### **Family Resource Management**

# by Miss.U.Krishna priyal Assistant Professor

### Class: II B.Sc

Unit : 1

- 1. Functions of the house and its environment
- 2. House Planning
- 3. Kitchen Planning

### Functions of the House

- Shelter is one of the prime necessities of the human race
- Must satisfy his economic, social and psychological needs
- Shelter can be made by family either buying a readymade house, building one's own or rent one
- A house should offer comfort, convenience, privacy, fresh air, ample lighting and adequate space for activities of the family members

### House Planning

- Site selection
- Livability
- Orientation
- Grouping
- Roominess
- Lighting
- ventilation

#### **Site Selection**

### i.) Physical Features

- The site should possess some natural objects of beauty such as trees, slopes, etc.,,
- Should not be very close to heavy traffic highways
- Site should be on an elevation and not in low lying areas near river beds, etc.,
- Shape of a plot should not be very irregular, should have exact boundaries marked on the land

### ii.)Soil Conditions

- Soil condition vary according to geographical location
- Type of soil should be determined in order to avoid cost problems
- The soil should be firm about 2 to 5 feet below the surface for firm foundation

### iii.) Sanitary Requirements

- Drainage problems often occur on low land improper granding
- An elevated site with slopes, drains away rain water immediately and keeps the house dry
- To maintain sanitation house drainage must take care of removal of i.) rain water ii.) waste water

#### iv.)Practical Conveniences

- Practical conveniences such as nearness to school, post office, public telephone, bank, hospital and many public convinences
- There should be good transport facilities such as railway, bus services
- The site should be free from traffic, dangers and noice

### Ventilation

- Ventilation means to circulate fresh air and driving out foul air in order to fresh up the interior at a house
- Ventilation are the devices or openings used to bring in fresh air and drive out foul air

#### **Natural Ventilation**

- Natural Ventilation or self ventilation is the air circulation ever when the doors and windows are closed
- Ventilation by windows depend upon air in the room and outside pressure
  - **Cross ventilation** a direct flow can take place between the two openings
  - **Shaft Ventilation-** it is used in kitchen, store room, bathroom
- It is effective only if the temperature in the room is higher than the outside

### Roof –

extension operation of air shaft can be improved by filling an extension to the opening on the roof

#### Kitchen –

 a direct draft of air through windows affects the flame of the stove

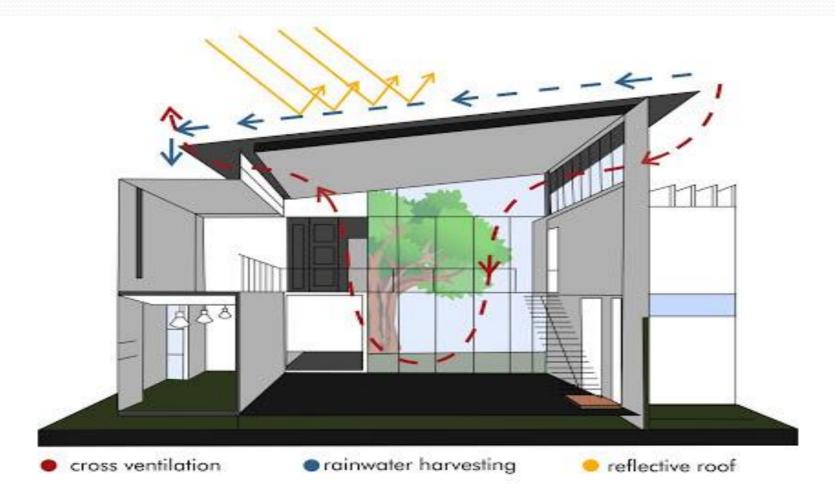
### In bedrooms –

 cross ventilation is desirable which can be achieved by placement of door and windows across from each other

