Kindergarten Lesson One

KINDERGARTEN
LESSON NO. 1 GEOMETRIC SHAPES

LENGTH OF LESSON: 30 Minutes

EDUCATIONAL OBJECTIVES:

A. Introduce shapes as the most basic element of form
   Mathematics
   • Geometry and measurement

B. Visualize shapes as simple forms of objects in the environment
   Social Studies
   • Geographic perspective
   Mathematics
   • Geometry and measurement
   Visual Arts
   • Creation

C. To be able to verbalize an understanding of shapes, their similarities and their differences
   English/Language Arts
   • Meaning and communication

ARCHITECTURAL PRINCIPLES:

Design is composed of manipulating the physical characteristics of size, shape, texture, proportion, scale, mass and color.

Visual relationships are determined by light, shadow, edges and contrast.

Visual thinking is a key to awareness of the built environment.
MATERIALS

1. Tape, scissors, tracing paper and markers
2. Pictures of shapes (handout included) to compare to similar shapes in the classroom; photocopy this handout for students
3. Several photos of buildings (included) that show clear examples of shapes

VOCABULARY (See Glossary for definitions)

1. Circle
2. Semi-circle (half circle)
3. Rectangle
4. Shape
5. Square
6. Trace
7. Triangle

ACTIVITY

A. Introduce the basic two-dimensional shapes and their names:

```
Circle  Semi-Circle  Rectangle  Square  Triangle
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B. Have the students find examples of these shapes in objects around the classroom. Label the shapes they find.

C. Have students discuss the shapes.
   1. Repeat the names of the shapes.
   2. Identify similarities and differences in the shapes.

D. Have students cut out shapes from handout.
E. Show slides, if available, and/or pictures (included) of various buildings. Have students identify examples of the shapes found on the buildings. (Teacher may want to make extra copies of photographs for students).

1. Have students place cut-out shapes over similar shapes on buildings.

2. Put tracing paper over pictures of buildings (or slides projected on a wall) and ask students to trace the shapes they see.

TEACHER’S EVALUATION

A. Observe the students and their ability to find shapes within the classroom.

B. Review shapes traced over photos. Students should be able to accurately draw, recognize and identify shapes according to their tracings.
Kindergarten ♦ Lesson One

- Circle
- Square
- Semi-Circle
- Triangle
- Rectangle
Circle
Circle
Square
Semi-Circle
Kindergarten ♦ Lesson One

Semi-Circle
Kindergarten • Lesson One

Rectangle
Triangle
EDUCATIONAL OBJECTIVES:

A. Identify geometric shapes and size differences in the same shape
   Mathematics
   - Patterns, relationships and functions
   - Geometry and measurement

B. Understand how different geometric shapes are used in the built environment
   Social Studies
   - Geographic perspective
   Mathematics
   - Patterns, relationships and functions
   - Geometry and measurement
   Visual Arts
   - Analyze in context

C. To be able to verbalize how shapes are used in the built environment
   English/Language Arts
   - Meaning and communication

ARCHITECTURAL PRINCIPLES:

Design is accomplished by composing the physical characteristics of size, shape, texture, proportion, scale, mass and color.

Order is the arrangement and organization of elements to help solve visual and functional problems.

Visual relationships are determined by light, shadow, edges and contrast.

Form follows function is a design approach whereby the form of the building is determined by the function of its spaces and its parts.
MATERIALS

1. Construction paper of various colors; glue; scissors and crayon
2. Large photograph of actual streetscape (included)
   a. Clear overlay of the streetscape for projection
   b. Markers for the clear overlay
3. Pages of shape outlines in various sizes (copy onto paper in various colors for student use)
4. Sets of geometric shapes pre-cut from black construction paper (provide each student with a set)

VOCABULARY (See glossary for definitions)

1. Circle  5. Shape
2. Rectangle 6. Square
3. Scale  7. Trace
4. Semi-circle 8. Triangle

ACTIVITY

A. Identify shapes in a streetscape.

1. Project a clear overlay of an actual streetscape photograph onto a screen or classroom wall, large enough for students to work on. Give each child a set of the black geometric shape cutouts. Have each student select a shape and find the shape in the actual streetscape.

B. Create a streetscape.

1. Give each child a set of the shape outline worksheets featuring various sizes of triangles, circles, semi-circles, squares, and rectangles.
2. Have each student cut out the shapes from construction paper of various colors and use them to create his/her own streetscape on an 11 x 17-inch piece of paper.
C. Have the students discuss the shapes.

1. Repeat the names of the shapes and identify which shapes were used for the parts of the buildings.
2. Point out different sizes of the same shape (scale).
