



Learning on the Great Lakes Seaway Trail

One of America's Byways

Lesson #4

Subject: History - Architecture

Grades: 4-6th

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Anticipatory Set:

Ask the students what the term architecture means. Ask the students to name some different architecture styles they have seen.

New York State Standards:

Standard 1.1, 1.2 - History of the United States and New York

Objective:

Students will be able to identify and distinguish the different architecture styles by using worksheets to reconstruct some of the styles they learned.

Purpose:

The students will understand how the different architecture styles had influenced the different structures in their area and how some of the styles are still used in construction of new buildings today.

Summary:

History and Architecture in New York:

The North Country was settled later than New England so the architectural styles and trends remained in use in the North Country much later than their prototypes in New England. Following the Revolutionary War, much of New York State was offered as bounty land. The Office of Land Commissioners was established in 1786 and granted the power to sell the state's unappropriated lands. Alexander Macomb purchased three and one-half million acres of New York State land. His agent, William Constable, sold the land in smaller tracts to early settlers.

Frenchman James Donatien LeRay de Chaumont purchased 220,000 acres from Macomb in 1800. Macomb traveled frequently between France and the United States so his son Vincent managed his father's business from the family mansion in Cape Vincent. French refugees fled France after Napoleon's reign ended and settled in the North Country.

As the North Country was settled the settlers saw opportunity in fur trading. The Erie Canal created fierce competition for lake and river trade. Canals, wagon routes, and railroad lines were constructed to connect the North Country to southern trade routes. As the dairy business developed cheese became a major export because it could be aged and transported to great distances without need for refrigeration. Wealthy patrons discovered the scenic beauty of the Thousand Islands in the 1870's. Elegant summer residences were constructed on the islands and railroads furnished easy access to the area. Grand hotels were constructed to handle the new tourist population. There were pleasure boat rides and fishing guides along the river. After World War II highway construction provided access to the area for people to go fishing, boating and camping, making the tourist industry



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strong in the area. In the 1950's the United States opened the Eisenhower Locks connecting the Great Lakes to the Atlantic Ocean via the St. Lawrence River.

Architecture Historical Styles in New York, Along the Seaway Trail:

Federal Style: 1800-1840 – The Federal style became the most popular style for the new nation. The Federal style was also known as the “Adams Style” which was named after the two Adams brothers who had the largest architectural practice in England from 1760–1780. The Federal style had some similarities to the Earlier Georgian style that was prevalent in the northeast from early 1700's to the 1800's.

There were vernacular adaptations happened frequently as the residents used the available resources and added unique variations to the styles.

Features:

1. It typically had simple rectangular boxes that were two rooms deep.
2. The façade was unadorned and symmetrical.
3. A low-pitched roof.
4. The windows often double hung with 6 over 6 sash.
5. Prominent lintels and sills.
6. Shutters
7. Paneled doors in the center of the façade that are surrounded by sidelights.
8. Fanlight above the door or at the center of peak.

Regional Vernacular Adaptations:

In New England homes were sided with clapboards. In the North Country there was a great supply of native stone. The stonemasons created a number of Federal style homes along the Seaway Trail. The buildings had unusual elliptical windows or vented openings in the gable.

Greek Revival Style 1830 – 1860 – The Greek Revival also known, as the “National” style became first popular with construction of public buildings, where the buildings had a temple front. This reflects the idea of Greek democracy having columns mostly white to symbolize the white marble used in earlier Greek temples. When carpenters' pattern books were being published in the 1st half of the nineteenth century the Greek Revival Style started to become popular with residential construction.

Features:

1. Molding that was bold and simple.
2. Heavy cornice lines that was emphasized with wide bands of trim.
3. Both gable and hipped roofs.
4. Classical columns that supported a one or two story porch.
5. Pilasters
6. Rectangular transoms.
7. Sidelights around prominent door
8. Enlarged frieze bands at the edge of roof.

Regional Vernacular Adaptations:

After the War of 1812 the North Country had great variety of Greek Revival houses. The colossal columns were often added on to existing structures to modernize their appearance. They would have colossal temple fronts with square columns for



support. Farmsteads were built as front gable houses with a one or one and one-half story side wings.

Gothic Revival Style 1830-1870 – The Gothic Revival Style stems from the Romantic era in literature, art, and architecture. Andrew Jackson Davis is an architect who developed this style. Andrew Jackson Downing, a landscape architect, helped popularize the style by publishing it in pattern books during the 1840's. With the invention of the scroll saw the construction of this style became known as the as the “Carpenter Gothic” style.

Features:

1. Steeply pitched gables with decorated vergeboards that continues along the edge board.
2. Steep gables, either centered or paired, are arranged asymmetrically across the façade.
3. Exterior siding was often vertical planks and strips using the board and batten technique.
4. Windows vary in size and shape, but an arched window often at the peaked gable.
5. Elaborate porches and moldings.

