

Curriculum Guide



First Grade

First Grade

GRADE LEVEL CONTENT EXPECTATION (GLCE) MATRIX

SCIENCE	1	2	3	4	5	6	7	8	9	10
SCIENCE PROCESS Inquiry Process K-7 Standard S.IP: Develop an understanding that scientific inquiry and reasoning involves observing, questioning, investigation, recording, and developing solutions to problems.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Inquiry Analysis and Communication K-7 Standard S.IA: Develop an understanding that scientific inquiry and investigations require analysis and communication of findings, using appropriate technology.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Reflection and Social Implications K-7 Standard S.RS: Develop an understanding that claims and evidence for their scientific merit should be analyzed. Understand how scientists decide what constitutes scientific knowledge. Develop and understanding of the importance of reflection on scientific knowledge and its application to new situations to better understand the role of science in society and technology.	✓	✓	✓	✓	✓	✓	✓			
PHYSICAL SCIENCE Properties of Matter K-7 Standard P.PM: Develop an understanding that all matter has observable attributes with physical and chemical properties that are described, measured and compared. Understand that states of matter exist as solid, liquid, or gas; and have physical and chemical properties. Understand all matter is composed of combinations of elements, which are organized by common attributes and characteristics on the periodic table. Understand that substances can be classified as mixtures of compounds according to their physical and chemical properties.	✓	✓	✓	✓	✓		✓	✓	✓	✓
LIFE SCIENCE Organization of Living Things K-7 Standard L.OL: Develop an understanding that plants and animals (including humans) have a basic requirement for maintaining life which include the need for air, water and a source of energy. Understand that all life forms can be classified as producers, consumers, or decomposers as they are all part of a global food chain where food/energy is supplied by plants which need light to produce food/energy. Develop an understanding that plants and animals can be classified by observable traits and physical characteristics. Understand that all living organisms are composed of cells and they exhibit cell growth and divisions. Understand that all plants and animals have a definite life cycle, body parts, and systems to perform specific life functions.						✓				

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SCIENCE	1	2	3	4	5	6	7	8	9	10
LIFE SCIENCE Ecosystems K-7 Standard L.EC: Develop an understanding of the interdependence of the variety of populations, communities and ecosystems, including those in the Great Lakes region. Develop an understanding of different types of interdependence and that biotic (living) and abiotic (non-living) factors affect the balance of an ecosystem. Understand that all organisms cause changes, some detrimental and other beneficial, in the environment where they live.	✓	✓	✓	✓	✓	✓				
EARTH SCIENCE Earth Systems K-7 Standard E.SE: Develop an understanding of the warming of the Earth by the sun as the major source of energy for phenomenon on Earth and how the sun's warming relates to weather, climate, seasons, and the water cycle. Understand how human interaction and use of natural resources affects the environment.						✓				
SOCIAL STUDIES	1	2	3	4	5	6	7	8	9	10
HISTORY H2 Living and Working Together in Families and Schools Use historical thinking to understand the past.				✓	✓					
GEOGRAPHY G1 The World in Spatial Terms Use geographic representations to acquire, process and report information from a spatial perspective.		✓	✓	✓	✓	✓	✓	✓	✓	✓
G2 Places and Regions Understand how regions are created from common physical and human characteristics.				✓		✓	✓			
G4 Human Systems Understand How the human activities help shape the Earth's surface.						✓				
G5 Environment and Society Understand the effects of human-environment interactions.	✓	✓		✓	✓	✓	✓	✓	✓	✓



First Grade

ENGLISH LANGUAGE ARTS	1	2	3	4	5	6	7	8	9	10
READING Word Recognition and Word Study Vocabulary	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SPEAKING Communications Discourse	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
LISTENING & VIEWING Conventions	✓		✓	✓	✓	✓	✓	✓	✓	✓
MATHEMATICS	1	2	3	4	5	6	7	8	9	10
MEASUREMENT Estimate and measure length					✓			✓	✓	✓
GEOMETRY Create, explore, and describe shapes				✓	✓		✓	✓	✓	✓
Create and describe patterns involving geometric objects.							✓	✓	✓	✓
VISUAL ARTS	1	2	3	4	5	6	7	8	9	10
Content Standard 1: All student will apply skills and knowledge to perform in the arts.	✓	✓	✓	✓	✓		✓	✓	✓	✓
Content Standard 2: All students will apply skills and knowledge to create in the arts.	✓	✓	✓	✓	✓		✓	✓	✓	✓
Content Standard 3: All students will analyze, describe and evaluate works of art.	✓	✓	✓	✓	✓		✓	✓	✓	✓
Content Standard 4: All students will understand, analyze, and describe the arts in their historical, social and cultural contexts.	✓	✓	✓	✓	✓		✓	✓	✓	✓
Content Standard 5: All students will recognize, analyze and describe connection among the arts, between the arts and the other disciplines; between the arts and everyday life.	✓	✓	✓	✓	✓		✓	✓	✓	✓



First Grade ♦ Lesson One



FIRST GRADE
LESSON NO. 1

SENSORY EXPLORATION

LENGTH OF LESSON: 30 Minutes

EDUCATIONAL OBJECTIVES & MICHIGAN CURRICULUM FRAMEWORK CONTENT STANDARDS:

- A. Learn to be aware of the five senses as a means of understanding our surroundings
 - Science
 - Use scientific knowledge from physical sciences in real-world contexts
 - Visual Arts
 - Arts in context

- B. Begin to understand how different senses affect perception of the environment
 - Science
 - Use scientific knowledge from physical sciences in real-world contexts

- C. Develop recognition of spatial relationships
 - Visual Arts
 - Arts in context

- D. Develop the skills to classify objectives experienced by the senses and understand similarities and differences
 - Science
 - Use scientific knowledge from physical sciences in real-world contexts
 - English/Language Arts
 - Meaning and communication

GRADE LEVEL CONTENT EXPECTATIONS

Please see the applicable Grade Level Content Expectations (GLCEs) at the beginning of the First Grade chapter.

ARCHITECTURAL PRINCIPLES:

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



First Grade ♦ Lesson One



Design is experienced with human sensory perception.

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

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

MATERIALS

1. Prepared "wall view" drawing of a typical classroom (copy for each student)
(Note: Teacher may choose to prepare "wall view" drawing of his/her own classroom)
2. Thin paper (newsprint)
3. Crayons or chalk
4. Scissors
5. Glue
6. Construction paper (1 each): red, yellow, green, blue, black, white
7. Letter to parents (included) to be sent home after Lesson No. 1

VOCABULARY (See glossary for definitions)

- | | |
|-----------|-------------|
| 1. Brick | 5. Mortar |
| 2. Carpet | 6. Rubbings |
| 3. Cement | 7. Senses |
| 4. Lumber | 8. Texture |

ACTIVITY

- A. Review parts of the body and how they permit us to experience our surroundings: eyes to see, ears to hear, nose to smell, skin to touch, tongue to taste.
- B. Using construction paper of various colors, explain the basic reactions to seeing color, e.g., red - hot, blue - cold, and why we have these reactions. Examples:
 1. Red - hot: fire, color of sunburn on skin;
 2. Yellow - hot: when we see the sun;
 3. Green - spring-like: color of nature, plants, etc.;
 4. Black - mysterious, fear: color of night and darkness;
 5. White - coolness: color of snow; white color reflects light away;
 6. Blue - cold: color of water.



First Grade ♦ Lesson One



- C. Explain hearing sound in the environment. Outside noises, like cars, buses and people talking, can be heard through walls. Trees and bushes can absorb outside sound.
- D. Explain that smell can be sensed when we walk into our homes and get a whiff of food cooking in the kitchen. The same smell can remind us of home years later when we sense the same aroma in another place.
- E. Explain that smell and taste are closely related. Food smells remind us of how the food tastes.
- F. Pass out a copy of the "wall view" drawing of the classroom. Students should locate five different textures found in their classroom or throughout the school. Examples: brick walls, small tiles, carpet, etc.
 - 1. Lay newsprint paper over textured areas and rub the side of a crayon or chalk over paper to transfer the pattern of the texture to the paper.
 - 2. Each rubbing should be labeled with the material and location.
- G. The students can sit back at their desks to create a collage of the classroom. Have them cut and paste textured surfaces from their rubbings onto the appropriate place in the classroom drawing. To finish the drawing, they can color in detail areas that are too small to add texture.
- H. As homework, the students should sit in their homes with an adult, close their eyes and notice the sounds that occur around them. The adult should help record the variety of sounds in a 15-minute time period.

TEACHER'S EVALUATION

- A. Analyze student art work for:
 - 1. Ability to recognize texture of familiar objects;
 - 2. Use of artistic skills - logical use of textures and correct construction of forms in a room;
 - 3. Identification and understanding of how elements in students' immediate environment influence each other.



First Grade ♦ Lesson One



Dear Parents/Guardians:

Your child's class is learning the basic elements of architecture. They 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 reviewed how our body's senses help us to experience our surroundings. Students focused on color (sight) and texture of surfaces (touch) and incorporated these sensory experiences into a picture collage.

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 sitting in a room in your house (apartment) with your child for 15 minutes. Have your child close his/her eyes and listen to the surrounding sounds, e.g., clock ticking, music playing, dishwasher running, floor squeaking, etc. We are asking you to help them record the variety of sounds they hear in that time frame. Have your child bring his/her sheet of recorded information to school.

