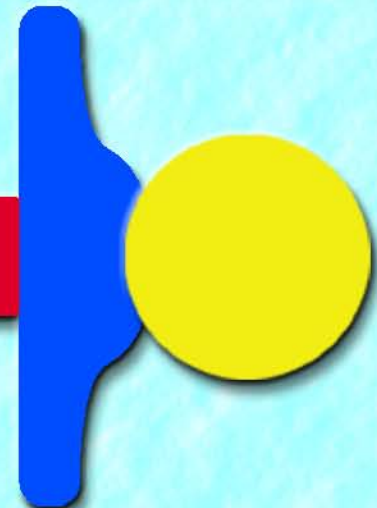
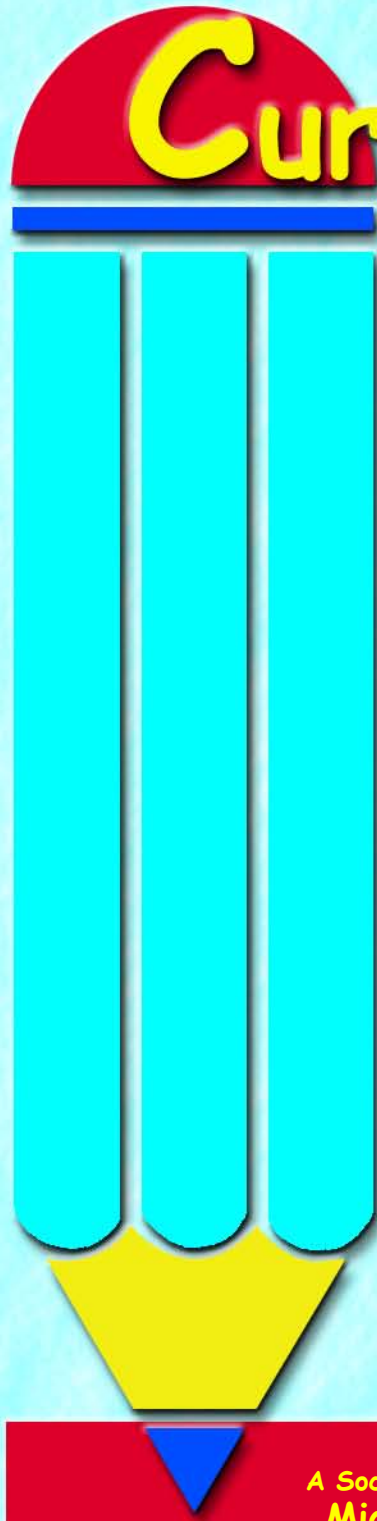


# Curriculum Guide

K-5<sup>th</sup>



**AIA Michigan**  
A Society of the American Institute of Architects  
Michigan Architectural Foundation



# Welcome To "Architecture - It's Elementary!"



Welcome to the American Institute of Architects ("AIA") Michigan/Michigan Architecture Foundation ("MAF") Curriculum Guide for the elementary grades.

We invite you to participate in "Architecture: It's Elementary!" Supported by local architects and through a multidisciplinary architectural curriculum, children will gain appreciation of their built environment and the buildings, towns and cities that make it up.

This Web-based guidebook for teachers includes ten lesson plans for each elementary school year, from kindergarten through grade five. The curriculum introduces children to the study of architecture and the built environment, encompassing art, social studies, language arts, history, science and math.

These lessons engage children's bodies, minds, and imaginations to explore how buildings and cities are designed and built. Lessons appeal to the various learning styles of children as they look, explore, think and design. In considering how to create functional, safe and appealing environments, children develop skills of observation, reasoning and critical thinking. These tools will develop within them an appreciation and respect for the built environment.

The lessons combine individual and group activities. Within each lesson, Michigan core curriculum standards are noted, and a vocabulary and illustrations are provided. References to basic architectural principles are listed. Lessons can be adapted to your school's needs and interests, and your input and insights are encouraged to refine and improve the curriculum guide.

AIA Michigan architects are here to support you, answer your questions and provide personal assistance as needed. Local architects from your community have volunteered to be of help.