3. Introduce the concept of smaller shapes, such as doors, windows, etc., into the 11 x 17-inch streetscape.
   a. Have the students draw these shapes on their streetscape with crayon.

TEACHER’S EVALUATION

A. Observe the students and their ability to find shapes within the streetscape photo.

B. Review student art. Students should be able to correctly fit shapes together and begin to use smaller shapes to draw details like doors, windows, etc., to create their own streetscapes.
Streetscape
Kindergarten ♦ Lesson Three

KINDERGARTEN 
LESSON NO. 3 
NEIGHBORHOOD WALKS

LENGTH OF LESSON: 30 to 60 Minutes

EDUCATIONAL OBJECTIVES:

A. Identification of geometric shapes and their differences in shape and size
   Social Studies
   • Geographic perspective
   Mathematics
   • Patterns, relationships and functions
   • Geometry and measurement
   Visual Arts
   • Analyze in context

B. Understand the components of a neighborhood
   Social Studies
   • Geographic perspective

C. To be able to describe a neighborhood and the shapes in the built environment that are part of it
   Social Studies
   • Geographic perspective
   English/Language Arts
   • Meaning and communication

ARCHITECTURAL PRINCIPLES:

Design is accomplished by composing the physical characteristics of size, shape, texture, proportion, scale, mass and color.

Order is the arrangement and organization of elements to help solve visual and functional problems.

Balance is the creation of visual harmony through the use of color and the manipulation of form.
Design is experienced through human sensory perception.

Social structure, culture and the built environment have a direct influence on one another.

Architecture satisfies emotional and spiritual needs in addition to physical needs.

Past, current and future technologies influence design decisions.

MATERIALS

1. Sheet containing black geometric shapes (included in Lesson No. 2); make a copy for each student
2. "Worksheet of Vocabulary Items"
3. Photographs with pictures of vocabulary items
4. Pencils or markers

VOCABULARY (See glossary for definitions)

5. Dormer 10. Gate 15. Porch 20. Window

ACTIVITY

A. Evaluate the students’ progress in learning geometric shapes and review any weak areas.

B. Teacher: Take a preliminary walk before the time of the actual class walk to observe which elements can be identified in the specific neighborhood. Prepare a master copy of neighborhood elements (from vocabulary list) covered during the walk.
C. Prepare the objectives to be accomplished during the walk. Remind students of Lessons No. 1 and 2 regarding geometric shapes and their application in the built environment. Show pictures of the various parts of a neighborhood (use accompanying photos).

1. What shapes are present?
2. Is there a driveway?
3. Is there a porch?
4. Does the porch have a roof?

D. Prior to the walk, identify and discuss various elements of the neighborhood with the students.

E. Take the class for a neighborhood walk close to the school. It should provide a variety of workplace buildings and/or homes. The length of time involved may require limiting the objectives or may require more than one walk.

1. Elements can be found in the vocabulary list for this lesson plan.
2. Students should take the vocabulary worksheet on the walk and circle the items they see.
3. Students should take the sheet identifying geometric shapes on the walk to find those shapes in the built environment.

TEACHER’S EVALUATION

A. Evaluate the students’ learning experiences from Lessons No. 1 and 2. During discussions, observe the students’ understanding of shapes and patterns relating to the built environment in their community.

B. Review students’ worksheets used during the walk. Use a master copy of neighborhood elements (from vocabulary list) covered during the walk. Compare items marked off on the students' papers to the items marked on the master copy.
# Kindergarten Lesson Three

## Worksheet of Vocabulary Items

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Roof</td>
<td>Gable</td>
<td>Dormer</td>
<td>Window</td>
<td>Door</td>
</tr>
<tr>
<td>Chimney</td>
<td>Porch</td>
<td>Column</td>
<td>Garage</td>
<td>Fence</td>
</tr>
<tr>
<td>Gate</td>
<td>Hedge</td>
<td>Path</td>
<td>Steps</td>
<td>Driveway</td>
</tr>
<tr>
<td>Traffic Sign</td>
<td>Park</td>
<td>Playground</td>
<td>Trees</td>
<td>Bench</td>
</tr>
</tbody>
</table>
Hedge

Steps

Driveway

Playground
Kindergarten ♦ Lesson Three

Park

Traffic Sign

Trees

Bench
KINDERGARTEN
LESSON NO. 3a
PARKS AND PLAYGROUNDS

LENGTH OF LESSON: 30 to 60 Minutes

EDUCATIONAL OBJECTIVES:

A. Awareness of students' community, including park and playground activities, uses and rules
   Social Studies
   • Geographic perspective

B. Extension of student vocabulary regarding parks and playgrounds
   English/Language Arts
   • Meaning and communication

C. Learn responsibility for the environment
   Science
   • Develop new scientific and personal knowledge