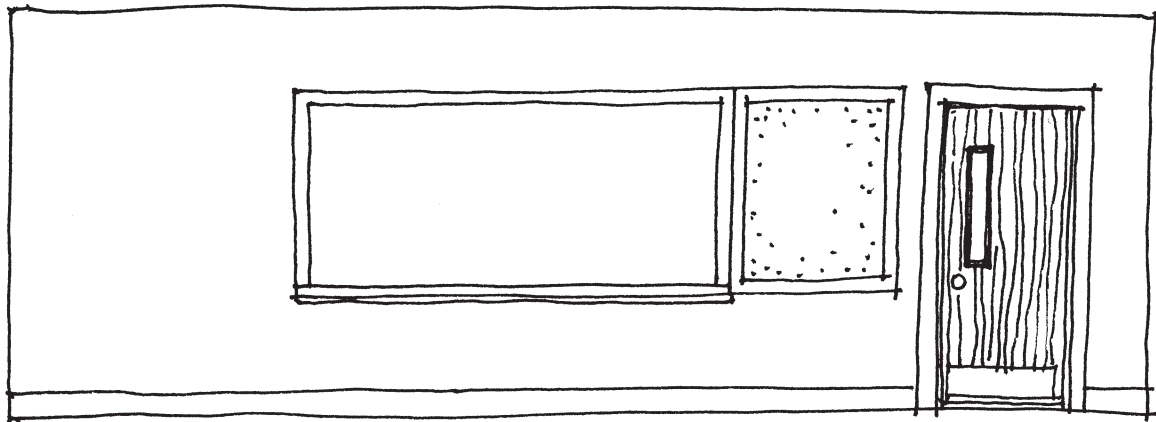
The date for the follow-up lesson to this exercise is _____. We will use this information to help in their next lesson, "Visualization Skills."

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

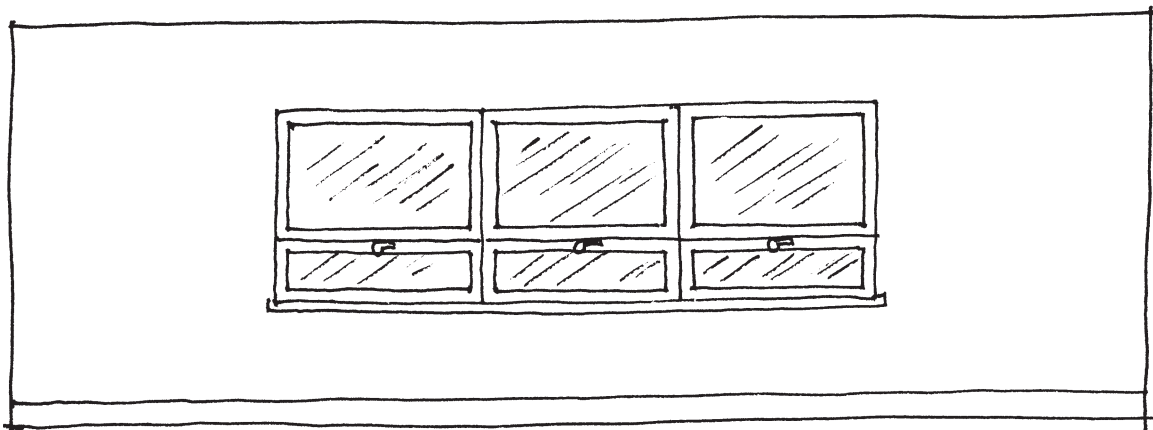
Thank you,



First Grade ♦ Lesson One



Teaching Wall View



Window Wall View



First Grade ♦ Lesson Two



FIRST GRADE
LESSON NO. 2

VISUALIZATION SKILLS

LENGTH OF LESSON:

30 Minutes

EDUCATIONAL OBJECTIVES & MICHIGAN CURRICULUM FRAMEWORK CONTENT STANDARDS:

- A. To develop skills to combine verbal communication with visual thinking
- English/Language Arts
 - Meaning and communication
 - Visual Arts
 - Analyze in context
- B. Develop an awareness of how people use the environment to meet human needs
- Social Studies
 - Geographic perspective
 - Science
 - Use scientific knowledge from physical sciences in real-world contexts
 - Construct new scientific and personal knowledge
- C. Understand the use of symbols as an art form in world culture
- Social Studies
 - Geographic perspective
 - Visual Arts
 - Analyze in context
 - Connecting to other arts, other disciplines and life

GRADE LEVEL CONTENT EXPECTATIONS

Please see the applicable Grade Level Content Expectations (GLCEs) at the beginning of the First Grade chapter.



First Grade ♦ Lesson Two



ARCHITECTURAL PRINCIPLES:

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

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

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

Nature is a model for architectural forms and shapes.

Symbolism is an important means of visual communication for architecture.

Design is experienced with human sensory perception.

MATERIALS

1. Paper and crayons
2. Worksheet of Native American symbols

VOCABULARY (See glossary for definitions)

1. Symbol
2. Visual thinking
3. Visualize



First Grade ♦ Lesson Two



ACTIVITY

- A. In Lesson No. 1, the students worked at home with their parents to identify and record various sensory experiences. Start this activity by having each student share one (or more) of those sensory experiences.
- B. Tell the students to close their eyes and use their imaginations as you describe a place, thing or area that contains elements that may be familiar to the students.
 1. Use descriptions of color, scent, temperature and sounds when describing a local area the children like to frequent.
- C. Show students examples of symbols Native Americans used in their art (included).
- D. With his/her eyes closed, have each student imagine being an Indian who will paint designs on his/her home, which is a teepee. Continuing with their eyes closed, have the students think of symbols of things that are important to them in their own lives. Ask students to open their eyes and draw a teepee with the designs from their imagination.
- E. Have the students think about buildings, castles, boats or some other place they have experienced. Then have them draw a picture of the place from their memories of that time. Have the students include in their interpretation color, light, temperature, etc.
 1. Varying colors can symbolize light, texture, temperature (red - hot, blue - cold, etc.)

TEACHER'S EVALUATION


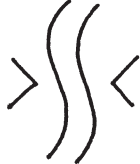



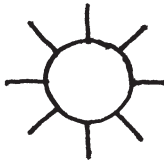

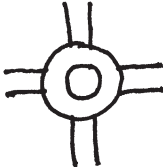




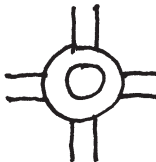





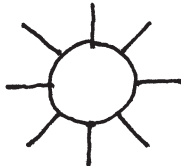

- A. Analyze student art work for:
 1. Ability to recognize and use symbols as a design tool;
 2. Use of artistic skills - aesthetic use of color and drawing from visualization techniques;
 3. Identification and understanding of how elements of students' environment relate to design principles in their art.



First Grade ♦ Lesson Two



Native American Symbols



First Grade ♦ Lesson Three



FIRST GRADE
LESSON NO. 3

COLOR, LIGHT AND YOUR
CLASSROOM ENVIRONMENT

LENGTH OF LESSON: Two Sessions: 30 Minutes each

EDUCATIONAL OBJECTIVES & MICHIGAN CURRICULUM FRAMEWORK CONTENT STANDARDS:

- A. Understand how color and light are integral to the built environment
 - Science
 - Use scientific knowledge from the physical sciences in real-world contexts
 - Visual Arts
 - Analyze in context

- B. Develop an understanding of how color and light are used in designing the built environment
 - Visual Arts
 - Arts in context

- C. Develop drawing skills
 - Visual Arts
 - Performance
 - Creation

GRADE LEVEL CONTENT EXPECTATIONS

Please see the applicable Grade Level Content Expectations (GLCEs) at the beginning of the First Grade chapter.

ARCHITECTURAL PRINCIPLES:

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

Design is experienced with human sensory perception.



First Grade ♦ Lesson Three



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

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

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

MATERIALS

1. Prepare handouts: copy of Line Drawings for each student; two drawings of "Cozy Room," copied and/or enlarged for each student; copies for each student and a copy for an overhead projector of Evaluate Your Classroom chart (included)
2. Crayons or markers
3. Prepared examples of decorated rooms
4. Optional: "My Many Colored Days" by Dr. Seuss
5. 12 x 18-inch sheets of paper in various colors

VOCABULARY (See glossary for definitions)

1. Color
2. Design
3. Relationship
4. Sense of light

ACTIVITY

Session 1:

- A. If available, read "My Many Colored Days" by Dr. Seuss. This book supports the emotional effect of color. If the book is not available, hold up sheets of paper in different colors and talk about the feelings each color generates. Ask students to explain their associations with each color. This lesson is intended to build on the previous lesson.



First Grade ♦ Lesson Three



- B. Hand out the sheet with simple line drawings of familiar objects to the students and tell them to use the “wrong” colors to fill in each picture.
- C. Reflect back to each student the emotions they are expressing as they see the wrong color appear.
- D. Hand out two copies of the “Cozy Room” picture. Have students use color to make one room they like and another they dislike.
- E. As they work, reflect back to the students what color elements are common in the “like” room and which are common in the “dislike” room.

