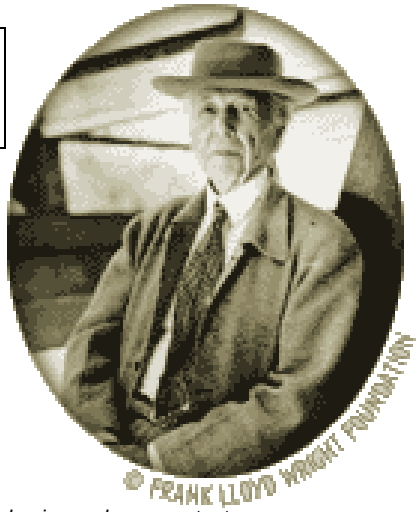
FRANK LLOYD WRIGHT
1867 - 1959
AMERICAN ARCHITECT

Not only do I intend to be the greatest architect who has yet lived, but the greatest architect of all time."



The Art Heritage Program's Frank Lloyd Wright unit meets the following Colorado Department of Education-Visual Arts Standards (2009)

1. Observe and Learn to Comprehend
2. Envision and Critique to Transfer
3. Invent and Discover to Create
4. Reflect and Connect to Transfer

LEARNING TARGET:

- **I know two important facts about the artist.**
- **I can design and draw a house or treehouse that reflects my personality.**

SUMMARY

- Considered the most influential architect of his time, Frank Lloyd Wright designed 1,100 structures, of which more than 400 have been built. He described his "organic architecture" as one that "proceeds, persists, creates, according to the nature of man and his circumstances as they both change." As a pioneer whose ideas were well ahead of his time, Wright had to fight for acceptance of every new design.

- Wright's main goal in designing buildings was "form follows function". He sought the unity of man and nature in his designs. He wanted the design to appear to grow from the site and to create a pleasing world inside the structure.

- Wright believed in the sacredness of the home and a home-like quality in a church. He felt the home should be a haven against the world...a center of family and creative activity. Many of his home plans were built in a cross shape around a large central hearth.

- Wright sought to "bring about the destruction of the box" in architecture. He loved open, flowing spaces inside his buildings. His innovations included cathedral ceilings, built-in lights and furniture, casement windows, carports, split-level ranch homes, and textured bricks woven together with steel rods.

- Wright constantly pushed the limits of new building materials. He was one of the first architects to use stainless steel, plate glass, and air conditioning. He developed innovative floating concrete pads to build an earth-quake resistant building.

- Wright often insisted in designing every detail of a project from the furnishings, draperies, rugs, wallpaper, fixtures, dishes, stained glass windows, and even a gown for a client's wife to wear in her new home. Some of his designs were beautiful, but not very practical or comfortable.

- While Wright's designs could be extravagant, he also designed low-cost modular housing that set the benchmark for mass-produced housing. Wright worried about what the automobile would do to America and our sense of community and culture.

SETTING THE SCENE

Wright lived during the most turbulent time of change so far in America's history. He was born into a world where there were no automobiles, skyscrapers, central heating, computer technology, televisions, satellites, airplanes, electrical lights, and highways and he died after most of those became common place. More technological advances have been made in the last 100 years than were made in the thousands of years of history prior to the 20th century.

Wright began his career during a time when America was an architectural frontier. There was a huge amount of building going on and the times were prosperous. Chicago was still rebuilding after the fire of 1871 in which almost 17,000 buildings were burned. Chicago was home to many industrial millionaires including the Armour's, Swifts, Libby's, Pullmans, and McCormick's. They paid to have homes, monuments, factories, and other structures built. This was fortunate for the young man who could not afford to attend architectural school.

Architecture is and always has been a part of nature. The weaverbird, an African bird, is known for its elaborately woven, conical nest. The caterpillar's cocoon is a high-tech marvel of weather resistance. Chimps, coyotes, bears, and hundreds of other animals often alter a natural spot to fit their shelter needs. The bee is a master builder and engineer. These natural architects often inspired Wright and others. Everywhere we look around us, we can see shapes being altered in some way.

To study the art of architecture is also to study geometry (which literally means the measurement of the earth), math, and science. One has to become familiar with the geometric relationships and properties of lines, angles, shapes and solids. There are certain mathematical rules that apply to area, stress and shape, and/or weight and load bearing surfaces. Measurements and tolerances must be exact of the structure will not be well built. Symmetry, light, textures, colors, patterns, and other artistic considerations play a part in architectural design.

Each area of the world and time in history has architectural features that are fun to explore. Because America is primarily a nation of immigrants, our architectural history is rich with influences from all over the world.