   • Use scientific knowledge from the life sciences in real world context

ARCHITECTURAL PRINCIPLES:

Nature is a model for architectural forms and shapes.

Sustainable design of the built environment protects the natural environment.

Form follows function is a design approach whereby the form of the building is determined by the function of its spaces and its parts.

Climate and the natural environment influence design decisions.

Architecture satisfies emotional and spiritual needs in addition to physical needs.

Sustainable Design of the built environment protects the natural environment.
MATERIALS

1. Worksheet of vocabulary items
2. Pencils or markers

VOCABULARY (See glossary for definitions)

1. Baseball Field
2. Basketball Court
3. Bench
4. Crosswalk
5. Curb
6. Driveway
7. Electric Wires
8. Environment
9. Fence
10. Fire Hydrant
11. Flowers
12. Fountain
13. Garden
14. Lawn
15. Park
16. Pavement
17. Playground
18. Road
19. Rules
20. Sidewalk
21. Slide
22. Soccer/Football Field
23. Stop Sign
24. Street
25. Streetlight
26. Sustainability
27. Swings
28. Traffic Light
29. Trees
30. Yard

ACTIVITY

A. Discuss with the students the need for neighborhood parks and playgrounds. Use vocabulary listed above for reference.

B. Take the class for a walk in a neighborhood close to the school that has a park or a playground. Prepare a list of questions specific to your park or playground walk as follows:

1. How do we identify it as a park or playground?
2. What activities take place in a park or playground?
3. What elements are built into these environments to facilitate and encourage these activities?
4. Which items are made by people and which items are natural?
5. Whom are parks and playgrounds for?
6. What are the rules in parks and playgrounds?
7. What could be added to this park for community use?
8. What can we do to help care for our parks and playgrounds?
C. Have students take the worksheet with pictures of vocabulary items on the walk to the park/playground. Have them circle what they see on their walk.

TEACHER’S EVALUATION

A. Using a master copy of the vocabulary worksheet, review the students’ work-sheets for accuracy.
<table>
<thead>
<tr>
<th>Bench</th>
<th>Electric Wires</th>
<th>Fence</th>
<th>Fire Hydrant</th>
<th>Flowers</th>
<th>Fountain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garden</td>
<td>Lawn</td>
<td>Playground</td>
<td>Road</td>
<td>Rules</td>
<td>Street</td>
</tr>
<tr>
<td>Stop Sign</td>
<td>Slide</td>
<td>Sidewalk</td>
<td>Streetlight</td>
<td>Swings</td>
<td>Traffic Light</td>
</tr>
<tr>
<td>Trees</td>
<td>Baseball</td>
<td>Basketball</td>
<td>Soccer</td>
<td>Crosswalk</td>
<td></td>
</tr>
</tbody>
</table>
KINDERGARTEN
LESSON NO. 4
BUILDING BLOCK TOWN

LENGTH OF LESSON: 30 Minutes

EDUCATIONAL OBJECTIVES:

A. Arrange physical elements of a community that displays the students' understanding of built environment components
   Social Studies
      • Geographic perspective

B. To understand the spatial relationships and functions of community buildings
   Mathematics
      • Patterns, relationships and functions
      • Geometry and measurement
   Visual Arts
      • Analyze in context

C. Begin to understand three-dimensional form
   Mathematics
      • Patterns, relationships and functions
      • Geometry and measurement
ARCHITECTURAL PRINCIPLES:

Design is accomplished by composing the physical characteristics of size, shape, texture, proportion, scale, mass and color.

Order is the arrangement and organization of elements to help solve visual and functional problems.

Form follows function is a design approach whereby the form of a building is determined by the function of its spaces and its parts.

Mass creates form, which occupies space and brings into being a spatial articulation.

The creative process is basic to design.

Aesthetics is the artistic component of architecture.

MATERIALS

1. "Simplified Map" (included) for the teacher to enlarge (may project the map on a wall and use tracing paper to create an appropriately sized drawing)
2. "Worksheet of Vocabulary Items" (make copies and cut out the labeled squares)
3. Variety of shapes and sizes of wood or cardboard building blocks (to represent buildings)
4. Toy cars
5. Glue

VOCABULARY (See glossary for definitions)

1. Built environment
2. Community
3. Fire station
4. Hospital
5. Houses
6. Library
7. Police station
8. Roads
9. School
10. Shopping Center
ACTIVITY

A. Place enlarged road map in an accessible location for students.

B. Hand out labeled squares of the nine items listed below:
   1. Shopping Center
   2. School
   3. Houses
   4. Fire Station
   5. Library
   6. Hospital
   7. Police Station
   8. Hotel
   9. Park

C. Have the students paste the labeled squares on top of the three-dimensional blocks that represent the buildings.

D. Talk to students as they build their own town.

   1. A community is where people live, work and play.
   2. Do they have roads that lead to the buildings listed above?
