

Unit 9

Building Up
The World:
**Global
Architecture**

Grade 5

Unit 9

Building Up the World: Global Architecture

Visual Supports for Teaching

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William Thornton



Designing and Building: Origins of Architecture

In 1792, a doctor named William Thornton was facing a challenge—and so was the whole country. The government of the newly formed United States was moving from Philadelphia to a brand new city called Washington, DC. The U.S. Congress would need a place to do the work of governing the country. But what would it look like?

To answer that question, the secretary of state, Thomas Jefferson, declared a competition to design this new building, which he called the Capitol. Jefferson encouraged Americans from all over the country to send drawings to him and President George Washington. The president himself would review the drawings and choose the winning design. People reading Jefferson's announcement of the competition realized that the new building would become a symbol of the new country. People living in the United States should be able to look at the Capitol and understand something about the new nation they lived in. It would be a huge honor to design the Capitol, and William Thornton wanted to win the competition!

But how should he start? Maybe he could cover the Capitol with brightly colored **clapboard** siding, like other colonial-style buildings of the time. Maybe he could design it as a log cabin, suggesting America's early frontier days. Maybe he should cover the building in red bricks, like the forts of Baltimore. There were so many possibilities. How was he supposed to decide?

Modern Working Architects



What Is Architecture?

Architecture is how we solve problems like the one William Thornton faced when designing the Capitol in 1792. Architecture is the practice of designing and constructing buildings. When someone works as an architect, or someone who uses their knowledge of architecture to make buildings, they need to answer many questions. What should the walls of this building be made of? What size should the rooms be? What should the porch of this building look like—or should there be a porch at all? There are many, many details to think about.

In one sense, architecture is an art form, like drawing, sculpting, and woodworking. In another sense, architecture is a mathematical field, like physics and geometry. It takes a variety of skills to become an architect. Architects need to understand different materials, as well as how and when to use them. They need to understand math, which helps them calculate what size different parts of the building should be. They also need to understand the history of architecture, which can inspire them to work with traditional designs in new and creative ways.

It takes a lot of time in school to learn these skills. It's also important to have practical experience putting up buildings. Many architects also spend time as **interns**, or apprentices, working with more experienced architects on actual building jobs. After many years of study and work, the last step is an exam to receive a **certification**, or a document saying you have the skills needed to be an architect.

The Parthenon in ancient Greece and the Parthenon in Rome



Chinese Building from the Eleventh Century



Burj Khalifa



Excerpt from Designing and Building: Origins of Architecture

The materials that architects have available also **evolve**, or change over time. Starting in the twentieth century, advances in technology made it easier for people around the world to make steel, a very strong building material. As a result, architects began to build more skyscrapers, or extremely tall buildings. Before, a building that could hold a lot of offices or apartments might have taken up a great deal of land. But the strong steel used in most skyscrapers let architects stack more and more floors on top of each other until the buildings were so tall they looked like they could scrape the sky. This design allowed many more people to use the same small piece of land.

The Toad Museum (Phaya Khan Khak) in Yasothon



Balinese Architecture

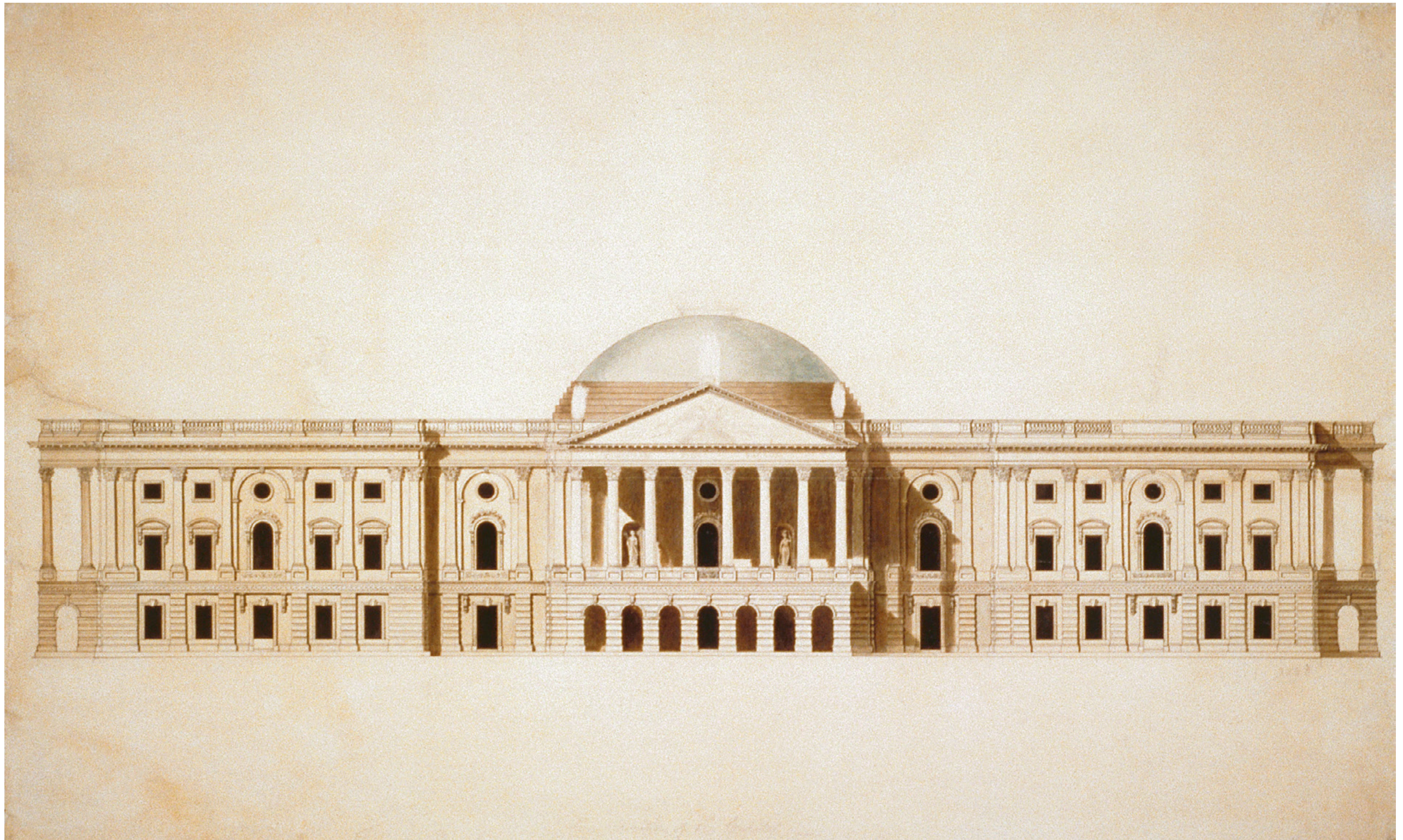


Does Form Follow Function? Or Does Function Follow Form?

A famous debate in architecture is the question of whether form follows function. Louis Sullivan, the architect who first said this, was an important figure in the history of building skyscrapers. Sullivan believed that a building should be as simple as possible. If a building was strong and useful, and if the architect designed the building to clearly show these qualities, it would also therefore be beautiful. Other architects disagreed with Sullivan. They felt that although function is important, a building's beauty and what it communicates are even more important. In other words, architects should create what they think is beautiful and use function as a way to support it.

There are no easy answers, and the debate continues today. Whichever side an architect chooses, the best buildings consider both form and function.

William Thornton's Watercolor Drawing of the U.S. Capitol



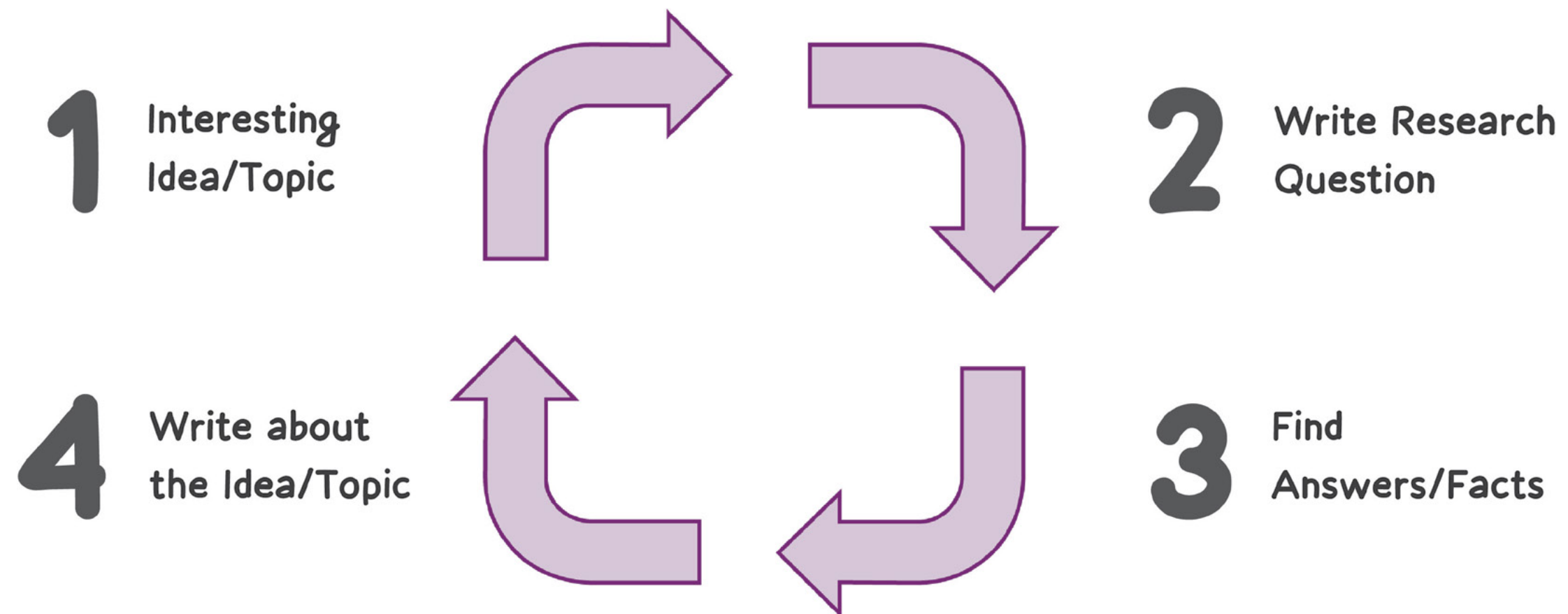
Modern Photo of the U.S. Capitol



Individual KWL Chart

	Know	Wonder	Learn
Lesson 1: Designing and Building: Origins of Architecture			
Lesson 2: Classic Architecture Meets Contemporary Design			
Lesson 3: Two Unique Homes			
Lesson 4: Two Innovative Schools			
Lesson 5: Building Skyscrapers: When and Where			

The Research Process



Root Word Arch

Affixed Word	Meaning	Sentence
archrival	(noun) a primary, or main, opponent	The New York Giants and the Philadelphia Eagles have been <u>archrivals</u> for decades, each battling to be the top team in their division.
architect	(noun) master builder	We will learn about <u>architects</u> from all over the world during this unit.
anarch or anarchy	(noun) a leader of a system without laws or an official government (noun) a system in which there are no laws or elected officials	After the fall of Rome, parts of Western Europe fell into <u>anarchy</u> .
monarch	(noun) a person who rules over a kingdom or empire, such as a king, queen, or emperor	King Charles became the new <u>monarch</u> of England after the death of his mother, Queen Elizabeth.
archetype	(noun) the primary or original model, type or example of something	George Washington is an elected leader archetype.
matriarch	(noun) a woman who is the chief leader of her family	Bella’s great-grandmother is the <u>matriarch</u> of the family.