Artists like M.C. Escher, Paul Klee, Andrew Wyeth, and others believed everything is ordered somehow and it is up to the artists to figure out how to bring order to what seems to be chaos. Wright sought to create space conducive to harmony and meditation. His homes became schools and centers for great artists, thinkers and other creative people to get together. One architect noted, while it could get tedious doing the required housework and chores to stay at Wright's Taliesin site, "...where else could you eat dinner sitting between Clare Booth Luce and Adlai Stevenson with Carl Sandberg across the table?"

Prior to Wright, the architectural tradition had been one of excessive detail or copies of classical and renaissance shapes. Wright as well as artists from the Bauhaus and International School helped to change that. They sought to simplify and open up the box designs of previous architects.

There are a number of jobs and careers in conjunction with architecture from engineering to roofing. Computers have changed how architecture and building is done now. The CAD (computer assisted drawing) software has taken some of the tediousness out of making plans and blueprints. It takes a large number of skilled crafts people to bring an architectural design to the reality of the final product.

BIOGRAPHICAL INFORMATION

Frank Lloyd Wright was born in Richland Center, Wisconsin (near Madison), the oldest of three children of Anna and William Wright. His mother's relatives were farmers and preachers from Wales who were considered very liberal. His father was a third generation Baptist preacher who loved reading and music.

Frank's mother decided her son was going to be an architect. She surrounded his crib with pictures of cathedrals. When he was 9 years old she purchased a set of fancy building blocks called "Froebel" blocks. These color coded, geometrically shaped, wooden blocks, supplemented by colored papers, sticks, and wire connectors, provided hours of play for him. While playing with his blocks he learned everything is made from geometric shapes. The shapes can be hidden within the outer shape of an object, but they are there just the same. Later in his life he said, "The maple-wood blocks are in my fingers to this day."

The Wrights moved frequently, four times in a few years. The elder Wright was a warm, giving person, who enjoyed playing and teaching music and changed careers from ministry to music teacher. He was an accomplished musician who loved to play Bach and Beethoven on the piano or organ. Wright carried this habit into his own fatherhood.

Wright had an interesting childhood filled with mentoring from many relatives. His uncles would host Susan B. Anthony and other "free" thinkers of the times in their homes. Frank spent summers working for a stern uncle on his dairy farm. Being outdoors so much and able to examine natural shapes closely, Wright says, sharpened his ability of "seeing into and seeing from within outward."

Frank's parents divorced when he was 16. Fewer and fewer students were seeking to study music and his father had to close the music school. Feeling he was a failure, William Wright left the family, which created a financial crisis for them. Frank was unable to complete his mother's dream of attending architectural school. Mrs. Wright saved enough money to send Frank to the University of Wisconsin for classes in civil engineering.

The huge dome on the Wisconsin state capitol building was being rebuilt when Wright was a student. One day, while he was watching the construction going on, the entire dome collapsed, killing most of the workers. The building contractor was responsible. He had given orders to the workmen to fill the supporting columns with inferior materials. Wright was horrified that this mistake killed so many. He vowed to make every one of the buildings he designed strong and safe.

Wright dropped out of college with less than a year's credit. He thought the work was tedious. He pawned some fine leather books that had belonged to his father and a mink collar his mother had sewn onto a jacket to raise enough funds to go to Chicago.

In Chicago, he saw electrical lights and other wonders for the first time. Wright found work with Joseph Silsbee, one of Chicago's leading architects. Silsbee was constructing a new Unitarian church for Wright's uncle, the minister of the church. However, Wright was soon discouraged by the quality of the work he was doing. He felt he was *"just making pretty pictures to show Silsbee's clients. The buildings he constructs never look like the pictures."* He felt architects should create accurate depictions of plans and not be slaves to their client requests.

Wright admired the work of Louis Sullivan. Sullivan was one of the few designers in the world experimenting with plans for tall buildings, which became skyscrapers. Skyscrapers were a departure from the horizontal, stone mass designs constructed for hundreds of years. New advances in steel formation, the development of plate glass, and the invention of the elevator allowed architects to experiment with the new heights. Wright felt Sullivan was a great innovator, *"Until Louis Sullivan showed the way, tall buildings never had unity. They were built in layers. All were fighting tallness instead of gracefully, honestly accepting it."* Sullivan made heavy use of decorative spandrels and piers on the outside of the building to give it a unified look. The Wainwright building and Chicago Auditorium building were two projects Wright helped with at Sullivan's. He was influenced by Sullivan's preference for natural shapes and using them in the designs. Wright worked for Sullivan for seven years. His talents allowed him to rise beyond the draftsman level quickly.