   3. Have the students identify various paths of travel, e.g., school to library.
   4. Use dialogue to ask if their arrangement needs to be changed. Does the school need to be closer to the houses for children to be able to walk to school? Are there roads to connect the police and fire stations to all areas of the community?

E. Have the students add toy cars and draw trees, sidewalks, etc., to complete their town.

TEACHER’S EVALUATION

A. Observe students’ ability to follow a path from houses to school, from the fire station to a house, etc.

B. Determine students’ understanding of how the built environment relates to their community by evaluating their understanding of the relationship between buildings, roads and sidewalks in the community they create.
Kindergarten ♦ Lesson Four

Simplified Map
Kindergarten Lesson Four

<table>
<thead>
<tr>
<th>Shopping Center</th>
<th>School</th>
<th>Houses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Station</td>
<td>Library</td>
<td>Hospital</td>
</tr>
<tr>
<td>Police Station</td>
<td>Hotel</td>
<td>Park</td>
</tr>
</tbody>
</table>

Worksheet of Vocabulary Items
KINDERGARTEN LESSON NO. 5

ACTING OUT STRUCTURES

LENGTH OF LESSON: 30 Minutes

EDUCATIONAL OBJECTIVES:

A. Introduce the structural principles of opposing forces, tension and compression
   Science
   • To use scientific knowledge of the physical sciences in real-world contexts

B. Develop knowledge of three-dimensional forms
   Mathematics
   • Geometry and measurement
   Visual Arts
   • Analyze in context

C. Develop a basic vocabulary of structural principles and components
   English/Language Arts
   • Meaning and communication

ARCHITECTURAL PRINCIPLES:

Visual thinking is a key to awareness of the built environment.

Form follows function is a design approach whereby the form of a building is determined by the function of its spaces and its parts.

Nature is a model for architectural forms and shapes.

Past, current and future technologies influence design decisions.
MATERIALS

1. Examples of different structural types (included)
2. “Acting Out Structures” handout (included)

VOCABULARY (See glossary for definitions)

1. Arch
2. Beam
3. Cantilever
4. Column
5. Compression
6. Dome
7. Flying Buttress
8. Forces
9. Gravity
10. Tension
11. Vault

ACTIVITY

A. Display pictures of buildings showing different types of structural systems (column, beam, vault, dome, etc.) and discuss the basic structural principles present in each example. Ask the class to think of other more familiar structures that demonstrate the same principles; for example, the column and beam structure of playground equipment, the vault shape of a tunnel, the cantilever of a streetlight.

B. Give students a copy of the Acting Out Structures handout. Have the class “act out” different structural systems, calling attention to concepts such as the following:
1. Some structures, such as a column, can function independently.
2. Other structures, such as an arch, require cooperative effort or “opposing forces.”
3. Notice how tension and compression forces can be used to oppose the force of gravity. Demonstrate tension using string or rubber band, and compression by pushing hands together.

TEACHER’S EVALUATION

A. Through observation, the teacher should assess students’ comprehension by their ability to act out structures, use vocabulary and understand math objectives.
Kindergarten ♦ Lesson Five

Arch
Column & Beam
Flying Buttress
Kindergarten • Lesson Five

Vault / Tunnel
Kindergarten ◆ Lesson Five

Column
Kindergarten ♦ Lesson Five

Dome

![Image of the Dome]
Acting Out Structures

- COLUMN
- ARCH
- COLUMN AND BEAM
- DOME
- TENSION
- CANTILEVER
- LOAD AND SUPPORT
- VAULT / TUNNEL
- COMPRESSION
- FLYING BUTTRESSES
KINDERGARTEN    HUMAN PROPORTIONS

LESSON NO. 6

LENGTH OF LESSON: 30 Minutes

EDUCATIONAL OBJECTIVES:

A. Develop knowledge and skills of measuring
   Mathematics
   • Geometry and measurement
   • Data analysis and statistics

B. Become aware of the body and its proportions
   Science
   • Use scientific knowledge for the life sciences in real-world context

ARCHITECTURAL PRINCIPLES:

Design is accomplished by composing the physical characteristics of size, shape, texture, proportion, scale, mass and color.

Visual thinking is a key to awareness of the built environment.
KINDERGARTEN • Lesson Six

MATERIALS

1. Ruler and yardstick (to compare body measurements) for each student.

VOCABULARY (See glossary for definitions)

1. Foot
2. Inch
3. Measurement
4. Proportion
5. Size
6. Yard

ACTIVITY

A. Introduce the students to the concept of measurement. Ask students how ancient man might have measured things using his body (outstretched arms, paces, hand, cubit) since he did not have rulers or tape measures.

B. Compare the students’ units of body measurement to standard units (how many “finger widths” in an inch, how many “feet” in a yard, etc.).