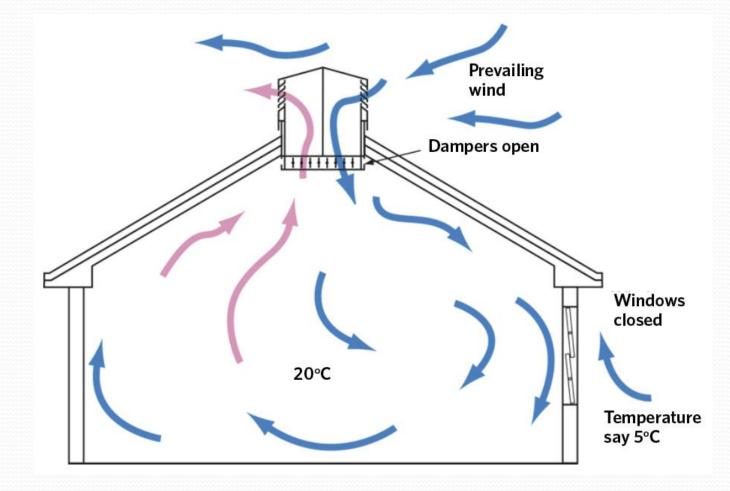
#### **Bathrooms** – these areas are many times neglected

- Natural ventilation is must in these areas
- **Attic space** in modern housing because of space shortage most of flats are provided with attic space above the bathroom or in the kitchen

### **Cross Ventilation**



### **Natural Ventilation**



### **Shaft Ventilation**





### **Roof Ventilation**







# LIGHTING

• Objects are visible because of light

- Good day light and artificial lighting can enhance the design and materials in a house
- To decide about good and adequate lighting in the home one must consider the following points
- I. How much light is needed in each room?
- **II**. What is the best quality of that light?
- III. How can the light be best distributed to provide healthful eye environment?

- During the day, the sun is the source of light, by night, the source of light must be artificial as is candle, oil or gas lamp
- Lighting is also used in the decorative aspects of interiors
- Sources of Natural and Artificial Lighting
- Sources of Artificial Light
- Methods of Lighting

# Sources of Natural and Artificial Lighting

- The light in the house during day time is received from the sun being reflected from the sky, ground, water or building
- At night we rely on artificial source of light which is reflected by walls, ceilings, floor and furniture
- Part of the light is also observed by the objects
- Light is usually measured in terms of foot candles
- A foot candle is the degree of light reflected on a flat surface one foot away from the direct flame of candle

Day time lighting:

- three things must be considered in using day light to its full advantages :

the admittance of light

Use of proper surface reflectances within a room

control of glare

- the admittance of light most commonly day light is admitted through windows
- Use of proper surface reflectances within a room artificial light also applies
- control of glare glare produced from water surfaces can be cut down by using glare reducing glass

### • Artificial light :

- two most common sources of light used in our homes are incandescent bulb and flourescent tube

- the efficiency of each source or the size or wattage of the lamps required to produce a given amount light is common

- the unit of measurement of power is Watt

- our light is made on the basis of how many watts of power we have used

- the Lumen is the measurement of the amount of the emitted by the bulb or tube

### Sources of Artificial Light

### **Incandescent Bulb:**

- used in the table lamps, floor lamps, wall brackets and hanging fixtures **Fluorescent Tube :** 

used mainly in homes as sources of indirect lighting for general illumination
all fluorescent tube produce light similarly by ultra violet radiation colorful light also effects both, the colors

are used in the room and the number of lumens emitted by light source

# **Methods of Lighting**

- There are two methods of lighting they are direct and indirect lighting
- Direct Lighting if light shines directly on an object it is said to be lighted by direct light
- i. Brightness of sources
- ii. The total volume of light
- iii. Location of the field of view
- iv. Contrast with background
- v. Time exposure

### **Indirect lighting**

- another method of lighting is by the use of indirect lighting

- if the light shines not on the object being viewed, but on other surfaces which reflect light that makes the objective visible

- the reflected light is softened, uniform and shadowless

### Semi direct lighting

- general diffuse lighting emits light in fairly equal portions in all directions and up and down

- the fixture providing general diffuse lighting is usually of glass globe variety

### Semi indirect lighting

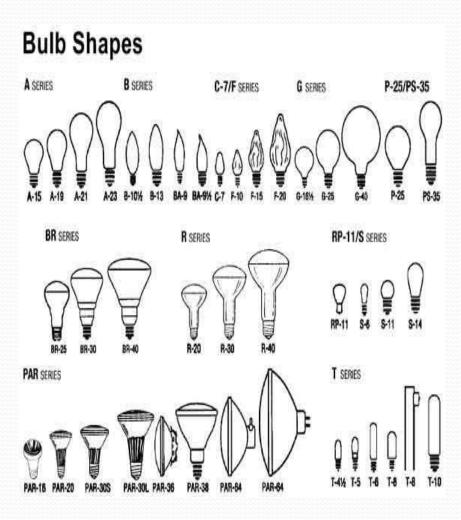
- this type is also emits light in highest percentage upwards to the ceiling for redirection downwards