Session 2:

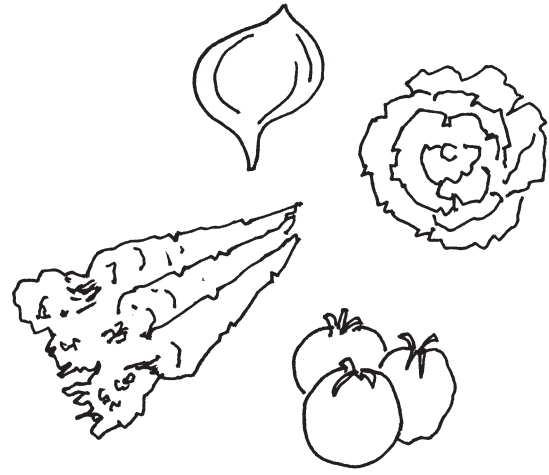
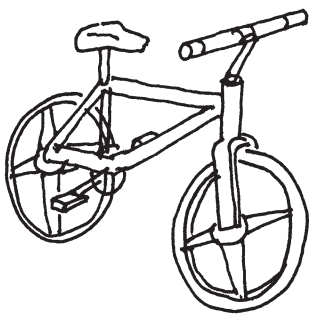
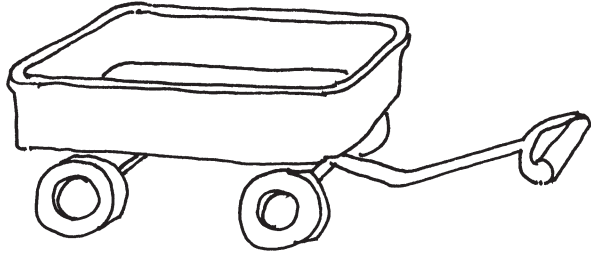
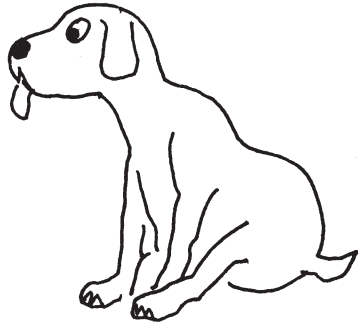
- A. Show the students examples of rooms that indicate a variety of lighting, color and textures. While discussing the examples, use words on the Session 2 Evaluate Your Classroom chart to describe how they might feel or what they see.
 - 1. Examples of pictures and rooms can be found in magazines commonly found in the home.
- B. Copy the Session 2 chart on an overlay to project on a screen. Have the students discuss how they feel about the various characteristics of their classroom. Place a “smiley face” where the students agree each classroom characteristic listed falls. This exercise will be done as a class.
- C. Have each child mark his/her individual evaluation chart with the class rating.

TEACHER'S EVALUATION

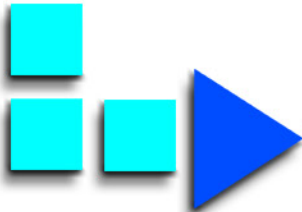
- A. Analyze student art work for:
 - 1. Ability to recognize and use color as it affects human perception;
 - 2. Use of artistic skills - aesthetic use of color and drawing from observation techniques;
 - 3. Identification and understanding of how elements of their immediate environment influence each other.
- B. Analyze student class evaluation chart for accuracy.



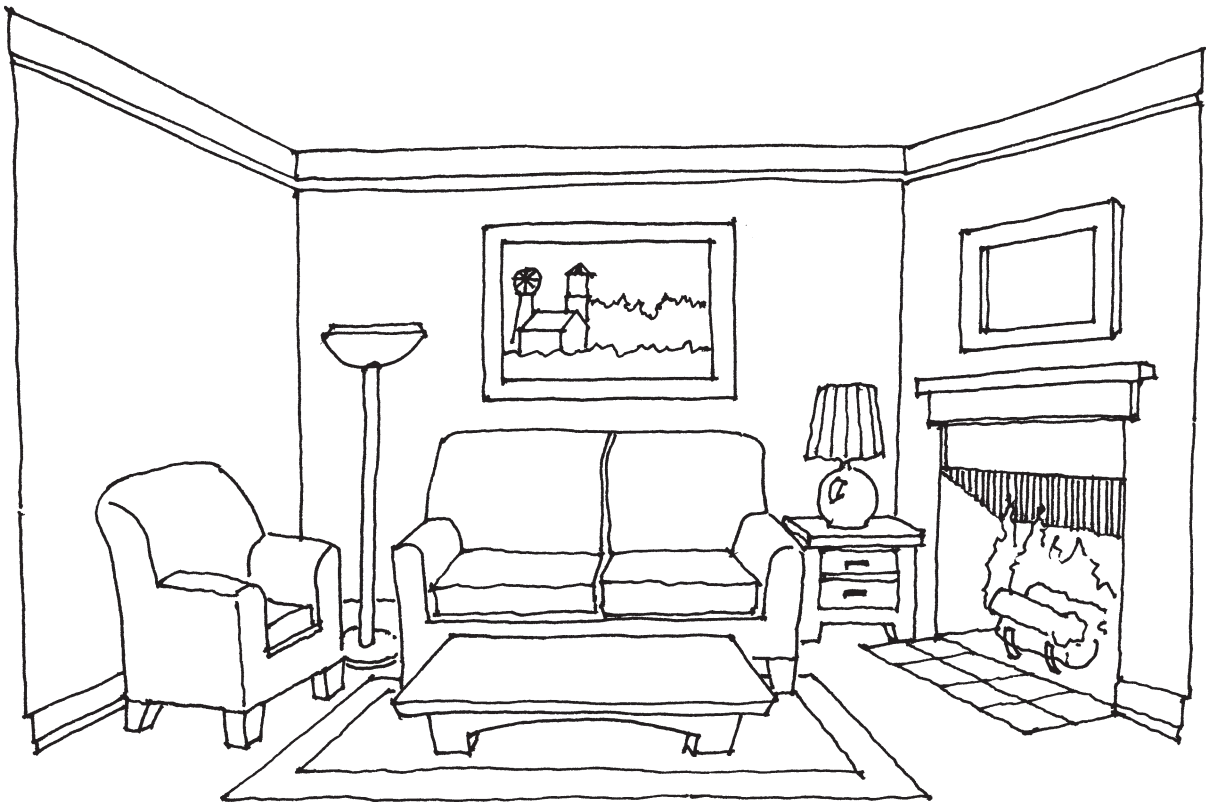
First Grade ♦ Lesson Three



Session 1 - Line Drawings



First Grade ♦ Lesson Three



Session 1 - Cozy Room



First Grade ♦ Lesson Three



	VERY	SOMEWHAT	NEUTRAL	SOMEWHAT	VERY	
LIGHT						DARK
NEW						OLD
NOISY						QUIET
SMALL						LARGE
MULTI-PURPOSE						SINGLE-PURPOSE
BOLD COLORS						SOFT COLORS
OPEN SPACE						CLOSED SPACE
SOFT LIGHTING						HARSH LIGHTING
UNFRIENDLY						FRIENDLY
CITY						COUNTRY
LIKE						DISLIKE
PUBLIC						PRIVATE
ROOMY						CROWDED

Session 2 - Evaluate Your Classroom



First Grade ♦ Lesson Four



FIRST GRADE
LESSON NO. 4

STRUCTURES

LENGTH OF LESSON:

30 to 60 Minutes

EDUCATIONAL OBJECTIVES & MICHIGAN CURRICULUM FRAMEWORK CONTENT STANDARDS:

- A. Develop knowledge of the differences in building shapes in different cultures
- Social Studies
 - Geographic perspective
 - Visual Arts
 - Arts in context
 - Connecting to other arts, other disciplines and life
- B. Increase awareness of how people use the environment to meet human needs
- Social Studies
 - Geographic perspective
 - Science
 - Use scientific knowledge from physical sciences in real-world contexts
 - Contrast new scientific and personal knowledge
- C. Develop skills in understanding and using three-dimensional form
- Visual Arts
 - Performance
 - Creation

GRADE LEVEL CONTENT EXPECTATIONS

Please see the applicable Grade Level Content Expectations (GLCEs) at the beginning of the First Grade chapter.

ARCHITECTURAL PRINCIPLES:

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



First Grade ♦ Lesson Four



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

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

Sustainable design of the built environment protects the natural environment.

Nature is a model for architectural forms and shapes.

Climate and the natural environment influence design decisions.

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

Past, current and future technologies influence design decisions.

MATERIALS

1. Drinking straws
2. Modeling clay
3. Sticks or twigs from the outside
4. Tape
5. Paper or cloth for a teepee covering (see teepee template — provided)
6. Twist tie, string or rubber band (to hold straws together at the top)
7. Markers or crayons
8. Scissors
9. Glue
10. Pictures of different structures (included) - teacher may choose to use additional pictures
11. Construction paper in various colors

VOCABULARY (See glossary for definitions)

- | | |
|--------------|------------|
| 1. Cave | 4. Pyramid |
| 2. Igloo | 5. Teepee |
| 3. Log Cabin | 6. Village |



First Grade ♦ Lesson Four



ACTIVITY

- A. Discuss with students that other people around the world live in dwellings different from the houses and buildings in which they live. The land, weather, available materials and social structures (the gathering of food, the need for protection, social ceremonies, etc.) determine the way people build places to live.
- B. Use examples from other cultures to explain their "built" environment.
Show pictures:
1. Grass Hut - African cultures;
 2. Igloo - Eskimos;
 3. Teepee - Native Americans;
 4. Log cabin - Early U.S. settlers;
 5. Cave - Prehistoric cultures;
 6. Pyramid - Early Egyptians & South American cultures.
- C. Have the students build examples of some structures they have seen in pictures.
1. Clay can be used to build igloos, caves and pyramids;
 2. Drinking straws can be used as a framework for teepees, with paper or cloth used as a covering;
 3. Sticks can be used to make a log cabin.
- D. This project can be expanded by grouping a number of the same types of structures together to make a village. Build the village on a colored paper base.

