

The world of Architecture is a large and fascinating place. After this presentation you will be able to:

- Identify the historical influences that helped shape today's home designs.
- Recognize and describe the elements of contemporary dwellings.
- Discuss current trends in architecture.

The World of Architecture

Architecture I- Mrs. Dossin

Architects

- Combination of these abilities yields the outstanding architects of today's world.

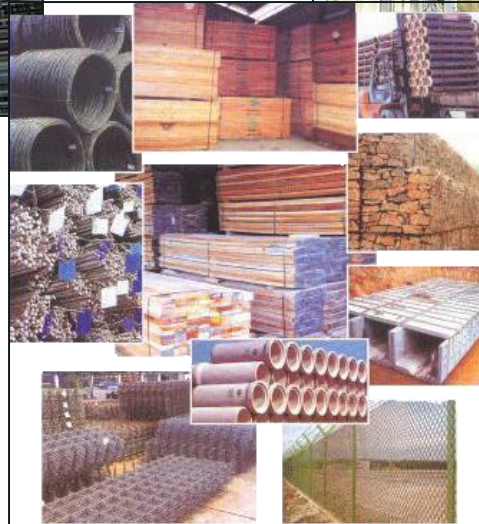


- Skill in drawing techniques



- Sensitivity to design

- Knowledge of the latest construction materials



Architects

- What they design...

- Massive high-rise buildings



- Modern churches



- Quaint lakeshore cottages



- Family homes

... and more!!!

Architecture surrounds us

- Architecture has been one of the major conquests of humanity to design structures to bring the thrill of lasting beauty to the eye of the beholder

- Symbolic monuments
- Long awaited residence



- Commercial & Industrial Use
- Organizations & Private Use

People and Their Structures

- Over the years a number of architectural styles for house construction have developed.
- Many of these structures were designed to meet climatic conditions & needs of families in various parts of the country (world).



- Others were planned for luxurious living. (*Biltmore Estate*)
- All of these factors provide historical background that influences the design of today's homes.

People and Their Structures

- Some house styles became so popular that they took on names related to their shape, period of time, or area of the country in which they were built.



The Cape Colonial

- The Cape Cod and Cape Ann are two popular home styles developed over 200 years ago in New England.

The Cap Cod

- Steep roof with side gables
- Small roof overhang
- Central chimney
- 1 or 1½ stories
- Eave line is near the top of windows.
- Narrow trim lines of siding.
- Symmetrical appearance with door in center
- Dormers for space, light, and ventilation
- Multi-paned, double-hung windows
- Shutters (white or yellow typ.)
- Formal, center-hall floor plan
- Hardwood floors



The Cape Colonial

- The Cape Cod and Cape Ann are two popular home styles developed over 200 years ago in New England.

The Cap Ann

- Similar to Cape Cod but with a few differences;
- Large chimney for flues from many fireplaces.
- A gambrel roof that encloses attic often used for more rooms.
- Small, narrow dormers
- Simple entrance.
- Not always symmetrical



The Cape Colonial

- The typical contemporary style of New England Gambrel, is a variation of other colonial styles.

The New England Gambrel

- Gambrel roof (where the pitch is abruptly changed between the ridge and eaves)
- An advantage of Gambrel roof is the extra headroom, usable space, and economical short rafters.
- Although started in New England it is now considered an American design and used throughout the country.



The Garrison

The Garrison

- Overhanging 2nd story (advantages for this is separate corner posts on each floor so they could use shorter and stronger posts, (2) Short straight lines provide economy in framing materials, (3) Extra space created in 2nd floor.
- Steep 8/12 or 12/12 pitch roof.
- 5-1/2" corner boards
- Narrow horizontal siding.
- Simple entrance



The Salt Box

- The Salt Box house has a long roofline sloping gently from ridges to eaves. Developed by master builders of early American times, many of today's homes borrow from this style. The house gets its name from the shape of coffee, tea and salt boxes found in Colonial stores.

The Salt box

- Long sloping roofline.
- Large chimney for flues from many fireplaces.
- Horizontal siding
- 1X6 Corner boards
- Simple Pilaster entrance with paneled door.
- Low area at rear came about by the later addition called the "lean-to" for more living space.
- Later it was discovered that the low slant roof was helpful in combating bitter New England winds.