Architecture Fair Overview

Choose an architect and one of their projects that you would like to learn more about.

1. Research and write: Draft your own research question on what you would like to learn about your selected architect and structure. Research and learn about your chosen architect's background and what inspires/inspired that person. Discover the significance of their work. Then use your research to write an informational text to share what you have learned.
2. Create a visual presentation: Create a model, slideshow, infographic, or other visual component to showcase the features of your selected structure in an engaging way.
3. Celebrate and learn from peers: Present your research and visual presentation to your classmates to obtain feedback. Watch and learn from your classmates' presentations, then provide feedback. Ask questions and discover a variety of architects and their notable works.
4. Teach others: Speak and answer questions about your research. Present your visual component to your peers and other invited guests at the class Architecture Fair.

Informative Writing Rubric

Grade 5 | Writing Rubric: Informative/Explanatory Writing

Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

- a) Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
- b) Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. of characters to situations.
- c) Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially).
- d) Use precise language and domain-specific vocabulary to inform about or explain the topic.
- e) Provide a concluding statement or section related to the information or explanation presented.

	Advanced	Proficient	Basic
Ideas	<p>The composition</p> <ul style="list-style-type: none"> provides a general observation that leads to a specific area of focus develops the topic with a combination of relevant facts, accurate definitions, concrete and specific details, quotations from multiple sources, or other appropriate information and examples makes sophisticated connections between ideas demonstrates awareness of audience and purpose 	<p>The composition</p> <ul style="list-style-type: none"> provides a general observation and focus develops the topic with facts, definitions, concrete details, quotations, or other information and examples 	<p>The composition does not do one or more of the following:</p> <ul style="list-style-type: none"> provide a general observation and focus develop the topic with facts, definitions, concrete details, quotations, or other information and examples
Organization	<p>The composition</p> <ul style="list-style-type: none"> introduces a topic clearly and in an engaging fashion groups related information logically and explains connections between groups includes a combination of formatting, illustrations, and multimedia that explain the ideas provides a concluding statement or section that connects the topic to a big question or the purpose for writing 	<p>The composition</p> <ul style="list-style-type: none"> introduces a topic clearly groups related information logically includes formatting, illustrations, and multimedia when useful provides a concluding statement or section related to the topic 	<p>The composition does not do one or more of the following:</p> <ul style="list-style-type: none"> introduce a topic clearly group related information logically include formatting, illustrations, and multimedia when useful provide a concluding statement or section related to the topic
Conventions	<p>The composition</p> <ul style="list-style-type: none"> links ideas within and across categories of information using words, phrases, and clauses uses precise language and domainspecific vocabulary uses language to add subtlety through connotative meanings 	<p>The composition</p> <ul style="list-style-type: none"> links ideas within and across categories of information using words, phrases, and clauses uses precise language and domainspecific vocabulary 	<p>The composition does not do one or more of the following</p> <ul style="list-style-type: none"> link ideas within and across categories of information using words, phrases, and clauses use precise language and domainspecific vocabulary

Presenting

Grade 5 | Speaking and Listening Rubric:

Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.

	Advanced	Proficient	Basic
Expression	The student speaks clearly and at an understandable pace and uses effective eye contact to help convey meaning or emphasis.	The student speaks clearly at an understandable pace.	The student does not speak clearly at an understandable pace.
Content and Accuracy	The student reports on a topic or text, tells a story, or recounts an experience in an organized manner with appropriate facts, descriptions, and details that support the main idea.	The student reports on a topic or text, tells a story, or recounts an experience with appropriate and relevant, descriptive details that support the main idea.	The student does not report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details that support the main idea.

Practice Bibliography Page

Research question: _____

Type of Source (book, website, etc.)	Title of Source and Author (if applicable)	Source Information (publication date, website URL, etc.)	Notes
1)			
2)			
3)			
4)			
5)			

Portrait of Madam C. J. Walker



“A Mansion for a Magnate”

Imagine your dream home. What does it look like? Would you like to live in a simple farmhouse? A Gothic castle? A modern skyscraper?

Now imagine being able to hire, or commission, an experienced architect to help you design and build it. The architect would listen to your needs and wants, working with you to bring your dream to life. They would show you **blueprints** of the intended floor plan for the home, and they would secure **permits** to build the house in your desired location.

Madam C. J. Walker was a hair care and cosmetics **magnate**, or business success, who created new and innovative products for Black women and men. Her work was wildly successful, turning her into one of America’s “self-made millionaires.” In 1916, she began planning her own dream home, a mansion where she and her daughter, Leila Walker Robinson, would live. She called it Villa Lewaro, borrowing the letters of Robinson’s name.

Early in her career, Walker had been inspired by people she’d met through her church, whose mission was, in part, to provide social support for its congregation. One form that support took was to encourage people to work, succeed, and prosper. Successful church members had encouraged and inspired Walker, and she wanted to do the same for young people. In particular, she wanted her new home, Villa Lewaro, to be a symbol of American entrepreneurial spirit and achievement. She wanted it to be a house that would inspire others.

That was Walker’s vision for her dream home. But who would she ask to help her build it?

Portrait of Vertner Woodson Tandy



Entrance of Villa Lewaro



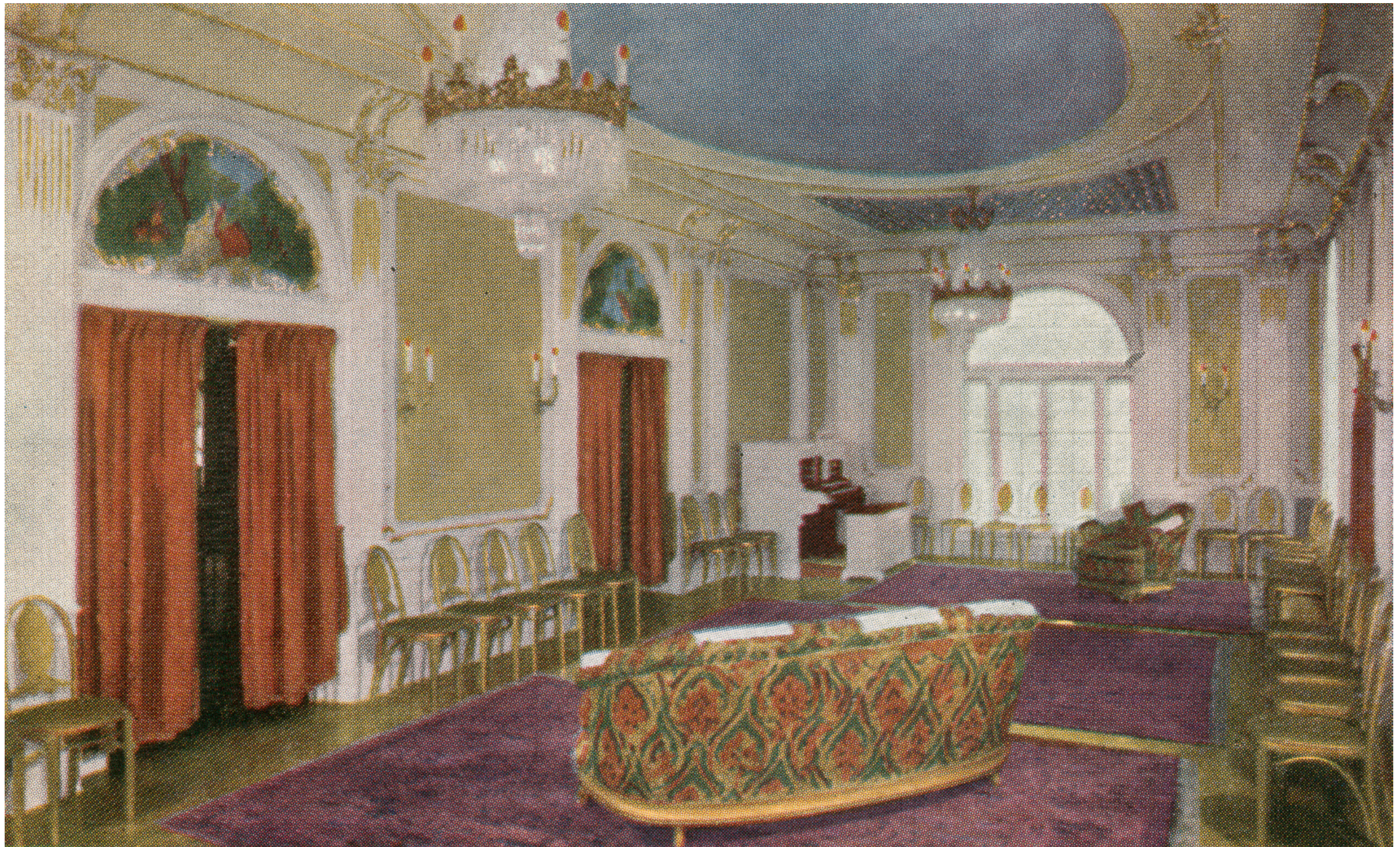
Ionic Columns at Villa Lewaro's Entrance