He met his wife-to-be, Catherine Tobin or "Kitty" at a party when he literally knocked her over. The couple was married on March 25, 1889, Frank was 21 and Kitty was 18. They moved to a house Frank had designed and built in Oak Park soon after. By March of 1890, the first of 6 children had arrived. Lloyd, John, Catherine, Frances, David and Llewellyn were born during the following 13 years. Wright kept adding on to his "shingle style" house with each child. One feature was a huge playroom, lit by skylights on the second floor. The playroom was the scene of puppet shows, poetry readings, dances, parties, family musical nights and other events.

To add a grand piano to the playroom, Wright cut a piano-sized hole in a wall. When the piano was moved into place, the keyboard was on the playroom side of the wall, and the rest of the piano hung out over a stairway on the other side of the wall. The piano was suspended from the rafters.

Wright did not like doing commercial projects as much as he did designing homes. Even though he had a contract with Sullivan, two children and another on the way, he violated the firm's rules by moonlighting on building contracts for friends in the Oak Park area. He was fired when the firm learned of the violation. It did not seem to bother Wright. One of his first contracts after quitting the firm was to design and build a new church for another uncle. The All Soul's Church was a simple design that allowed the church to be both a sanctuary and community center.

In 1896, Wright built a "Romeo and Juliet" windmill for his aunts in Wisconsin. It was a 60 foot tall, octagonal barrel topped by a diamond-shaped, storm prow. Critics thought it was totally impractical and would fall in the first windstorm. It is still standing.

In 1901, he came out with the first design for his "Prairie" houses. Wright wanted to get away from traditional post-lintel construction where spaces were broken up by load-bearing walls. Advances in the manufacturing of steel beams allowed that to happen. The center of the home was a large fireplace, which Wright called "two faced" because the front of the hole the public saw was austere while the design in the back of the house was very creative. The rooms radiated in a cross shape from the central hearth. All the rooms flowed into the others, uninterrupted by walls and doorways. The roofs hung out over large patios on different sides of the house. The prairie homes were an extension, Wright felt, of the landscape around Chicago. They were a striking contrast to the Victorian gingerbread and elaborately textured shingle homes that were popular. Wright often tied the details of the design to a plant and its growth habit. The Dana home used the natural design of sumac for decorative details; the Martin home, wisteria. Wright's own home was based on the tulip. The bold, new ideas attracted many commissions and by 1905, Wright was financially comfortable.

In 1906, Wright completed his first industrial contract. The Larkin Company Administrative Building in Buffalo, New York was entered through a dark hallway that led abruptly into a vast three story light-filled atrium. It was the first air-conditioned office building in the country (using ice blocks), and the first to have plate glass windows and doors, stainless steel office furniture, central heating and lighting. Management noticed that employees began arriving to work earlier and staying later because the interior space was so inviting. The building stood until 1950 when the city destroyed it to make a parking lot.

Wright shocked the Chicago social world when he left his wife and six children in 1909 to run off with the wife of a client. Wright commented later he felt Kitty was too "tied up in the kid thing" to pay him the attention he wanted. He had already walled off his office and studio from the rest of the home because he thought it too noisy.

Mamah Borthwick Cheney was the object of Wright's attention. She had been a close family friend and divorced her husband to join Wright on a six-month tour of Europe and Japan. After their return from Europe, they moved to his mother's family farm in Wisconsin. Wright built the home known as "Taliesin," (TALLY-ESS-IN) Welsh for "shining brow." Taliesin is perched in the brow of a hill, cantilevered on many levels off the face of the site. It was constructed with local limestone to blend into the surroundings. Inside, it is filled with Wright's trademark open spaces and small, cozy "escape" areas where one could be alone. Wright said he was building a haven from the outside world.

Wright lost most of his commissions when he abandoned his family; he received only three of them in 1913. One contract was for the Midway Gardens project in Chicago. It was a restaurant, beer garden, and amusement park complex. Not only did Wright design the structures, he also created the murals,

plates and menus. The establishment closed in 1929 when it went bankrupt, primarily because of prohibition. The block long structure was demolished to make way for a laundry. Wright said he got some satisfaction when the contractor hired to pull the buildings down lost money because the buildings were constructed so well.