The Southern Colonial

- This style reflects the warmth, quaintness, and hospitality of the old south.
- Front colonnade
- Giant Portico which was extended to shelter the front entrance from the weather and keep direct sunlight from glaring into the 1st and 2nd story rooms.
- Massive in size
- Upper and lower balconies.
- 3-story chimneys for bedroom fireplaces.
- Ornate wood and iron work trim.
- Roof over side driveway to protect persons using side entrance.



Georgian Colonial

- Georgian Colonial became the rave in the 1700's in the New England and the Southern colonies. These homes are usually dignified and symmetrical.
- Square, symmetrical shape
- Paneled front door at center
- Decorative crown over front door
- Flattened columns on each side of door
- Five windows across front
- Paired chimneys
- Medium pitched roof
- Minimal roof overhang



1825 - 1860: Greek Revival

- In the mid-19th century, many prosperous Americans believed that ancient Greece represented the spirit of democracy. With details reminiscent of the Parthenon, these homes reflect the past.

- Pediment gable
- Symmetrical shape
- Heavy cornice
- Wide, plain frieze
- Bold, simple moldings



Gothic Revival

- Church-like details to construct homes that imitate the great cathedrals and castles of Europe. These homes are typically constructed of wood and stone.
- Steeply pitched roof
- Steep cross gables
- Windows with pointed arches
- Vertical board and batten siding
- One-story porch



Italianate

- Italianate became the most popular housing style in the USA until the 1870s. It was a common style for barns, town halls, and libraries. You can find Italianate buildings in nearly every part of the United States except for the deep South
- Low-pitched or flat roof
- Balanced, symmetrical rectangular shape
- Tall appearance, with 2, 3, or 4 stories
- Wide, overhanging eaves with brackets and cornices.
- Square cupola
- Tall, narrow, double-paned windows with hood moldings
- Heavily molded double doors
- Roman or segmented arches above windows and doors



Second Empire (Mansard) Style

- With tall mansard roofs and wrought iron cresting, Second Empire homes create a sense of height and were modeled after Paris architecture.
- Mansard roof
- Dormer windows project like eyebrows from roof
- Rounded cornices at top and base of roof
- Brackets beneath the eaves, balconies, and bay windows
- Patterned slate on roof
- Wrought iron cresting above upper cornice
- Tall windows on first story
- Small entry porch



Stick Style

- Stick Style Victorian houses have exposed trusses, "stickwork," and other details borrowed from medieval times.
- Rectangular shape
- Wood siding
- Steep, gabled roof
- Overhanging eaves
- Ornamental trusses (gable braces)
- Decorative braces and brackets



Queen Anne

- Queen Anne Architecture can take on many shapes. Typically fancy and even flamboyant these homes thrived on the time of mass production.
- Steep roof
- Complicated, asymmetrical shape
- Front-facing gable
- One-story porch that extends across one or two sides of the house
- Round or square towers
- Wall surfaces textured with decorative shingles, patterned masonry, or half-timbering
- Ornamental spindles and brackets
- Bay windows



Shingle Style

- Shingle style went against the Queen Anne and Victorian Style. This style is more relaxed and does not have the lavish decorations that were popular in the Victorian era.
- Continuous wood shingles on siding and roof
- Irregular roof line
- Cross gables
- Eaves on several levels
- Porches
- Asymmetrical floor plan



Cotswold (or Tudor) Cottage

- Cotswold Cottage style may remind you of a cozy storybook house. Popular in 1890-1940, its style is taken from cottages built in Cotswold England.