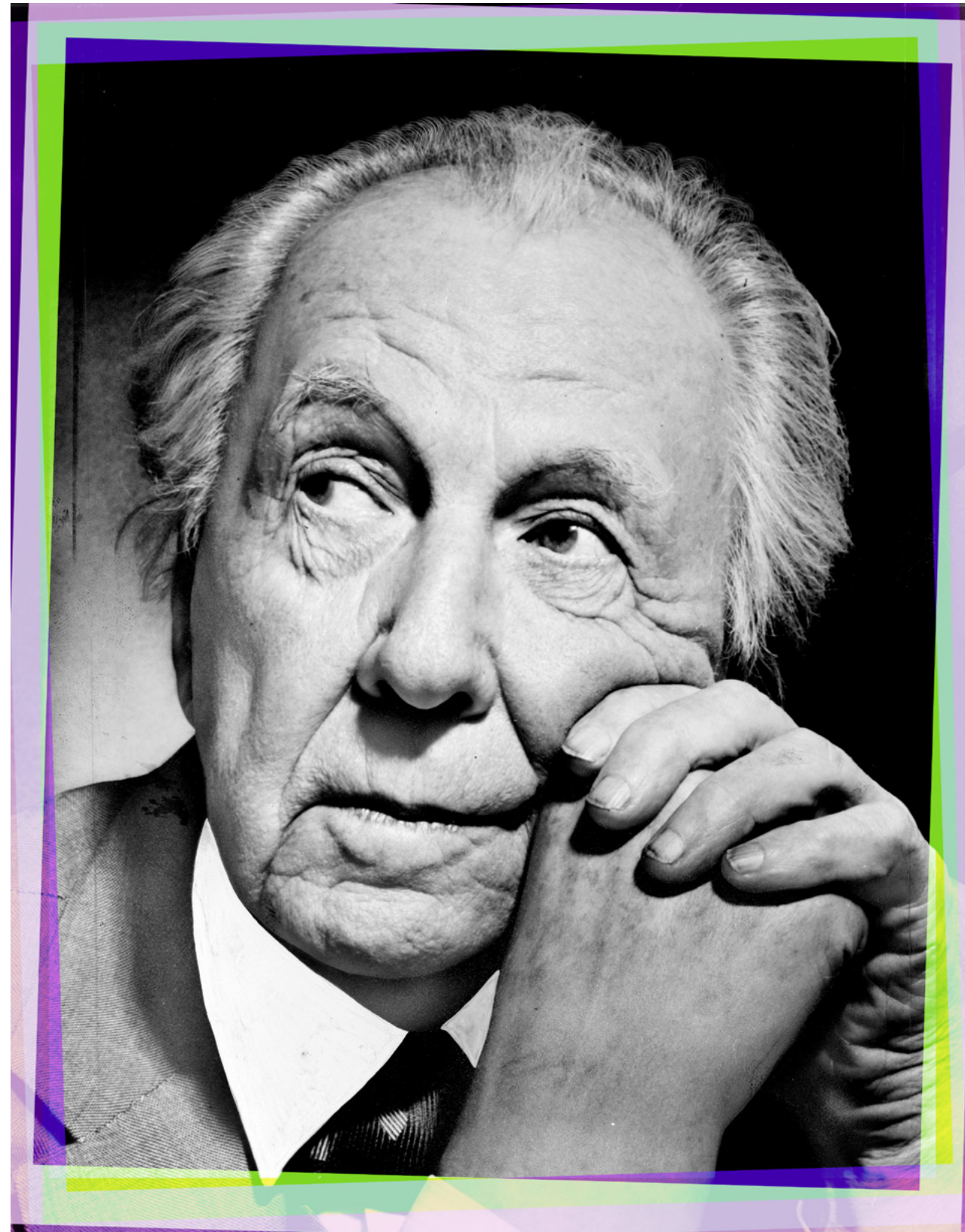
National Convention of Madam C. J. Walker Beauticians at Villa Lewaro, circa 1916



Photo of the Gold Room



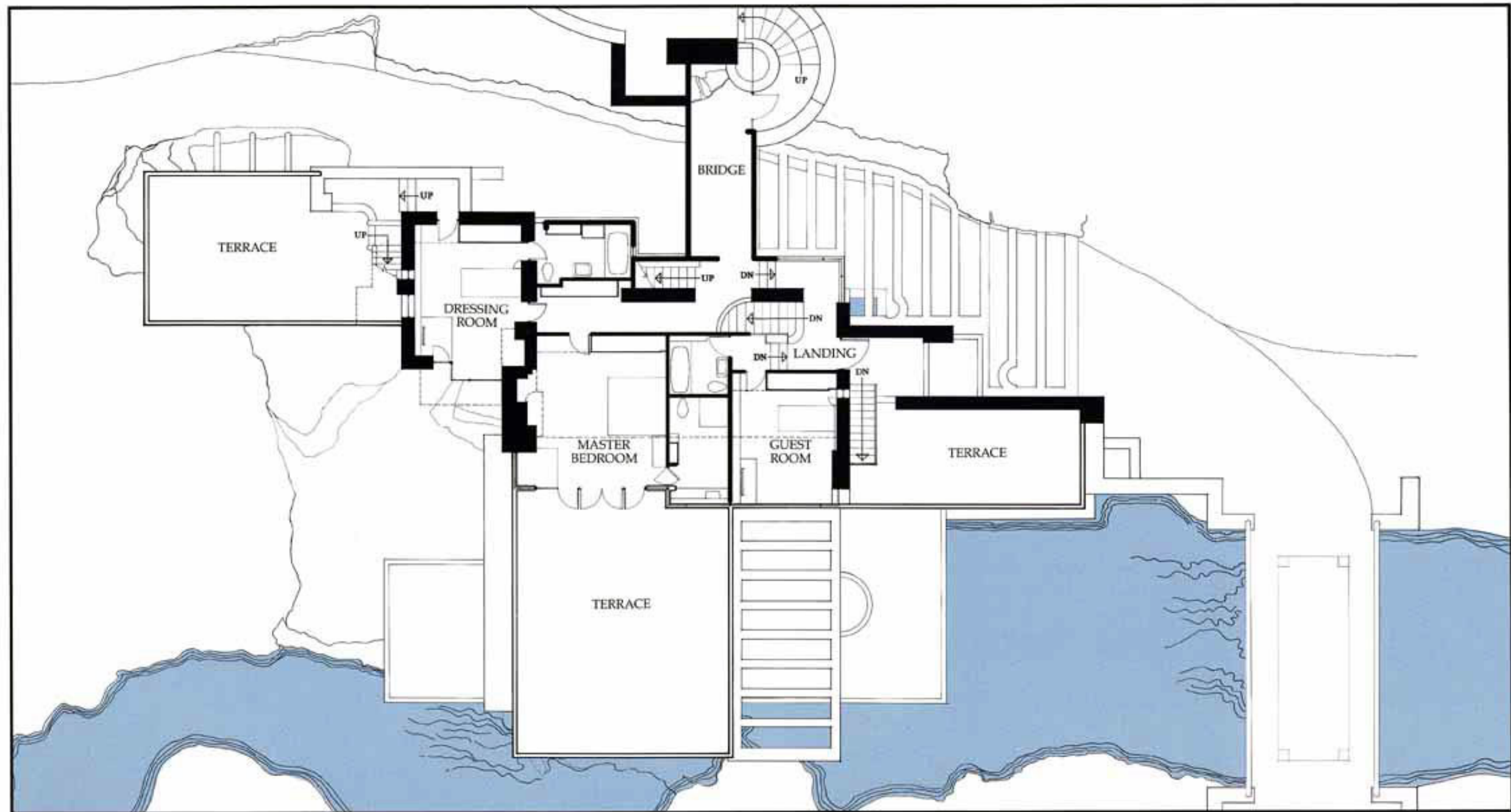
Frank Lloyd Wright



Prairie-Style Home



Frank Lloyd Wright's Plan of Fallingwater



FALLINGWATER

SECOND FLOOR PLAN

Interior of Fallingwater



Terraces of Fallingwater



Functional Purpose of Fallingwater

Wright also blurred the lines between nature and building by adding many terraces to the house's plans. The large, open rooms inside flowed into wide terraces and staircases outside. In the end, more of the building was outside than inside. Wright made the bedrooms small. This would, he hoped, encourage occupants to spend time outside near the waterfalls and greenery.

One of Wright's terraces **cantilevered**, or stuck out, over the waterfall. Wright's **staff**, or the people who worked to build his design, had big arguments about this terrace. Some thought it might break off and fall into the river. Wright insisted that the terrace would work exactly as he'd designed it. One of his staff sneakily added extra steel supports to Wright's design before building it. (In the end, the staff were right to worry, and over the years this part of Wright's design has needed lots of maintenance.)

Exterior of Fallingwater, with Waterfall



Model of a Paraphrased Text and Plagiarism

Direct Quote (use quotation marks)	Paraphrased Text (use your own words)
<p>“Wright started by surveying, or carefully exploring, the land near Bear Run. The waterfall stood out to him. After hearing the Kaufmanns explain their plan for a summer house that had a beautiful view of the falls, Wright said that he had a different idea. He wouldn’t build this house with a view of the falls. He would build the house on top of them. His design would blend in with the natural surroundings of Bear Run, so that the house would look as though it was floating over the waterfall itself. The sound of the waterfall would become part of the Kaufmanns’ daily lives.”</p> <p>Source: “A House Over the Falls”</p>	<p>While looking at the terrain near Bear Run to learn more about the area, Wright found himself fascinated with the waterfall. Although the Kaufmanns originally wanted their home to have a beautiful view of the falls, Wright suggested building the house on top of the waterfall. Wright’s plan would allow the house to blend in with the sights and sounds of the environment and would make the house appear to be floating above the waterfall.</p> <p>Source: “A House Over the Falls”</p>
	<p>Plagiarized Version</p> <p>Wright started by exploring the land near Bear Run. The waterfall stood out to him. After hearing the Kaufmanns’ plan for a summer house that had a pretty view of the falls, Wright proposed a different idea. Instead of building this house with a view of the falls, he would build the house on top of them. His design would blend in with the natural surroundings of Bear Run, so that the house would look as though it was floating over the waterfall itself. The sound of the waterfall would become part of the Kaufmanns’ daily lives.</p>