C. Ask students what might be the appropriate units of “body” measurement for various things: the width of a classroom, the height of a desk, the length of a pencil.

D. Have students estimate length of objects before measuring. Measure objects in the classroom. Let students take turns measuring while the class observes.
E. Introduce the concept of scale by discussing the appropriate size for objects or openings designed for children vs. adults. An example could be the size of a chair, as in “Goldilocks and the Three Bears” (too big, too little, just right). Pull out a child’s chair and have a child and the teacher stand next to the chair. Ask if the chair is meant for a child or an adult. Other children vs. adult examples could be the height of a bed or the height of a counter/shelves, etc. Compare the height of a sink in a classroom (designed for kids) to the height of a sink at home (designed for adults).

TEACHER’S EVALUATION

A. Observe each student as he/she estimates and measures objects. When a student lacks understanding, further explanation and selection of another object to measure may be necessary.
KINDERGARTEN
LESSON NO. 7
DRAW YOUR ROOM FROM MEMORY

LENGTH OF LESSON: 30 Minutes

EDUCATIONAL OBJECTIVES:

A. To develop classification skills – classification of common objects according to their observable attributes: color, size, shape, etc.
   - Science
     - Use scientific knowledge from the physical sciences in real-world context
   - Visual Arts
     - Analyze in context

B. Identify items of significance in their environment and explain reasons for their location
   - Science
     - Use scientific knowledge of the physical sciences in real-world context
   - Social Studies
     - Geographic perspective

C. Observe and draw objects that the student sees
   - Visual Arts
     - Creation
     - Performance

D. To be able to describe parts of the student’s environment
   - English/Language Arts
     - Meaning and communication
ARCHITECTURAL PRINCIPLES:

Design is accomplished by composing the physical characteristics of size, shape, texture, proportion, scale, mass and color.

Visual thinking is a key to awareness of the built environment.

Design is experienced through human sensory perception.

Architecture satisfies emotional and spiritual needs in addition to physical needs.

MATERIALS

1. 12 X 18-inch paper divided into four equal sections
2. Crayons or drawing tools of choice
3. Example of a bedroom with detail for reference (included)

VOCABULARY (See glossary for definitions)

1. Ceiling
2. Door
3. Outlets
4. Room
5. Switch
6. Window
ACTIVITY

A. Discuss a room with the students, using the classroom as an example. Point out walls, floor, doors, windows, ceiling, lights, electrical outlets, switches and furniture. Discuss one wall at a time. You may want to do a drawing of one of the walls as an example.

B. Describe the classroom to the students using shapes, color, sizes and texture of the room.

C. Show the picture of the sample bedroom to the students. Tell the students to close their eyes and to imagine their bedrooms at home.

D. The teacher demonstrates how to divide a 12 x 18-inch piece of paper into four walls by folding it into four parts and then draws an example of a bedroom wall for the students.

E. Students then draw their bedrooms by drawing a picture of each of the four walls of the room, one picture for each part of the paper in D above, indicating details such as doors, mirrors, colors, etc.

F. After their drawings are completed, each student describes the room to the class and the teacher, pointing out shapes, colors, size comparisons and textures. The students then display their drawings in the classroom.

TEACHER’S EVALUATION

A. Observe students’ ability to speak of their environment and use vocabulary words, classify and identify objects and explain reasons for their location.

B. Evaluate students’ drawings. Drawings should include completed four walls, evidence of understanding of spatial relationships and objects classified according to color, size, shape, etc.
Kindergarten ♦ Lesson Seven

Room with Detail
KINDERGARTEN
LESSON NO. 7a
WHAT IS YOUR FAVORITE PLACE?

LENGTH OF LESSON: 30 Minutes

EDUCATIONAL OBJECTIVES:

A. Develop awareness of the five senses
   Science
   • To develop new scientific and personal knowledge
   • To reflect on the nature and adequacy of scientific knowledge
   • To use scientific knowledge from physical sciences in real world context
   Visual Arts
   • Analyze in context

B. Translate visual thought process to student drawings
   Visual Arts
   • Analyze in context
   • Creation
   • Performance

C. Identify and use verbal expression of artistic ideas
   Visual Arts
   • Creation
   • Performance

D. To be able to describe parts of personal environment
   English/Language Arts
   • Genre and craft of language
   • Meaning and communication
ARCHITECTURAL PRINCIPLES:

Design is accomplished by composing the physical characteristics of size, shape, texture, proportion, scale, mass and color.

