Eyes to Mind: Interpretation of a Building

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INTRODUCTION

Developing this unit curriculum will allow me to develop a reading inventory of materials, strategies and programs to increase reading awareness and develop a positive self-concept about the individual student and his environment. Students will be embraced with the constant reminder of interpreting a vision first before casting a ballot of disapproval.

People never consider the imaginative effort that architects and developers have to endure in order to collaborate with others to develop a plan for a building site whose end results are communities, skyscrapers, and neighborhoods. Our students especially never give any thought to why a certain building was designed and placed in a specific location. I have noticed in my limited travels that as I enter different cities the city skyline does catch my attention, leading me to compare it to Houston's, where I live. I have also noticed or have heard the competitiveness of voices of certain cities challenging one another in verbal war claiming one's city's skyline is better than another. It will be a delight as we venture through this unit to further discover the considerations that developers contemplate in order to produce their final product.

"Don't judge a book by its cover" is a cliché we have grown up with. Which is to say read it first before you decide it's not a good book, or get to know the person before you look at their outer appearance and mark them as an "outcast." No, you can't judge a book by its cover, but you can interpret the author's message or mood behind the picture and play with the meanings of the words. I learned as a music student in elementary school that colors have meanings related to moods and tones in music, which are closely correlated with individual attitudes and personalities. Today, in-depth studies have applied these colors of mood and personality to the learning styles for students and their behaviors that follow them into adulthood.

One of the highlights in teaching Life Skill and other Special Education classes is to feel the energy that engulfs the classroom with excitement as the students' faces light up when they realize the information they just received is real and relevant. Their entire thought and behavior process takes on a new direction. This should be the ultimate goal of every teacher, to provide their students with life changing information and behavior altering aspirations.

OBJECTIVE

An architect is an author. He expresses himself in his designs, colors, and the position of his total structure. Students will learn to interpret the meaning behind the scenery: "Attitude is everything." Students need to be aware of the many facets involved and available to them to express their thought and emotions. Architecture is an art. Students will draw and color themselves into a state of contentment. As non-intellectual readers usually take the cover of a book for granted, so do the

non-architect citizens who enter and exit buildings all day long take the outer structure and appearance of a building for granted and just breeze through the inside in a hurry to come out on the other side (like we read books). I believe people never give a thought to why a building is in a certain location, positioned a certain way, or has been structured in a particular manner, recognizing the shape, windows, height, etc. There are so many "whys" that are never asked nor answered. This unit will answer these questions, and enhance students' awareness, allowing them to elaborate on architectural designs using related literary jargon. Subjects to be covered in this unit are Math, Language Arts, Social Studies, and Vocational. There is not many outside materials provided. The teacher or facilitator must do some "fancy foot work" to gather pertinent information and materials. Any information or related materials would become obsolete over a short period of time. Please keep in mind the strategies involved are critical thinking skills, research, interview process, and decision-making skills.

Purpose

This unit will open the windows of the "whys" for the students. Previously, the class should have already experienced the adventure of reading and interpreting the cover of a book. Some literary terms should also be a part of their vocabulary. Characterizations should be an acquired skill. Before preparing this unit I was as guilty as my students when it comes to concentrating on the "whys" and the interpretation behind the meaning of a building. Together you and your class will journey to find the answers to the "why" questions.

The structure, positioning and location of a building can be an added flavor or a disgusting disguise to a community or neighborhood. This unit will arouse students' interest and awareness in knowing the answers to the "why" questions referring to an established structured, position, shape, size, and color, affecting their neighborhood and community. The students will seek out the developer's purpose and the architect's intent, to determine if it is an added flavor or a disgusting disguise in both their scripts (blueprint).

Goal

I want the students in my class to acquire new knowledge about their environment and surrounding communities. I expect them to be able to view a building with critical perception. They will develop a bird's eye view of buildings and determine their function, purpose and value. Students will be given the tools to think and decode meanings in the structure of the building.

Most children take their environment for granted. I have become intrigued by the structure of buildings and the meanings they convey to spectators. I have the same desire for my students to research and find the architect's meaning hidden in his development.

We will able to use a multi-faceted curriculum. We will first visit the literary terms that correlate with the architecture terms. The students will be able to identify and define the geometric shapes involved and determine the position and connection and the architect's intent for their use. It's impossible to study architecture without studying history. The student will be able to travel in

time exploring the architect's culture, people, geographic areas, religions and economic systems in place during the construction.

THE BREAKDOWN

One of the seven curriculum objectives in the Life Skills class is social studies. Being able to name, identify the purpose or functions of a building or business is one of the short-term goals. Their prior knowledge will be tested first. Upon receiving the visual stimuli of building, the class will have an open discussion about these buildings. This discussion will include, its name, use and who uses it.