- structural or translucent glass is used to deflect or diffuse the light downwards

both semi direct or semi- indirect lighting systems are helpful in reducing glare

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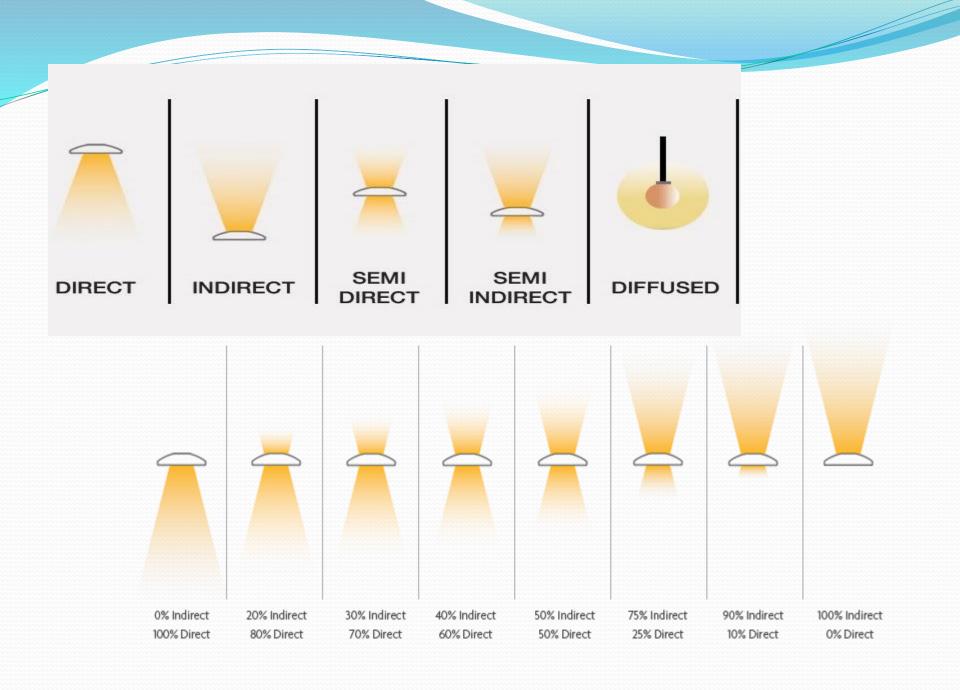
### Incandescent bulb

