Table of Contents:

Introduction
Standards
Narrative: The Architecture of Columbia County
Activities 1-4
Extension Activity 1: Walking Tour
Extension Activity 2: Act Out Structures
Extension Activity 3: Design a Community
Architecture Examples
Vocabulary Handout

Introduction:
Grade level: 4

Required skills (previous knowledge):

The unit is designed to help students appreciate the Architecture that surrounds them. Students view slides and consider how people meet their needs and use the resources available to them through architecture.

Overview:

Students will gain an understanding of architectural styles and the reasons for their development. They will explore the architectural styles that exist in their neighborhoods as well as in their school community. The lessons will focus on architecture as Art, History, Mathematics, Science and Technology.

Objectives:

Students will identify the ways in which history influenced architecture and interior design. Students will learn how to identify various styles of architecture, and how architects use them to create a unique building.

Learning Standards:

Common Core State Standards for English Language Arts
Reading Standards for Informational Text

Key Ideas and Details
3. Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.

Craft and Structure
4. Determine the meaning of general academic and domain specific words or phrases in a text relevant to a grade level topic or subject area.
5. Describe the overall structure (e.g., chronology, comparison, cause/effect, and problem/solution) of events, ideas, concepts, or information in a text or part of a text.
6. Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided.

Integration of Knowledge and Ideas
7. Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, timelines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.

Writing Standard

Production and Distribution of Writing
4. Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience.
5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.

Research to Build and Present Knowledge
7. Conduct short research projects that build knowledge through investigation of different aspects of a topic.
8. Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources.

Speaking & Listening
1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade level topics and texts, building on others’ ideas and expressing their own clearly.
   a. Come to discussions prepared having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
   b. Follow agreed-upon rules for discussions and carry out assigned roles.
   c. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.
   d. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.
   e. Seek to understand and communicate with individuals from different perspectives and cultural backgrounds.

Presentation of Knowledge and Ideas
4. Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
5. Add audio recordings and visual displays to presentation when appropriate to enhance the development of main ideas or themes.

Language Standards

Vocabulary Acquisition and Use

6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being (e.g., quizzed, whined, stammered) and that are basic to a particular topic (e.g., wildlife, conservation, and endangered when discussing animal preservation).
The Architectural heritage of Columbia County represents its people’s political, social and economic development. As lifestyles changed over time, so did architectural styles. Each style was significant to the people who produced it, just as the people were significant to the historical development of the county. Both large, expensively built houses and small, simpler buildings survive throughout Columbia County to provide a window into the history of the county.

Early European settlers brought ethnic diversity to the county. In the colonial period the Dutch, German Palatines, New Englanders, and English settled in Columbia County, bringing their traditional architectural styles with them. Large manor homes as well as small tenant houses were built on Livingston Manor, which comprised the southern third of the county. The population was small, dependent on the Hudson River for transportation, and principally interested in agriculture and timbering. Mills existed where water power was good for processing grain and timber.

After the Revolution, a period of dramatic development began. Columbia County was formally created in 1786. The City of Hudson became the center of commercial and social life based upon its shipping industry. The 1790s ushered in the beginnings of the Industrial Revolution and the emergence of a new middle class of merchants, manufacturers and professionals. Wealth for the many, not the few, was reflected in the nation’s first true architecture, the Federal, or Adams style, this new style crossed ethnic and economic boundaries. Pride in the new Republic was reflected, at all levels, in the architecture of the federal period.

The Greek Revival Period carried this pride to the extreme. Democratic principles found expression in the monumental architecture imitating ancient Greek temples. The Greek Revival style suited a small country house as well as a mansion or a courthouse. Prosperity spread throughout Columbia County as railroads crisscrossed the land in 1837 and opened isolated areas to improve transportation for farm and manufactured products. The Greek Revival style could be found in the city and village as well as on a farm.

By the Victorian period, in the latter half of the nineteenth century, the middle class predominated. Livingston Manor was broken up; dreams of the common people began to come true; aristocratic attitudes of the Federalist leaders were replaced by democratic reforms. Diverse interests were reflected in the architectural style of the period. Once again, architecture of the county turned to European influences as inspiration for the Gothic, Italianate, and Second Empire style. Houses large and small reflected these styles in varying degrees.