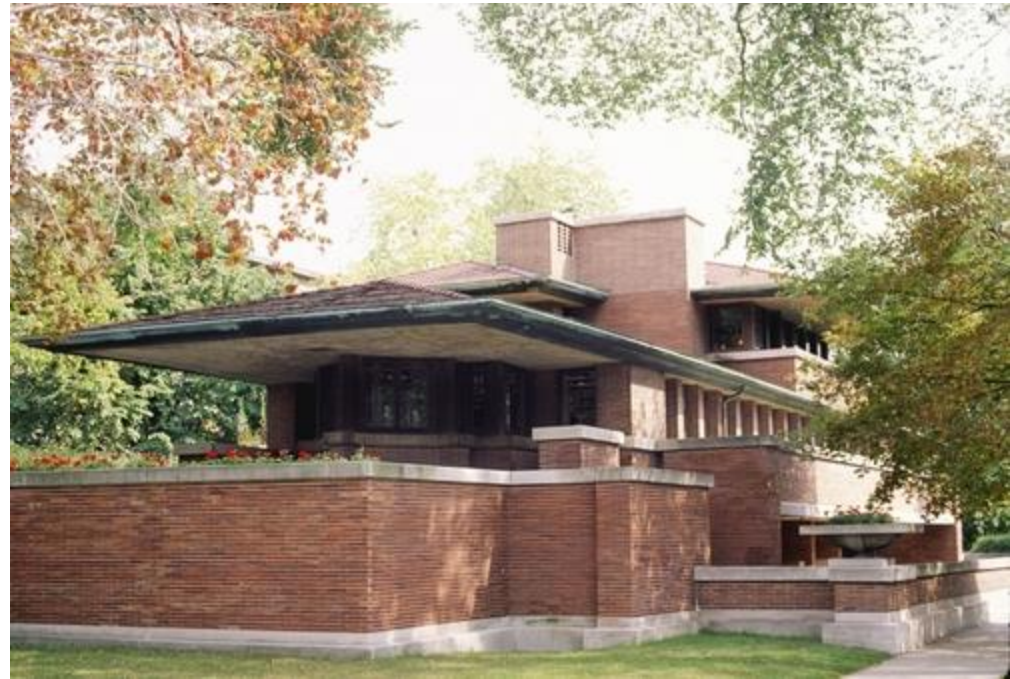
- Sloping, uneven roof.
- Brick, stone, or stucco siding
- Very steep cross gables
- Prominent brick or stone chimney, often at the front near the door
- Casement windows with small panes
- Small dormer windows
- Asymmetrical design
- Low doors and arched doors
- Small, irregularly-shaped rooms
- Sloping walls in rooms on upper floor



Prairie Style

- Frank Lloyd Wright revolutionized the American home when he began to design "Prairie" style houses with low horizontal lines and open interior spaces.

- Low-pitched roof
- Overhanging eaves
- Horizontal lines
- Central chimney
- Open floor plan
- Clerestory windows



American Foursquare

- The American Foursquare, shared many features with the Prairie architecture pioneered by Frank Lloyd Wright. The boxy foursquare shape provided roomy interiors for homes on small city lots.
- Simple box shape
- Two-and-a-half stories high
- Four-room floor plan
- Low-hipped roof with deep overhang
- Large central dormer
- Full-width porch with wide stairs
- Brick, stone, stucco, concrete block, or wood siding



Arts and Crafts (Craftsman)

- A style which celebrated handicrafts and encouraged the use of simple forms and natural materials.
- Wood, stone, or stucco siding
- Low-pitched roof
- Wide eaves with triangular brackets
- Exposed roof rafters
- Porch with thick square or round columns
- Stone porch supports
- Exterior chimney made with stone
- Some windows with stained or leaded glass
- Built-in cabinets, shelves, and seating



Bungalow Styles

- Bungalow houses may reflect many different architectural styles. The Bungalow is an all American housing type that clusters the kitchen, dining area, bedrooms, and bathroom around a central living area.
- One and a half stories
- Most of the living spaces on the ground floor
- Low-pitched roof and horizontal shape
- Living room at the center
- Connecting rooms without hallways
- Efficient floor plan
- Built-in cabinets, shelves, and seats



Influences

- The American home is a combination of these factors.

- Influences of the past both in beauty and function have a major influence on modern home design.

- Many new materials, appliances and ways of living have caused Architects to “think out” ways to plan home for all styles of modern living.

According to the U.S. Census Bureau

	<u>1940</u>	<u>2010</u>
Household size	3.67 people	2.58 people
House size	1,100 Sq. Ft.	2,392 Sq. Ft.

? Hmmm, Here is a Question?

How many square feet was there per person in a house in 1940 and 2010?

What is the percent increase of this number from 1940 to 2010?





Ahhhh!!!! House Attack!!!!

**This Outdoor sculpture at the
Museum Moderner Kunst (MuMoK)
in Vienna
(Architects: Ortner & Ortner, 1998–
2001)**

Contemporary Structures

- The style of home generally called Contemporary, is the result of years of architectural planning, design, and evolution.
- Can be well planned or lack imagination.
- Some are inexpensive to meet the functional needs of a family, but for economical reasons the exterior styling may be very conservative.
- The type of construction planned are typically dictated by 2 factors. The ability of the architect and the finances of the client.