TASK ANALYSIS
TITLE: _____
PURPOSE: _____
TARGET AUDIENCE: _____

After completing the task the students will then compare them to the outer structure of a book: observing and determining the purpose, target audience and of course, the title. Students will discuss and determine what elements were used to identify the audience and if the author's purpose was fulfilled to reach its targeted audience. Again, color, size and print are vital factors to be considered.

This exercise should begin with a familiar easy-reader to expose students' prior knowledge and incite their thinking skills. Usually a children's book is good. A variety of books can be used as well depending on your class make-up. Have students note some details about the book cover and offer suggestions on the meanings. Students should make a list or chart of what they think the book is about and compare with others in the class or group. Don't provide the color chart at this time. Simply have students make their own color chart. Match colors with descriptive words of behaviors, moods, and attitudes.

DECISION MAKERS

Who is the person or group of people making the decision to determine the need, purpose, function and location of the structure? This will be the objective of the student's research during this portion of the unit. Students will seek out tools such as a survey, vote, unanimous group, political leaders, and business leaders: all elements to be explored to better understand the thought processes of architects and land developers.

Students will select a piece of land or abandoned building and decide the means and measures to renovate. Students will write a proposal to the city and develop a business plan for the future site. Surveys should be developed and among themselves organize a business leader group or forum. Each group should present opposing arguments and then put their plans to a vote.

TRAVEL THE TOURS

"A picture is worth a thousand words."

Here students will be given the exciting job or taking pictures of buildings or businesses in their neighborhood. Grouped students will then have to categorize the buildings/pictures by purpose or function of the building and identify the targeted audience. The class will follow-up with more formal tours of buildings and again determine the function and target audience and explain why the architects made certain decision to uses certain material, color, and size. Students will be able to eventually explore some ideas or perceptions about the character, background and or personality of the architect himself. Finally and ultimately, the students will discover whether the structure adds flavor to the community or if there is a hidden agenda as we undertake the task analysis.

VALUE: PEOPLE OR PROPERTY

One thing I've noticed about neighborhoods is that most of them are of the same make-up. It is the standards and mind-sets of the people that make a difference. Therefore, the true architects are the citizens not the builders. The citizens in the community decide what they want and don't want in their neighborhood, even though, oftentimes, developers take a chance on developing an area, in hope of targeting a certain audience of prospective buyers. Their objective is to appeal to certain groups of people of a particular economic status. This knowledge has made me begin to look at how value has been placed on certain home structures. The why question to be answered is why is the home with the same floor plan in a middle class community is more costly than in the poverty-stricken neighborhood or why is the $100 thousand home with the same floor plan located on Highway 6 more costly than the same floor plan home located on 2234 at Hiram Clarke. In addition, not only are the floor plans the same but the building materials as well. Why? I hate to admit it, but I always thought homes were more expensive because of what they were made of, not where they were located. This kind of knowledge is priceless. Students too will be able to make an intelligent calculation of home and land value, better estimating the pricing involved. Is it the people or the property?

Another element in this phase will be the student's observation of neighborhood transitions and value depreciation. That too has always been a question in my mind. Neighborhood previously occupied by Anglo-Saxons where people of color were almost forbidden to walk the sidewalk are now being transformed into neighborhoods of people of color. Not only does the value go down so does the upkeep of property and attention from political officials. Even businesses close or relocate. I want my students to take notice of this fact and begin to re-evaluate their presence and participation in this trend. As a class they will brainstorm some ideas to counter this trend.

Another "why" question to add to this view is, "Why do poor neighborhoods receive very little attention from city officials until developers come and totally change the scenery, giving a community a "face-lift," removing the old residents only to bring new ones whose time there is short-lived?" Fox explains it well, "Developers are hurriedly building condos and town homes in

the near downtown area (Fourth Ward). Homes are being built using cheap material at the costly price of $100-$300 thousand. To their ultimate surprise, the 'slum' they've destroyed and torn down will soon return in the now pricey homes."

IS THE PRICE RIGHT?

We will review developers' brochures from various contractors or builders in different communities and compare "apples to apples." Students will discuss and compare floor plans, exterior designs of homes by the same developers in different areas and the prices. Students can play the role of developer or architect and write a cost plan to build a home. They must research to find the materials used or needed in building homes, calling the builders or using the Internet or visiting a site to find the pricing of materials. By groups students will select two different areas in the city that cater to people of different economic status and develop a floor plan for new homes and set prices and explain and answer the why questions.

