts influences one's approach to other academic disciplines (e.g., how knowledge of changing art movements help contextualize history). (P.V.Co.10)</p>

Silent Walk

Optional

Decide which part or parts of this hike you will encourage your students to experiment with silence. Be adamant with the instruction of no communication. This will be difficult for many students. They will likely need gentle reminders. After the period of silence, discuss the questions suggested in the corresponding section of the Self-Guide.

LEARNING STANDARDS LINKED TO THE SILENT WALK	
Depending on the learning objective(s) for the <i>Silent Walk</i> , you and your students can touch on or address many learning standards. Below are the MA learning standards that we believe connect most effectively to the activity.	
<i>From MA Comprehensive Health Curriculum Framework</i>	
Early Child. & Upper Elem.	<ul style="list-style-type: none"> • Preschool-GRADE 5 - Mental Health: 5.2: Apply methods to accommodate a variety of feelings in a constructive manner in order to promote well-being. • Community & Public Health: 14.2: Identify ways the physical environment is related to individual and community health.
Middle	• GRADES 6-8 - Mental Health: 5.7: Identify and describe the experience of different feelings (such as elation, joy, grief, and rage) and how feelings affect daily functioning.
High	• GRADES 9-12 - Mental Health: 5.11: Analyze healthy ways to express emotions and to cope with feelings, including the common causes of stress, its effects on the body, and managing stress.

Closing Questions:

How is being out in nature different from being in the busy world?

How can we integrate some of the benefits that we can get from being in nature into our regular lives?

What are some of the similarities between engaging with nature and engaging with art?