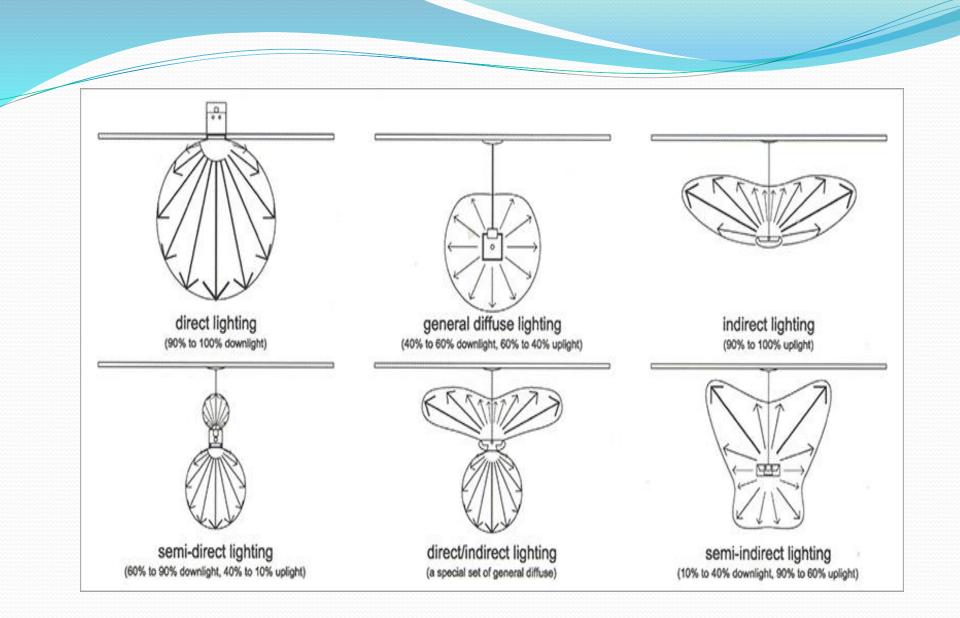


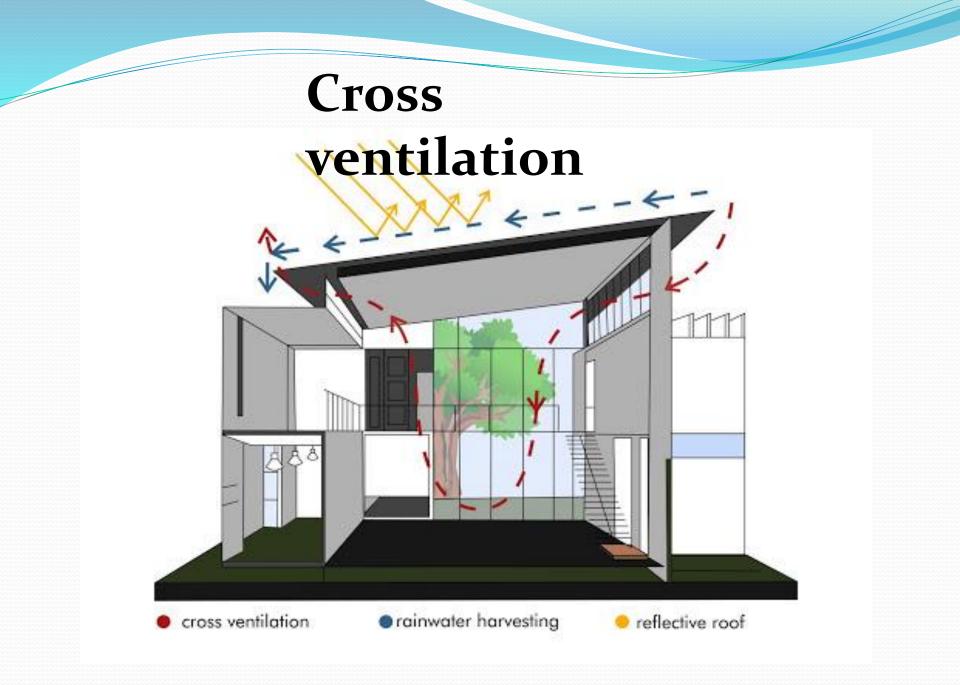


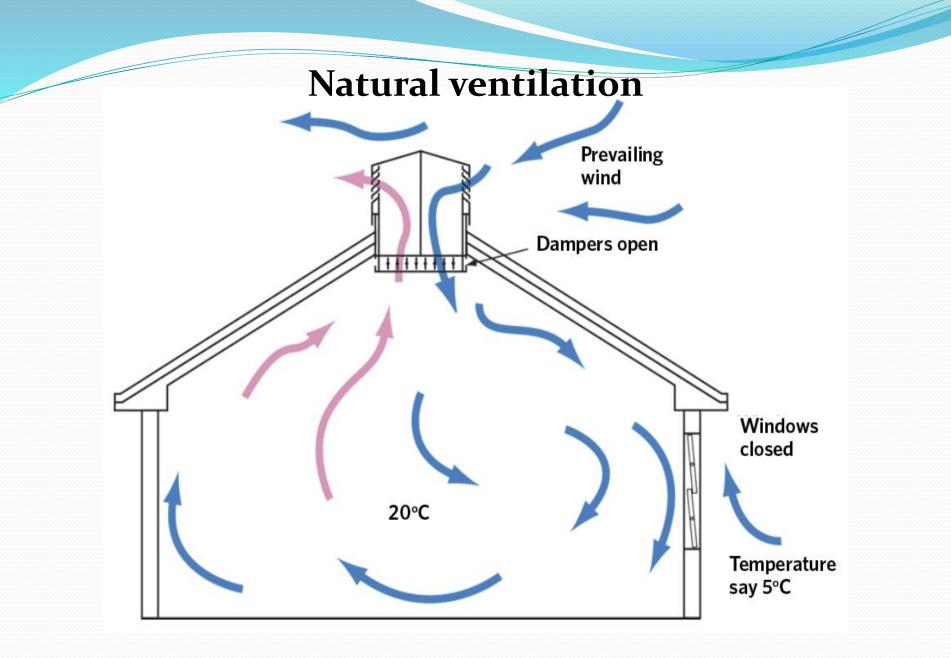
### Fluorescent tube











# SHAFT VENTIL ATION







### **Roof ventilation**

# Kitchen

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### Topics of discussion

- What is a Kitchen ?
- History of kitchen
- Kitchen design
- Designing your kitchen space
- Kitchen cabinet
- Kitchen styles
- Kitchen island
- Various kitchen design layout
- Air ventilation system
- plumbing system
- References.

## What is a kitchen?

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## What is a kitchen?

- A kitchen is a room or part of a room used for cooking and food preparation.
- A stove, a sink with hot and cold running water, a refrigerator and kitchen cabinets arranged there.
- The main function of a kitchen is cooking or preparing food but it may also be used for dining, food storage, entertaining, dishwashing.

# kitchen design

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## Kitchen design

- Creating a great kitchen is a lot like creating a great meal.
- use top quality ingredients and execute the plan carefully and skillfully.
- Don't start choosing with any materials or appliances until you have estimated your entire budget and carefully measured your space.

## Designing Your Kitchen Space A few things to keep in mind

- 1.Make sure that nothing obstructs the flow of traffic within the kitchen work triangle.
- 2.When you are designing your kitchen cabinet, the key word is frontage – the width of the front of all your units combined.
- 3.You will need at least 125 inches (318 cm) of frontage for smaller kitchen (less than 150 square feet), large rooms can afford more.

## Designing Your Kitchen Space A few things to keep in mind

- 4.Countertops should be 36 inches high.
- 5.Don't tuck your oven in to a corner, you will need a bit space on both sides of the open door to access things on the counter.
- 6.Think about whether you will want a single, double or even triple basin on a layout, the number of basins will affect the sink's overall size.

## Wall Cabinet

## **Kitchen cabinet**

## **Base Cabinet**

Tall Cabinet

## Kitchen cabinet

- Kitchen cabinets are the built-in furniture installed in many kitchens.
- Uses for storage of food, cooking equipment, and often silverware and dishes for table service.