TEACHER'S EVALUATION

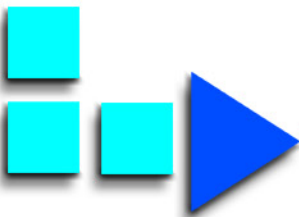
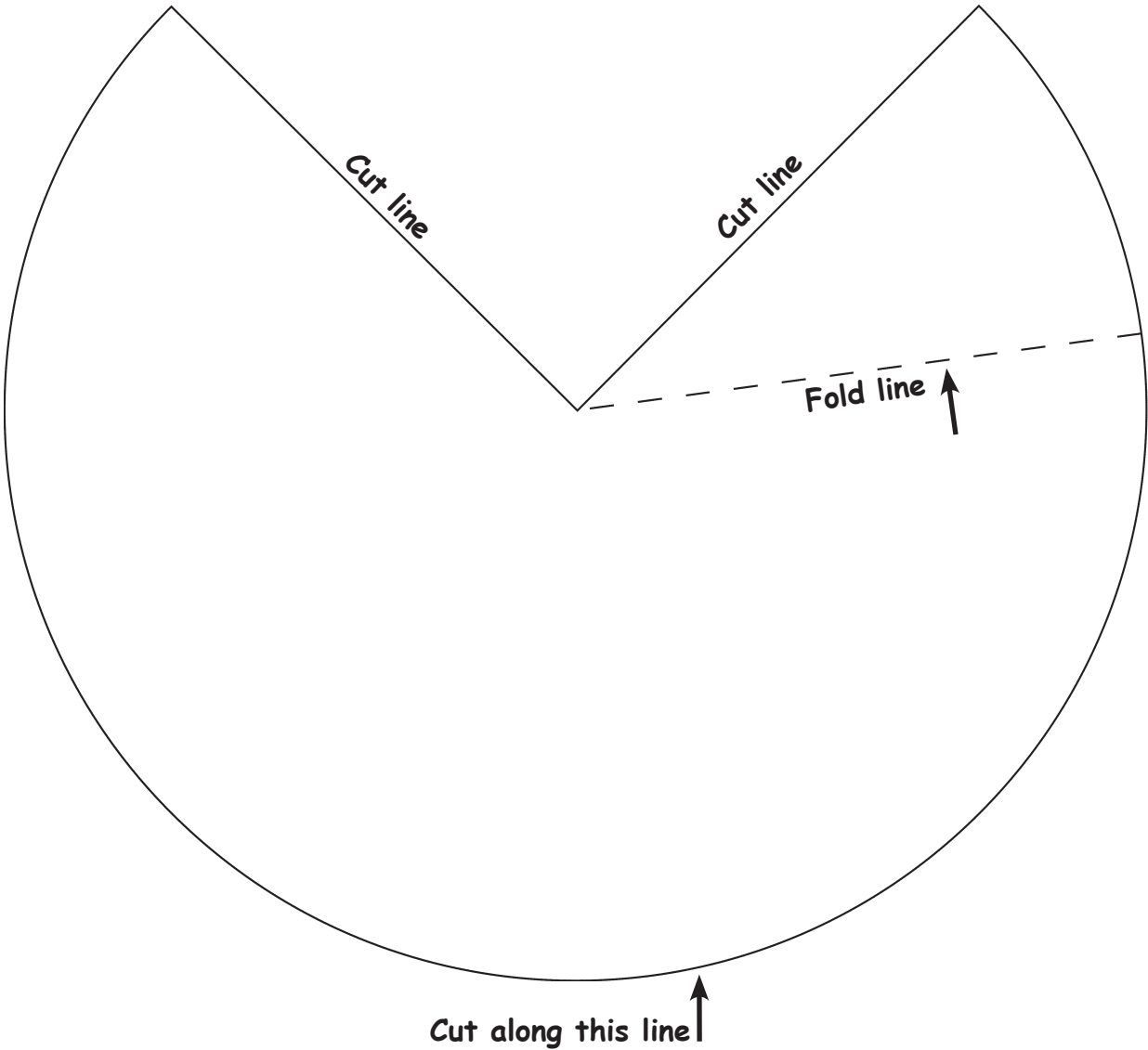
- A. Analyze student artwork for:
1. Craftsmanship - neat assemblage of items to create teepees, igloos, etc.;
 2. Use of artistic skills - aesthetic use of color and drawing from visualization techniques;
 3. Identification and understanding of how elements of the environment relate to building a group's model home.



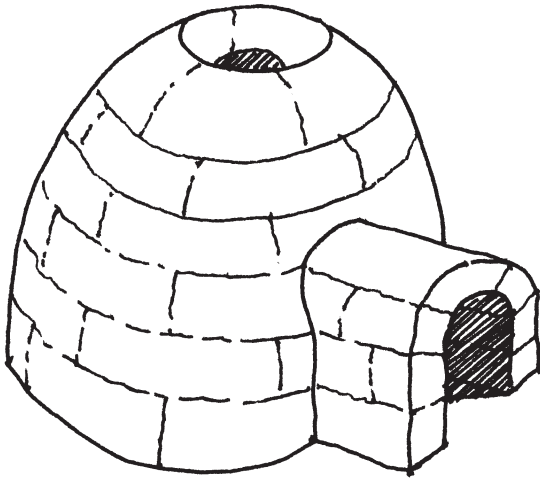
First Grade ♦ Lesson Four



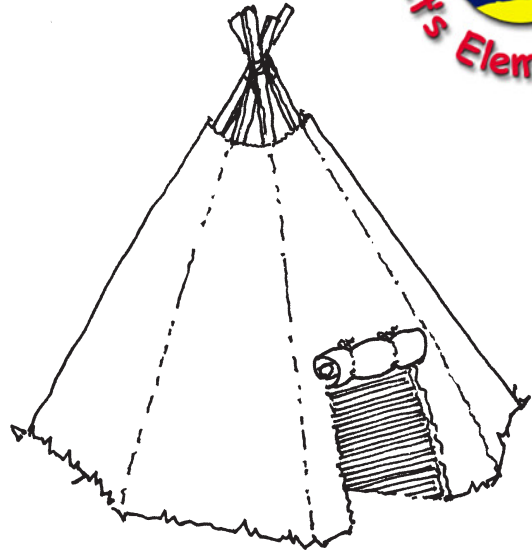
Teepee Template



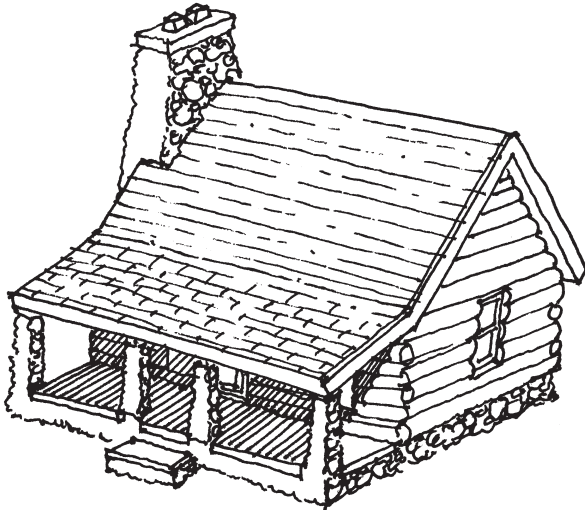
First Grade ♦ Lesson Four



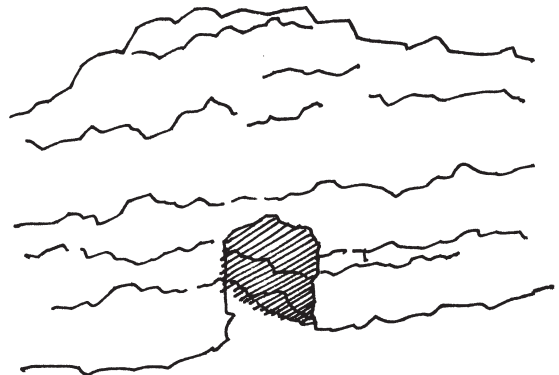
Igloo



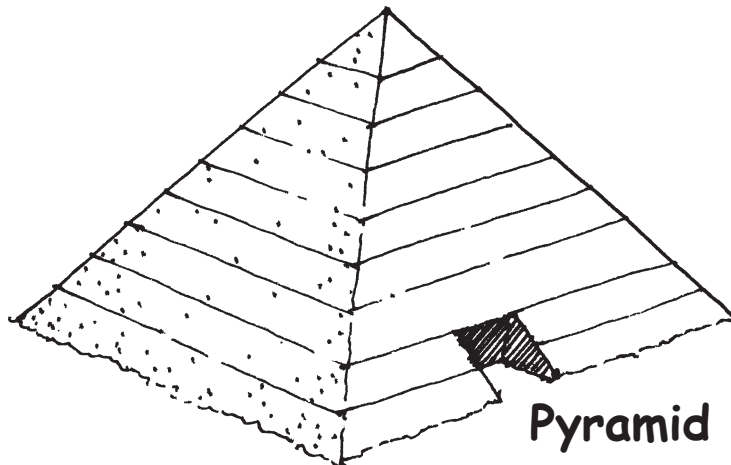
Teepee



Log Cabin



Cave



Pyramid



First Grade ♦ Lesson Five



FIRST GRADE

LESSON NO. 5 DRAW YOUR HOME FROM MEMORY

LENGTH OF LESSON: 30 to 60 Minutes

EDUCATIONAL OBJECTIVES & MICHIGAN CURRICULUM FRAMEWORK CONTENT STANDARDS:

- A. Develop recognition of the arrangement of space in the built environment
 - Mathematics
 - Geometry and measurement
 - Visual Arts
 - Analyze in context

- B. Develop sensory perceptions of the arrangement of space
 - Science
 - Use scientific knowledge from physical sciences in real-world contexts
 - Visual Arts
 - Arts in context

- C. Develop the skills to transfer a visualization to a drawing
 - Visual Arts
 - Arts in context
 - Performance
 - Creation

- D. Increase communication skills during visualization and creation of their diagram
 - English/Language Arts
 - Meaning and communication

GRADE LEVEL CONTENT EXPECTATIONS

Please see the applicable Grade Level Content Expectations (GLCEs) at the beginning of the First Grade chapter.



First Grade ♦ Lesson Five



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 with human sensory perception.