THE SCHEME OF THINGS: COLOR

The study of color is given a category by itself because of its vast and broad effect in our environment, even in the universe. Colors are the ingredients that can add flavor to a building. Architects also use color to provoke reactions and to inspire the spectators. The inspiring use of color has led design professionals to use color to create interior spaces that support the health and well-being of all who live and work in them.

Color or the concept can be approached from different perspective and different disciplines. Music theory associates color with sound and instruments, as well as with moods in music. Human development theories relate colors with personalities, attitudes and behaviors. Educational scholars have also conducted colors with psychological development. All of the color stimuli that we receive from the external world are connected with our internal world, our psyche. The perception of color lies within the brain. Since it is within us, the cognitive process is challenged as it interprets meanings as light travels through this process.

We often overlook the environmental color and design that make up and influence the human response to our indoor and outdoor surroundings. The importance of environmental color and light and their effects on the human organism are not only relevant to the design professions (Mahnske, 3).

Using the Human Response to Color Chart and lesson activities, students will be able to associate colors with a mood or message they interpret through the architect's design and structures (Marberry and Zargon, 21).

FINALE

The result of this curriculum unit will enable the student to enter and exit buildings in communities and cities with some since of connecting with the personality and attitude of the people that abide

there. In comparison to adjusting one's mood from reading a Dr. Suess book to one of Stephen King's, likewise will there a be a change of moods from entering the Empire State Building to entering the White House, or the Ronald MacDonald House to the House of Pancakes. The students will be able to associate themselves like a reader of a good novel as a visitor to a well-structured establishment, and determine through interpretation the architect's mood and the building's purpose or function. The students will be able to stand back and view the outer structure and determine some of the architect's intent, purpose and overall message. Students will carry this skill and knowledge into adulthood. Upon entering and exiting any establishment, the student will determine if the architect's intent and purpose were met, depending on how they felt or whether their individual purposes were served in the manner the builder intended. Finally, the students will present their final project of a model community or building that elicits and solicits his or her individual personality and attitude and defines the mindset or mood, through color and design.

THE LESSON

Introduction

Objective: Students will develop a vocabulary to describe, interpret, and decode meanings and emotions involved in the architects' designs.

Goal: The students will look at a picture and give an interpretation, expressing the mood in the illustrations.

Materials: Pictures of the facial expression chart, activity pictures, pictures of buildings (some familiar to the students) and books only for the purpose of interpreting the covers. Choose covers that will elicit some thought patterns in the students (i.e. colorful with pictures, colorful without pictures, and plain/solid color with no picture.

Activity: Have students write the title of the book, their interpretation of the book and what they think it will be about. Depending on length give students the necessary time to read the book(s) and write a summary with which to compare their first impression or interpretation. Now, don't judge a book by its cover has real meaning. To begin this introduction to this unit here is a list of descriptive vocabulary for students to log also in their journals.

Vocabulary

joyous/joyful	enthused	exhilarating	disheartening
disenchanted	energetic	blissful	disgusting
sorrowful/gloomy	exciting	delightful	uncomfortable
boring/dull	exuberant	friendly	serene
open/inviting	uncomfortable	relaxing	structured/organized
closed/isolation	uninviting		

To the teacher: Students should become familiar with words, usage and definition. This can be done through open discussions, journal writing activities, sentence dictations, story writing or simply copy the definitions from the dictionary. The teacher/facilitator decides what strategy best meets the needs of his/her students.

Vocabulary Building

Objective: Students will discuss and define architect and architecture, providing the denotative and connotative meaning.

Goal: The students will use descriptive vocabulary to interpret the outer structure of building form past to present.

Materials suggested: Pictures or slides of buildings. Suggested books: *Houston Architectural Guide* by Stephen Fox; *Architecture of the Western World* edited by Michael Raeburn; *The Story of Architecture* by Jonathan Glancey; and *Icons of Architecture, The 20th Century*. These books have beautiful and elaborate illustrations. *The Last of the Past-Houston Architecture 1847 to 1915* by William Scott Field has illustrations with listed architects.

To the teacher: Again the teacher/facilitator must be innovative in the developing a plan or activity that best fits his/her class. Suggestions provided: 1) Time-line chart; 2) Make copies of picture and match to vocabulary word list; 3) Log in journal added vocabulary and pictures offered from students.

What Is Architecture?

Architecture, simply put, is the structure of a building. Cleverly stated it would be the "structure of a structure." Grammar, as a sentence is a structure of words to express a complete a thought, can be likened to a building structured to express a complete thought. Keeping in mind that we have simple sentences and complex sentences, likewise we have simple and complex buildings. Therefore architecture is a structure of building materials and designs that expresses a complete thought reflecting both the past and present.