If you need assistance, please call AIA Michigan at (313) 965-4100 and ask for the name and phone number for the current statewide elementary curriculum liaison. Thank you for your participation!





## License Granted to User Groups



"Architecture: It's Elementary" is provided by the Michigan Architectural Foundation to educational and other public and private user groups, for the purpose of establishing an elementary curriculum throughout the State of Michigan, to heighten student appreciation of the built environment, and to enhance public awareness of architecture and design.

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# Introduction



## Our Mission

The mission of AIA Michigan/MAF:

"In partnership with the educational community, to develop and implement an elementary educational curriculum throughout the state to heighten awareness of the built environment."

Everyone experiences architecture and interfaces with it daily in one form or another. The ability to recognize the qualities of good design empowers people to value the difference between a mere building and a well-designed piece of architecture.

In an effort to address this need, AIA Michigan, a Society of the American Institute of Architects (AIA), and the Michigan Architectural Foundation (MAF) initiated the Public Awareness Campaign. The main initiative of the campaign is to enhance the general public's understanding of the value of good design in the creation of a high-quality built environment for everyone.

The Public Awareness Campaign is subdivided into three components:

1. Media Relations - topical matters, press releases and published articles;
2. Public Awards Program - the public becomes the judge in determining what constitutes good architecture;
3. Student Design Awareness Program.

The Student Design Awareness Subcommittee was charged with bringing this third component into the classroom. The goal is for children to become sensitive and aware of their built environment. Children should be able to respond to a well-designed building or space - to enjoy a special place.





Dr. Anne Taylor, Ph.D., a professor in the School of Architecture and Planning at the University of New Mexico, is an expert in the field of architecture and children. She sums it up this way:

***"By studying architecture and design, through surroundings that touch each of us daily, students learn that they can make a significant difference in enhancing their lives and their environment. This kind of integrated learning which prompts visual thinking, data collection, problem solving, cooperative learning and the making of critical judgements will foster a generation of mature people better able to make decisions about building cities, [planning] roads and the quality of the built environment."***

— From "Architecture and Children: Discovery through Design, A Phantasmagoria for Children," June 12-16, 1989, sponsored by the University of New Mexico and New Mexico State Department of Education

The objective is not to create a generation of architects but rather to introduce some understanding and appreciation of the principles of good design at a fundamental level and in conjunction with the students' general curriculum and education.

To undertake this task, the Student Design Awareness Program expanded its committee to include professionals in education as well as in architecture.

The committee decided an elementary school-level curriculum guide for teachers containing grade-appropriate lessons would be the best source for creating experiences that would make a lasting impression on students. There is much material available on architecture and the built environment that previously has been produced for both elementary- and secondary-grade levels. However, the Student Design Awareness Subcommittee's goal was to produce a full schedule of coursework for all of the elementary grades, providing the opportunity to revisit the design awareness program every year, building on the year before.





## The Curriculum Guide

While the basic elementary core curriculum teaches the fundamentals of social studies, history, math, science, arts and language, the architectural curriculum is intended to augment the teaching of those fundamentals in an integrated fashion.

Teachers have different levels of knowledge and skills in presenting the built environment, and student knowledge of the subject varies greatly in the early grades. Since the proposed curriculum is application based, the Student Design Awareness Subcommittee opted for the format of a curriculum guide for teachers, allowing them the flexibility to determine how the material in each lesson plan is presented.

This curriculum guide consists of lesson plans, with approximately ten lessons per grade, for kindergarten through grade five, and is offered in a thematic study program, within the Michigan Core Curriculum Framework.

Much of the curriculum is based on a cooperative hands-on learning approach. During many of the activities, children have the opportunity to work together while having fun. Some of the lessons will provide ideal opportunities for involvement and assistance by members of the architectural profession. This curriculum guide encourages teachers to contact local professionals through AIA Michigan. In an effort to involve family and community, each year's course is structured to culminate in a group or class project, which may form the basis for a night during which parents are invited into the classroom.

The coursework for the "Architecture - It's Elementary!" curriculum is available statewide as a direct download off the Internet. For information on how to access the material, contact AIA Michigan at (313) 965-4100.



# Users Guide



## Lesson Plan Format and Curriculum

The curriculum is divided into six sections, one for each year from kindergarten through grade five. Each section comprises at least ten lesson plans.