MATERIALS

1. Handouts of shapes cut from construction paper of various colors - use squares and rectangles of different sizes (teacher to provide)
2. Crayons or markers
3. Scissors
4. Glue
5. 8-1/2 x 11-inch sheets of paper on which to draw floor-plan diagram and glue room-diagram arrangement
6. Examples of sample Floor-Plan Diagrams

VOCABULARY (See glossary for definitions)

1. Diagram
2. Floor Plan
3. Space
4. Sensory perception
5. Spatial relationship

ACTIVITY

- A. Begin by having students close their eyes and visualize their "homes." They may work with a partner and report what they "see" as they visualize a walk through their homes.



First Grade ♦ Lesson Five



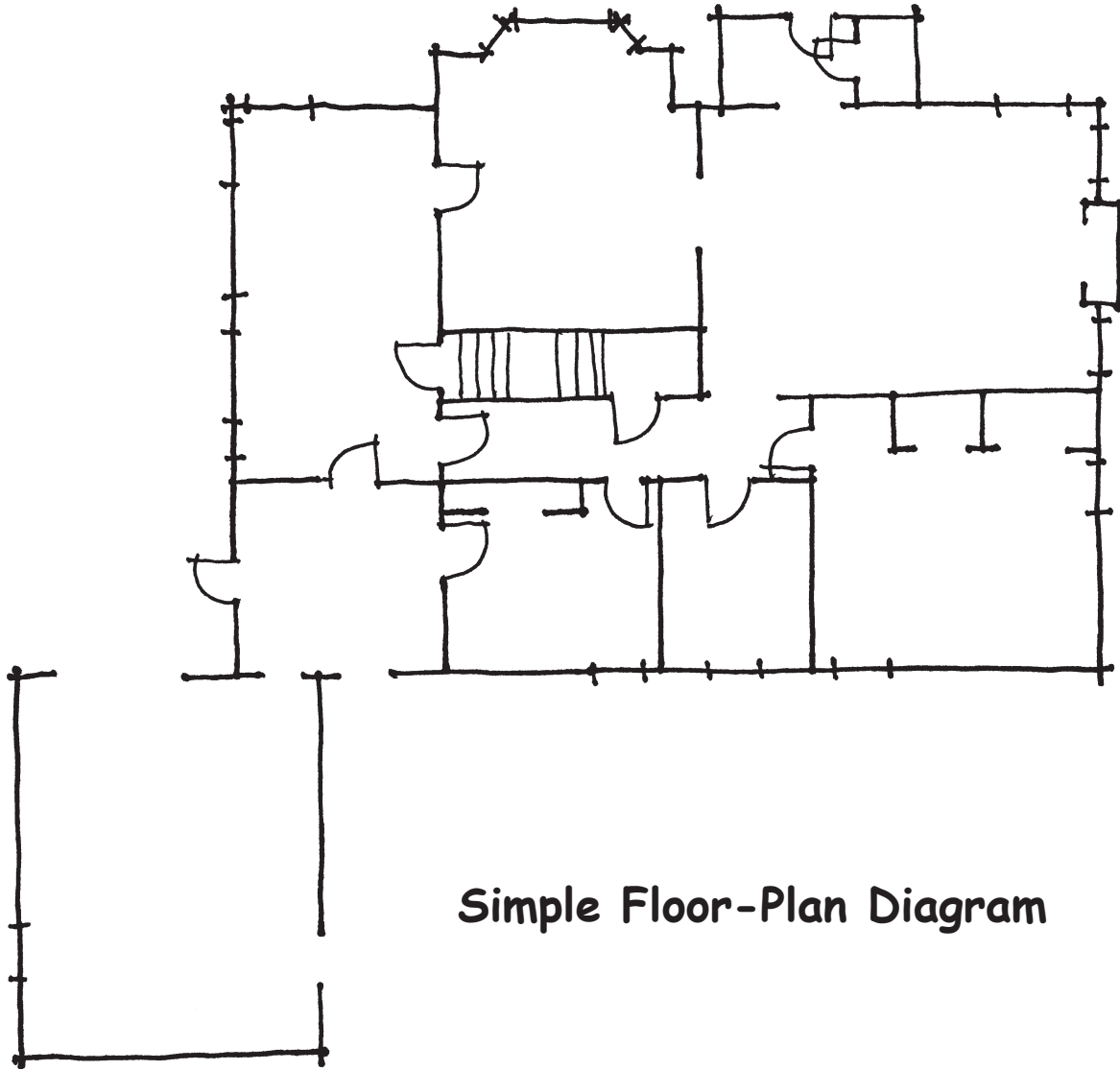
- B. Record either individually or collectively lists of words and phrases students use to describe their homes. Encourage them to include sounds, smells and other emotional and sensory experiences on the list.
- C. Identify those words that describe or label spaces in the home, such as "living room," "kitchen," "bathroom," etc.
- D. As classroom work, ask the students to draw a "floor-plan diagram" of various rooms in their homes and how they are organized. This floor plan can be explained as looking down at a house as if the roof were taken off. This exercise should emphasize the relationship of the rooms to each other. Scale, doors, windows, etc., are not important. Students should be encouraged to talk about access to the various rooms, i.e., "I walk through the dining room to get to the kitchen," or "The bathroom is down a hallway." Use the example of the "Simple Floor-Plan Diagram" for this step. Use the example of the "Floor-Plan Diagram" (included) to show the class a floor plan drawn by an architect.
- E. As homework, have students to do the same exercise of making a "floor-plan diagram" of their home. The students should compare the "floor-plan diagram" they made in class to the "homework floor-plan diagram."
- F. Have the students label teacher-prepared squares and rectangles of paper in various colors with the room names found in their homes. Students should arrange the paper rooms to show the configuration of their homes. Glue arrangement on paper.

TEACHER'S EVALUATION

- A. Analyze student artwork for:
 - 1. Craftsmanship - use and care of art materials, cutting and pasting;
 - 2. Comparison of the "classroom" version vs. the "on site" version of student floor plan;
 - 3. Recognition of spatial relationships.



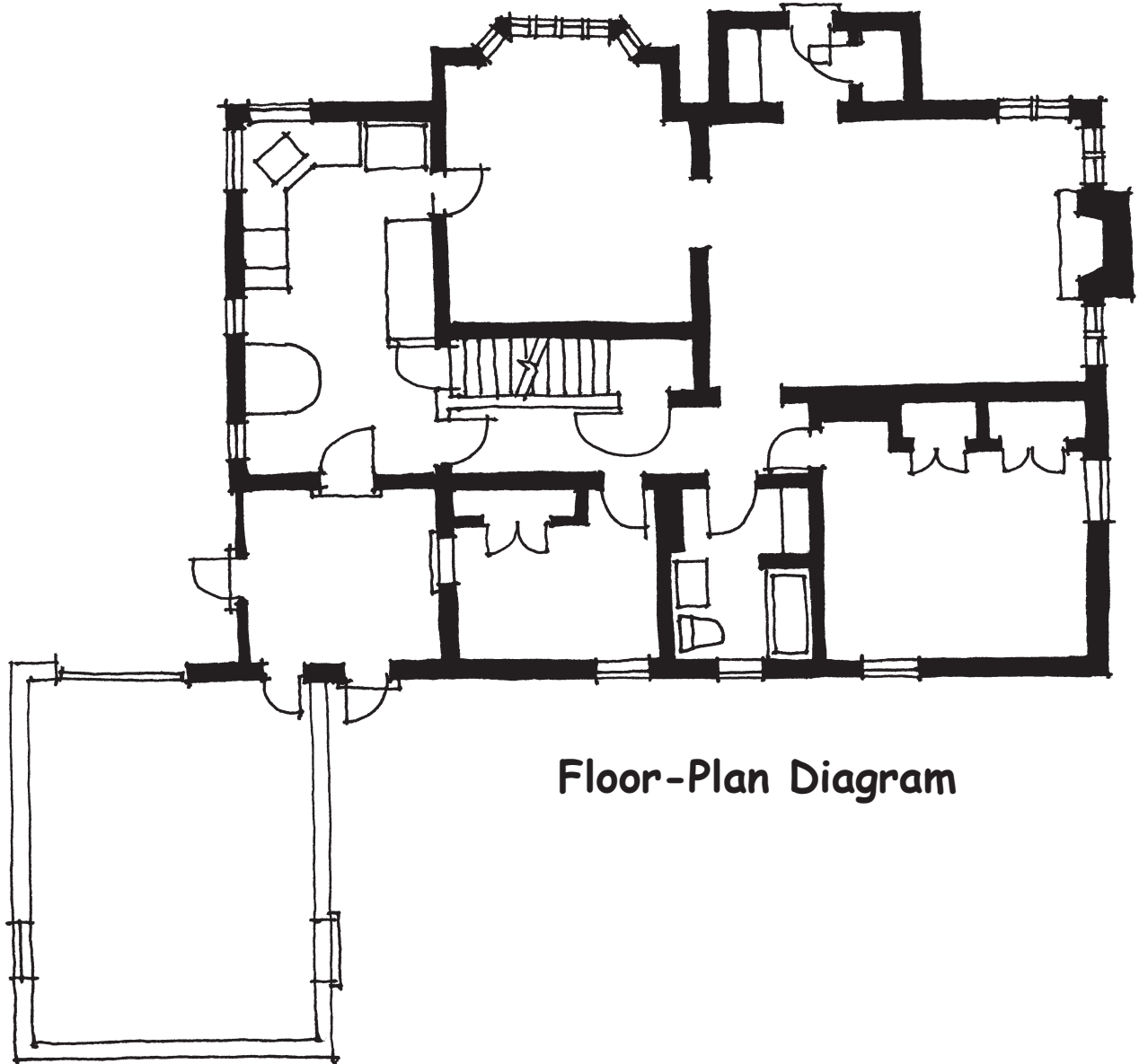
First Grade ♦ Lesson Five



Simple Floor-Plan Diagram



First Grade ♦ Lesson Five



Floor-Plan Diagram



First Grade ♦ Lesson Six



FIRST GRADE
LESSON NO. 6

EARTH FRIENDLY

LENGTH OF LESSON:

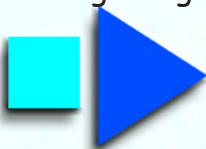
30 Minutes

EDUCATIONAL OBJECTIVES & MICHIGAN CURRICULUM FRAMEWORK CONTENT STANDARDS:

- A. Understand the natural resources that are part of the natural environment
Science
• Use scientific knowledge from physical sciences in real-world contexts
- B. Become aware of the relationship between the built environment and the natural environment
Social Studies
• Geographic perspective
Science
• Use scientific knowledge from physical sciences in real-world contexts
- C. Understand how humans affect the natural environment
Social Studies
• Geographic perspective
Science
• Use scientific knowledge from physical sciences in real-world contexts
- D. Develop a sense of "stewardship" of the environment
Science
• Use scientific knowledge from physical sciences in real-world contexts
• Use scientific knowledge from earth and space sciences in real-world contexts
- E. Develop a basic vocabulary of terms related to energy conservation
English/Language Arts
• Meaning and communication

GRADE LEVEL CONTENT EXPECTATIONS

Please see the applicable Grade Level Content Expectations (GLCEs) at the beginning of the First Grade chapter.