- refrigerators, dishwashers, and ovens are often integrated into kitchen cabinetry.
- Kitchen cabinets provide our kitchen with a huge degree of visual impact.
- kitchen cabinets create storage solutions

## **Kitchen Cabinet Types**

- Face Frame Cabinets.
- Frameless Cabinets.
- Glass Doors.
- Raised Panel Doors.
- Flat-Panel Doors.

## Face Frame Cabinets

 Face frame or traditional cabinets are characterized by the frame, or face that masks the raw edges of each cabinet box.



## These cabinets have a narrow veneer to cover the raw edges of the divider.



## Glass Doors

 glass-door cabinets can give us a lighter and more open feel than cabinets with solid doors.



### Raised Panel Doors

 Raised panel doors and drawers have decorative panel either routed into a door panel or inserted into the frame of a door.



## Flat-Panel Doors

Flat-panel doors and drawers are characterized by a simple, unadorned slab.



# **Kitchen styles**

## **Kitchen** styles

 Today's kitchens come in a wide variety of styles. Most kitchen cabinet styles can be classified as either modern or traditional, with many subcategories to choose from.

### Types of kitchen styles

- Antique kitchen- have distinctive features that come from an
- Arts and Crafts kitchens- are identified by simple lines, rugged construction, and very little excess ornamentation. earlier period in history.
- Traditional-Common traditional styles include black and white checkered flooring, wood floors, cherry wood kitchen.
- Contemporary kitchen- cabinets are made of woods paler than cherry wood, a signature of the traditional kitchen.
- Modern-This style is futuristic looking, using concrete, stone, metal and glass. High tech comes to mind when thinking of this type of decor with lots of open space, bright lighting and square lines.

# Types of kitchen styles



## Antique kitchen

 Antique kitchens have distinctive features that come from an earlier period in history. Whether an authentic restoration or a fresh remodel, the unique character of this style brings a sense of age and beauty to any traditional home.



 Arts and Crafts kitchens- are identified by simple lines, rugged construction, and very little excess ornamentation. earlier period in history.





 Common traditional styles include black and white checkered flooring, wood floors, cherry wood kitchen.