However, as a result of our tours with Stephen Fox, I discovered unlike a sentence which may have one writer, a built structure may have one or more architects and definitely many elements of the environment and design professionals who are involved in the erection of a building, which also incorporates a conglomerate of ideas, beliefs and cultures.

The Language in Architecture: Interpretation

Objective: Students will define literary meanings of words to describe and interpret the message of the architect.

Goal: The students will take literary terms and apply them in the interpretation in determining the

architect's purpose, function, and meanings.

Materials Suggested: Short pieces of literature that best illustrate these terms; dictionary to write definitions; journal to log definitions. Books: *The Elements of Architectural Design: A Visual Resource* by Ernest Burden, contains all of these definitions with designed illustrations.

To the Teacher: After becoming familiar with the vocabulary students will be able to match pictures to word cards for interpretations.

Vocabulary

1. style	2. articulation	3. blending	4. climax
5. forum	6. repetition	7. rhythm	8. focus
9. contrast	10. contextual	11. unity	

We will first explore a few architects by name and work to become familiar with the "jargon," (language) and discover the purpose and function of the architect and building. After this, we will take a tour through pictures, to develop an insight to describe, interpret and determine a building's meaning, purpose and function. The era and culture will have significant effects in the interpretation process. Demetri Porphyrius argues eloquently that architecture makes us see the building craft from which it is born, from which it detaches itself as art, and to which it always alludes (52).

In-spite of previous efforts to coin a language, only one architectural language, has been codified through the centuries is that of classicism (Zevi, 3). Many who are designing and building today can barely mumble the language. Not knowing how to speak the language, has led to uttering inarticulate meaningless sound that carry no message (Zevi, 3).

Vocabulary

Kosmein: To decorate, initially meant "to bring to order" and regulate order (Porphyrius, 59).
Kata Kosmon: Linked to adornment. Refers to both order and adornment (Greek origination). "Cosmic" order (English derivative). "Ornore" (to ornament), means literally to put in order (See pictures. Porphyrius, 53).
Articulation: To unite by forming a joint or joints and divide by joints (Burden, 34).
Blending: A gradual merge of one thing into another.
Composition: Putting things into position to for a whole.
Unity: A oneness and absence of diversity; an arrangement of parts and the ordering of all elements in a work.

Compare and Contrast

We've heard for years, "opposites attract" and contrary to that we've become engulfed in the concept of confusion and chaos. They are just as opposite as night and day, thus giving negative notations that opposing differences cannot dwell together. According to Curl, the Baroque and the Rocco styles are both developments and branches of classical art and architecture. Baroque means irregularly shaped, whimsical and odd, originally the term was applied to a rough and imperfect pearl. Classical architecture implies a degree of clarity within precise boundaries, and perhaps a static quality yet with a profound sense of order and or continuity from antiquity and with a serenity, a balance and logic that expresses developed intellect (106).

Culture and History in Architecture

Objective: Students will develop respect for community developments, and solutions related to building structures and identify the functions and purposes of structured buildings and business.

Goal: Students will compare and contrast the style of architects from the early 1800s to 1900s and present-day.

Materials: *Graphic History of Architecture* by John Mansbridge; *The Story of Architecture* by Jonathan Glancey.

To the Teacher: The teacher/facilitator should lead the students into an open discussion about the buildings in their communities. Identify the functions of the buildings. Discuss the purpose developers were seeking to fulfill in placing the built structure in the community. Decide which buildings are not useful in the community. Decode which buildings are not useful in the community or causes a calamity in the community. This should be followed in a group research to find the owners, developers, and architects of a particular in the community. Research the history of the building. Develop a business letter to address the class concerns about that building. This should be done only after extensive study in the history of architecture, the style and most of the purpose.

Architecture touches all of our senses. Jonathan Glancey reminds us that our culture is about the making of things, and history is always in the making. It is the culture, beliefs and traditions of people that add the unique flavor to history. As vastly different as all may seem, underneath the lies a common goal of history, which is to be made so others can read and share in the experiences of the past in the present-day.

The basic and ultimate goal of architecture is to provide shelter form the element of the atmosphere environment. Architecture transcends that basic need and its expression across time and space (Glancey, Foreword).