Visual thinking is a key to awareness of the built environment.

Design is experienced through human sensory perception.

Symbolism is an important visual means of communication for architecture.

Aesthetics is the artistic component of architecture.

Architecture satisfies emotional and spiritual needs in addition to physical needs.

MATERIALS

1. White paper
2. Crayons or drawing tools of choice

VOCABULARY (See glossary for definitions)

1. Hear
2. See
3. Smell
4. Taste
5. Touch
ACTIVITY

A. Explain to the students that we experience our surroundings through our five senses (sight, hearing, smell, taste and touch), pointing out the part of our body that has the sense (eyes, ears, etc.). Ask students to describe their surroundings according to their five senses.

B. Turn off the lights, get students comfortable and play soft music.

C. Tell students to close their eyes and to think about their favorite places - inside or outside. Give them examples, such as their bedroom, their grandparents’ house, a special playground, etc.

D. Tell the students to think about their most favorite place and ask them to think about their senses:

1. What do they see there? (colors, light vs. dark)
2. What do they hear there? (types of sounds or quiet)
3. Are there any special smells? (food)
4. Do they taste any special foods there?
5. Are there any special things they touch?

E. Give the students paper and crayons to draw their most favorite place, and, when they are done, have the students display and describe their places using their five senses. The teacher should ask the students the questions listed in (D) above to help them describe the picture.

TEACHER’S EVALUATION

A. Observe students during discussion. Do students recognize and communicate an understanding of their five senses?

B. Analyze student artwork for translation of the visual thought process, drawing skill and color use.
KINDERGARTEN
LESSON NO. 8
PICTURE YOUR OWN HOME - PART 1
GENERAL SHAPES

LENGTH OF LESSON: 30 Minutes

EDUCATIONAL OBJECTIVES:

A. Recognize and name familiar shapes in one, two and three dimensions
   Mathematics
   • Patterns, relationships and functions
   • Geometry and measurement
   Visual Arts
   • Analyze in context

B. Develop artistic skills - drawing from observation, pasting and constructing
   Visual Arts
   • Creation
   • Performance

C. Identify important elements in the immediate environment and explain reasons for their location
   Social Studies
   • Geographic perspective

D. Develop communication skills by listening and talking to other students in class
   English/Language Arts
   • Meaning and communication
ARCHITECTURAL PRINCIPLES:

Design is accomplished by composing the physical characteristics of size, shape, texture, proportion, scale, mass and color.

Order is the arrangement and organization of elements to help solve visual and functional problems.

Visual thinking is a key to awareness of the built environment.

Design is experienced through human sensory perception.

Form follows function is a design approach whereby the form of the building is determined by function of building spaces and parts.

Architecture satisfies emotional and spiritual needs in addition to physical needs.

Materials

1. A page of basic shapes in outline form, useful for assembling a house (included); teacher should copy onto sheets of construction paper in various colors and pre-cut shapes
2. "Worksheet of Vocabulary Items" (included)
3. 12 x 18-inch paper to use for background
4. Glue
5. Letter to parents (included)

VOCABULARY (see glossary for definitions and included pictures)

5. Dormer 12. Park 19. Trees
7. Fence
ACTIVITY

A. Review worksheet of vocabulary items with students (originally presented in Lesson No. 3).

B. Ask students to imagine a view of their house. Ask what they see. What shape is the roof? Is it triangular, square or rectangular? What are the colors? Does the house have a porch and/or a garage? The teacher should review Lessons No. 1 and 2 on geometric shapes and streetscapes.

C. Students should first draw an outline of how they visualize their house to look.

D. Next, the students will assemble a picture of their house (elevation) from pre-cut shapes in different colors to match their drawings.

E. The students will paste their shapes on a background paper.

F. Explain take-home letter to children outlining instructions for Lesson No. 9 and distribute to take home to parents.

TEACHER’S EVALUATION

A. Analyze student art work for ability to recognize and use familiar shapes; use of artistic skills – drawing from observation, pasting and constructing forms; and identification of elements in the students’ immediate environment.
Dear Parents/Guardians:

Your child's class is learning the basic elements of architecture. Students are learning:

- To recognize familiar shapes in three-dimensional form;
- To develop artistic skills such as drawing, pasting and constructing forms from observing what they see;