Contemporary Structures

- The term Contemporary, (or modern) does not denote any one particular architectural style. Some homes borrow some distinctive features of past homes, others appear totally different.
- The most important job for the architect is to design homes that satisfy the customer.
- Today's individual's tastes vary, some people like wood homes, others brick, and others like something different.
- The rapid development of new construction materials and methods have made it possible to design homes that require little maintenance, use lots of glass or place emphasis on exposed structural members.



The Ranch Design

- One common modern architectural home style is the ranch home. This style started from a low, one-story house that grew out of the “rancher’s” homes of the southwestern part of the country.
- Originally low pitch roof with gables and overhanging eaves. Although today’s ranch homes that have large roof trusses.
- Originally built on slab with no basement, but today most ranches have basements.
- Attached garages.
- Originally long rectangle shape but today many have gone to other shapes and wall jogs to add interest.

1970 Ranch

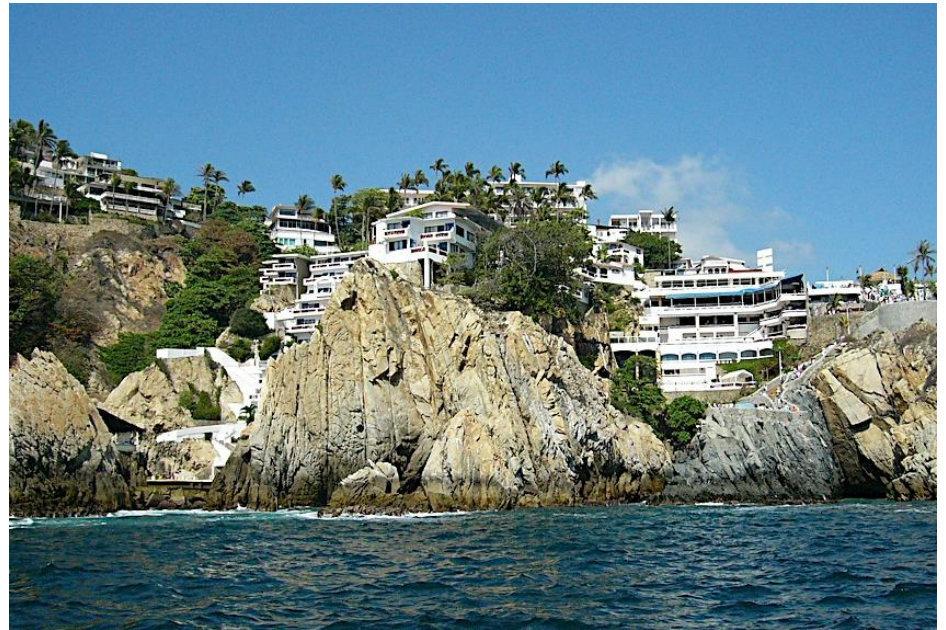


2017 Ranch



Trends in Architecture

- Architects today can design with a freedom that they could not in the past due to individual preferences, materials, and different structural techniques.
- **Post-modern** architectural design combines traditional and contemporary characteristics and is reminiscent of past styles.
- Many homes today are designed for dramatic effects and others for specific settings like hillside, seashores or even cliffs.
- Trends in Architecture appear to be leaning toward the dramatic yet comfortable living styles.
- Homes are being designed to complement the site, provide openness, and retain privacy.



Trends in Architecture

- Another trend in architecture is the renovation of older homes.

- Many older homes are structural solid and can be restored to their original beauty.

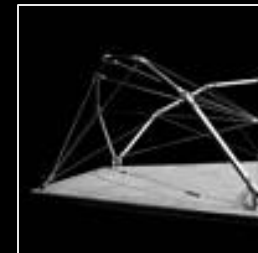
- Some new building materials can even make plain old homes more dramatic and eye catching.



Trends in Architecture

New Materials have lead to experimentation and new design concepts. New materials and techniques also help homes to be **energy-efficient** and **weather resistant**.