> The Oak Park Tourist site (http://oprf.com/Wright/) tells more about Wright's life: *Unfortunately Wright also had another principal of architecture - one door for all purposes - that was abet the most tragic act that can befall anyone. A Barbados servant, who, they said, was underpaid and driven mad by the unconventional lovers, had executed revenge. He started a fire during lunch and stood by the only escape door, and then murdered, one by one, seven people, among them Mrs. Cheney and two of her children. Wright himself was so overwhelmed that it took him ten years to recover his confidence and return to more stable existence. He remarried in 1922 to Miriam Noel, who was his second wife.*
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> *He paid tribute to Mrs. Cheney, his greatest love, the one for whom he had thrown away a normal career, by building her the simplest grave. Wright built Taliesin Two on the ashes of Taliesin One and developed even further his defensive style. Tragedy followed tragedy. Taliesin Two was burned, and during the fire neighbors not only helped douse the flames, but helped themselves to some of Wright's oriental art as well.*
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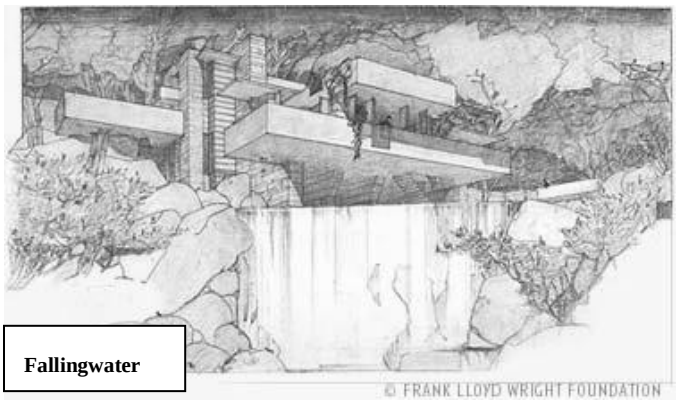
> *After Miriam Noel walked out on Wright, he met, quite by change, the woman who was to rescue him from further self-destruction: Olgivanna Milanoff, an Eastern European aristocrat and something of a romantic herself. They met in Chicago in 1924, at a performance of the Petrograd Ballet. Wright and Olgivanna were married in 1928, his third marriage.*

Wright founded the Taliesin Fellowship where students were expected to help out with the cooking, cleaning and maintenance chores around the settlement along with their studies. Wright believed it made architects more responsive to what a structure was designed for if they were familiar with the tasks performed there. The students' families were welcome there also and his aunts operated a school for the children at the site. The teaching was all hands-on apprenticeships. Wright thought everyone should have access to Bach and Beethoven, so he hooked up huge loudspeakers to broadcast the music all over the farm. Mealtimes were especially interesting because of the collection of great minds. There were just not architects. Sinclair Lewis, Carl Sandburg, Paul Robeson, Charles Lawton, Sessue Hayakawa, Clare Booths Luce, and Adlai Stevenson were just some of the frequent diners.

In a plan for a project called "Broadacre City", Wright envisioned clusters of suburban houses on large acreage. But the homes would be juxtaposed next to each other in such a way that maximum privacy was assured. That left more open space. He felt each suburban enclave should have its own services to keep strip development along the highways from proliferating. These ideas were about 20-50 years ahead of their time. People ridiculed him about his fears.



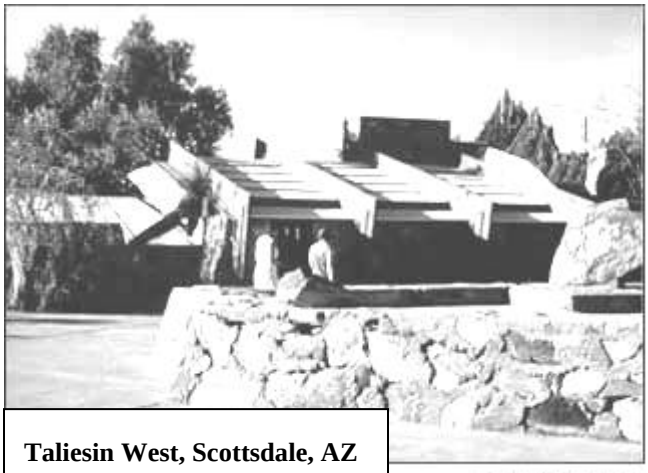
Fallingwater

Wright silenced most critics and gained new respect with his stunning design for Fallingwater in 1936. Department store owner, Edgar Kaufmann, wanted a country retreat and hired Wright to plan and build it on a small river called Bear Run in Pennsylvania. Kaufman originally wanted the home placed downstream from the waterfall so it could be viewed. Wright convinced him it would be far better to build the structure directly over the falls.

Wright pulled off what many consider to be the perfect synthesis of nature and architecture. He incorporated part of the living rock from the falls in the rooms. The views from every angle are stunning. The house consists of four rectangular sections and angles extending out over the falls. Each

level has large porches with big overhangs to encourage being outdoors. Wright used glass and rock quarried nearby as the primary building materials to further blur the lines between what was inside and what was outside. In keeping with his tradition, Wright designed lamps, furniture, wall hangings, woven rugs, etc. for the home. Fallingwater is open to the public and available for tour.