The Rajkumari Ratnavati Girls School

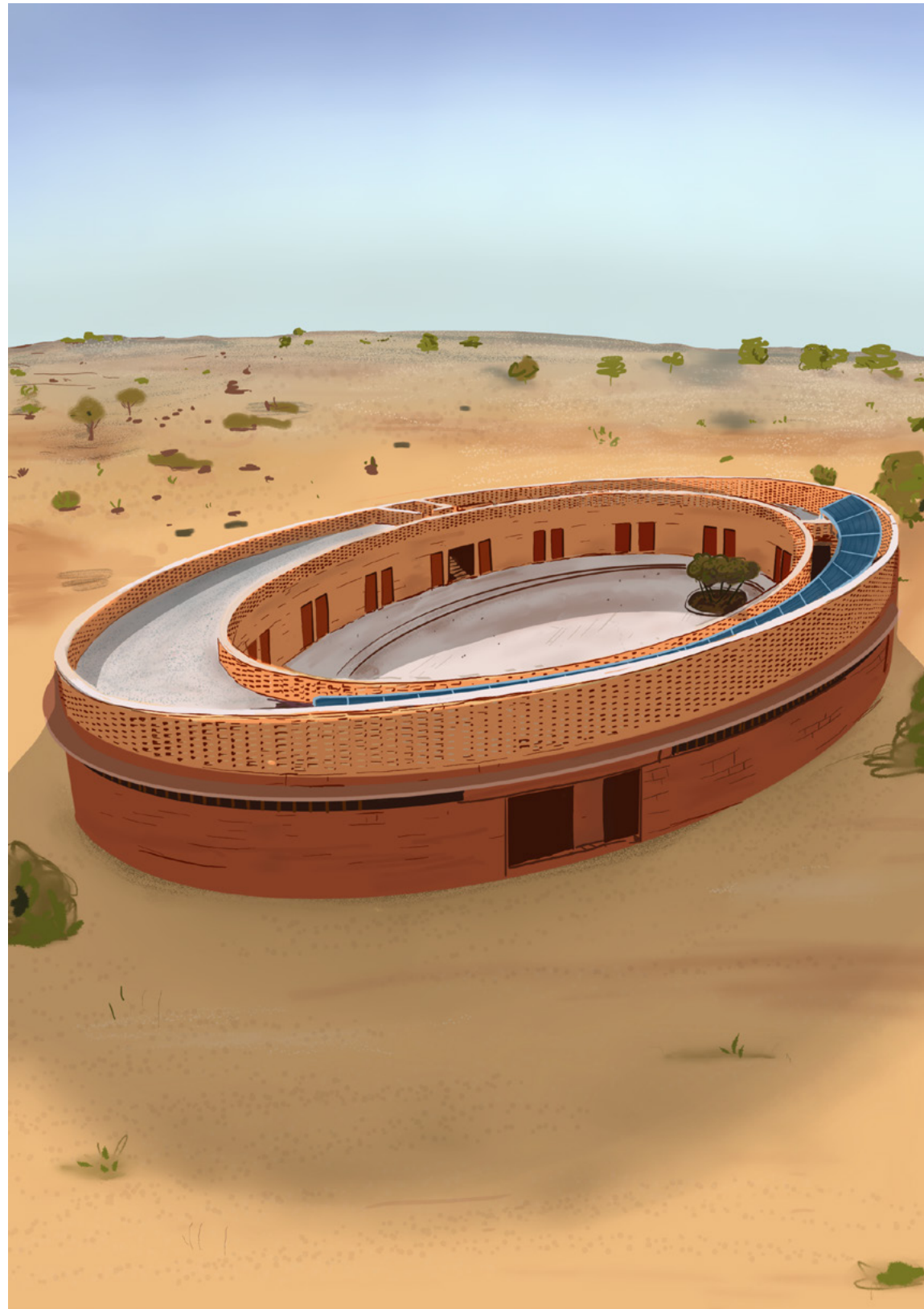


Photo of Diana Kellogg



Text Excerpt

Two Innovative Schools

Have you ever wondered who designed your school? How did they decide what the building should look like? How did they decide what materials to use? Maybe you have a favorite part of your school, like a reading nook or an auditorium where you watch plays. Or maybe it's a place to enjoy a meal with your friends.

Your school and all the parts within it had to be designed by an architect. Just as architects design houses to reflect the style and needs of the people who live in them, they also design schools that support students, teachers, and staff.

Rajkumari Ratnavati Girls School

Rajkumari Ratnavati Girls School was built in India, in a very hot and remote part of the Thar Desert. The closest city to the school is Jaisalmer, which is in Rajasthan, a state of India. Jaisalmer is often called “the golden city” because many buildings are made from yellow sandstone and limestone.

The New York architect who worked on the school was Diana Kellogg. Kellogg studied architecture at Columbia University and had previously worked on private homes for wealthy clients. She had become interested in applying her architecture experience to complete ***pro bono***, or unpaid, projects for nonprofit organizations, or organizations that work toward a social or public benefit. When it came to design, Kellogg wanted her structures to look like part of the community they were in. This meant respecting the architectural styles and natural surroundings of that area. Kellogg was passionate about building a school that focused on increasing literacy and giving more girls opportunities to learn. When a nonprofit organization raised funds to build a school in Jaisalmer and invited Kellogg to design it, she was eager to take on the project.

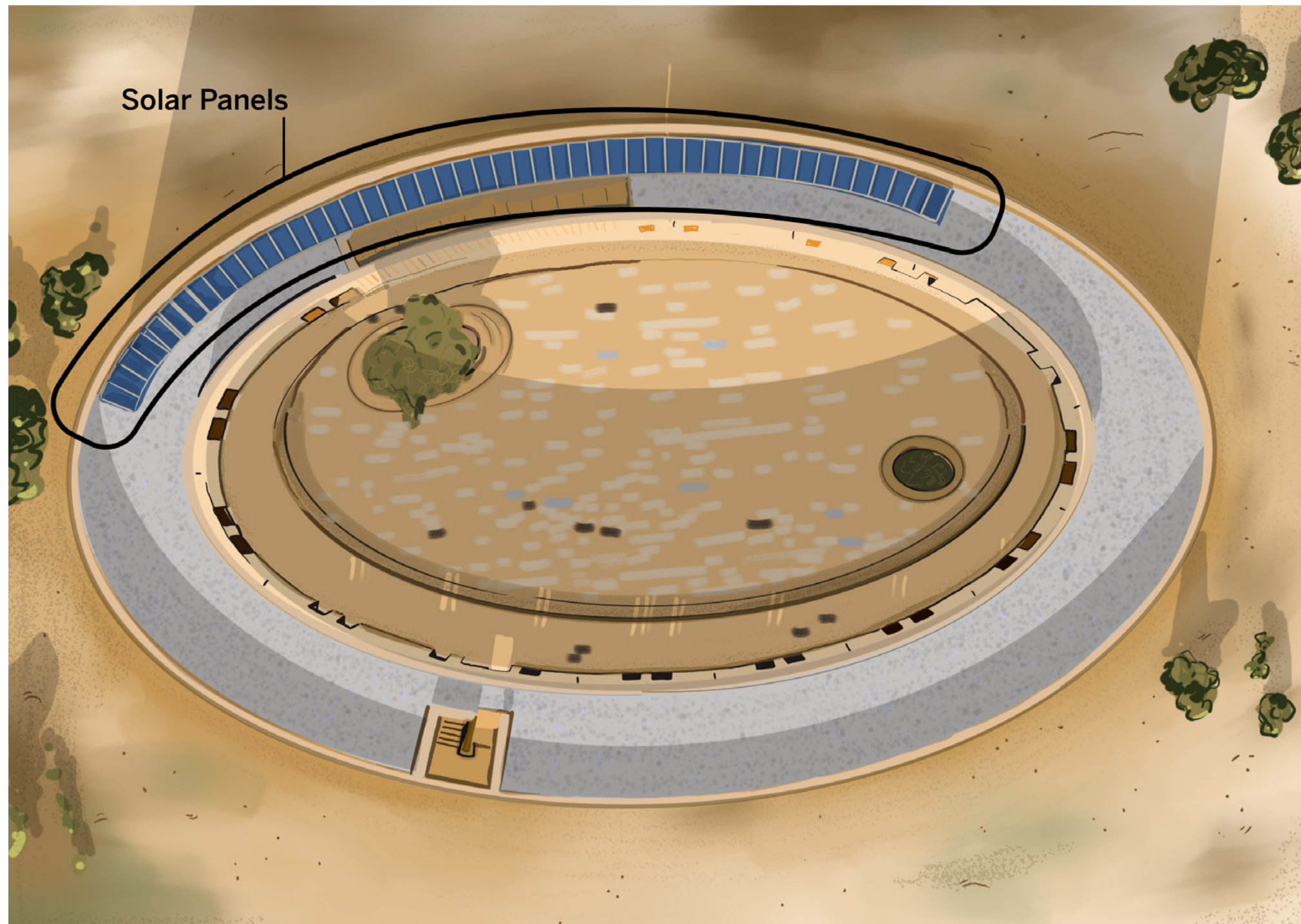
Jaisalmer Fort



Close-up of jali walls



Rooftop solar panels



Plan of the future GYAAN Center

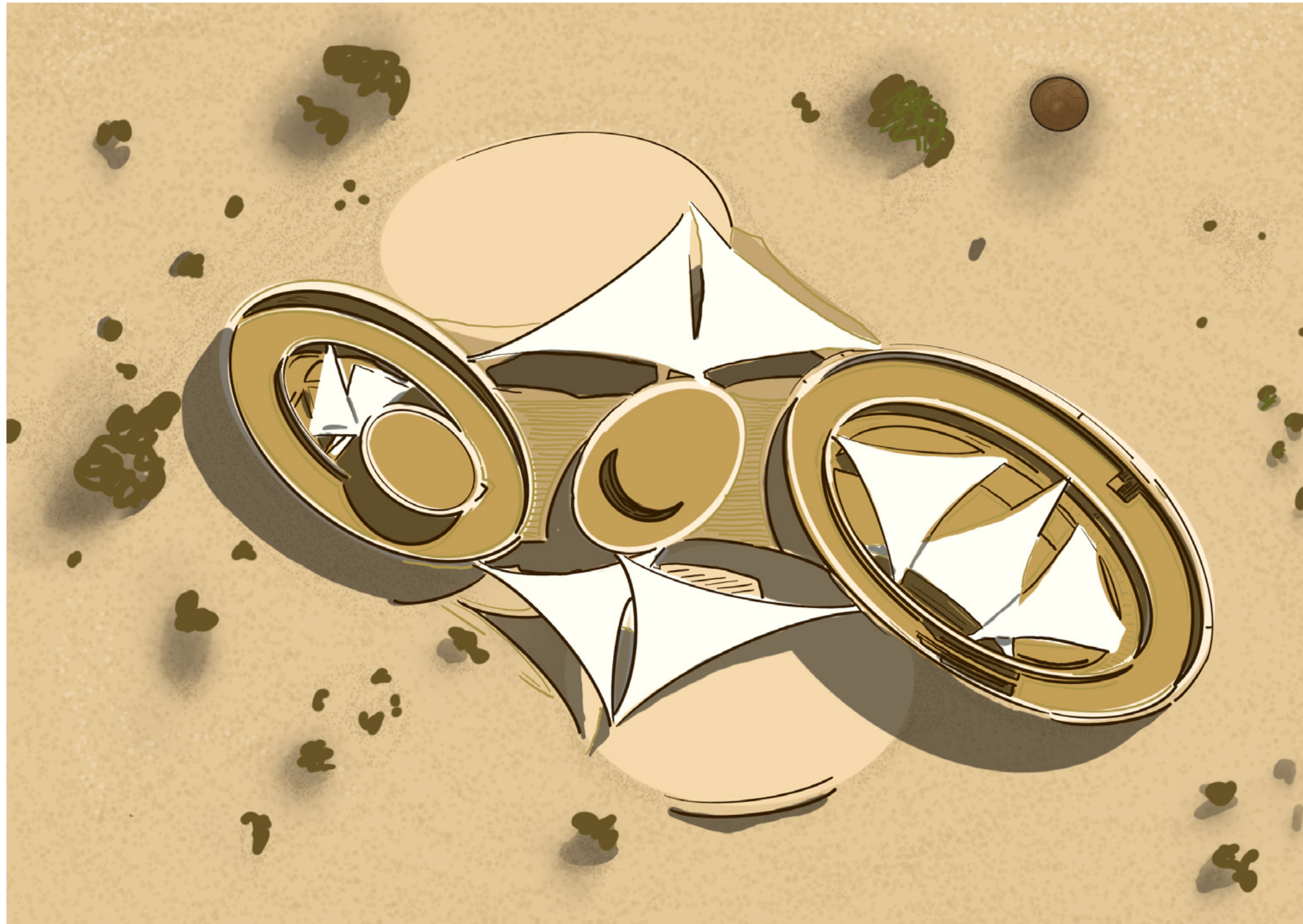


Photo of Gando from above



Photo of Francis Kéré






Classroom, built from clay bricks



School exterior, showing the roof



Compare and Contrast — Rajkumari Ratnavati Girls School and the Gando School



Rajkumari Ratnavati Girls School	Both	Gando School

Designing an Infographic

Organization:

- Select a clear topic for your infographic, collect relevant information, and place that information into categories.
- Consider the order or flow of how that information will be presented.