First Grade ♦ Lesson Six



ARCHITECTURAL PRINCIPLES:

Sustainable design of the built environment protects the natural environment.

Nature is a model for architectural forms and shapes.

Climate and the natural environment influence design decisions.

Past, current and future technologies influence design decisions.

MATERIALS

1. Letter to parents (included)

VOCABULARY (See glossary for definitions)

1. Air
2. Climate
3. Energy
4. Pollution
5. Greenhouse Gases
6. Natural environment
7. Sustainable
8. Recycle
9. Pollution
10. Environmental stewardship

ACTIVITY

- A. Teacher should discuss the meaning of the following vocabulary words:
1. Air - What do we breathe that is needed to sustain life?
 2. Energy - What makes the lights work, heats our homes and provides power? (most of our energy comes from oil, gas and coal - all natural resources)
 3. Heat/Air Conditioning - What makes air warm or cool in a building?
 4. Water (hot and cold) - What do we use for drinking, cooking and cleaning?
 5. Natural Materials/Resources - What are some materials found in or on the earth? (rocks, trees, water, etc.)
 6. Man Made - What do we call things humans make using natural materials?
 7. Pollution - How does pollution harm our environment?
 8. Earth Friendly/Environmental Stewardship - What do we call taking responsibility for our environment and helping to protect our natural resources? What can students do to help at home and in their neighborhoods to be kinder to the environment?



First Grade ♦ Lesson Six



- B. Discuss with students different ways to help the environment:
1. Air - Keep it fresh and clean, conserving energy whenever possible (from heating, lighting, driving, etc.) by reducing pollution from power plants; plant trees and other plants to help clean the air.
 2. Electricity - Open windows for natural ventilation; turn off lights, TV and computers when not using.
 3. Heat - Turn temperature setting down in winter and up in summer; change filters in furnace; keep doors and windows closed in the winter; use storm windows in the winter and screens in the summer; use blinds and curtains to keep the sun out in the summer and let the sun in during the winter.
 4. Water - Stop leaky faucets and running toilets; take short showers; turn off water in sink when brushing teeth; mow the lawn only when necessary; use hot water only when necessary (hot water requires energy to heat it).
 5. Natural Resources - Reuse as much as possible (use both sides of paper, buy products that have recycled content, compost); protect (don't use toxic chemicals near lakes and rivers, take reusable bags to the grocery store).
 6. Man-Made Materials - When using man-made products, such as toys, tools, clothes, etc., try to get maximum use instead of disposing of them; repair items when possible, or donate for others to use.
 7. Recycle - When discarding trash, recycle newspapers, bottles and cans; learn how to dispose of chemicals, engine oil, gasoline, paint, batteries, etc., safely; your community can help you identify how and where to do this; don't litter - ever.
 8. Be an Environmental Steward - Protect the environment and leave it better than you found it; always use natural resources wisely; take responsibility and talk to your parents about what you can be doing to help the environment.
- C. As homework, have students take home a copy of the "earth friendly" letter to parents. The letter students take home to share with their parents asks the question: What is being done at home that is "earth friendly"?

TEACHER'S EVALUATION

- A. Analyze student homework for evidence of understanding of environmental issues and the vocabulary words used during discussion.



First Grade ♦ Lesson Six



Dear Parents/Guardians:

Your child's class is learning the basic elements of being "earth friendly." This includes a basic understanding of such issues as air and water pollution and resource conservation.

Today in class, we discussed these issues and talked about how all of us can be kind to our environment and be more "earth friendly."

As part of the learning process, we have asked the class to look at how their own home is earth friendly. Please discuss with them what steps you take such as recycling newspapers, bottles, cans and other materials; shutting off lights to conserve electricity; lowering the heating thermostat to conserve energy; composting your waste; buying recycled products; using less water for showers and for brushing teeth.

We will then have a class discussion in which the children can participate and explain how their family is "earth friendly." The date for the class discussion is _____. Please have the discussion on how your family is earth friendly at home before the class discussion date.

Your help in encouraging your child to become more aware of our environment is greatly appreciated.

Thank you,



First Grade ♦ Lesson Seven



FIRST GRADE
LESSON NO. 7

STREETSCAPES

LENGTH OF LESSON:

30 Minutes

EDUCATIONAL OBJECTIVES & MICHIGAN CURRICULUM FRAMEWORK CONTENT STANDARDS:

- A. Understand the variety of building forms and building types that are found along the street
- Social Studies
 - Geographic perspective
 - Visual Arts
 - Arts in context
- B. Select the proper shapes and proportions to create the front view of a building in context with other buildings
- Mathematics
 - Geometry and measurement
 - Visual Arts
 - Creation
 - Arts in context

GRADE LEVEL CONTENT EXPECTATIONS

Please see the applicable Grade Level Content Expectations (GLCEs) at the beginning of the First Grade chapter.

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.



First Grade ♦ Lesson Seven



Balance is the creation of visual harmony through the use of color and the manipulation of form.

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

Past, current and future technologies influence design decisions.

MATERIALS

1. "Streetscape" handout (included)
2. Outline of streetscape townhouse (4 types included) - Note: Copy each townhouse outline on 8 1/2 x 11-inch or 9 x 12-inch paper for student use
3. Large sheet of paper for streetscape mural (approximately 24 inches tall)
4. Patterns of materials (included)
5. Pencils
6. Crayons or markers
7. Colored paper
8. Glue
9. Masking tape

VOCABULARY (See glossary for definitions)

1. Circle
2. Rectangle
3. Semi-Circle
4. Square
5. Streetscape
6. Texture
7. Townhouse
8. Triangle



First Grade ♦ Lesson Seven



ACTIVITY

- A. The teacher hands out a streetscape photograph to each student.
- B. Tack a long, blank sheet of paper (approximately 24 inches tall) at the front of the class for use as the background of a streetscape mural.
- C. While students look at their streetscape photo handout, discuss the color, pattern and texture within the geometric shapes they identify. If the streetscape photo is black and white, discuss its light and dark tones.
- D. Hand out an outline of a streetscape townhouse, one per student, and a copy of Examples of Textures, Doors and Windows (included). Have students add color, pattern and texture to their outlined townhouse (as examples, use the patterns provided). Cut out the finished townhouses.
- E. Have each student place his/her townhouse on the long, blank streetscape paper hung in front of the class. The teacher can place a building he/she made from the available materials as an example.
- F. The students should arrange their buildings on the streetscape mural with tape until they are satisfied with the arrangement and then glue them permanently to the mural.

TEACHER'S EVALUATION

- A. Analyze student artwork for:
 1. Appropriate shapes used within their buildings;
 2. Shapes correctly arranged to create their building;
 3. Neatness in students' use of scissors, glue, and making arrangements.