### Contemporary kitchen.

 cabinets are made of woods paler than cherry wood, a signature of the traditional kitchen.





 This style is futuristic looking, using concrete, stone, metal and glass. High tech comes to mind when thinking of this type of decor with lots of open space, bright lighting and square lines.



## Kitchen Island / Island Cabinet



## Kitchen Island / Island Cabinet

 kitchen island creates additional space for appliances like microwaves and dishwashers.

#### Single Line Kitchen Design with an Island



Range/Cooktop



## (itchen island / island Cabinet

- Whether our kitchen is large or small, the island needs careful planning.
- The size and shape of the island should be in proportion to the kitchen.
- Some practical ways kitchen islands / island cabinet can be used to help make our kitchen more efficient and functional.
- In a large kitchen, include a second sink in the island with counter space on one / both sides.

## Kitchen design layout



## Kitchen design layout

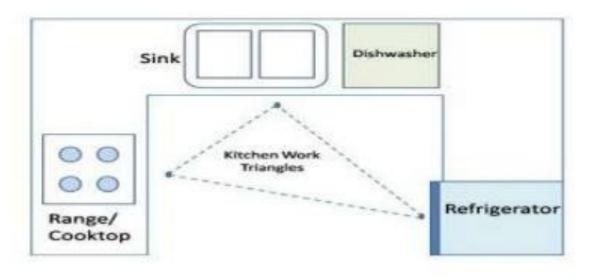
- Kitchen Work Triangles.
- Single Line / One Wall Kitchen Design Layout.
- L-Shape Kitchen Design Layout.
- U-Shape Kitchen Design Layout.
- Parallel Kitchen Design Layout.
- I-Shape with Island.

### Kitchen Work Triangles.

- Locate the three essential parts of our kitchen design the refrigerator, sink and others.
- The kitchen work triangle close together but not crowded, from 5 to 8 feet (1.5m to 2.4m) apart.

## **Kitchen Design Layout**

Kitchen Work Triangles



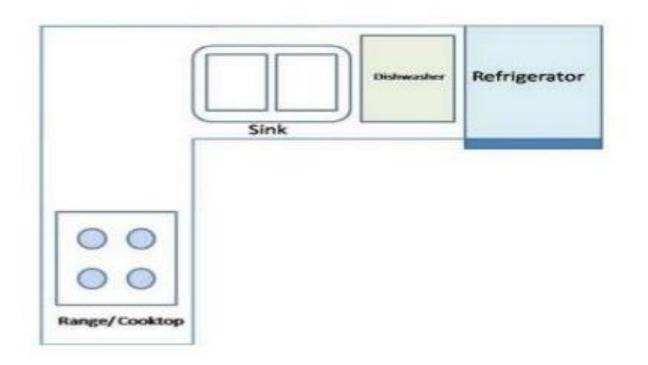
 Best utilized in narrow rooms. Suitable for one or two people to use at one.

#### Single Line/One Wall Kitchen Design



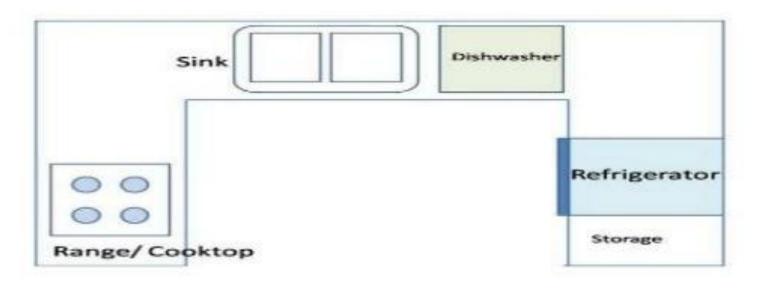
- Work well with sitting area that is integrated into the same room and overcomes any shortage of wall space.
- Ideal for a family and entertaining guest.

### L-Shaped Kitchen Design Layout



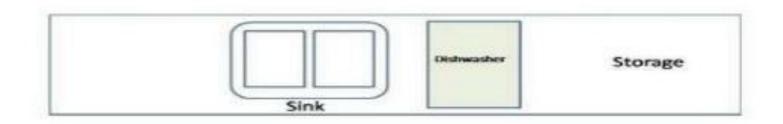
- Utilizes three full walls for maximum storage and work space. Suitable for both large and small rooms.
- Suitable for condominium and terrace house.