- Xanadome: Began as a modular concept made from fiberglass-skin wedges filled with polyurethane foam & finished inside with a polyester material. which gave is an **R-value of 25**



- Today it has evolved to a tension structure of unsurpassable efficiency, which due to its unique shape which is incredibly lightweight but also very strong. Xanadome is an innovative, elegant and economical multipurpose tension structure enabling long clear spans.



Multifamily Housing

- Several types of housing are available. These include: tract houses, custom houses, manufactured houses, mobile homes and multifamily dwelling such as cooperatives, condominiums and rental apartments.
- The term Cooperative refers to the type of ownership, not the type of building. It is most commonly in a multifamily dwelling and each family's living space is called an apartment.
- “Co-op” ownership combines the advantages of home ownership and the convenience of apartment living.
- The buyer owns the apartment so does not pay rent, but does pay a monthly fee that is used to cover the property taxes, and maintenance costs of the building.
- Owners have a voice in how the “co-op” is run. This is an advantage over rental apartments. They have a say on how things are run and even vote on whether or not a family should be allowed to purchase an apartment in the building.
- A major disadvantage of a co-op is that each member must abide by the wishes of the total group, good and bad.



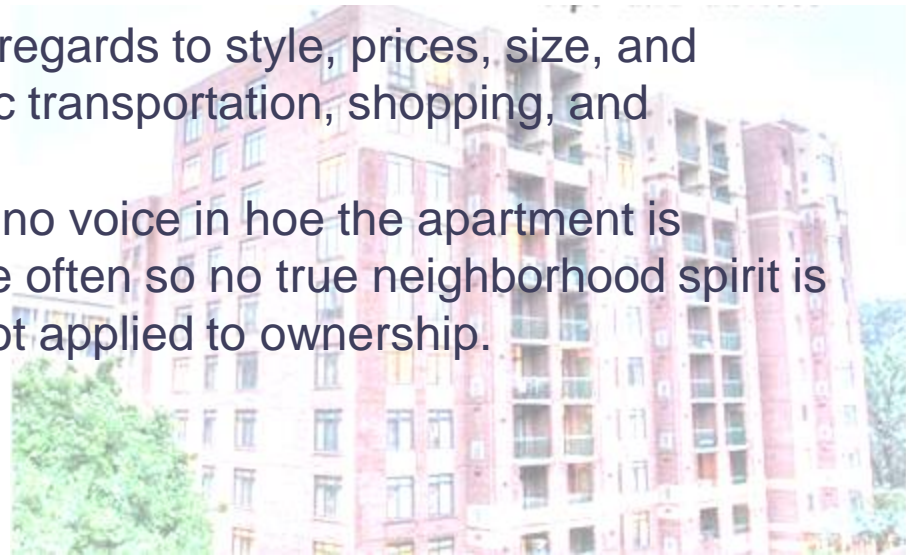
Multifamily Housing

- Several types of housing are available. These include: tract houses, custom houses, manufactured houses, mobile homes and multifamily dwelling such as cooperatives, condominiums and rental apartments.
- Unlike an owner of a co-op, a condominium owner buys the apartment and a share of the common ground. They receive a deed to the apartment and pay taxes on it just like a house.
- There are common areas in condominiums such as parking lots, sidewalks, pools, & hallways, and these areas are maintained with money collected from monthly assessments. In matters relating to common areas each owner has a vote in proportion to the original value of the unit they own.
- An owner can sell their condo without consent or approval from the other owners.
- A condo complex may consist of a single building or a group of buildings.
- The special feature of a condo is that each unit is owned individually with a joint interest in common property.



Multifamily Housing

- Several types of housing are available. These include: tract houses, custom houses, manufactured houses, mobile homes and multifamily dwelling such as cooperatives, condominiums and **rental apartments**.
- Any type of dwelling can be rented but apartments are the most common.
- **Rental Apartments** typically required less expense and effort in upkeep and maintenance.
- Typically several **rental apartments** building are planned and built together that makes good use of land and security.
- Large range of choice of apartments, in regards to style, prices, size, and facilities and are often located near public transportation, shopping, and recreation areas.
- Disadvantages are owners have little or no voice in how the apartment is managed or maintained. Neighbors move often so no true neighborhood spirit is developed and money spent on rent is not applied to ownership.