By the end of the nineteenth century, large-scale manufacturing began to move away from Columbia County and agriculture, once again, became the major enterprise. Each stage of the county’s development is evident in the architecture of the city, the villages and the farms. The county’s rich architectural heritage remains intact due to the exceptional number of early surviving structures.
Activity 1:

1. View the slides of architectural styles and discuss the reasons for the changes in styles, economic needs, cultural traditions, industrial revolution, etc.
2. Discuss how and why materials change through history. The first American houses were modeled after familiar European buildings. The New World demanded adjustments to building practice, both to the extreme temperature and to the demands of an agricultural lifestyle on a heavily forested continent.

Discuss:

- the effects of climate to determine structure
- the effects of culture (The nature of a structure determines the performance of its materials, as the utilization of stone, clay, and land forms)
- the effects of technology (tools, material, human and animal labor)

Activity 2:

1. Distribute a copy of the list of architectural elements to students.
2. Read over the glossary of architectural elements together, and discuss.

Activity 3:

1. Use a photograph of a house to demonstrate how to sketch a house. Emphasize the need to include details in the sketch. Instruct students to examine the materials that are used to build the house. Remind them that they should do their best to make the sketch as accurate as they possibly can.
2. Assign your students to sketch the structure that they live in. Remind them that they all live in different areas, and neighborhoods. Some may live in more modern houses, an apartment or a mobile home. Others many live in a house with one, two or even three floors. All of the structures are made up of different material including wood, brick, concrete, metal, wood, vinyl, asphalt, slate or metal. They should include as much detail as they can in their sketch and include a list of all of the materials that they are able to identify. (This part of the project will likely require family involvement.)

Activity 4:

1. Allow students time in groups to work on identifying the architectural elements in their sketch.
2. When the diagrams are complete allow them time to share each sketch with the class.

Extension Activity 1: The Walking Tour
Create a route for a walking tour that enables students to see a variety of architectural design elements. On the tour stop at specific stations to engage in activities such as:

- observing and identifying
  - architectural and natural design elements
  - the elements and principals of design
  - structural elements and forces
  - geometric shapes and patterns

- drawing in a sketch book
- taking photographs
- doing texture rubbings and identifying materials
- estimating and measuring dimensions and angles in buildings
- calculating the area of landscapes
- observing how people are using spaces and places
- discussing the history of building and landscapes; and how communities change over time
**Extension Activity 2: Act Out Structures**

Students act structural terms and forces. Students consider the job that is performed by the following architectural elements and terms. They will work together in small groups to determine how they can mimic the terms and elements using their bodies. (They may also use common objects to demonstrate these structural forces and terms.)

- column
- arch
- post and lintel
- compression
- tension
- load and support
- flying buttresses
- vault-tunnel
- dome
- column and beam
- cantilever
- buttress
- barrel vault
- truss

**Extension Activity 3: Design a Community**

1. Build a community that services the needs of today’s society.
2. Discuss the environmental issues that are of concern in the world today.
3. Consider universal design: think about architectural features that address the needs of all people, including the young, the old, and the handicapped.
4. Discuss the ways in which our building practices can address the concerns of the future.
Surviving Dutch Architecture reveals the extraordinary persistence of the Dutch culture in Columbia County despite English rule since the year 1664. These substantial Brick and clapboard homes were derived from medieval prototypes common in northern Europe. The community’s most successful landowners, farmers, and merchants built this type of house. In these medieval homes all ornamentation was a functional expression of their based structure. Only a few examples of the Dutch Colonial style survive in this county.

Common architectural elements include:

1. Parapet gable ends
2. Steeply-pitched roof
3. Transom widows over doorways
4. Casement windows with small panes
5. Iron anchor beams to support the outer brick wall
6. Vlechtgen along the gable end for support
7. Dutch doors
8. End chimneys
A large migration came in 1710 to Livingston Manor, Columbia County in the form of poor refugees from Germany. Thousands of peasants were fleeing war and famine in the Palatine region of German; many came to the Hudson Valley and other parts of New York State. They brought a distinctive style of domestic architecture with them. Their two-story houses, usually built into a hillside, had useful ground-level chambers that were used as kitchens and all-purpose rooms. The cellar kitchen was widely adapted to the other types of dwellings on the manor. One excellent example of Palatine architecture survives in Columbia County in the town of Clermont.