Architect History across the Way

Romanesque architecture was based on the Roman system of arched buildings. Early Christian basilicas and influences came from Syria and Byzantium. The Norman came west of England (1066) and brought a rapid building of abbeys, priories, cathedrals, smaller churches and castles. Romanesque churches were massive construction, thick walls, stones and marble. In Italy, marble, round arches and small windows; simple columns, and vaults were built as protections against fire and to aid acoustics. They also gave light from the clerestory windows. Egypt: Originally mud and bricks were used for houses but did not survive the abusive climate. Egyptians strong belief in life after death, poured upon the system of geometry to build a structure that would preserve the body in a lasting tomb. They therefore took advantage of their abundance of limestone, sandstone, and granite to build construction great solidity and permanence. Western Asia: Sumeria city Kingdom had not stone nor timber, but much clay. The clay was molded into sun-dried brick and the buildings were faced with kiln bricks. Assyria: Using limestone and alabaster, they built palaces 30 to 50 feet high and in bright color paint. Arches were also constructed for gateways, vaults, and diceus (Mansbridge, 81).

The Places of Worship

It would be a terrible injustice if I did not briefly share the work of architecture in the most important and sacred element of our existence. *Houses of God* is a fascinating look at how and even why Americans have come to the solid conclusions in successfully shaping and molding their places of worship into very diversified, multi-culture, and multi-service, incorporating the cultures and beliefs throughout its history. My reading has led me to discover the culmination of many influences that can be traced through the historical development, reflecting the geographical area, its culture, economic system and traditional beliefs and practices. Some of which we still find today in our places of worship. The journey can be cited from New England to the Great Plains, the Spanish Border and the Pacific Rim, where, as the places of worship evolved architects were able to express the "attitude" and "spirit" of the people of its time.

Meeting houses, as the churches of today were referred in the early 1600s to 1800s, are an exploration of regionalism and religion, where architects necessitate the collaboration and consideration of several related themes: tradition, style, vernacular and denomination. Spanish Catholics, British Puritans, Anglicans in North America, Protestants, ethnic Catholics and Jews, and later Buddhists, Hindus and Muslims have managed through hostile waters and stained sail to bring their uniqueness and make adaptations for their own purposes resulting in an array of houses of worship and other sacred sites and structures.

Science in Architecture

Objective: Students will create structures to determine the solidity of building materials.

Goal: To construct a model project for the Science Fair.

***Materials suggested**:* Plaster, clay, brick, kiln, water, molds, cement, wood/wood chips, stone, plastic bags, newspaper, glue, (wood/cement), bowls (paper/plastic), tongue depressors.

To the Teacher: You may contact your District office or warehouse for the supplies or a Science Kit.

This science lessons should definitely follow your history lessons. Students will research the origination of building materials: limestone, granite, marble, alabaster, cement wood (timber), iron/metal. Students will be allowed to make a small construction under close supervision just to demonstrate the strength of building materials. The final projects will be selections for the school's Science Fair Project.

Vocabulary

1. Adobe	2. Aluminum	3. Brick	4. Cast Iron
5. Cast stone	6. Ceramics	7. Concrete	8. Glass
9. Masonry	10. Metals	11. Plaster	12. Stucco
13. Plastic	14. stained glass	15. Steel	16. Stone
17. Tile	18. Terracotta	19. Timber	20. Wood

The terms will become more meaningful in the hands-on activity provided and facilitated by the teacher. This might be the time to bring in an expert from the field either found on- or off-campus. Develop a team effort with your co-workers especially if you are teaching Special Education; bring in a Regular Education class. This is a good opportunity to showcase your students' academic abilities. Maybe you can even schedule a time for your class to use the Science Lab.

This lesson should be cleverly introduced to the students by strategically placing your materials (visual aides) throughout the classroom. This is your focus. Once students begin to notice the bricks, stones, small bags of cement, sheets of metal, wooden blocks/model slabs, tile, pieces of iron, clay, aluminum, glass; have students walk around and handle the objects. One facilitator set up the classroom in a museum style. As the students enter the classroom, they walk around the room to view the items and read a short description presented on an index card. Afterward, the students are led into an open discussion about the strengths, weaknesses, purpose, functions and how these materials might be used most effectively. This activity will allow the students become critical thinkers in their architect designs and development.

Math in Architecture

***Objective**:* Students will identify the geometric shapes in architecture, demonstrate use of measuring tools and software to find and discuss solutions to problems and apply mathematical terminology in the structure of architecture.

Goal: Students will identify basic shapes in buildings.

Materials: Measuring tools: tape, ruler, scale, yard stick, compass, protractor, graph paper, CAD, Geometry software, paint software.

Vocabulary (Burden, 35)
Asymmetry: Creates a sense of equilibrium by the arrangement of two sets of forms.
Axis: An imaginary straight line about which parts of buildings or a group of buildings can be arranged.
Line: A path of a point extended through spaces, straight, curved or angular. A line has its own character as it can be generated from any shape.
Module: Used as a unit for measuring, depicting the characteristics of a program or design (48).
Plane: The fundamental property of a plan is its shape and surface (53).
Pattern: The juxtaposition of repetitive elements in a design (52).
Symmetry: The exact correspondence of form on opposite sides of a dividing line or plane.
Space: The design and control of space relates to the relationship of open areas.