Visuals:

- Icons, images, and charts help share information quickly and in an attention-getting way.
- Choose visuals that will help clarify your message.

Design:

- Visual appeal in your infographic helps capture your audience's attention.
- Choose colors and fonts strategically.
- If you can use a picture, icon, or graph to replace a longer explanation, do it!
- Use headings, subheadings, and bullet points to help organize and make your infographic more readable.

Sample Infographic

Quick Guide to the Flatiron Building

1. Location

The triangular Flatiron Building is located on the corners of Fifth Avenue, Broadway, and 23rd Street in New York City, all at the same time.

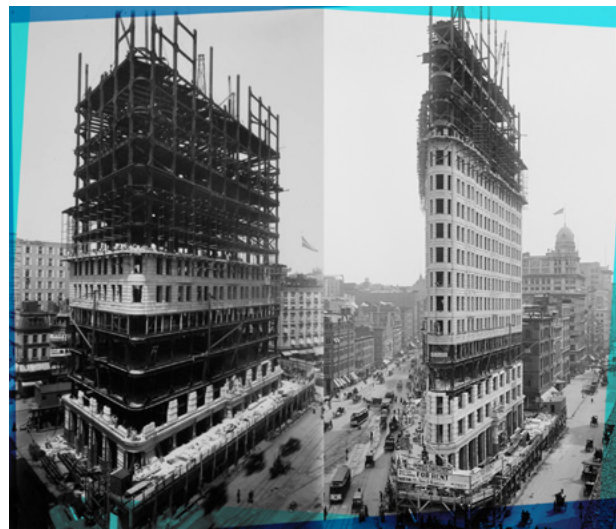


2. Height

twenty stories

3. Perception

It can look either very narrow or very wide depending on where you are standing.



4. Trailblazing

The Flatiron Building was one of the first in the world to use a steel-framed skeleton.

5. Fun Fact

The building is so famous that the neighborhood in Manhattan is called the Flatiron District in its honor!



Research Question Revision Model

Topic (Architect):	Cass Gilbert
Original Question:	Why did Cass Gilbert design the Woolworth Building to stand out so much from other buildings?
Feedback:	This question is not open ended enough to support research. Using a how question may support you to research the ways he designed it for this purpose.
Revision:	How did Cass Gilbert’s design of the Woolworth Building make the Woolworth headquarters stand out from all the other businesses in New York?

Skyscraper Design Page

If you had the opportunity and resources to design your own skyscraper, what would you build? What ideas or practices you have learned in this unit would you borrow? Use the organizer below to create a design and convincing argument for your project.

The Bricks Building

(name of the structure)

by

Me

(name of the architect: you)

<div><div>1. Place</div><div>Newark, NJ</div></div>	<div><div>2. Function</div><div>a skyscraper that will address a need for mixed-income housing and a whole-person focus on physical, emotional, and mental health</div></div>
<div><div>3. Height</div><div>700 ft</div></div>	<div><div>4. Number of floors</div><div>sixty stories plus the rooftop level</div></div>
<div><div>5. Architecture style</div><div>art deco</div></div>	<div><div>6. Materials used</div><div>steel, concrete, and glass</div></div>

7. How will you keep this building sturdy?

A steel skeleton base and a progression of smaller tiers after the 30th and then the 50th floor will ensure that the structure doesn't collapse under its weight.

8. Fresh ideas for design or construction

art deco elements using modern, more sustainable resources (recycled plastic, etc.)

9. Multiple uses or services available in the building

The structure will feature mixed-income housing, three new school buildings, a 24-hour medical clinic, all-weather recreation space (with an indoor pool, miniature golf, etc.), and pop-up cultural exhibition space. There will also be retail space, office space, and a community rooftop garden.

10. Labeled illustration or description of an innovative element

A section of the rooftop will offer wrap-around raised plant beds for community gardening with a layer of clear paneling in front to serve as a place to display (and potentially purchase) works of art from community artists.

Labeled or captioned sketch of building from the outside



Write a convincing argument to the city council for why your skyscraper should be built.

The Bricks Building would help meet many of the diverse needs of the Newark, NJ community. If built, it could add mixed-income housing options, space for new schools, green space, and indoor recreational options. The skyline would be improved by a skyscraper that provides a connection to the previous art deco buildings in the city. The Bricks Building would also have a modern, safe, and Earth-friendly approach to materials used and construction methods. The skyscraper project would provide jobs to hundreds of workers in the short term through the construction phase. Many construction workers, cleaning crews, food service workers, and medical personnel would be needed on the construction site. Later on, the Bricks Building could also provide long-term employment opportunities through the hundreds of employees that would be needed for general building maintenance and to staff the retail stores, medical clinics, and schools in the building.

Informational Text Planning Organizer

Introductory Paragraph	
Research Questions	
Who/What?	
When?	
Why?	

Body Paragraph 1 Key Idea	Fact/Detail
	1.
	2.
	3.

Body Paragraph 2 Key Idea	Fact/Detail
	1.
	2.
	3.

Body Paragraph 3 Key Idea		Fact/Detail	
	1.		
	2.		
	3.		

Conclusion Paragraph	
What I Learned	
Reason why the ideas are important	
Another reason why	
Most memorable fact	

Model Paragraph for Annotation

Model Introductory Paragraph

The Rajkumari Ratnavati Girls School is a remarkable example of innovative architecture, community building, and sustainability. Located in the isolated Thar Desert in the Rajasthan region of India, the school not only serves as an educational center, but is also a model of environmentally conscious planning. The school was designed by architect Diana Kellogg and was completed in 2021 using locally sourced resources by local craftsmen. Kellogg met with members of the community during the planning process to make sure the building would reflect their traditional values and meet their needs. Features such as solar panels were factored into the form of the school to address the need for a consistent energy source. Design elements, such as the oval shape of the school, were included to blend in with the desert dunes and to visually acknowledge the collaborative working style of women in the area. The Rajkumari Ratnavati Girls School combines practical design and visual appeal to meet the needs of the young women of Rajasthan.

Prepositional Phrases Poster

Function	Prepositional Phrases
Place	at the elementary school
	in his messy backpack
Time	around 3:30 in the afternoon
	after a big and tasty dinner
Partner	with her little sister, Min-jun
	without their dog

Sample Introductory Paragraph

How does Diana Kellogg combine local traditions and eco-friendly design into her architecture projects? The American architect does this by using techniques and materials from the local area and creating designs that protect the environment. As part of a volunteer project, Kellogg built a school for girls in the Thar Desert region of India. Finished in 2021, the Rajkumari Ratnavati Girls' School aims to improve the low literacy rate for women in the area. The school is a model for community planning and sustainable architecture.

Answer Key

1. Answers may vary but could include that she wanted the buildings to speak for themselves or for people to draw their own conclusions.
2. It helped her structures that had harmony with the nature around it.
3. N/A ROLL AGAIN!
4. She was the first woman to ever inspired to make art specially for the museum.
5. first woman, first Iraqi. First Muslim, and youngest winner ever
6. Answers may vary but could include a mention of curves and being unconventional.
7. Answers may vary but could include that she worked hard to build a name for herself, stayed focused.
8. The organizers thought it was too complicated to build.
9. Answers may vary but could include that both were unconventional, involved unique shapes, etc.
10. Answers may vary but could include that both see connections between architecture and nature, both are resilient.
11. N/A Pick another number and discuss the question there.
12. Answers may vary but could include that her lines and shapes continued to evolve, and she didn't repeat herself.

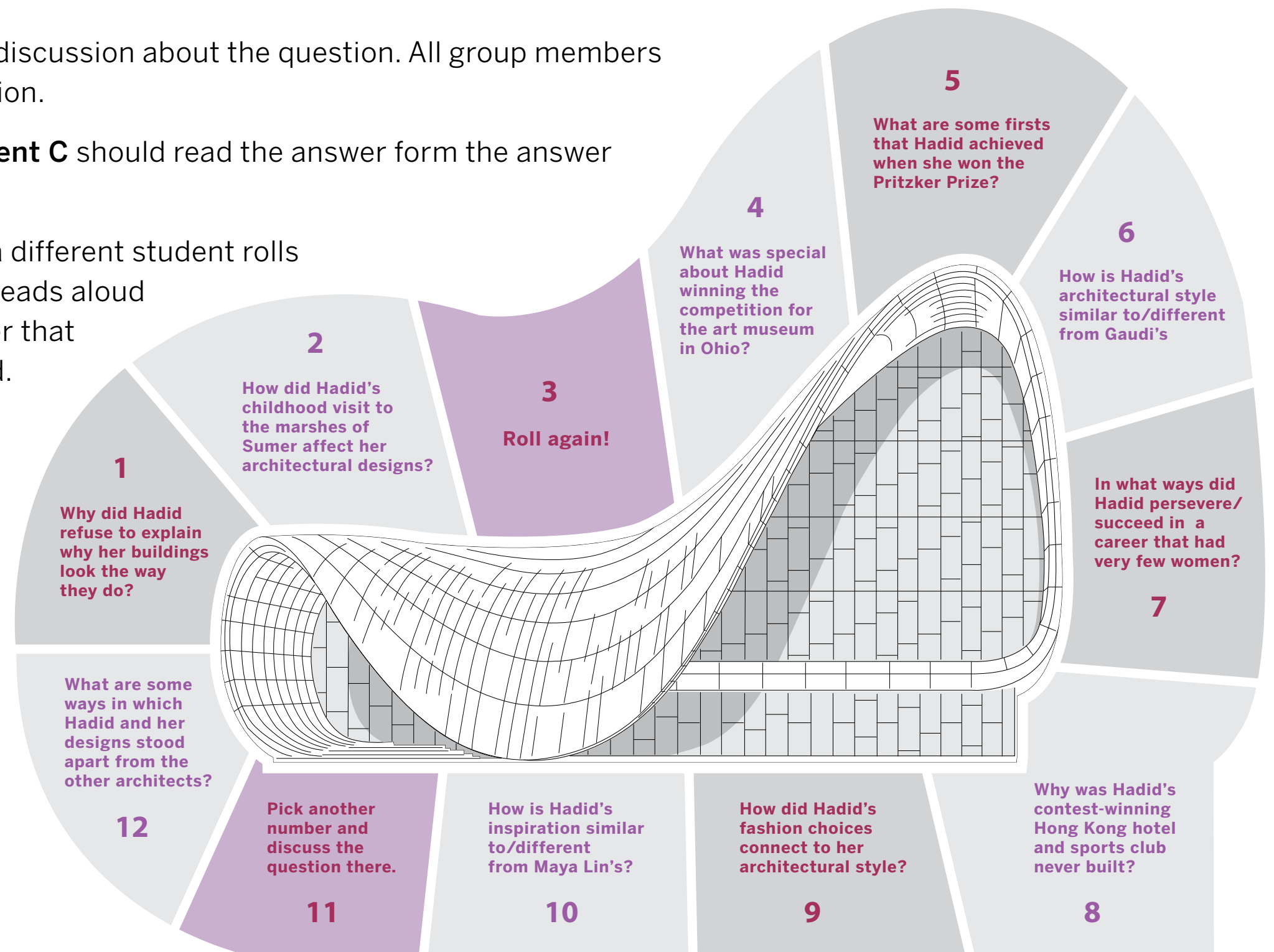
The story of Architect Zaha Hadid Review Board

Directions:

1. **Student A** will roll the dice and read aloud to the group the question number that corresponds to the number rolled.
2. **Student B** will facilitate a brief discussion about the question. All group members should participate in the discussion.
3. After everyone has shared, **Student C** should read the answer from the answer key on the back of the board.
4. Rotate roles to the right so that a different student rolls the dice and a different student reads aloud to the group the question number that corresponds to the number rolled.