Fallingwater thrust Wright back onto the international scene. He was hired by the Johnson Wax Company to build their headquarters in Madison, Wisconsin. Owner, Herbert Johnson, wanted to enrich the lives of his workers. He felt a modern workspace would be one way. This time, Wright did not have a beautiful natural site as the plant was located in an industrial section of the city. Wright decided to turn the design inward and create a beautiful, natural scene in the building. The Johnson building was entered by a small, low-ceilinged portal leading to a huge, light-charged room. Miles of Pyrex glass tubing provided the light. The room, while wide open, seems to have an intimacy. The entire structure echoed a lily pad motif that was restful and left one feeling like they were floating underwater in a placid pond. Workers came early and stayed late because they enjoyed working in the "great room." Johnson had the company choir sing every morning to add to the enriched work environment. Johnson also hired Wright to build a 14,000 square foot residence for him called "Wingspread."



Taliesin West, Scottsdale, AZ

A third crowning achievement during the decade of the 1930s was the construction of Taliesin West outside Scottsdale, Arizona. Wright tipped large steel rectangles at an angle for hundreds of feet to create the main structure. Redwood and local stone cast in concrete was used for the walls, and floors. In a style reminiscent of the Berber of Arabia, Wright installed canvas roofs that could be rolled back to let the architect or artist design "en plein aire." The pools and gardens in the inner courtyard areas gave the buildings the feel of an oasis. Wright and Olgivanna both enjoyed being in Arizona during the Wisconsin winters and had lived in tents the first year at the site.

The "Usonian" homes were Wright's next large project. He was hired to come up with a design for a home that could be built for under $5,500. He used the basic design of the Prairie home as his inspiration and developed modular units that could be added on and re-arranged easily. He termed homes based on this design "Usonian," a play on the name, "U.S," as he felt they were suitable for any part of the country. The heating system consisted of hot water pipes under a thin concrete floor. The bedroom areas were secluded from the main house. Many of these homes were built all over the country. One design melded together hexagonal units like a beehive around a large central fireplace. The Hanna house or Honeycomb house is in Palo Alto, California.

Another unusual structure Wright designed was the Beth Shalom Synagogue in Elkins Park, Pennsylvania. Wright scaled down plans he has made in 1926 for a 1,500-foot high triangular shaped cathedral for the building. The synagogue is about a third that size and features a huge, open sanctuary with nothing to separate the audience from the altar.

A snail's shell or helix was the inventive shape for Wright's last, great work, the Guggenheim Museum in Manhattan. The huge skylight towering seven stories over the helix gives one un-equaled light to view the artwork though and a "feeling of the promise of the immensity of the human imagination" as one critic noted. The Guggenheim certainly stands out among the skyscrapers that surround it.

Guggenheim Museum

Wright died on April 9, 1959 at Taliesin West. He suffered from severe abdominal pains a few days earlier and was operated on to remove an obstruction. He died quietly in his sleep. He is buried on a Wisconsin hillside near the first Taliesin, next to his mother and other relatives. His body lay in state in the huge living room next to his beloved piano. The room was filled with hundreds of red petunias in clay pots. He was buried at sunset as the bell tolled from the chapel he had built on the site in 1886.

One of the first buildings ever constructed by man was the ziggurat shape of the Babylonians. Wright turned the shape upside down for the Guggenheim, just as his ideas turned the world of architecture upside down during his lifetime. Wright designed many buildings that were never constructed, like a mile high skyscraper in Chicago that would have featured an atomic elevator. He also conceived the plans for structures built after his death in 1959 (the Marin County Civic Center in 1962 and the Monoma Terrace in Madison, Wisconsin which was opened in 1997). Crystal City in Washington, D.C., a series of towers containing hotels, apartments, stores, offices and other amenities was built on Wright's design. The bulk of Wright's archives are stored in Arizona. The Taliesin Architects, the firm that inherited Wright's and designs after his death has overseen these projects.

Wright was a true believer in the statement, "form follows function." He was a master synthesizer who made very complicated things look simple; who took ancient designs and made them ultra-modern; who loved simple, natural forms, but sometimes so much they lost their functional value.