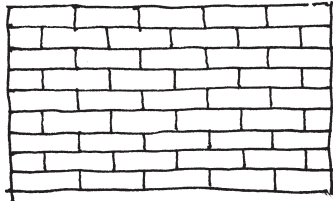
First Grade ♦ Lesson Seven



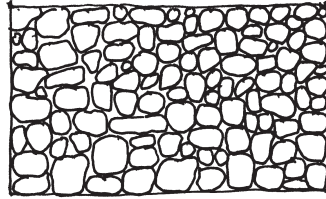
Streetscape



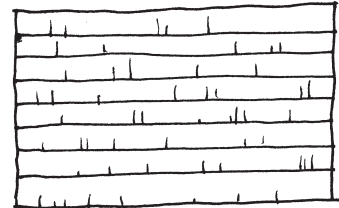
First Grade ♦ Lesson Seven



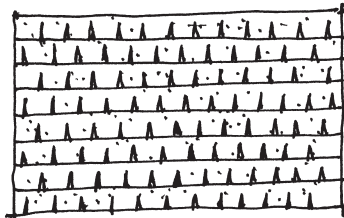
Brick



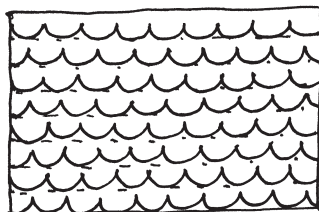
Stone



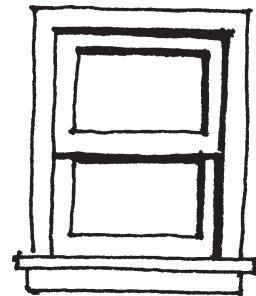
Wood Siding



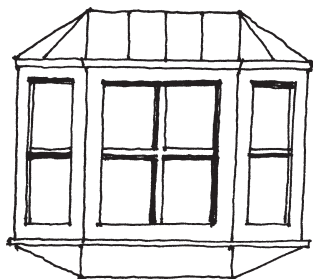
Shingles



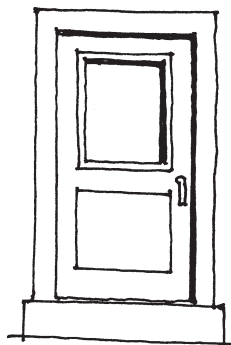
Shingles



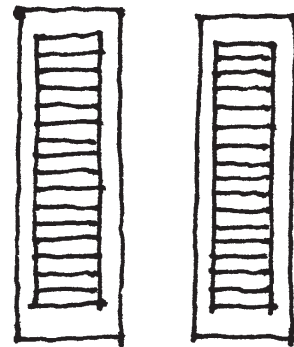
Window



Bay Window



Door



Shutters

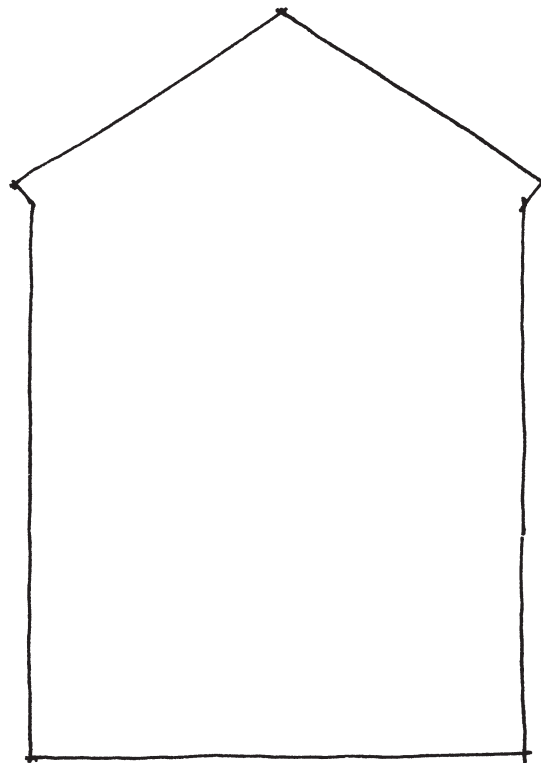
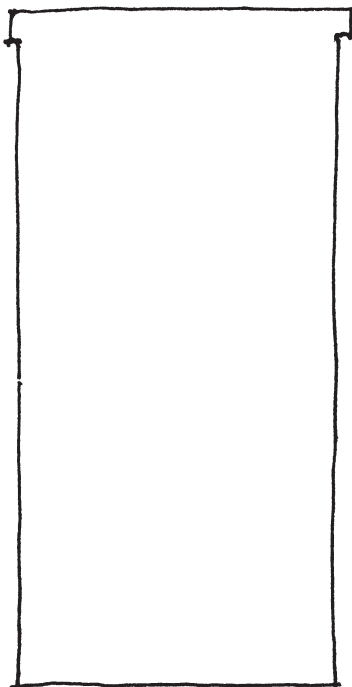
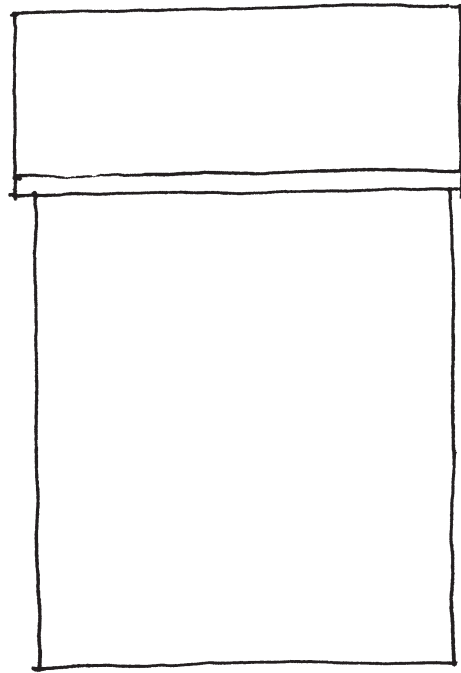
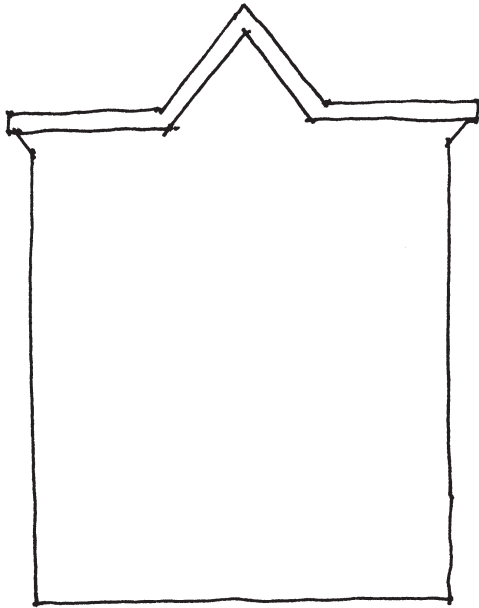
Examples of Textures,
Doors and Windows



First Grade ♦ Lesson Seven



Townhouse Outlines



First Grade ♦ Lesson Eight



FIRST GRADE
LESSON NO. 8

PROPORTIONS AND SCALE -
TWO-DIMENSIONAL

LENGTH OF LESSON:

30 Minutes

EDUCATIONAL OBJECTIVES & MICHIGAN CURRICULUM FRAMEWORK CONTENT STANDARDS:

- A. Be able to identify differences in two-dimensional sizes and shapes
- Mathematics
 - Geometry and measurement
 - Visual Arts
 - Performance
 - Creation
 - Arts in context
- B. Be able to communicate measurement and information using comparisons in sizes and shapes
- English/Language Arts
 - Meaning and communication

GRADE LEVEL CONTENT EXPECTATIONS

Please see the applicable Grade Level Content Expectations (GLCEs) at the beginning of the First Grade chapter.



First Grade ♦ Lesson Eight



ARCHITECTURAL PRINCIPLES:

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

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

MATERIALS

1. Examples of shelters from nature or pictures (if available)
2. Outline drawings of two houses and large and small cutouts of human silhouettes, doors and windows
3. Outline drawings of a large and a small rectangle for each student (teacher to provide)
4. Scissors
5. Glue
6. Colored pencils
7. 8 1/2 x 11-inch paper for each student

VOCABULARY (See glossary for definitions)

1. Proportion
2. Relationships
3. Scale
4. Two-dimensional

ACTIVITY

- A. Review Kindergarten Lesson No. 6, "Human Proportions." Remind students how they measured their classroom (desk, chair, etc.) by using parts of their own bodies (fingers, arms, feet, etc.), and how the various objects related to human size.



First Grade ♦ Lesson Eight



- B. Have a class discussion. Explain that it is important to design the objects we use and spaces we occupy to be comfortable for people. Objects are scaled to fit our size. A model train set would illustrate how objects are scaled down to a smaller size. We see many examples in nature of shelters that are built to suit their inhabitants - a bird's nest, a moth's cocoon, an ant colony or a wasp's nest. If the school has a nature area where these things are available, it would be helpful to show them to the class during the discussion. The entrance openings and internal spaces relate to the size of the inhabitants.
- C. Hand out a set of outline drawings to each student. Have the students cut out the windows, doors and people.
- D. Arrange the students in small groups. Ask students to position and glue the large house and the small house on an 8 1/2 x 11-inch piece of paper. Next have them position and glue the doors and windows on the appropriately scaled house drawing. Then have them position and glue the appropriate size person on the paper next to each house. Explain that the positioning should allow the figure to walk through the doorway and look through the window.
- E. The next exercise is performed individually. Each student is given two rectangles (of different sizes) representing buildings (teacher to provide rectangles). The students should draw windows, doors, a person and a tree on their rectangle buildings. The drawings should then be compared for size to establish whether the students have related the elements at appropriate scale. Can the person fit through the door and look out the window?
- F. Remind students to bring in a shoe box for Lesson No. 9.

TEACHER'S EVALUATION

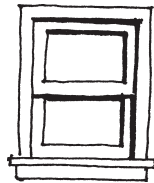
- A. Analyze student art work for:
 - 1. House features that are drawn in appropriate scale and correct positioning.