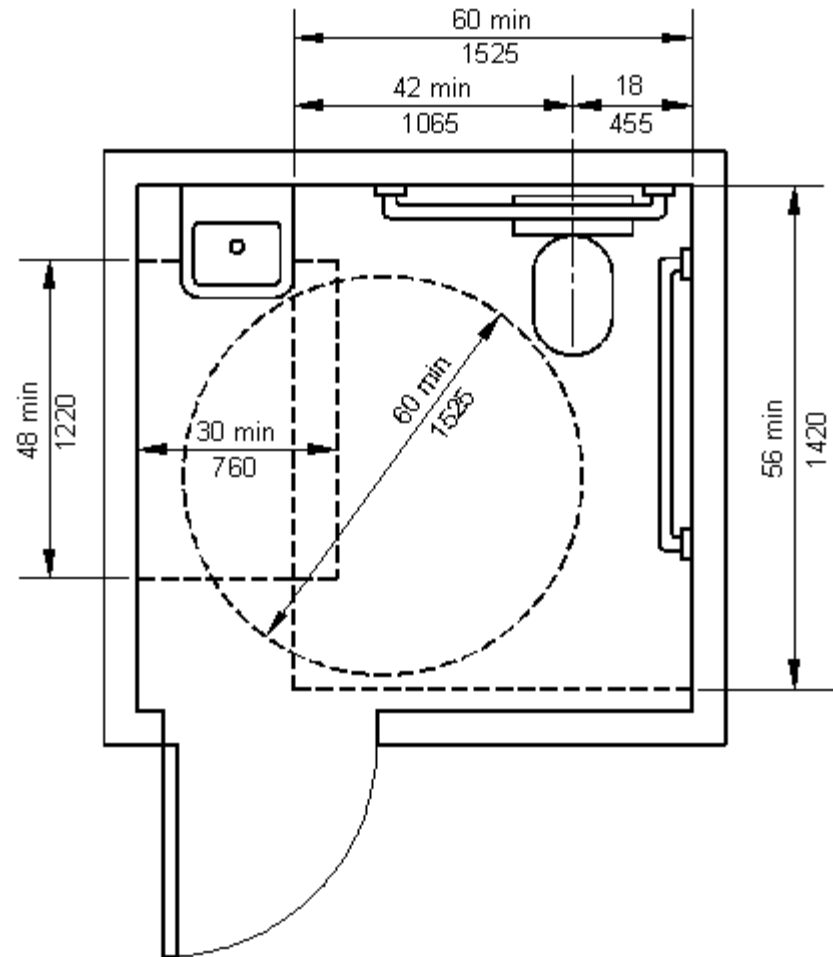
ADA- The American with Disabilities Act

- On July 26, 1990 the Americans with Disabilities Act became law. The ADA makes it illegal to discriminate against disabled persons in the areas of employment, public and private transportation, and access to public and commercial buildings.
- The physical access requirements of the ADA affects both existing and new construction for public access.
- Title III of the ADA is the section of the law that regards “public accommodations” which refer to private owned entities only and includes hotels, restaurants, theatres, shopping areas, banks, offices, hospitals, museums, schools, and more.



ADA- The American with Disabilities Act

- Public accommodations do not include multifamily housing, which is covered under the Federal Fair Housing Act of 1988.
- Private clubs, religious organizations, and public entities such as state or local governments are governed under different standards Title II of the ADA.
- For places affected by the ADA, reasonable modifications to the building may be required. This could be installing ramps, raised toilet seats and grab bars, flashing alarm lights, raised elevator buttons, proper drinking fountains etc.
- ADA is not a building code, rather its is a civil rights statute and is enforced in the courts.



Looking for an awesome highrise building, maybe this one is included in those awesome highrise building criteria. The Centaurus is a mixed-use development currently under construction in Islamabad, Pakistan. When it's complete, it will include a luxury hotel, two residential towers, an office tower, and a shopping mall. Designed by Atkins

- Massive high-rise buildings



It's just been built, it's called Iglesia de Santa Monica, and it's in Madrid, Spain.

- Modern churches



- Quaint lakeshore cottages



- Family homes

•So What Style Is Your Dream Home?

- The next step in designing your dream house, is planning out the elevations of the house.
- Sketch the four elevations of your house (*Front, Right Side, Left Side, Rear*). This will help give you a better idea how your house will look, all the way around. This will also help you figure out things before you have to draw it in CAD.
- Turn in your elevation sketches when complete. Be sure to **label each view, sign and date your drawings.**