WEBSITES

- **The Life and Work of Frank Lloyd Wright.** Includes illustrations, architectural plans, quotes from Wright: http://www.pbs.org/flw/buildings/index.html
- **The "All-Wright" site**: Frank Lloyd Wright building site. This page contains listings for over 420 Frank Lloyd Wright buildings in more than 37 states/locations; hundreds of web sites indexed with even more images available for viewing: http://www.geocities.com/SoHo/1469/flwbuild.html
- **Building BIG: PBS Resource on Bridges and Buildings**, many links and lesson plan ideas: http://www.pbs.org/wgbh/buildingbig/
- **FLW Home and Studio** etc. in Oak Park, IL and good links: http://oprf.com/wright
- **Wright on the Web**: excellent site for FLW information: http://www.delmars.com/wright/flwright.htm

Books:

Frank Lloyd Wright for Kids. Kathleen Thorne-Thomsen. 1994. Chicago Review Press.

Arty Facts: Structures, Materials & Art Activities. Crabtree Publishing. (This is a series of books relating art and science together in activities)

POWERPOINT PRESENTATION

Observe and Learn to Comprehend & Envision and Critique to Transfer (VA 1 & 2)

Frank Lloyd Wright was a famous American architect. An architect is a person who designs structures such as buildings, highways and bridges. Wright created a new way of building homes, offices, churches and other buildings that used old ideas in a new way. He was born in 1867 and died in 1959.

1. **PHOTO: FRANK LLOYD WRIGHT,** 1939**:** Frank's mother was determined her oldest son would be an architect. She hung pictures of buildings around his crib and bought him expensive, educational wooden blocks for play. His father, who was a minister, loved to play Bach and Beethoven on the piano, something Frank did also as he grew older.

   As a child, he spent the summers working on his uncle's dairy farm. He said he later remembered the natural shapes he saw all around him when he thought of architectural designs.

2. **FRANK LLOYD WRIGHT HOUSE:** OAK PARK, ILLINOIS: Wright designed and built this house in Chicago in 1898. Wright believed a home is the center of family and creative activity. He used the latest in building materials in his homes, but he also emphasized natural wood, stone, and light in his designs. Wright's six children enjoyed living in this home.

   The home had a huge children's playroom with a high ceiling and large fireplace. The children played musical instruments and the playroom was often the scene of concerts and puppet shows. Wright wanted to add a grand piano to the playroom, so he cut a hole in the wall for the piano, and let only the keyboard show. The rest of the piano hung outside the room suspended from the ceiling above a staircase! This left more room for the children to play.

3. **DINING ROOM: OAK PARK**: When Wright designed a home; he wanted everything in the home to look like it belonged there, from the walls and ceiling lights to the furniture and tablecloths! The cutout area covering the lighting almost makes it seem like the moon is overhead.

4. **EXTERIOR OF TALIESIN,** Spring Green, Wisconsin**:** Wright built this retreat in 1911. It was on property that had been in his mother's family for years. The name "Taliesin" (TALLY-ESS-IN) is Welsh for "shining brow." It describes the setting where the home is perched on the brow of a small hill. Wright used limestone and wood from the area around the site to help the home blend into the landscape. Wright repeated the natural shapes in the home. It was surrounded by walled gardens. The home was re-built three times after being destroyed by fire.

5. **INTERIOR AT TALIESIN, LIVING ROOM:** Wright pioneered different ways of using structural steel beams to hold up walls instead of the traditional construction, which relied on walls to hold the weight of the structure. As a result, his homes and buildings had an "open space" design, where one room flows into another. Wright liked to use natural, unpainted wood. A key feature in his homes was the fireplace. You can see how the room would allow people to gather around it. Wright hired crafts people to create the rugs, drapes and textiles he used in his homes.

6. **HILLSIDE STUDIO: TALIESIN: Spring Green, Wisconsin (Interior)** Wright was rarely alone unless he was in his private studio. Assistants and students surrounded him all the time. Most of them lived at Taliesin with their families. Everyone had chores to help with. Wright believed it helped architects make better designs if they understood what the area was used for.

   This huge 5,000 square foot studio was a separate building at the site. The triangles are the same shape as the triangles used by the draftsmen who created the architectural plans. Wright felt working in a large, open, light space allowed for more creativity and communication.

7. **PRAIRIE HOME**: At the time Frank Lloyd Wright began creating designs for homes; most people lived in towns and cities. However, he realized the automobile would change the way people lived. People could live further away and in suburban or country areas. He was the first to create a way where homes could be clustered together, leaving natural spaces in the open around them, and allow people to maintain a neighborhood setting or feeling of community.

   He called this design a "Prairie Home." Wright included lots of windows in his plan. The home design is based on the shape of a cross with a fireplace in the middle. Wright said he wanted a home to feel peaceful like a church, and a church to feel comfortable like a home. There were few walls and doors in the home.