Regional Vernacular Adaptations:

The Gothic Revival style is native to New York State. The style was intended for use in the rural areas. The examples along the Seaway Trail are true representations of this style.

Italianate Style: 1850 – 1880 - The Italianate style developed during the picturesque movement. The style was used for both commercial and residential buildings. The buildings were often masonry construction that was modeled after rural Italian farmhouses. Cast iron and pressed metal being used as building material decorated commercial structures.

Features:

1. The buildings contained wide eaves that were supported by large single or paired brackets.
2. The houses were nearly squared in shape and had tall windows on the first floor.
3. The roofs are low and sometimes had a cupola on top.
4. U-shaped hood moldings that may top first and second floor windows.
5. The front door was often in line with the shape of the windows.
6. Single story porches on front entrance or cover the entire width of the façade.

Regional Vernacular Adaptations:

A popular practice in remodeling houses was adding the Italianate eaves and brackets to existing homes. Many farmhouses in the area used a variety of ways to apply the Italianate style by using the square floor plan, brackets, eaves and cupola in their construction.

Second Empire Style: 1860-1880 - Francois Mansard, a seventeenth-century Frenchman, invented a roof, which allowed attics to be expanded into usable space. This style became popular for remodeling existing homes. Empire style homes that were



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constructed during the administration of President Grant were named the “General Grant” style.

Features:

1. A steeply sloping mansard roof with dormer windows.
2. Features are similar to the Italianate style.

Regional Vernacular Adaptations:

Despite the influx of French immigrants to the north country, few examples of the Second Empire style exists along the Seaway Trail.

Victorian-Era styles: 1860-1900 – The stick, Queen Anne and Shingle Victorian styles were first popular as a seasonal resident. With the evolution of construction methods, such as the balloon frame and the mass production of architectural details made it possible for people to build these type homes.

Features:

1. Steeply pitched, irregular roofs and towers, common to all three styles.
2. Facades are textured and patterned with wooden shingles, clapboards and details such as cross gables.
3. One story extended porches with spindle work and ornate corner brackets.

Regional Vernacular Variations:

“Folk Victorian” style was popular among farmhouses along the Seaway Trail. The facades were more symmetrical and evenly textured than the high style examples. The facades supported detailing on the porches and the cornice line. People who owned seasonal cottages were able to add Victorian details to their homes by mail order through catalogues.

Glossary:

Bay: One unit of a building that consists of a series of similar units, commonly defined by the number of window and door openings per floor or by the space between columns or piers.

Blind Arch: An arch that does not contain an opening for a window or door, but is set against or indented within a wall.

Bracket: A support element that is placed under eaves, shelves or other overhangs. It is often more decorative than functional.

Buttress: A projecting structure of masonry or wood for supporting or giving stability to a wall or building.

Casement: A window with a sash hung vertically and opening inward or outward.

Castellated: Having battlements and turrets, like a medieval castle.

Cast Iron: Iron, shaped in a mold that is brittle, hard and cannot be welded.

Clapboard: A thin board, thicker on one edge than the other, used to cover wooden buildings.

Cornice: Is a molding between a wall and the ceiling or a part of the structure just above a column.

Cupola: A small domelike structure on a roof.

Dormer: A vertically set window on a sloping roof; also, the roofed structure housing such a window.



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- Doubled Hung Sash Window:** A window with two sashes, one above the other, arranged to slide vertically past each other.
- Eaves:** The projecting overhang at the lower edge of a roof.
- Façade:** The outside front of a building.
- Fanlight:** A window with an elliptical fan shape above a door or at the center of the façade peak.
- Gable:** Any triangular section of an outside wall between sloping roofs.
- Gambrel:** A ridged roof with two slopes on each side, the lower slope having the steeper pitch.
- Hipped roof:** A roof with four uniformed pitched sides.
- Hood Molding:** A large molding over a window, originally designed to direct water away from the wall; also called a drip molding.
- Lantern:** A structure built on the top of a roof with open or windowed walls.
- Lintels:** A horizontal support over a door or window.
- Mansard Roof:** A roof that has two slopes on all four sides.
- Moldings:** A line of ornamental plaster or wood that went around a wall, window, etc.
- Palladian Window:** A tripartite window opening with a large arched central light and flanking rectangular side lights.
- Pediment:** A wide, low-pitched gable surmounting the façade of a building in a classical style; any similar triangular crowning element used over doors, windows and niches.
- Pilasters:** A shallow pier attached to a wall often decorated to resemble a classical column. Used to decorate corners and occasionally facades.
- Portico:** A major porch, usually with a pediment roof supported by classical columns.
- Pressed Metal:** Thin sheets of metal molded into decorative designs and used to cover interior walls and ceilings.
- Quoin:** Units of stone or brick used to accentuate the corners of a building.
- Sash:** The separate frame, which supports the glass in a window, often sliding or hinged.
- Shutters:** A hinged cover for a window.
- Sidelights:** A sidelight could be in the side of a building or at the side of door or window, etc.
- Sills:** A horizontal piece of wood or stone across the bottom of a door, window, etc.
- Spindle:** A turned wooden element, often used in screens, stair railings and porch trim.
- Transom:** A horizontal strip, often wood or stone, which separates a door from a small window above it.
- Vergeboard:** Is a decorated edge or border that goes along the eaves.
- For more terms and definitions go to <http://architecture.about.com/library/bl-glossary.htm>