It is very important that students are allowed ample activities to become comfortable with the vocabulary provided. Hands-on activities should be created to expose students to the working meaning of the words.

How Color Affects Our World – Color: The Meaning, Purpose, and Affect

Objective: Students will be able to apply color to determine mood, meaning, function and purpose of its use in environmental situations**.**

Goal: To define the purpose and effect of color chosen by architect designers or decorators**.**

Materials Suggested: *The Power of Color* by Sara Marberry and Laurie Zagon, color chart, construction paper, color pencils or other color utensils, music; Beethoven, Mozart, Jazz instrumental, color swabs of tile, or carpet.

Human beings receive 80 percent of their information from the environment (Mahnke, 10). Color belongs to the environment and it is therefore a means of information and communication of absolute necessity for the interpretation and understanding of the natural and artificial or architectural environment (Mahnke, 10).

Life is governed by the radiation of the sun and the light that is visible to us has color. There are inherited biological factors that suggest color associations, symbolism, impressions and mannerism are of specific characteristics related to groups, culture, and even agree as to how color is experienced and used.

We must also study the facts of the neuropsychological aspects of the stimuli of color and reactions to the functioning of the brain. Richard Kuiller (1976) conducted an experiment on the affects of two opposite environments and diversified. The study revealed a profound effect on an electroencephalogram (EEG) and pulse rate resulting for the coloring and visual pattern of an interior space, also affecting the emotional feeling of the person. Another important consideration in creating beneficial environments is the relationship between personality and reaction to stimulation. Psychologist, H. J. Eysenck, designated these reactions to extroversion and introversion terms that express the degree of excitability (Mahnke, 27).

Frieliz (1990) presented the following color scheme and human behavior:

Red light: stimulates
Yellow light: tenses, raises motor activity.
Violet-blue light (blue): calms, increase concentration.
Green light: balances heterogeneous tendencies.

Having acquired this information, the student can now appreciate and seek more information related to the color schemes in businesses, schools, day-cares, hospitals, nursing homes, and family homes (interior decorators).

LESSON PLANS

Math in Architecture

Measure up!

Objective: Students will learn how to use and read a ruler.
Activities:
1. See worksheet.
2. Add measurements. (Do not use measurements that have to be converted.)
3. Use block manipulatives of geometric shapes. Use ruler to measure sides.

Objective: Students will find the perimeter of geometric shapes.
Activities:
1. Given squares, students will use a ruler to measure and add the sides.
2. The formula for the perimeter of a square is P=4s or P=S+S+S+S
3. Follow same steps for triangle and rectangles, circles etc.

Objective: Students will identify angles by shape and measurement.
Activities:
1. Describe and identify right angles using a square. Use a protractor to find measurement.
2. Provide the same activities for acute and obtuse angles.
3. Introduce other measuring tools, yardstick, measuring tapes.
4. Students will use these tools to measure the length and width and height of items in the classroom.

5. See tour. (Students should solve for their measurements found.)
6. Converting measurements have to be introduced.

Objective: Students will apply vocabulary to identify shapes in structures.
Activities: Given a variety of pictures to view students will find the geometric figures in building structures.

Tech Day

Guest speaker, technology teacher comes to teach a lesson and introduce students to a scale and other measuring tool and activities. Make arrangements with your TECH teacher on campus for your students to visit their class for a lesson.

Language in Architecture

Objective: Students will define and use appropriate terms related to architecture.
Activities:
1. Provided the list of descriptive words, literary terms and definitions students will identify and interpret meanings in short passages or poems.
2. Provided view of colorful pictures or book covers, students will identify the mood and tone.
3. Given pictures of buildings, students will interpret the message and identify the function of the building. (Use Chart Card)

School Tour

Objective: Class will tour school.
Activities:
1. Chart the name and number of geometric shapes found in classroom.
2. Write your explanation why such shapes were used.
3. Use measuring tape to measure doors, window, hallways, benches, pole, and distance between objects (i.e. sidewalk, entrance ways).
4. Group students for school tour. Solve for the measurements in Math.

What is Architecture?