8. **JOHN STORER HOUSE;** (exterior) Hollywood, California, 1924. Wright's work gained world fame after he created a way to make buildings more earthquake-proof by using reinforced concrete. He used concrete to create support for a building's foundation as well as blocks knit together with steel rods for the walls. The toy blocks he'd played with as a child inspired him to create large blocks for building large structures.

9. **FALLINGWATER: Edgar J. Kaufmann House: Mill Run, PA 1937:** Wright is probably most remembered for this home, built for a client as a vacation home. The tiers are cantilevered (stacked) dramatically over a small waterfall. Wright talked the owner into building the house on top of the waterfall rather than downstream with a view of the falls.

10. **FALLINGWATER: LIVING ROOM:** The living room at Fallingwater is huge - 1,575 square feet (as large as many of our homes!). Windows all around the room make it feel like a tree house. Wright built the room on living rock. He left part of it in the floor by the fireplace. The stone floor continues out the door allowing the room to seem like part of the outdoors. The living room is one layer of the four-story home. Its deck extends out over the waterfall.

11. **FALLINGWATER:** (additional views)

12. **JOHNSON WAX ADMINISTRATION BUILDING,** Racine, Wisconsin: 1939: This building is almost the opposite from the last building. While Fallingwater was built around a beautiful natural site, the Johnson Wax building was part of an urban industrial area. Wright decided to make the interior of the building seem as natural as possible.

    Many people say it seems as though you are under the water in a pond gazing up at the water lilies. Wright named the 21-foot tall hollow columns, "Dendriforms," because they were like fingers holding up the ceiling. 90 columns support the weight and miles of glass tubing that flood the room with light. All the corners in the building are rounded, including the desks, workspaces, and chairs.

13. **TALIESIN WEST:** (exterior) Scottsdale, Arizona. 1938: Wright built a second learning center for architects in Arizona. He liked to spend the winter in warm Arizona and summer in Wisconsin. Wright felt the desert site of Taliesin West (TALLY ES SIN) "looked over the rim of the world."

    Wright used the inspiration of architectural tools for the shape that echoes throughout the structure. These large supporting rectangles are made of redwood. The walls are made of concrete imbedded with local rocks. The roof used to have a canvas that could be rolled back to allow students to work in the open air. The canvas has since been replaced by white fiberglass.

14. **BETH SHOLOM SYNAGOGUE:** Elkins Park, Pennsylvania: 1959: Wright said, "When man enters a place of worship, he should feel as if he were resting in the hands of God." This building, which has six sides, is shaped like two upright hands cupped together as if in prayer. Wright says the glass dome is a symbol for Mt. Sinai where Moses received the Ten Commandments. Others think the building looks like a ship.

15. **SOLOMON GUGGENHEIM MUSEUM: New York City, 1959:** Wright took the helix (snail shell) shape as his inspiration for the Guggenheim, which is surrounded by huge skyscrapers in Manhattan. The building is an art museum, and was the last major building that Wright built.

    Wright designed the building to have an elevator that brings visitors up to the top floor, and then allows them to walk down the spiraling ramp admiring artwork along the way.

    Frank Lloyd Wright died in 1959. He designed 1,100 structures and over 400 were built. His desire to bring the outside in by including natural elements like stone, water, and lots of windows has inspired other architects and may have helped in the design of your own home!

REFLECT AND CONNECT TO TRANSFER *(VA Standard #4)*

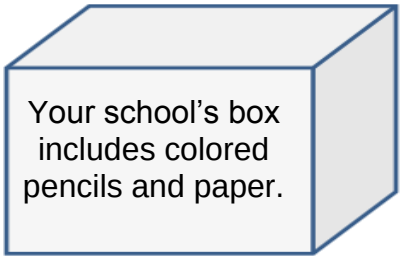
During the last 5 minutes with your students, perhaps as they are cleaning up or while they are creating, take a moment to encourage the students to discuss and review their understanding of Frank Lloyd Wright:

ESSENTIAL QUESTIONS:

1. ***What was one thing you learned about Frank Lloyd Wright?***
2. ***How did Wright create the designs for his buildings?***
3. ***What will you (or how did you) use your creativity to design your own house?***
4. ***What do you <u>wonder</u>?***

FEATURED ART PROJECT

Invent and Discover to Create (VA Standard #3)



Interpreting architecture as a creative art.

A Tree House of My Own – <u>Kindergarten through 2nd grade</u>

Students will use the supplied colored pencils and paper to draw their Tree House. The tree they draw should be kept as simple as possible, as the house is the focal point.

For this project, you need to first brainstorm with the class for a few minutes, asking them if anyone has a fort or treehouse, and what things they love about it. What would they change? If you could build ANY kind of tree house, what would you put in it? How would it look? How would you get up to it?