Note: Based on the dice roll, it is possible to go backward and forward in this game. If the same number is rolled, roll the dice again until you get a new number.

5. Repeat this cycle with students rotating roles until all the questions are answered or time is up, whichever comes first.



Model Planning Organizer

Introductory Paragraph	
Research Questions	
Who/What?	
When?	
Why?	

Body Paragraph 1 Key Idea	Fact/Detail
	1.
	2.
	3.

Body Paragraph 2 Key Idea	Fact/Detail
	1.
	2.
	3.

Body Paragraph 3 Key Idea		Fact/Detail
	1.	
	2.	
	3.	

Conclusion Paragraph	
What I Learned	
Reason why the ideas are important	
Another reason why	
Most memorable fact	

Sample Body Paragraph Draft

Body Paragraph 1

Topic sentence: Diana Kellogg is a successful architect, who became passionate about a pro bono project to help boost women's education in India.

- ❑ Fact and supporting detail, citing the source: *After completing her Master's Degree in Architecture from Columbia University, Kellogg established her firm, Diana Kellogg Architects in 1992. (amplify.com/kellogg)*
- ❑ Fact and supporting detail, citing the source: *An article in the New York Times tells us that after spending 20 years working on luxury projects, Kellogg began supporting communities in need.*
- ❑ Fact and supporting detail, citing the source: *She was excited about designing a school that could support girls' education in a part of the world where the female literacy rate was only 36%.*
- ❑ Why is the idea important? *Kellogg also wanted the structure to meet other needs of its community. (name of website).*

Sentence and Paragraph Frames

Topic sentence:

[Name of architect] is known best for designing structures that . . .

When [name of architect] designed [name of structure], [he/she/they] wanted . . .

Detail sentence:

An important detail about _____ is . . .

_____ is important because . . .

Conclusion sentence:

Once [the architect] finished _____, it was clear that . . .

Paragraph frame:

Topic sentence: _____

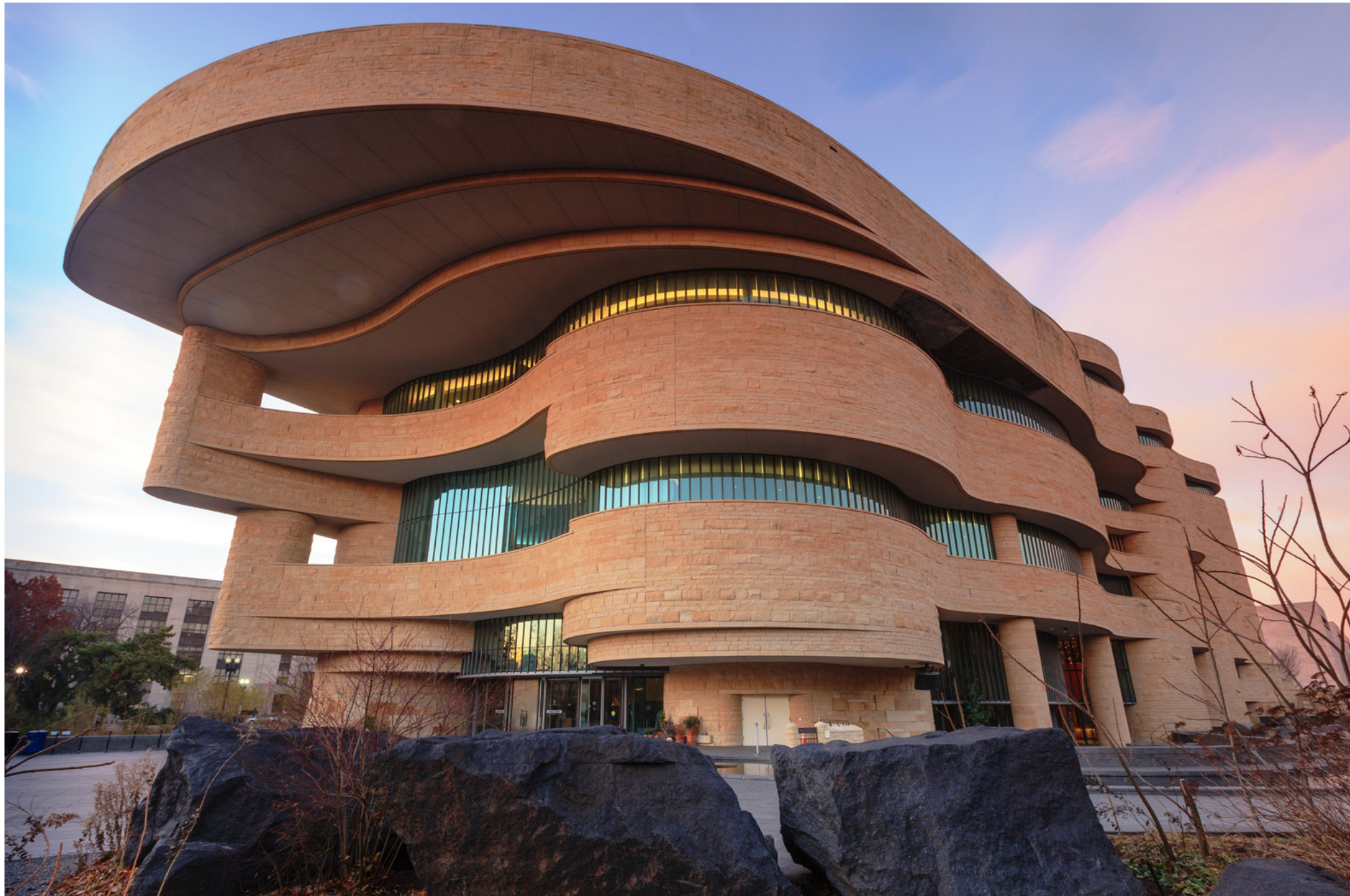
Detail sentence: _____

Detail sentence: _____

Conclusion: _____

Detail sentence: _____

The National Museum of the American Indian



Original National Museum of the American Indian



Photo of W. Richard West Jr.



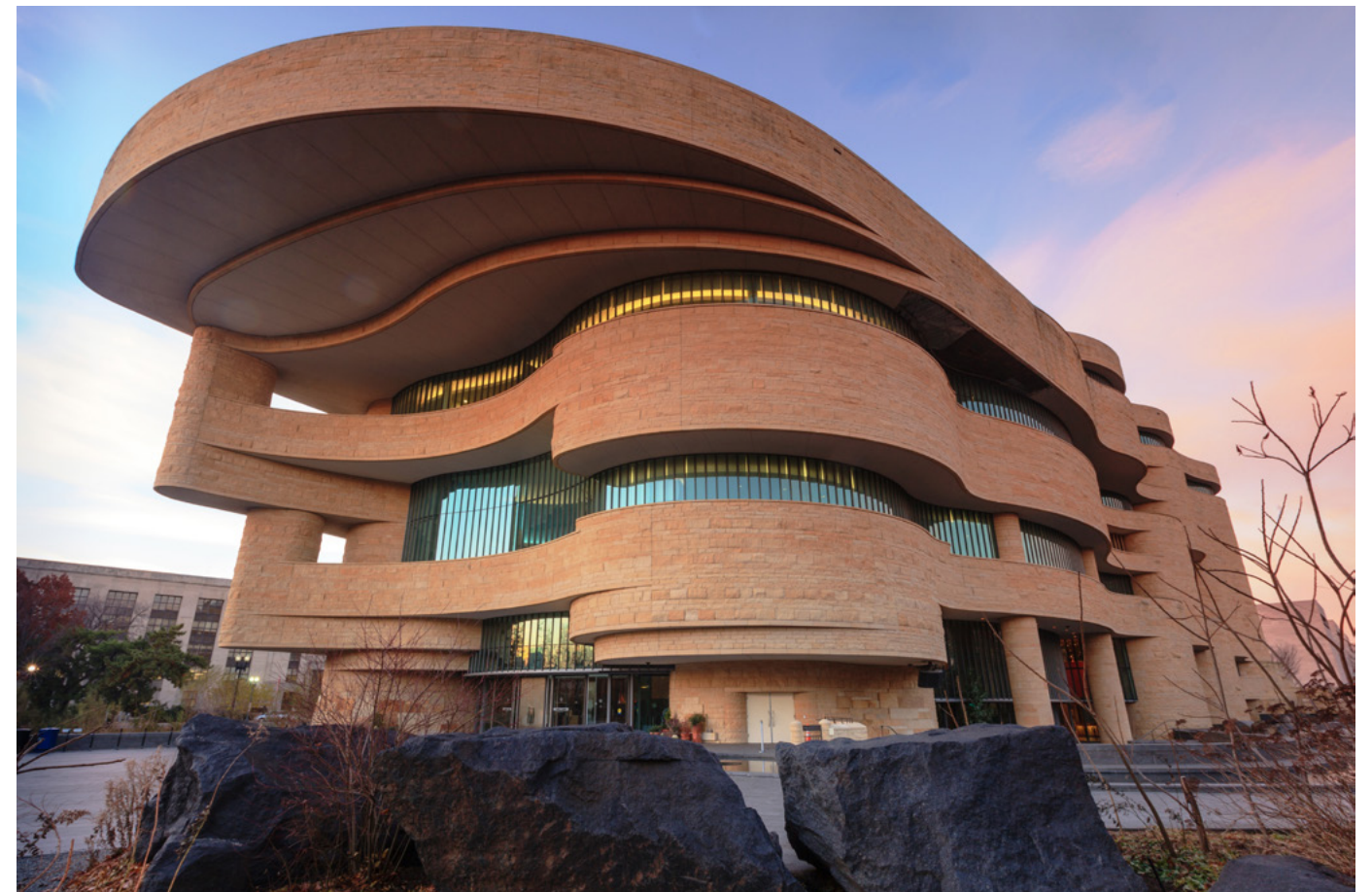
Grand Opening of the National Museum of the American Indian: Native Nations Procession



Photo of Douglas Cardinal



Medicine Rocks and one of NMAI's curvilinear forms



NMAI's dome



Louis Weller



The NMAI museum grounds



The Potomac in NMAI



Antoni Gaudí's Casa Batlló and Zaha Hadid's Heydar Aliyev Center Museum



Sample Body Paragraph Two

Body Paragraph 1

Topic sentence: *The Rajkumari Ratnavati Girls School reflects the strong influence, input, and involvement from the local community.*

Fact and supporting detail, citing the source: *The (name of website) describes features built to meet the community's needs. These include well-lit classrooms, a library, a computer center, and a bus facility to transport girls from nearby villages were built.*

Fact and supporting detail, citing the source: *The building was made of local sandstone that was hand-carved by members of the community.*

Fact and supporting detail, citing the source: *Many daughters of the workers became students at the school.*

Why is the idea important?: *Kellogg's commitment to community involvement made the school an example of the power of collaboration.*

Primary and Secondary Sources

Primary Sources	Secondary Sources
<ul style="list-style-type: none">• diary/journal• speech• interview• original artwork, sketches, or drawings• photographs• video recording• actual words of the subject or witnesses• patents• autobiographies	<ul style="list-style-type: none">• informative books and articles• newspapers• words written after a historical event• biographies• second-hand facts on a website

Draft of Body Paragraph 3

Topic Sentence: Kellogg's work on the school demonstrates the possibility of designing a sustainable structure that supports and blends into its environment.