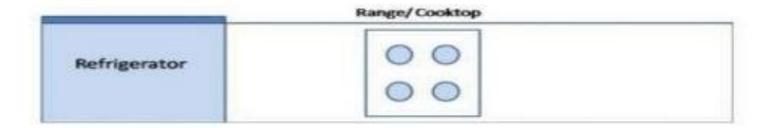
**U-Shaped Kitchen Design Layout** 



 Comprises counters on both sides of the room with 1.2m width corridor down the middle.

#### Parallel Kitchen Design





## 1-Shape with Island

- Suitable for large rooms with lot of available floor space.
- Easier for several people to work together at the sometime.

## Single Line Kitchen Design with an Island



Range/Cooktop



#### Air ventilation system

- Kitchen ventilation is the branch of ventilation that specializes in the treatment of air from kitchens.
- Kitchen ventilation presents the problems of grease, smoke and odours not usually found in other ventilation systems.



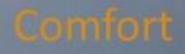
## Requirements

An adequate kitchen ventilation system should achieve the following objectives:

- remove excess hot air and introduce incoming cool clean air so that a comfortable environment is achieved.
- ensure that the air movement in the kitchen does not cause discomfort.
- provide sufficient air for complete combustion at fired appliances, and prevent the risk of carbon monoxide accumulating.
- be easy to clean, avoiding the build-up of fat residues and blocked air inlets which lead to loss of efficiency and increase risk of fire.
- be quiet and vibration free.

#### Kitchen ventiliation design

- The main factors that need to be taken into account when designing a kitchen ventilation system are:
- workload of the kitchen
- amount, type and power of cooking equipment used
- layout and shape of the kitchen
- number of staff working in the kitchen
- the need for easy cleaning and maintenance
- energy efficiency



The general parameters of what is considered comfortable in a kitchen are:

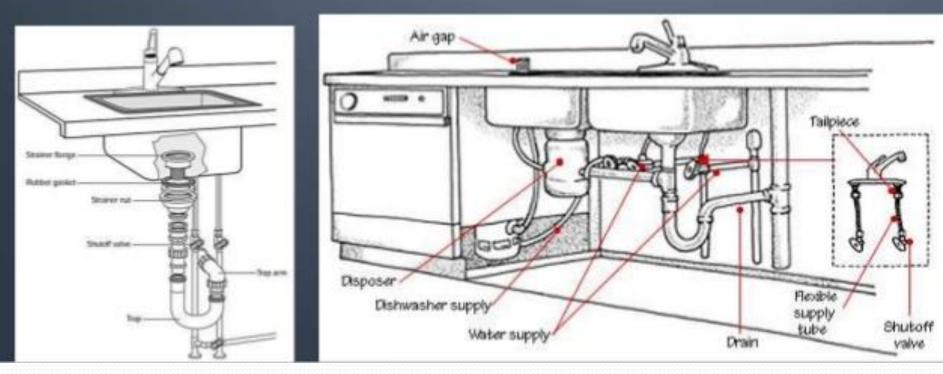
- Temperature: 20°C in the winter and 28°C in the summer, with a maximum difference with the outside temperature of 6°C
- Relative humidity: approximately 70%
- Air velocity: less than 0.5 m/s.

#### Ritchen Plumbing Systems

- A kitchen's plumbing system consists of water supply lines and, in many cases, a gas supply pipe.
- The visible part of the sink's plumbing is nearly always located directly below the sink, inside the sink's base cabinet.
- Generally, a flexible gas connector, controlled by a gas valve located at the wall or floor beneath a gas range, serves that appliance.

#### Kitchen Plumbing Systems

- Beneath the sink, you can usually see two small valves: one for the hot water supply, the other for the cold, though some older homes do not have these.
- The gas supply for a gas range is usually controlled by a shutoff valve beneath the range.





 A kitchen is very important part of building or flat, it should be comfortable and well equipped for modern life.