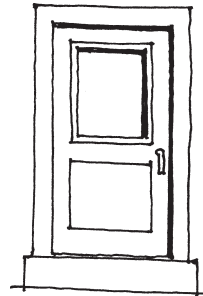
First Grade ♦ Lesson Eight



Little Person



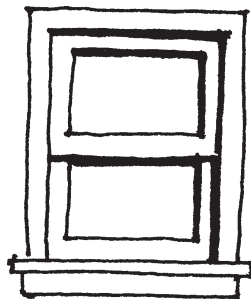
Little Window



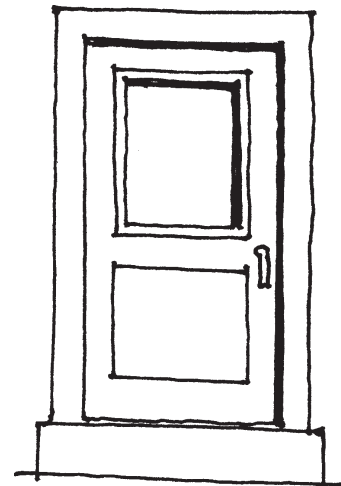
Little Door



Big Person

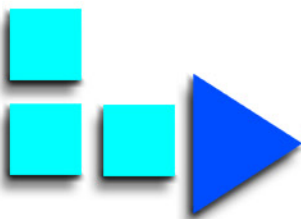


Big Window

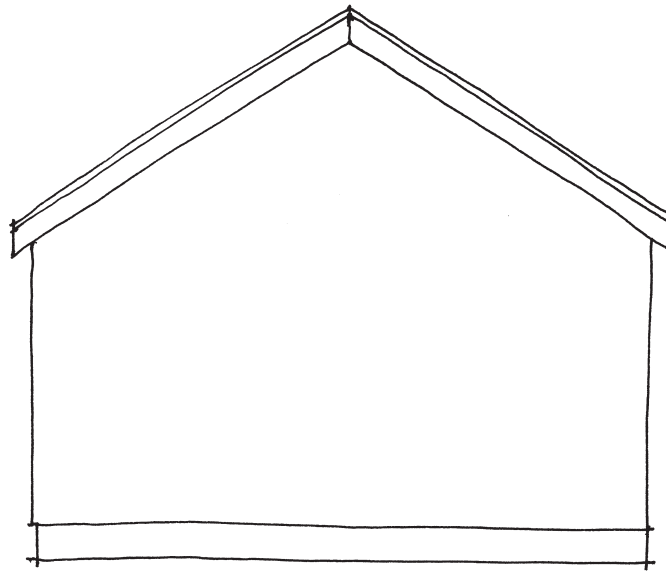


Big Door

Outline Drawing



First Grade ♦ Lesson Eight

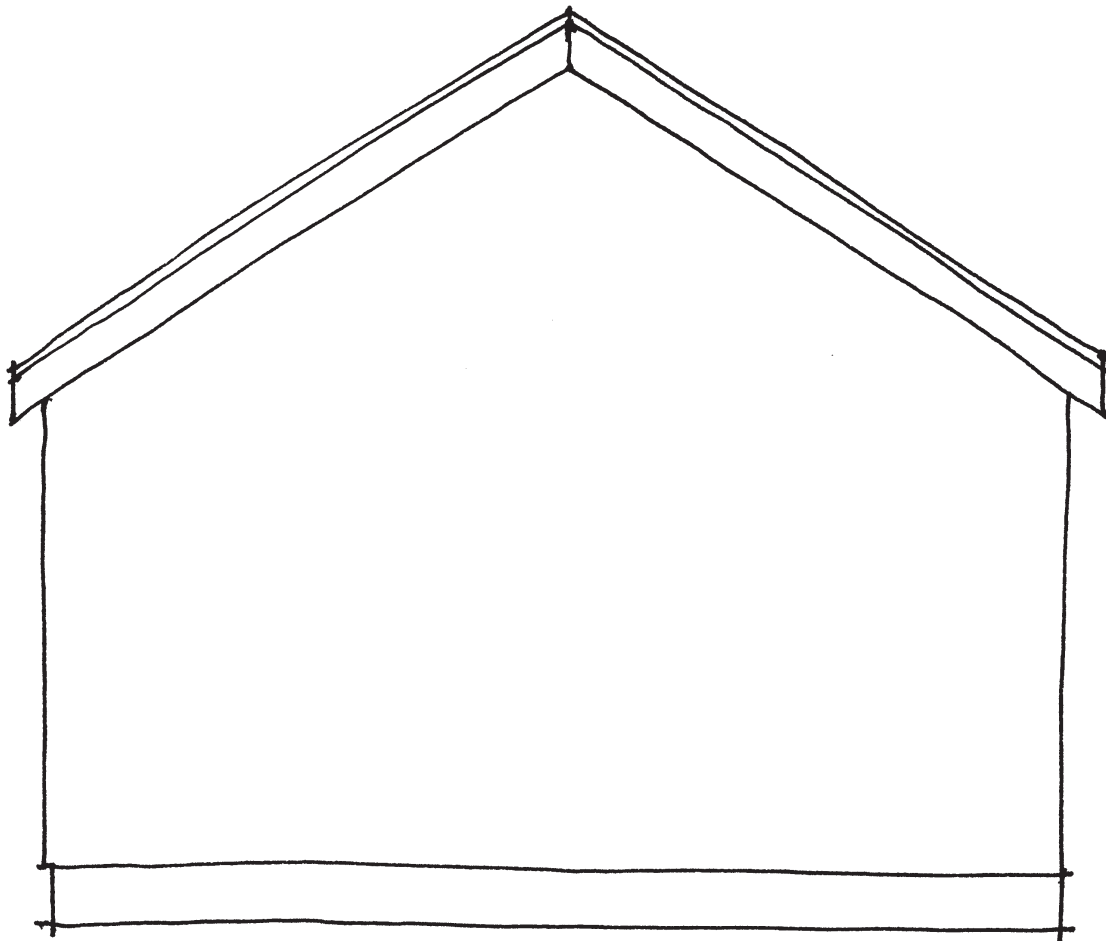


Little House

Outline Drawing



First Grade ♦ Lesson Eight



Big House

Outline Drawing



First Grade ♦ Lesson Nine



FIRST GRADE
LESSON NO. 9

PROPORTIONS AND SCALE -
THREE-DIMENSIONAL (PART 1)

LENGTH OF LESSON: 30 Minutes

EDUCATIONAL OBJECTIVES & MICHIGAN CURRICULUM FRAMEWORK CONTENT STANDARDS:

- A. Be able to identify differences in three-dimensional sizes and shapes
- Mathematics
 - Geometry and measurement
 - Visual Arts
 - Performance
 - Creation
 - Arts in context
- B. Be able to communicate measurement and information on comparisons in three-dimensional sizes and shapes
- English/Language Arts
 - Meaning and communication
- C. Understand the effect of climate on building design
- Science
 - Use of scientific knowledge from physical sciences and real-world contexts
- D. Begin to develop a sense of aesthetics in creating a design
- Visual Arts
 - Performance
 - Creation

GRADE LEVEL CONTENT EXPECTATIONS

Please see the applicable Grade Level Content Expectations (GLCEs) at the beginning of the First Grade chapter.



First Grade ♦ Lesson Nine



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 creating of visual harmony through the use of color and the manipulation of form.

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

Aesthetics is the artistic component of architecture.

Climate and the natural environment influence design decisions.

The creative process is basic to design.

MATERIALS

1. Shoe box
2. An outline of a person in correct scale for students to use in a house constructed from a shoe box (teachers should appropriately size picture included in Lesson No. 8)
3. A page of various sizes of windows and doors for student reference (included in Lesson No. 7)
4. Pencils and erasers
5. Construction paper in various colors
6. Scissors
7. Rulers
8. Markers



First Grade ♦ Lesson Nine



VOCABULARY (See glossary for definitions)

1. Aesthetics
2. Climate
3. Three-dimensional
4. Proportion
5. Scale

ACTIVITY

- A. This lesson builds on the material of Lesson No. 8: "Proportions and Scale - Two-Dimensional." Review Lesson No. 8 concerning position and scale of doors and windows. Extend the discussion to include types of materials used to protect your home from the climate, i.e. brick, shingles, siding. To extend the students' imagination, discuss the aesthetic aspects of windows and doors in terms of style, color and size.
- B. Each student should have a shoe box to create his/her own house. First, have the students cover their box with construction paper.
- C. The students will then design their own windows and doors, drawing them on paper of various colors. They should first concentrate on scale and then on a variety of decorative qualities.
- D. Project continues in Lesson No. 10.

TEACHER'S EVALUATION

- A. Analyze student artwork after Lesson No. 10.



First Grade ♦ Lesson Ten



FIRST GRADE
LESSON NO. 10

PROPORTIONS AND SCALE -
THREE-DIMENSIONAL (PART 2)

LENGTH OF LESSON: 30 Minutes

EDUCATIONAL OBJECTIVES & MICHIGAN CURRICULUM FRAMEWORK CONTENT STANDARDS:

- A. Be able to identify differences in three-dimensional sizes and shapes
- Mathematics
 - Geometry and measurement
 - Visual Arts
 - Performance
 - Creation
 - Arts in context
- B. Be able to communicate measurement and information on comparisons in three-dimensional sizes and shapes
- English/Language Arts
 - Meaning and communication
- C. Understand the effect of climate on building design
- Science
 - Use of scientific knowledge from physical sciences and real-world contexts
- D. Begin to develop a sense of aesthetics in creating a design
- Visual Arts
 - Performance
 - Creation

GRADE LEVEL CONTENT EXPECTATIONS

Please see the applicable Grade Level Content Expectations (GLCEs) at the beginning of the First Grade chapter.



First Grade ♦ Lesson Ten



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 creating of visual harmony through the use of color and the manipulation of form.

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

Aesthetics is the artistic component of architecture.

Climate and the natural environment influence design decisions.

The creative process is basic to design.

MATERIALS

1. Shoe box (Started in Lesson No. 9)
2. Pencils and erasers
3. Construction paper in various colors
4. Scissors
5. Rulers
6. Markers
7. Glue

VOCABULARY (See glossary for definitions)

1. Ornament
2. Proportion
3. Texture



First Grade ♦ Lesson Ten



ACTIVITY

- A. This lesson continues from Lesson No. 9, "Proportions and Scale - Three-Dimensional." Review Lesson No. 9 concerning position and scale of doors and windows.
- B. When students are satisfied with their scale for doors and windows, they will cut them out and glue them in place.
- C. The students can embellish their houses with additional architectural details, such as a roof. To create a roof, draw shingles on construction paper, fold in half and glue on top of the shoe-box house.
- D. The students may add other ornamentation and texture, such as shutters, shingles, brick, etc.
- E. The students may assemble the houses to create a three-dimensional neighborhood street for a display.
Note: The class can use this activity as a team project suitable for presenting to parents 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:
 1. Appropriate scale and position;
 2. Aesthetic appearance - neatness and attractiveness of student work;
 3. Doors, windows and other elements included in class discussion.