Materials:

1. Worksheets with one-story and two story structures.

Teach:

1. Explain to the students how the architecture styles were influenced throughout history by styles in different parts of the country and different parts of the world. Explain how technology and improvements in tools had an affect on how buildings were designed and constructed.
2. Teach the students the different styles of architecture. Point out how the variations have been made to these styles based on the local region's resources.



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3. Go to one of the several web sites listed at the end of this lesson for students to see some photos of the different styles of architecture.
4. Take the students out on a tour of their town and point out the different architecture styles. Have several copies of the different styles so the students can compare the buildings to the drawings. Point out any homes that are considered historical and have the students try to identify the architecture style used to build the structure.
5. After the field trip hand out the worksheets with the one-story and two-story structures.
6. Pick out an architecture style you want the students to reconstruct. Instruct the students to take the worksheets and draw in the features for the certain architecture style you chose for them to do. Also have the students list the features for that style on the bottom or the back of the worksheet.

Guided Practice:

The teacher can help the students draw the features by having several pictures of the different architecture styles available for students can view.

Closure:

Ask the students to name the different architecture styles and also name the features of the style. Ask the students how the styles affect the designs of structures being built today.

Independent Practice:

Complete the worksheets.

Extended Activities:

1. Have the students pick out a style and have them create a model with the features of the style.
2. Have the students research the architects who came up with the different styles.
3. Have the student research the different styles that were not covered in this lesson.

Web sites:

1. <http://www.realtor.org/rmomag.NSF/pages/archindex?OpenDocument>
This site gives a list of the several architecture styles and gives a drawing and a brief description of each style. A great web site for teachers and students to go to and visit.
2. http://www.bc.edu/bc_org/avp/cas/fnart/fa267
The site has links based on century. The site has pictures of building with several styles. The site is great for giving students a visual on the different styles.
3. http://architecture.about.com/library/bl-styles_index.htm
The web site lists the different architecture styles. The site gives a summary and great pictures of each style. The site also lists the architects for each style. It is a great site to show students pictures of each style. This site also has a glossary of terms for students to visit.
4. <http://www.sanford-arteventures.com/play/arch1/index.html>



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The site is set up for students to visit and learn about architecture.

5. <http://www.42explore.com/arch.htm>
The web site offers several web site links to go to about architecture.
6. http://www.rchsonline.org/ar_fed2.htm
The web site starts off with Federal style, giving description and photos of the style. On the bottom of the page you can go to another style. This site is great for the brief description and photos.

Resources:

1. "Along the Trail & Into the Past: Architecture and History Along the New York State Seaway Trail", Ann E. Hutchinson, The Adirondack North Country Association, 1986
2. "What Style is it? A Guide to American Architecture", John C. Poppeliers, S. Allen Chambers, Nancy B. Schwartz, John Wiley & Sons, June 1995, ASIN 0471144347
3. "American Architecture Since 1780: A Guide to the Styles", Marcus Whiffen, MIT Press, March 1992, ISBN 0262730979
4. "Identifying American Architecture: A Pictorial Guide to Styles and Terms: 1600-1945", John J.G. Blumenson, W.W. Norton & Company, Feb 1990, ISBN 0393306100
5. "A Field Guide to American Houses", Virginia and Lee McAlester, Juan Rodriguez-Arnaiz, Alfred A. Knopf, May 1984, ISBN 0394739698
6. "A Concise History of American Architecture", LeLand M. Roth, Westview Press, Sept 1980, ISBN 0064300862

Books for Children:

1. "Where We Live", Achim Bode, Michael Frey, Prestel, Sept. 1999, ISBN 3791321048, (ages 9-12)
2. "Fun With Architecture", David Eisen, Viking Books, Sept. 1992, ISBN 0670846848, (young adult)
3. "Under Every Roof: A Kid's Style and Field Guide to the Architecture of American Houses", Patricia Brown Glenn, Preservation Press, 1993, ASIN – 0891332146, (young adult)
4. "Draw 50 Buildings and Other Structures", Lee James, Doubleplay Books, May 1991, ISBN 0385417772, (ages 9-12)
5. "Arches to Zig Zags: An Architecture ABC", Michael J. Crosbie, Steve and Kit Rosenthal, Harry N Abrams, Oct 2000, ISBN 0810942186, (ages 4-8)



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