Objective: Students will define architecture and discuss the buildings surrounding the school's community and their purpose or function. (These sites should be included in planning tours for field trips.)
1. Library
2. Grocery store
3. Recreational center/Multi-purpose center
4. Clinics
5. Veterinary

6. Laundry/Cleaners
7. Schools (different grade levels)
8. Hotel/motels
9. Restaurant
10. Colleges/universities
11. Political headquarters
12. Downtown: museum, historic district, and local universities; Fourth Ward, Sixth Ward

Activities:

Students will list these buildings by address, research the date that the establishment was constructed, and determine the status of the economy of the community.
Visit at least three sites on their own. Note structure's shapes, windows, materials used, renovations if any, and position on land property.
Compare to other buildings that are no longer in use in the neighborhood.
Discusses the purpose and functions of the buildings and the successes or achievements it warrants in the community (if any). If not, list the pros and cons of such establishments.

Science in Architect

Activities: Given a structure card,
1) Draw a blue print of a four-sided structure,
2) Select the material and explain why it was chosen (i.e. feasibility, function, cost),
3) Use science kit (molding kit), tongue depressors, or any materials from list to make model, and
4) Read information from selected reading list.

Objective: Students will select materials to build a model structure. Vocations in architecture: Using the list from above, students should identify some of the jobs available in these establishments. The workers involved from the planning to the building of a structure should also be researched. Please select one to the suggested readings from the list. The Internet is also resourceful for the following job titles.
Land developer, surveyor, construction worker, plumber, electrician, architect, painter, carpenter, inspector, appraiser, and tax appraiser.

Activity: Career Research: Students prepare a report for the requirements and duties of each above job title.

Interpretation

Objective: Students will interpret the meaning and message of a building compared to a book.

Activities: 1) Having placed several books throughout the room, one by one as selected by

facilitator or by groups, students will interpret the author's intended message in the book. The facilitator may have to lead the class through the first one. Dr. Suess is one of my favorites for show and tell book covers. *The Tale of Two Cities* is another one filled with a great deal of symbolism. You may want or need to provide students with a vocabulary of interpretation prior to this lesson, such as group of descriptive words: attractive, comical, dramatic, red meaning fire or blood, oppositional, inviting, picturesque.

2) Provide students with an array of pictures of buildings from both the past and present. Students are to identify the mood that it elicits from them. Students give a visual description of the building, noting sizes, shapes, and colors. Students will also explain the function of building in the community and particularly the intended attraction of a specific group of people (the target audience).

History in Architecture

Objective: Students will learn at least six famous architects; three from the past and three present-day.

Activities:

1) Students will read about Michelangelo, Baroque and choose one from the historical research. Using the bibliography, students may choose from that list. Field trips planned to tour specific sites in the city will be pre-visited by research. Buildings selected will be thoroughly researched before taking the tour and the architect(s) will also become prior knowledge.
2) Students (grouped/individually) will select a building in the neighborhood and gather data about that structure (i.e. date built, architect, interior designer, purpose/function, blueprint, developer or construction company).
3) Contact a developer or construction company, write a class letter and invite a spokesperson to class or request a tour and or information.

Conclusion

Students may be instructed to visit buildings, businesses, or churches; take pictures and keep a log of these in their journal; and explain the elements of architecture in the buildings. Students now have a more comprehensive concept about building and the purpose they were meant to serve. Their critical thinking and decision making skills have now been fine tuned to make intelligent inquiries and research for those answers to the why questions. When ground is being broken for a new building site, students can now seek the owner, developer, political leaders, or architect to make inquires to address their concerns.

Using the CAD or Geometric drawing game, students will make a final project of their present community. They will be responsible for constructing their dream home. A portfolio from the past to the future of all this work will be profiled for each student to keep to commemorate their journey into the past and their walk into the future.

Strong/Powerful/Dominate		**Exciting/Uplifting/Inspiring**
Bland/Gloomy/Dull		**Open/Friendly/Inviting**
Isolated/Repulsive/Uninviting		**Welcoming/Quiet/Relaxing**

ANNOTATED BIBLIOGRAPHY

Ackerman, James S. *The Architecture of Michelangelo: A Catalogue or Michealangelo's History of Drawings and Design from 1515-1559*. London: A. Zwemmer LTD, 1964.

Allen, Edward. *How Buildings Work, the Natural Order of Architecture*. 2nd ed. New York: Oxford University Press, 1995.
It provides detailed and well illustrated the insides and outer-layers of buildings explaining their functions and purpose to serve.

Allsopp, Bruce. *The World of Architecture: Romanesque Architecture*. New York: The John Day Company, 1971.
It covers the era of the fall of the Roman Empire and the transition of the environmental changes in values, religion, and methods of construction and design.

Baker, John Milnes. *How to Build a House with an Architect*. Philadelphia and New York: J.B. Lippincott Company.
This is a step-by-step, blueprint of the architect's guide in building a home.