Students should be encouraged to make their tree house reflect their own personalities and interests, and to be as inventive as possible. Two stories, odd shape, innovative access or features (elevator? Skylights? Zipline?). Don't try to limit anyone's imaginations, but let them draw it however they see fit.

Wright designed houses that fit into the outdoors, much like a treehouse might. How would students bring the outdoors into their treehouse? Windows? The shape of the tree?

When the treehouse is finished, students should name it (if they want to or have time) like Wright often named his, such as Falling Water, or Taliesin.

A House of My Own – <u>3rd grade and up</u>

Students will use the supplied colored pencils and paper to draw their House.

For this project, you need to first brainstorm with the class for a few minutes, asking them what they REALLY like about their own house, their room, etc. Then ask what they

would change, and what they might do if they could design ANYTHING they wanted in a house.

Students should be encouraged to make their house reflect their own personalities and interests, and to be as inventive as possible. Two stories, odd shape, innovative access or features (escalator? Reading tower? Tele-transporter? Indoor skating rink?) Don't try to limit anyone's imaginations, or make their house "realistic" but let them draw it however they see fit.

Wright designed houses that fit into the outdoors, and brought the outdoors into the house. How would students bring the outdoors into their house?

When the house is finished, students should name it (if they want to or have time) like Wright often named his, such as Falling Water, or Taliesin.

Alternate projects:

- Have your students design a castle they would like to live in, creating turrets, towers, doors, windows, catwalks, portcullises, moats, flags, etc….

- Do the Tree House or House project using textured materials such as corrugated paper, cloth, aluminum foil, shiny paper, twigs, twine, Popsicle sticks, toothpicks, patterned paper, glue and sand, etc.

Have students draw a floor plan of their own house, or their Dream House, trying to include rooms they want and need (bathrooms, bedrooms, playrooms, etc.)

Subject: Re: Question about St. Mary's Advanced Pavilion Design
Date: Mon, 15 Mar 2004 18:56:03- 0700
From: "Tim Riddle" triddle@boulderassociates.com
To: cbrady@mesa.k12.co.us

Dear Connie,

Thank you for your complementary words! To know that even one person has felt comfort from our design is a truly rewarding thing to hear. The team which designed the AMP included several people from my office. My role in the project included the design of the overall concept/exterior of the building and main interior atrium/waiting spaces, so I'm writing back to you; though I had little to do with the design of the more clinical spaces in the building (Leanne Jenkins in our office did most of that work). It is interesting that you ask about Frank Lloyd Wright. I actually grew up and studied in Illinois, where his legacy is quite strong (as some of his very well-known projects are there). I have long been an admirer of his work and have visited a number of his buildings in different parts of the country. However, I'd guess that any influence of his that you see at St. Mary's were not necessarily intentional (but perhaps unconscious). A number of people have told me they thought the stairs and handrails in the atrium looked sort of "prairie style", but that sort of came about accidentally. We were really hoping to achieve a strong sense of warmth and calm within the space - medical facilities are all too often scary nervous places, and they really don't need to be. We tried to incorporate features which would help us achieve that feel - the fireplaces, planters, lots of finely detailed wood, etc.

You may be interested to know that the initial design concept for the building was intended to be a reflection of your local landscape. I was initially intrigued with the beautiful geography nearby - in particular the book cliffs and the Grand Mesa. Thus, some of the very first sketches of the building incorporated the two "wings" of the building, joined by an angular space that became the entry/atrium/waiting spaces.

The building organization sort of hints at the idea of a canyon between its adjacent geological formations. Along the same lines, the sloped green walls that you may remember at the entrances were intended to hint at the "river" which cleaves the canyon (runs all the way through the atrium). Originally, these walls were clad in pre-patinated green copper, which would have been a bit more "watery" looking, but the manufacturer had some production issues and we ended up with something not quite as nice. Also, the two wings of the building are meant to look sort of "geological" for lack of a better term. They are sort broken down into smaller chunks and are mostly brick - the coursing and color pattern (if you squint hard at it) is supposed to be reminiscent of the striation that you typically see in the canyon country.

This may be more than you wanted to know, but it was fun to receive your email, and I'm particularly proud of this project. Thank you again for your kind words and please feel free to contact me if you have any other questions.

Thanks,

Tim Riddle
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Fallingwater, Mills Run, Pennsylvania

We learned about Frank Lloyd Wright in Art Heritage. Wright was an architect who lived from 1867 to 1959. He created "structures" using natural materials to bring the outdoors inside.

How to Spot a Frank Lloyd Wright building:

1. _____

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2. _____

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3. _____

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