Common architectural elements include:

1. Steep roof
2. Stone and brick construction
3. Small windows and window panes
4. Interior chimney
5. Lack of ornamentation
The England settlers brought characteristic elements of their own culture to Columbia County. Their distinctively American form of domestic architecture originated in New England in the 17th century. These clapboard houses were heated by massive central chimneys, a more efficient use of heat than Dutch or Georgian chimneys located on the outer walls. Several houses of this type can still be found in Columbia County.

Common architectural elements include:

1. Massive central chimney
2. Simple exterior
3. Saltbox shape
4. Paneled front door
5. Clapboard siding
6. Small panes in the windows
7. Symmetry
The Georgian style of architecture in America derived from a style in England in the 17th and 18th centuries. For the first time, the colonies took on a common visual identity, unlike the previous combination of medieval styles. Georgian architecture became fashionable in Columbia County between the 1760s and 1790s. This formal style of domestic architecture represented American social and cultural life in the 18th century. Columbia County’s expanding and prosperous population sought the pleasure of more fashionable homes.

Common architectural elements include:

1. Palladian window
2. Pediment door often with decorative pilasters
3. Small window panes
4. Symmetry
5. Cornice with dentils or other decorative molding
6. Hipped roof
7. Side lights
8. Belt course (a line of brickwork between stories)
Federal Period
1780 -1820

A combination of influences created the Federal style of architecture. Robert and James Adam popularized the style in England in the 1760s, thus, the Federal style is often called Adamesque. Yet they were heavily influenced by the architecture of the earliest democracies of ancient Greece and Rome. This combination of Adam designs and Roman architecture gave birth to our nation’s first national architecture, the Federal style. Symbols of the new republic, such as the eagle, were often used. America’s new style was distinguished by its delicate and refined elements, unlike the heavier, more massive details of the Georgian style.

The Federal style remains well-represented in Columbia County. Many houses closely resemble the classical Adam designs while a few unusual and unique forms also exist and can be found in Hudson and Claverack.

Common architectural elements include:

1. Strict symmetry
2. Decorative cornice
3. Low-pitched roof
4. Elliptical fanlight
5. Palladian-style window
6. Windows with thin muntins between panes
7. Roof-line balustrade
8. Lintels above windows
9. Decorative motifs such as swags, urns, tracery in windows
The Greek Revival style dominated the newly independent United States through much of the 19th century. Houses and public buildings imitated classical Greek architecture, not English forms as in previous decades. Greek architectural elements symbolized the democratic elements of ancient Greece as well as the ideals of the new American republic.

This style was appropriate for a country house as well as a public building. Many structures represented the temple style, with a pediment portico supported by heavy columns, while others were much simpler. A great diversity was created within the Greek Revival style in Columbia County as older styles were modified to suit this new trend. The revival structure is distinguished by its rectangular form and strict formality. It became a stylistic monument to an era.

Common architectural elements include:

1. Doric, Ionic or Corinthian capitals upon fluted or plain columns
2. Pedimented portico
3. Heavy cornice
4. Symmetry
5. Pilasters (columns in relief on the façade)
6. Low roof
Columbia County Historical Society
Architecture

**Victorian Period**

**Egyptian Revival**

**1830 – 1890**

Hudson

The Egyptian Revival style can be identified by distinctive columns and tall straight-headed windows.

Common architectural elements include:

1. Cavetto cornice
2. Roll and rope like molding
3. Bundled shaft
4. Pylon tower
5. Sphinx
6. Cavetto cornice window head
7. Vulture or sun disk symbol


**Victorian Period**

**Gothic Revival**

1840-1880

Hudson

Common architectural elements include:

1. Gingerbread verge board
2. Pointed arches
3. Steeply pitched roof
4. Board and batten siding
5. Tower
Victorian Period

Italianate
1840 – 1885

The Italianate style was derived from the country villas of Italy with their romantic and picturesque qualities. This style of architecture created a mood of mystery and the unexpected due to its asymmetrical designs. Italianate houses also reflected the concept of man’s harmony with nature with their verandas, large window panes, vertical towers and picturesque aspect reminiscent of earlier Italian landscape paintings. Structures were no longer monuments; they were a response to human needs and the natural setting. Many Italianate houses survive in Columbia County today.