- ❑ Fact and Supporting Detail, citing source [According to the (name of website or author of article), Kellogg used jali lattice walls to keep air flowing and cool the building. The perforations, or holes built into the walls, provide lots of natural light and a shaded play space for the girls.]
 - ❑ Fact and Supporting Detail, citing source [An article on the website amplify.com/kellogg explains that the school is powered by solar panels and uses rainwater harvesting and recycling systems.]
 - ❑ Fact and Supporting Detail, citing source [Sandstone was used because it resists heat and matches the beige color of the desert. (Two Innovative Schools).]
-
-

Informative Writing Rubric

Grade 5 | Writing Rubric: Informative/Explanatory Writing

Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

- a) Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
- b) Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. of characters to situations.
- c) Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially).
- d) Use precise language and domain-specific vocabulary to inform about or explain the topic.
- e) Provide a concluding statement or section related to the information or explanation presented.

	Advanced	Proficient	Basic
Ideas	<p>The composition</p> <ul style="list-style-type: none">• provides a general observation that leads to a specific area of focus• develops the topic with a combination of relevant facts, accurate definitions, concrete and specific details, quotations from multiple sources, or other appropriate information and examples• makes sophisticated connections between ideas• demonstrates awareness of audience and purpose	<p>The composition</p> <ul style="list-style-type: none">• provides a general observation and focus• develops the topic with facts, definitions, concrete details, quotations, or other information and examples	<p>The composition does not do one or more of the following:</p> <ul style="list-style-type: none">• provide a general observation and focus• develop the topic with facts, definitions, concrete details, quotations, or other information and examples
Organization	<p>The composition</p> <ul style="list-style-type: none">• introduces a topic clearly and in an engaging fashion• groups related information logically and explains connections between groups• includes a combination of formatting, illustrations, and multimedia that explain the ideas• provides a concluding statement or section that connects the topic to a big question or the purpose for writing	<p>The composition</p> <ul style="list-style-type: none">• introduces a topic clearly• groups related information logically• includes formatting, illustrations, and multimedia when useful• provides a concluding statement or section related to the topic	<p>The composition does not do one or more of the following:</p> <ul style="list-style-type: none">• introduce a topic clearly• group related information logically• include formatting, illustrations, and multimedia when useful• provide a concluding statement or section related to the topic
Conventions	<p>The composition</p> <ul style="list-style-type: none">• links ideas within and across categories of information using words, phrases, and clauses• uses precise language and domainspecific vocabulary• uses language to add subtlety through connotative meanings	<p>The composition</p> <ul style="list-style-type: none">• links ideas within and across categories of information using words, phrases, and clauses• uses precise language and domainspecific vocabulary	<p>The composition does not do one or more of the following</p> <ul style="list-style-type: none">• link ideas within and across categories of information using words, phrases, and clauses• use precise language and domainspecific vocabulary

Sample Informational Text Excerpts

How does Diana Kellogg combine local traditions and eco-friendly design into her architecture projects? The American architect does this by using techniques and materials from the local area and creating designs that protect the environment. As part of a volunteer project, Kellogg built a school for girls in the Thar Desert region of India. Finished in 2021, the Rajkumari Ratnavati Girls' School aims to improve the low literacy rate for women in the area. The school is a model for community planning and sustainable architecture.

Diana Kellogg is a successful architect, who became passionate about a pro bono project to help boost women's education in India. After completing her Master's Degree in Architecture from Columbia University, Kellogg established her firm, Diana Kellogg Architects in 1992. (amplify.com/kellogg.com) An article on the Amplify website tells us that after spending 20 years working on luxury projects, Kellogg began supporting communities in need. She was excited about designing a school that could support girls' education in a part of the world where the female literacy rate was only 36%. Kellogg also wanted the structure to meet other needs of its community. (name of website).

The Rajkumari Ratnavati Girl's School reflects the strong influence, input, and involvement of the local community. The (name of website) describes features built to meet the community's needs. These include well-lit classrooms, a library, a computer center, and

a bus facility to transport girls from nearby villages were built. The building was made of local sandstone that was hand-carved by members of the community. Many daughters of the workers became students at the school. Kellogg's commitment to community involvement made the school an example of the power of collaboration.

Kellogg's work on the school shows that it is possible to design a sustainable structure that supports and blends into its environment. According to the (name of website or author of article), Kellogg used jali lattice walls to keep air flowing and cool the building. The perforations, or holes built into the walls, provide lots of natural light and a shaded play space for the girls. An article on the website amplify.com/kellogg explains that the school is powered by solar panels and uses rainwater harvesting and recycling systems. Sandstone was used because it resists heat and matches the beige color of the desert. (Two Innovative Schools). "Kellogg's architecture studio wanted the school to 'blend into and grow out of the landscape.'" (the Amplify website)

The Rajkumari Ratnavati Girls School is famous because of its innovative elements, community focus, and eco-friendly design. This information is important for others to know because we can consider using Kellogg's inclusive design practices in future buildings. The most memorable takeaway is that the Girls school proves that you can have sustainable features in your structures without sacrificing comfort, form, or function.

Informative Writing Sample

Body Paragraph 1: (Add transition word here)

Diana Kellogg is a successful architect, who became passionate about a pro bono project to help boost women's education in India. After completing her Master's Degree in Architecture from Columbia University, Kellogg established her firm, Diana Kellogg Architects in 1992. (amplify.com/kellogg.com) An article in the Amplify website tells us that after spending 20 years working on luxury projects, Kellogg began supporting communities in need. She was excited about designing a school that could support girls' education in a part of the world where the female literacy rate was only 36%. Kellogg also wanted the structure to meet other needs of its community. (name of website).

Body Paragraph 2: (Add transition word here)

The Rajkumari Ratnavati Girl's School reflects the strong influence, input, and involvement of the local community. The (name of website) describes features built to meet the community's needs. These include well-lit classrooms, a library, a computer center, and a bus facility to transport girls from nearby villages were built. The building was made of local sandstone that was hand-carved by members of the community. Many daughters of the workers became students at the school. Kellogg's commitment to community involvement made the school an example of the power of collaboration.

Body Paragraph 3: (Add transition word here)

Kellogg's work on the school shows that it is possible to design a sustainable structure that supports and blends into its environment. According to the (name of website or author of article), Kellogg used jali lattice walls to keep air flowing and cool the building. The perforations, or holes built into the walls, provide lots of natural light and a shaded play space for the girls. An article on the website [amplify.com/kellogg](https://www.amplify.com/kellogg) explains that the school is powered by solar panels and uses rainwater harvesting and recycling systems. Sandstone was used because it resists heat and matches the beige color of the desert. (Two Innovative Schools). "Kellogg's architecture studio wanted the school to 'blend into and grow out of the landscape.'" (the Amplify website)

Conclusion: (Add transition word here)

The Rajkumari Ratnavati Girls School is famous because of its innovative elements, community focus, and eco-friendly design. This information is important for others to know because we can consider using Kellogg's inclusive design practices in future buildings. The most memorable takeaway is that the Girls school proves that you can have sustainable features in your structures without sacrificing comfort, form, or function.

Informative Writing Sample

To Open (1st Idea Paragraph)	To Connect Ideas (beginning and within Body Paragraphs)	To Close (before Conclusion Paragraph)
To begin, First, First of all, To start, For starters, The first reason, The first way	Additionally, Another reason why, For example, For instance, In fact, As a matter of fact, Furthermore, Moreover, Second, Third, Also, Next, One last example,	In conclusion, To summarize, In summary, Therefore, Finally, You can see why