- To focus on the what and the why of their environment through communication as they listen and speak in class;
- To identify important elements in their immediate environment and reasons for their form and location.

Today in class, we had each student imagine a view of his/her house (apartment). Students drew an outline sketch of what they visualized their home to be. Then we had them paste together a picture of their house (apartment) from pre-cut shapes on background paper to match their imagined sketch.

We are asking for your help in accomplishing the goals mentioned above by working with your child at home to build on today's lesson. This would include observing with them the actual front view of your house (apartment). Helpful information to share would be the basic shapes (square, rectangle, circle, semi-circle, triangle) and sizes of shapes of which your home (apartment) is composed.

After you and your child have observed the basic shapes of your house (apartment), we are asking you to help him/her create a rough sketch of your home's "front" view. Then, we would like you to help your child add the details of the "front view" of your house (apartment). Examples of detail needed are the doors, windows, chimney, dormers, porch, driveway, etc.

Helping your child compare his/her imagined front view to the actual front view will exercise your child's awareness, memory and focusing abilities. The date for the follow-up lesson to this exercise is _______________. We will use the rough sketch you’ve made with them at home as a guide in the follow-up lesson in class when they construct the actual front view of their home (apartment).

Your help in encouraging your child's awareness of his/her surroundings is greatly appreciated.

Thank you,
<table>
<thead>
<tr>
<th>Roof</th>
<th>Gable</th>
<th>Dormer</th>
<th>Window</th>
<th>Door</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chimney</td>
<td>Porch</td>
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<td>Fence</td>
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<td>Traffic Sign</td>
<td>Park</td>
<td>Playground</td>
<td>Trees</td>
<td>Bench</td>
</tr>
</tbody>
</table>

Worksheet of Vocabulary Items
KINDERGARTEN LESSON NO. 9  PICTURE YOUR OWN HOME – PART 2 HOUSE DETAILS

LENGTH OF LESSON: 60 Minutes

EDUCATIONAL OBJECTIVES:

A. Recognize and name familiar shapes in one, two and three dimensions
   Mathematics
   • Patterns, relationships and functions
   • Geometry and measurement
   Visual Arts
   • Analyze in context

B. Develop artistic skills - drawing from observation, pasting and constructing
   Visual Arts
   • Creation
   • Performance

C. Identify important elements in the immediate environment and explain reasons for their location
   Social Studies
   • Geographic perspective

D. Develop communication skills by listening and talking to other students in class
   English/Language Arts
   • Meaning and communication
ARCHITECTURAL PRINCIPLES:

Design is accomplished by composing the physical characteristics of size, shape, texture, proportion, scale, mass and color.

Order is the arrangement and organization of elements to help solve visual and functional problems.

Visual thinking is a key to awareness of the built environment.

Design is experienced through human sensory perception.

Form follows function is a design approach whereby the form of the building is determined by function of building spaces and parts.

Past, current and future technologies influence design decisions.

MATERIALS
1. Art work from Lesson No. 8. and sketch made at home with parents
2. House shapes pre-cut from construction paper (see Lesson No. 8)
3. Copy of Drawing of House Details for each child (teacher may pre-cut house details from construction paper in various colors or create stencils of windows, doors, chimneys, etc., for student use)
4. Drawing tools (crayons, markers, etc.)
5. 12 x 18-inch paper for background
6. Glue
7. Letter to parents (included) accompanied by “Worksheet of Vocabulary Items” from Lesson No. 8
VOCABULARY (See glossary for definitions)

1. Bench 11. Hedge
2. Chimney 12. Park
3. Column 13. Path
4. Door 14. Playground
5. Dormer 15. Porch
6. Driveway 16. Roof
7. Fence 17. Steps
8. Gable 18. Traffic Sign
10. Gate 20. Window (Bay Window)

ACTIVITY

A. Using pre-cut shapes, have students reconstruct the basic front elevation of their house based on the at-home sketch assigned in Lesson No. 8.

B. After discussing the items found on the Drawing of House Details, have students add details, such as doors, windows, shutters, chimney, etc., according to their home sketch. They may use details pre-cut by teacher, stencils created by teacher or draw in details freehand using crayons or markers. They can then add more detail to these shapes by drawing in window frames, drapes, door handles, people, etc.

C. After pasting house to background paper, have students add details of environment, such as trees, flowers, clouds, sun, etc.