Common architectural elements include:

1. Verticality
2. Asymmetrical form
3. Low gable roof
4. Tall, arched windows with hooded moldings
5. Bracketed cornice
6. Tower or cupola
Victorian Period

Octagon
1850 – 1860

Stockport

Common architectural elements include:

1. Encircled veranda or porch
2. Domical roof
3. Cupola
4. Low pitched roof
5. Cornice with dentils
The Second Empire style originated in France, it became popular in England in the 1850s, and soon was in vogue in the United States. This imposing style was often used for public buildings and expensive houses as well as for more modest dwellings. Earlier styles were “updated” by adding the high mansard roof characteristic of the Second Empire style, as was often the case in Columbia County.

Common architectural elements include:

1. Mansard roof
2. Cresting along roof line
3. Dormer windows in roof
4. Molded cornice
5. Decorative brackets beneath the eaves
6. Tower or projecting central pavilion
7. Paired windows and entry door
8. Bracketed windows
9. Hoods over windows
10. Bay window
Victorian Period

Stick Style
1860 – 1890

The stick style is defined primarily by its decorative detailing. It commonly features a steeply pitched gable roof, wooded wall shingles or boards, and “stickwork” raised from the wall surfaces for emphasis. The walls themselves are decorative elements. All features are rarely present in combination.

Common architectural elements include:

1. Projecting gable
2. Diagonal braces
3. Horizontal siding
4. Porch rafters
5. Corner posts
6. Projecting bays
7. Knee brace
Late Victorian Period

Queen Anne
1880 – 1900

Hudson

This picturesque style is characterized by its asymmetrical form, multiple porches, bay windows, large panes of glass, and variety of wall materials used. Queen Anne is found in city and countryside alike.

Common architectural elements include:

1. Tower
2. Multi-paned roof
3. Fish scale shingles
4. Horizontal siding
5. Swags
6. Circular bay
7. Flared second story with shingle siding
8. Turret
Late Victorian Period

Shingle
1880 – 1900

Hillsdale

Common architectural elements include:

1. Shingle siding
2. Shingle covered porch posts
3. Two story bay
4. Multi-gabled roof
5. One-story gabled porch
6. Multi-light sash windows
7. Multi-light casement windows
8. Gable roof with long slopes
Tudor Revival

1890–1940

Hudson

Common architectural elements include:

1. Half timbering
2. Overhanging gables and second stories
3. Battlements
4. Multiple materials
5. Patterned stonework or brickwork
6. Cast stone trim
7. Overlapping gables
8. Steeply pitched gable dormers
9. Fake thatched roof
10. Diamond paneled casement windows
Richardsonian Romanesque
1880 - 1900

This formal style is most often found in large public buildings. Its massive form is asymmetrical, with heavy roman arches over the entryway. A tower, large panes of glass, and masonry walls are its common characteristics. The Hudson armory is an excellent example of this style of architecture.

Common architectural elements include:

1. Broad hipped roof with crossed gables
2. Deep set windows
3. Broad round arches without columns
4. Short and squat chimneys
5. Relieving round arches
6. Transom windows arranged in ribbon-like fashion
7. Segmental arched entry
8. Towers
9. Smooth piers and enriched capitals
10. Battlements
11. Combination of smooth and rough textures
Colonial Revival

1870-1955

Hudson

Common architectural elements include:

1. Slate tile roof
2. Beveled siding
3. Single light sash
4. Large three part window
5. Glass paneled door
6. Oversized side lights
7. Smaller lights in upper sash
8. Bay window
9. Large balconied entry portico or porch
10. Decorative elements: swags, urns
11. Gambrel roof with dormer
Beaux Arts

1890–1930

Hudson

Common architectural elements include:

1. Pedimented central pavilion
2. Monumental coupled columns
3. Ballustrade
4. Enriched cornice with rinceau frieze
5. Pilastered parapets with sculptured roundels or medallions
6. Dome
7. Ballustraded window sills
8. Made of stone
9. Arched windows
10. Quoins
11. Swags
**Neoclassicism**

**1895-1950**

Hudson

Common architectural elements include:

1. Colossal portico in ionic order
2. Parapet
3. Pilasters
4. Unadorned roofline
5. Keys over window openings
6. Roman Doric colossal columns
Craftsman /Bungalow Style

1890-1940

Chatham

Common architectural elements include:

1. Gabled roof facing the street
2. Shed dormer
3. Wood shingle siding
4. Tapered porch posts
5. Rafters
6. Knee braces
7. Wide window openings
8. Battered porch piers
9. Flared base
10. Sun porch
11. Exterior chimney
Prairie Style

1900-1920

Common architectural elements include:

1. Low pitched hipped roof with projecting eaves
2. Brick wall with stucco ledge or coping
3. Raised central block or anchor
4. Brick finish
5. Terraces
6. Balcony
7. Stucco finish
8. Dark wood bands or strips
9. Continuous band of windows
10. Casement type windows with leaded panes or lights in geometric patterns
11. Decorative tile work
Art Deco

1920-1940

Hudson

Common architectural elements include:

1. Stepped or set back façade
2. Stylized figural sculpture
3. Octagonal lamps
4. Sunrise and floriated patterns
5. Polychromatic mosaic tiles
6. Zig-zag decorative band
7. Zig-zag parapet trim
8. Metal panel
9. Stepped window head
10. Metal sash or casement type window
11. Vertical or horizontal ribbing
Ranch Style

1940 -1980

Claverack

Common architectural elements include:

1. Single story
2. Sprawling
3. Asymmetrical
4. Attached garage
5. Low pitched roofs
6. Decorative shutters
7. Wooden, brick, aluminum, or vinyl cladding and siding
8. Moderate or wide eve overhang
9. Decorative iron or wooden porch supports
10. Large picture windows
Modern

1940 – Present

Austerlitz

Common architectural elements include:

1. Multi-directional shed roof often accompanied by additional gabled roof forms
2. Colliding geometric shapes
3. Wood shingle wall cladding
4. Horizontal, vertical, or diagonal board siding
5. Use of metal for siding
6. Smooth and simple roof wall junctions
7. Little or no overhang
8. Recessed entrance
9. Asymmetrically placed windows
Glossary

**arch** - a structure that spans a space while supporting a weight.

**arcade** - a series of arches.

**architecture** - design or orderly arrangement perceived by man, as in the art of designing and erecting buildings.

**balcony** - a platform projecting from the wall of a building, supported by columns or brackets.

**brackets** - overhanging elements projecting from a wall to support a weight; often in fancy scroll or other carved design.

**brick bond** - bonds are the horizontal patterns in which bricks are laid.

  **courses** - the straight lines in which bricks are laid.

  **stretcher** - a brick place so that its long 2x6 side is exposed.

  **header** - a brick placed so that its short 2x3 side is exposed.

**dutch bond** - a distinctive bond used on the façade of the house, creates a diapered, diamond-shape pattern. The pattern is created over 4 rows of brick made up of alternating stretcher and header rows. The stretcher rows are staggered and periodically placed.
glazed headers were used to accentuate the diamond pattern—thought to ward off evil by Dutch.

**flemish bond** - each row contains alternating headers and stretchers.

**butttress** - a architectural structure built to support or reinforce a wall.

**column** - cylindrical support consisting of a base, shaft, and capital.

- **doric**
- **ionic**
- **corinthian**

**cornice** - the horizontal molding that crowns a building or wall.

**cupola** - a small dome or turret built upon a roof.

**dome** - a structural element that resembles the upper half of a sphere.

**Door**

**hinge** - a movable joint of metal or plastic used to fasten two things.

**jamb** - the upright parts of a door or window frame or the sides of a fireplace

**threshold** - a piece of stone or hardwood that forms the bottom of a doorway

**dutch door** - top and bottom sections open separately to allow light and air in and to control drafts and the comings and goings of animals, and/or children.
**dormers** - a structural element of a building that protrudes from the slope of a roof. Dormers are used both in original construction and later additions to create more usable space and to add windows.

**elevation** - a scale drawing of the side, front or back of a structure.

**façade** - the “face” of a building.

**gable** - the triangular part of a wall at the end of a sloping roof.

**iron tie rods** - iron anchors, are pinned into interior wooden beams that frame the house, securing the inner wooden frame to the outer brick veneer.