Following this users guide is a "Scope and Sequence" chart containing a complete schedule of lesson plans, by grade level, for the entire curriculum.

All the lesson plans share the same format, as indicated below:

## Educational Objectives & Michigan Curriculum Framework Context Standards

**Principles of Architecture** (for a complete list, see pages 17-18)

## Vocabulary

## Materials

Teachers' aids include:

- Sketches/photographs/charts
- Letters to parents
- Recommended instructional materials

## Activities

## Teacher's Evaluation



# Scope and Sequence - Lesson Plans



**Grade**

Theme		1	2	3	4	5	6	7	8	9	10			
<b>K</b>	Funda-mental Principles	Geometric Shapes	Street-scapes	Neighbor-hood Walks  3A Parks and Play-grounds	Building Block Town	Acting Out Structures	Human Propor-tions	Draw Your Room From Memory  7A What Is Your Favorite Place?	Picture Your Own Home – Part 1	Picture Your Own Home – Part 2	Picture Your Own Home – Part 3			
	<b>1</b>	Funda-mental Principles	Sensory Explora-tion	Visuali-zation Skills	Color, Light and Your Classroom Environ-ment	Structures	Draw Your Home From Memory	Earth Friendly	Street-scapes	Propor-tions and Scale – Two Dimen-sional	Propor-tions and Scale – Three Dimen-sional (Part I)	Propor-tions and Scale – Three Dimen-sional (Part II)		
		<b>2</b>	General Application of Funda-mental Principles	Animal Houses	Man-Made Structures	Structural Concepts	Measuring	Measuring and Drawing Your Classroom	Sensory Aspects of Your Classroom	Building Types	Recipe for a City – Part 1	Recipe for a City – Part 2	Recipe for a City – Part 3	
			<b>3</b>	House	Metric System	Anthropo-morphic Buildings	Different Kinds of Homes	House Materials	House Linkages	How We Use Our Home	Draw Your Home	Design Your Home – Part 1	Design Your Home – Part 2	Design Your Home – Part 3
				<b>4</b>	Neighbor-hood	What Is a Neighbor-hood?	Guided Neighbor-hood Walk	Building Types	Building Types and Aesthetics	Neighbor-hood Land-marks	Neighbor-hood Activities	Ecology and the Built Environ-ment	Design A Commu-nity Neighbor-hood – Part 1	Design A Commu-nity Neighbor-hood – Part 2
<b>5</b>					City	History of Cities	Politics and Economics of a City	City Planning	Infra-structure	Preser-vation	Building Materials	Our Environ-ment	Design a City – Part 1	Design a City – Part 2



## Principles of Architecture

The Student Design Awareness Subcommittee has developed the following list to establish some fundamental precepts basic to understanding architecture. While the committee has attempted to make the list comprehensive, there are no doubt other principles that could be included. While each lesson emphasizes certain principles, there may be aspects of all of the principles in each of the lessons.



# Principles of Architecture



- A. **Design** is accomplished by composing the physical characteristics of size, shape, texture, proportion, scale, mass and color.
- B. **Order** is the arrangement and organization of elements to help solve visual and functional problems.
- C. **Visual** relationships are determined by light, shadow, edges and contrast.
- D. **Balance** is the creation of visual harmony through the use of color and the manipulation of form.
- E. **Form follows function** is a design approach where the form of the building is determined by the function of its spaces and its parts.
- F. **Nature is a model** for architectural forms and shapes.
- G. Mass creates form, which occupies space and brings into being a **spatial articulation**.
- H. **Symbolism** is an important means of visual communication for architecture.
- I. **Visual thinking** is a key to awareness of the built environment.
- J. **Responsible design** of the built environment protects the natural environment.
- K. **Social structure, culture and the built environment** have a direct influence on one another.
- L. Design is experienced through **human sensory perception**.
- M. **The creative process** is basic to design.
- N. **Aesthetics** is the artistic component of architecture.
- O. **Climate and the natural environment** influence design decisions.
- P. Architecture satisfies **emotional** and **spiritual** needs in addition to **physical needs**.
- Q. Past, current and future **technologies** influence design decisions.