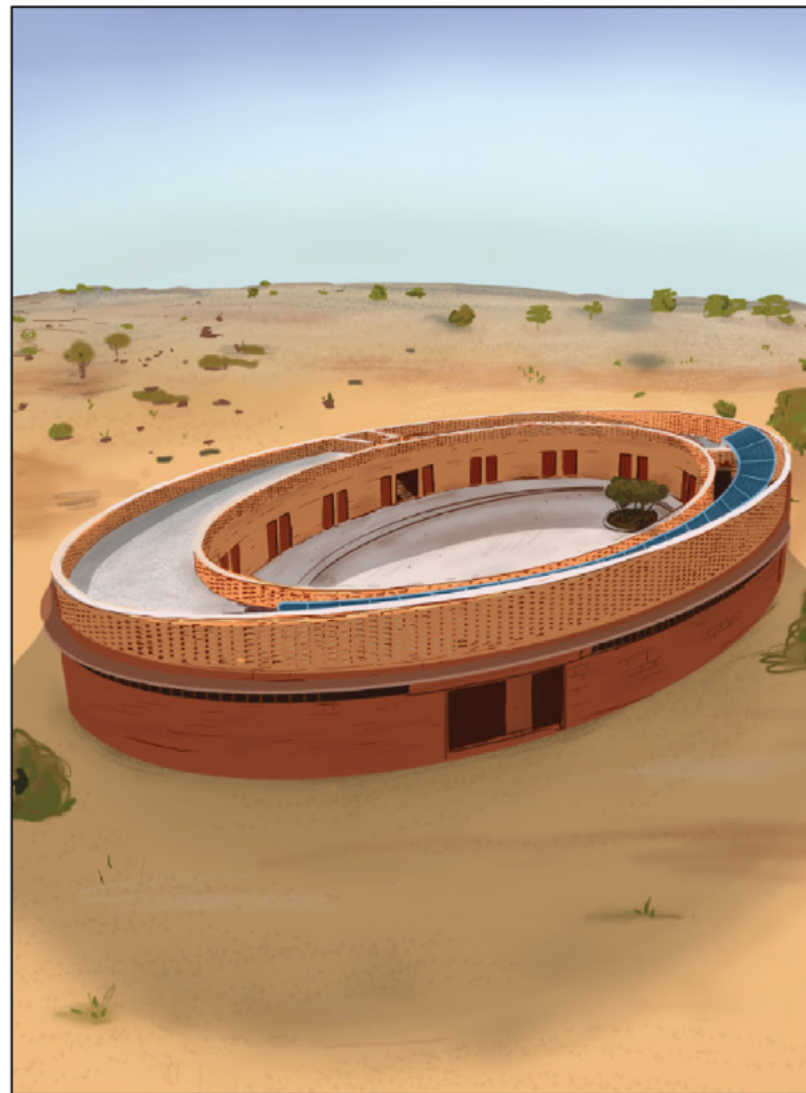
Transition Matchmaking Slips

To begin,	Wright surveyed, or carefully explored, the land near Bear Run.
First,	Wright was the apprentice of Louis Sullivan, the architect who had coined the phrase “form follows function.”
For starters,	West began to travel across the country, meeting and talking with dozens of Native American communities.
Additionally,	the idea of threes also reflects the beauty of the island of Bali, with its mountains, plains, and sea.
For example,	Kéré’s school in Gando, which was initially designed to serve 150 children, has morphed into a complex of buildings that currently serves about 700 students.
Furthermore,	by using Ionic columns to form Villa Lewaro’s entrance, Tandy suggested that Villa Lewaro was also part of the classical tradition of Greek architecture.
Moreover,	Zaha Hadid became the first woman to be awarded the Pritzker Architecture Prize, in 2004.

For instance,	Hadid once said, “You really have to have a goal. The goalposts might shift, but you should have a goal. Know what it is you want to find out.”
Also,	Hadid was honored with twelve architecture awards in one year, which is a record breaker!
Next,	West and others at the Smithsonian invited a new Native American lead designer, Louis Weller, to pick up where Cardinal had left off.
One last example	of Kéré’s dedication to testing his compressed earth bricks was reflected in this quote, “We made a brick and put it in a bucket of water, where it stayed for five days. After that period, we took it out and the block was still solid. That's convincing.”
In conclusion,	by trusting the knowledge of people in Gando, Francis was able to build an excellent school and give students a comfortable education.
To summarize,	with his daring and innovative designs, I. M. Pei pushed the boundaries of what is possible in the architecture field.
Therefore,	if a building was strong and useful, and if the architect designed the building to clearly show these qualities, it would also be beautiful.
Finally,	William Thornton solved his problem of how to design the new U.S. Capitol with a careful choice of both form and function.

Model Slide

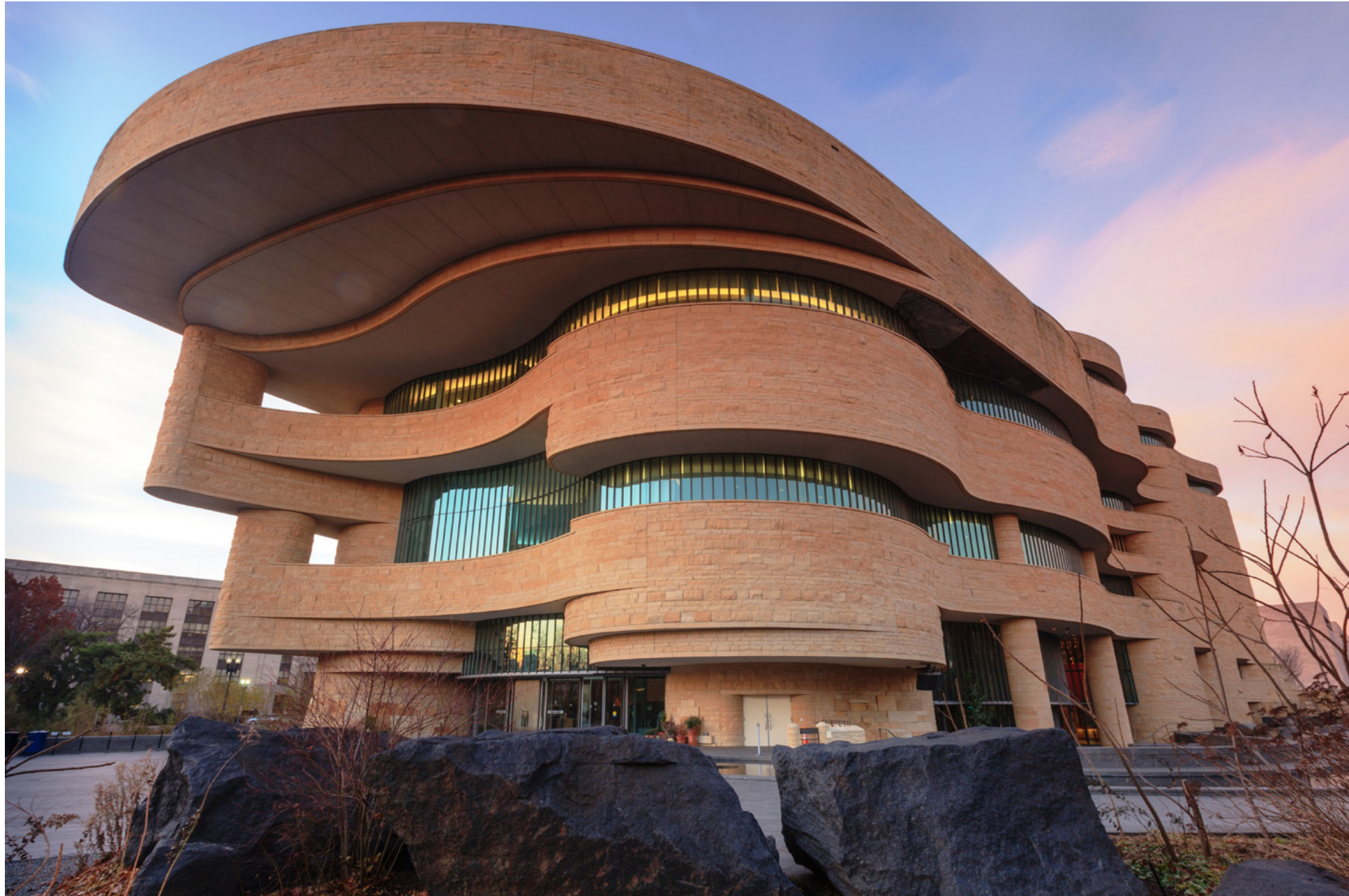
Locally Sourced Skills and Sandstone



- The building is primarily made of locally-sourced materials such as hand-carved Jaisalmer sandstone.
- Because the sandstone was native to the region, there were plenty of skilled stonemasons available to cut the stones.
- The sandstone is weather-resistant and helps the school maintain a comfortable temperature.

15 ft sandstone and brick walls inside of the school keep out the heat, which can reach up to 122° F!

The National Museum of the American Indian



Fallingwater



Informational Text Review

Sample:

The informational text, written by Ava S., was well-organized and interesting.

(Use an adjective to describe something positive about the text.)

The author's research taught me about Cesar Pelli's Petronas Twin Towers and the cultural inspiration for the lobby and floor designs. The part about the multiple uses of the structure was my favorite because it makes me want to visit there when I am older and see the attractions for myself. At the Architecture Fair, I suggest that you take some extra time to tell the tourists more about the Skybridge because I think they'd like to know more about why it took two attempts to attach it to the buildings.

Reviewer's Name: Quinn

Citing Sources

For a book: Last name of author, first name. Title, underlined. The year the book was published.

Example: Smith, John. The Art of Persuasion. 2018.

For an article in a print encyclopedia or reference book: Last name of author, first name. Title of article, in quotes. Title of encyclopedia or book, underlined. The year the book was published.

Example: Williams, Emily. "Renaissance Art." Encyclopedia of Art History, 2005.

For a Web page or article on a Web page: The title on the page or of the section of the page you used in quotes. Title of the Web page (found in the address bar). The date the page was published or last updated (day month year).Online.

Example: "John Coltrane." Biography.com 15 Sept. 2020. Online.

For an article from an online database: Author of the article last name, first name. Title of the article in quotes. Name of the source. The date the article was published (day month year). Online.

Example: Mahon, Maureen. "How Bessie Smith Influenced a Century of Popular music."

NPR, All Things Considered. 5 Aug. 2019. Online

Speaking and Listening Feedback

Looks Like:

- Establishing and maintaining eye contact with the audience
- Using clear and confident voice projection to make sure that their audience can hear and understand.
- Strategically using body language, such as standing tall and using hand gestures, to show confidence and enthusiasm.
- Using visual aids, such as slides, models, etc, to boost understanding and interest.

Sounds Like:

- Beginning with a strong introduction that captures the audience's attention and references the research question.
- Developing the main points and supporting ideas in order, using transitions to provide a smooth flow between sections.
- Concluding with a clear summary that reinforces the key ideas and leaves a lasting impression.
- Encouraging audience participation by posing questions, providing opportunities for discussion, or using interactive elements.
- Sharing relatable examples to better connect with the audience.

Presenting

Grade 5 | Speaking and Listening Rubric:

Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.

	Advanced	Proficient	Basic
Expression	The student speaks clearly and at an understandable pace and uses effective eye contact to help convey meaning or emphasis.	The student speaks clearly at an understandable pace.	The student does not speak clearly at an understandable pace.
Content and Accuracy	The student reports on a topic or text, tells a story, or recounts an experience in an organized manner with appropriate facts, descriptions, and details that support the main idea.	The student reports on a topic or text, tells a story, or recounts an experience with appropriate and relevant, descriptive details that support the main idea.	The student does not report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details that support the main idea.

Modified Letter Template

Directions: Imagine you are writing to a future fifth grader who is about to start the Architecture Fair Project. Describe what they can expect to learn and what they can do to grow as researchers, writers, and presenters. Share time management tips, good research practices, and any other information that would be helpful.

Dear _____,

Congratulations on starting the Architecture Fair project! You can look forward to

_____. As you dive into the

research process, you can expect to learn about _____. You will also learn

_____. To make the most of this project and grow

as a researcher, writer and presenter, here are some tips:

Tip 1: _____.

Tip 2: _____.

Tip 3: _____.

Keep in mind that this project provides an excellent opportunity to

_____.

Have fun _____ and best of luck with your project!

Sincerely,

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Finger, Brad. *13 Skyscrapers Children Should Know*. Prestel Junior, 2016.

Katz, Susan B. *Gaudi: Architect of Imagination*. NorthSouth Books, 2022.

Tentler-Krylov, Victoria. *Building Zaha: The Story of Architect Zaha Hadid*. Orchard Books, 2020.

Walker Harvey, Jeanne. *Maya Lin: Artist-Architect of Light and Lines*. Henry Holt and Co., 2017.

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