**lintels** - piece of wood, stone, or steel above a doorway or window opening.

**molding** - a strip of wood or another material used to decorate or finish a surface of a wall or a piece of furniture.

**parapet end gables** - walls at the end of a house that stick up above the roof.

**pediment** - a wide triangular, low-pitched gable surmounting the façade of a building.
**porch** – a structure attached to a building, forming a covered entrance to a doorway.

**preservation** – endeavors to preserve, conserve, and protect buildings, objects, landscape and other artifacts.

**quoins** – the cornerstones of brick or stone walls. Quoins may be structural or decorative.

**reconstruction** – the accurate reproduction of an object or structure, in whole or in part.

**restoration** – the process of returning an object or structure as nearly as possible to its original form and condition.

**Roofs**

**flat** – a roof that is level and horizontal, without any or little slope

**pitched** – a roof that is sloped in a particular way or to a particular degree

**saddle** – a roof that has two gables and a ridge

**gambrel** – a two-sided roof that has two slopes on each side, the lower slope being steeper than the upper

**hipped** – a roof with sloping ends as well as sides

**mansard** – A curved roof style typical of the second empire of architecture.

**staircase** – a set of stairs in a building, usually with banisters or handrails
**stairway** - a passageway from one floor or level of a building to another, consisting of stairs or a staircase

**vlechtegen** - bricks along gable edge laid in distinctive triangle or braid pattern; creates a straight gable edge for runoff. This pattern also allowed the mason to use the original, hard-baked end of the brick on the outside, rather than cutting a brick and exposing its soft insides.

**Stairs**

- **banister** - a handrail supported by posts running up the outside edge of a staircase
- **risers** - the vertical part of a step or stair
- **Treads** - the horizontal part of a step in a staircase

**style** - a distinctive or characteristic manner conforming to a standard.

**tracery** - lacy, ornamental openwork on a window.

**Windows**

- **lintel** - a piece of wood, stone, or steel above a doorway or window opening.

- **window pane** - a piece of plate glass in a window or door

- **window sash** - a frame holding the glass panes of a window or door

- **sill** - a ledge below a window, especially one on the inside of a building

- **lock** - a mechanism used to fasten or secure a door, window, or lid
fanlight - a semicircular window above a door or another window, often with struts forming the shape of an open hand-held fan

palladian window - a window consisting of three parts, with an arch above the center section.

shutters - a hinged cover for a door or window, often with louvers and usually fitted in pairs

tie rods - iron anchors, are pinned into interior wooden beams that frame the house, securing the inner wooden frame to the outer brick veneer.

Geometry Vocabulary

asymmetry - Lack of symmetry, or balance.

measurement - the size, length, quantity, or rate of something that has been measured

pattern - a regular or repetitive form, order, or arrangement

proportion - the correct or desirable relationship of size, quantity, or degree between two or more things or parts of something

scale - to make a model or draw a map of something in a regular proportion to the size of the original

shape - the outline of something's form

size - the dimensions, extent, amount, or degree of something, in terms of how large or small it is
symmetry - Balance, equal configuration on opposite sides of a central axis.

texture - the feel and appearance of a surface, especially how rough or smooth it is

**Geometric Shapes: Two Dimensional (Flat)**

triangle - a two-dimensional geometric figure formed of three sides and three angles.

circle - a two-dimensional geometric figure formed of a curved line surrounding a center point, every point of the line being an equal distance from the center point

square - a geometric figure with four right angles and four equal sides

rectangle - a two-dimensional geometric figure formed of four sides in which each angle is a right angle, especially one with adjacent sides of different length

**Geometric Shapes: Three Dimensional (Round)**

sphere - an object similar in shape to a ball

cube - a three-dimensional geometric figure formed of six equal square plane faces, each set at right angles to the four sides adjacent to it

pyramid - a solid shape or structure that has triangular sides that slope to meet in a point and a base that is often, but not necessarily, a square. The volume of a pyramid is one-third of the product of the area of the base and the height of the vertex.
**cylinder** - an object or shape with straight sides and circular ends of equal size

**cone** - an object or shape that has a circular base and tapers to a point at the top, or has a circular top and tapers to a point at the bottom