D. Explain take-home letter to children outlining instructions for Lesson No. 10 and distribute to take home to parents.

TEACHER’S EVALUATION

A. Analyze student art work for ability to recognize and use familiar shapes; use of artistic skills - drawing from observation, pasting and constructing forms; and identification of elements in the students' immediate environment.
Dear Parents/Guardians:

Your child’s class is learning the basic elements of architecture.

Today in class, your child constructed the front view (elevation) of your house (apartment). The children incorporated details such as the doors, windows, chimney, porch, etc. Your child's vocabulary also includes the words "column," "dormer," "driveway," "fence," "gable," "garage," "gate," "hedge," etc.

We will be constructing a streetscape using your child’s home and his/her observations of your neighborhood. Using the vocabulary list we have sent home with this letter, please observe and discuss with your child your neighborhood houses (apartments), pointing out their similarities and differences. Emphasize to your child that, together, these similarities and differences form your neighborhood.

The date for the follow-up lesson plan to this homework is ________________.

We will be presenting our final work during Family Night. We will send more information on Family Night in a separate letter.

Again, thank you for encouraging your child’s awareness of his/her surroundings. We hope this experience was rewarding for you, too.

Thank you,
Kindergarten ♦ Lesson Nine

Window
Bay Window
Roof

Door
Chimney
Gable

Shutters
Garage
Dormer

Drawing of House Details
<table>
<thead>
<tr>
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Worksheet of Vocabulary Items
KINDERGARTEN  
LESSON NO. 10  
PICTURE YOUR OWN HOME – PART 3

NEIGHBORHOOD CONTEXT

LENGTH OF LESSON: 30 Minutes

EDUCATIONAL OBJECTIVES:

A. Recognize and name familiar shapes in one, two and three dimensions  
   Mathematics  
   • Patterns, relationships and functions  
   • Geometry and measurement  
   Visual Arts  
   • Analyze in context

B. Develop artistic skills - drawing from observation, pasting, drawing and constructing  
   Visual Arts  
   • Creation  
   • Performance

C. Identify important elements in the immediate environment and explain reasons for their location  
   Social Studies  
   • Geographic perspective

D. Develop communication skills by listening and talking to other students in class  
   English/Language Arts  
   • Meaning and communication
ARCHITECTURAL PRINCIPLES:

Design is accomplished by composing the physical characteristics of size, shape, texture, proportion, scale, mass and color.

Order is the arrangement and organization of elements to help solve visual and functional problems.

Visual thinking is a key to awareness of the built environment.

Design is experienced through human sensory perception.

Form follows function is a design approach whereby the form of the building is determined by function of its spaces and its parts.

MATERIALS

1. Long sheet of bulletin board paper (mounted on the wall where mural will stay)
2. Student houses from Lesson No. 9
3. Scissors
4. Glue
5. Masking tape
6. Construction paper in various colors
7. Drawing tools
8. "Worksheet of Vocabulary Items" for reference

VOCABULARY (See glossary for definitions)

5. Dormer  13. Path
7. Fence  15. Porch
8. Gable  16. Roof
ACTIVITY

A. Students should have their house elevation to work on from Lesson No. 9.

B. Have the students recall the neighborhood walk they took with their parents (Letter to Parents in Lesson No. 9).

C. Cut out house from Lesson No. 9. Use two-sided or masking tape to attach students’ houses to the bulletin board paper to make a mural of a street of houses (masking tape allows repositioning of elements before gluing into place). Draw natural and man-made neighborhood elements on construction paper; cut them out to add to the mural.

D. A portion of the project streetscape should be kept open for a neighborhood park or playground. Students should recall Lesson No. 3 and 3a – the neighborhood and park/playground walks – and/or their own home neighborhood park. Some of the elements observed in the park could be added in this space, either drawn in, or from pre-prepared paper cutouts, pasted in position. Examples are benches, water fountains, play structures, people playing ball or walking dogs.

E. The class now has a team project suitable for presenting to parents. Present the mural on Family Night. Students should have the opportunity to explain their work but without pressure to do so.

TEACHER’S EVALUATION

A. Analyze student art work for ability to recognize and use familiar shapes; use of artistic skills – drawing from observation, pasting and constructing forms; and identification and understanding of how elements in the students’ immediate environment influence each other.
# Kindergarten Lesson Ten

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**Worksheet of Vocabulary Items**