Burden, Ernest. *Elements of Architectural Design: A Visual Resource*. New York: Van Nostrand Reinhold, 1995.
It provides a comprehensive study of the specific elements in the design, detailing the construction and reinforcing the overall concept of both past and present design context.

Curl, Stevens James. *Classical Architecture*. New York: Van Nostrand Reinhold, 1992.
The fundamentals of Classical Architecture are described and detailed by an illustrated glossary. The rise of the Classical Architecture in Greek and Roman Antiquity.

Field, William Scott. *Last of the Past: Houston Architecture 1847 to 1915*. Houston: The Greater Houston Preservation Alliance, 1980.
This collection of Houston's finest development, architect, and physical description as well as a detailed illustration is the result of the establishment of the Greater Houston Preservation Alliance. The purpose of this organization was to maintain and improve the quality of the life in Houston through the preservation of historic and distinctive buildings.

Fox, Stephen. *Houston Architectural Guide*. 2nd ed. Houston: American Institute of Architecture, Houston Chapter, and Herring Press, 1999.
A guidebook cataloging the significant buildings and places in the city of Houston, identifying the date, location, and architect along with a brief description portraying the uniqueness in each structure.

Glancey, Johnathan. *The Story of Architecture*. London and New York: Dorling Kindersley Publishing, 2000.
This gives a very vivid picture of well-illustrated architecture, the meanings and purposes

reflecting the culture and geographical setting and era. Reflects several nations across the world.

Mahnke, Frank H. *Color, Environment, Human Response*. New York: Van Nostrand Reinhold, 1996.
It discusses the study of color and how it is or can be beneficial or affect human beings in their day-to-day living.

Mansbridge, John, *Graphic History of Architecture*. Santa Monica, Calif.: Hannessey & Ingalls, 1999.
This author has provided a visual textbook for students and general readers to view photographs or designs, drawings, diagrams to give a clear picture to the three-dimensional form and the construction of buildings.

Marberry, Sara O. and Laurie Zagon. *The Power of Color: Creating Healthy Interior Spaces*. New York: John Wiley & Sons, Inc., 2000.
Connects the links between color and academic performance, medical journal exploring facts leading to the environmental colors aiding the healing of the human body. Architects have taken careful considerations to choose a full-spectrum color palette, to include designs for many different types of public and private spaces from healthcare facilities and schools to hotels and offices.

Moneo, Rafael. *Audrey Jones Beck Building, The Museum of Fine Arts, Houston*. London: Axel Menges, Stuttgart, 2000.
Large illustrations of the Museum of Fine Arts, interiors, sculptures, blueprint design, interior wall, lighting and colors, and connection to the underground walkway. Perfect illustration and explanation revealing how climate, light, circulate through spaces, dialoguing between building and art.

Porphyrios, Demetri. *Classical Architecture*. New York: Andreas Papadakis Publisher, 1998.
This collection of work is a significant exploration of architecture as the art of building. It includes the theory of limitations, the position it occupies in classical thought, the tectonics, building and architecture relationships and the principles of the traditional city.

Raeburen, Michael. *Architecture of the Western World*. New York: Rizzoli, 1980.
A historical view. The development in architecture from its rooted beginning, having laid the foundation for moral, cultural strength, establishing functions and symbolism drawing the boundaries of architecture as we know it today.

Sutton, Ian. *Western Architecture: From Ancient Greece to the Present*. London: Thames and Hudson, 1998.
Written for students and the general reader, this collection provided short snap-shots of architecture identifying the dates, function and style of the architect.

Theil-Siling, Sabine. *Icons of Architecture, The 20th Century*. New York: Prestel, 2000. A collection of the most elaborate, distinctive and breathtaking work of architecture from the 1900 to 2000.

Visser, Margatet. *The Geometry of Love*. New York: North Point Press, 2000.
The author sought to find answers to her own question why churches use certain symbolism and the meanings behind each and learn how to read any church building and how to interpret what it "does" and "says" whether we are of any faith or none.

Williams, B. Gene. *Be Your Own Architect*. USA: Tab Books, 1990.
Provides detailed floor plans for building a home, including necessary tools and techniques, structure and materials and other specifications.

Williams, W. Peter. *Houses of God*. Urbana and Chicago, Ill.: University of Illinois Press, 1997.
This work is a look at how Americans shape their places of worship into multifaceted reflections of their culture.

Zevi, Bruno. *The Modern Language of Architecture*. Seattle, Wash.: University of Washington Press, 1978.
An architectural critic who sets forth seven principles of "antirules," to codify the new language of architecture created by Le Corbrusier, Gropius, Mies van der Rohe, and Wright. He traces the dialogue between architecture and historiography, finding elements for the modern language of architecture throughout history.