# **Thank You**

## FAMILY RESOURCE MANAGEMENT 1

#### PREPARED BY

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**ASSISTANT PROFESSOR** 

#### Unit - 2

- a) Care A Maintainence Of House And Its Surroundings
- b) Daily, Weekly And Periodical Cleaning
- c) Insect And Pest Control

## Care and maintenance of house

#### Care and maintenance of house

- Always set apart some time for daily, weekly and seasonal cleaning of the house
- To adopt good maintenance culture, by
- 1. Repair any broken piece of household furniture immediately
- 2. Inspect the house regularly and affect any repair necessary
- Carryout daily, weekly and occasional cleaning of the different functional areas of the home
- Use the correct house cleaning materials or agents for specific surfaces, such as abrasives like vim for scouring bath tubs.

- Use vaccum cleaning equipments and tools such as mops, brooms cleaner property keep them in proper repai.
- Store house cleaning equipment and materials properly and out of the reach of children.
- Household waste should be properly disposed on daily basis

### Daily cleaning process

- The rooms must be aired before starting the actual cleaning.
- Opening of windows and doors let's in fresh air and the Sundays.
- The sweeping of the room follows, this should be done by using a fine broom in gentle, regular movements.
- Carpets and rugs should be cleaned with a suitable brush and rolled up before sweeping the room.

- After sweeping, the furniture can be dusted with a soft flannel duster to avoid scratching.
- The flower arrangements can be changed.
- Mopping should be done with water to which a disinfectant can be added.

### Weekly cleaning process

- It is more elaborate than the daily cleaning.
- Cleaning of shelves, food cupboards and tins containing dry provisions can be included in the weekly cleaning of the kitchen.
- Shaking out of bedding, cleaning linen and tidying of the clothes in the cupboard can be done in the bedrooms.

- Cobwebs, if any should be removed they are an eye sore and contain entangled insects and dust.
- Slightly are more elaborate cleaning of furniture and fittings and the polishing of decorative accessories can be also considered a weekly job

### Periodic cleaning and polishing

- The entire house is cleaned inside out during this type of cleaning.
- In our country such periodic and annual cleaning is done at the end of summer or the beginning of winter.
- Although cleaning during this period enables her to get rid of the insects hiding in the house.

- Changing of loose covers on furniture, washing or dry – cleaning of curtains and carpets or rugs is best done at this time.
- White washing, painting of walls, doors, windows, cupboards are jobs undertaken during this period.
- Time, energy and money can be saved when periodic cleaning is undertaken with proper foresight and care and if it is divided into manageable parts, the workload is lessened.

## INSECTS AND PEST CONTROL

#### Disinfection and pest control

- The meaning of the term *disinfection* is destruction of organisms that cause communicable diseases
- A substance that prevents the growth of micro organisms of disease is a bacteriostatic
- *Asepsis* an article is absolutely free from pathogenic micro organisms and their spores
- It is absolutely germ proof

- *Disinfestation* the process by which insects and animal parasites that transmit diseases are destroyed
- Chemical substances that are used to kill insects are known as insecticides or pesticides
- A substances which is capable of destroying or neutralising unpleasant odours is known as a *deodorant* or *deodoriser* example - odonil

#### Types of Disinfection and Disinfestation

- Concurrent Disinfection infectious material is removed from an infected person to kill bacteria immediately as is done
- Terminal Disinfection after the patient has recovered and ceased to be a source of infection to others
- Sterlization it is the destruction of micro organisms and their spores by the use of physical and chemical methods such as boiling and autoclaving

- Fumigation destruction of insects such as the cockroach, silverfish etc.,
- Delousing in this lice and their eggs present in the hair and clothing of people
- Disinsectisation this process involves the destruction of insect vectors of disease

#### HOUSEHOLD PESTS

- Pests in a home are a source of great annoyance to its intimates
- The study of household pests is of great importance
- Blood Suckers
- Food Polluters
- Property Destroyers
- Miscellaneous

#### INSECTS

- There are more than one million species of insects of various kinds and sizes
- Many of them are harmful while others are beneficial
- Bugs can transmit a viral diseases
- Fleas and lice lower vitality in man by sucking his blood and also transmit diseases

- Insects useful to man include bees that produce honey and wax
- Bees also help to bring about fertilisation in flowers by cross pollination

#### General characteristics of Insects

- Insects are highly adaptable
- Some species can live almost anywhere
- Most insects are very small in size and hence they can gain access anywhere
- They can hide in minute cracks, crevices and holes
- Insects generally live in darkness, hiding during the day time and and coming out at night in search of food

#### **Control** Measures

 Insect control operations can be of two types – Prophylactic preventive

-Curative Measures

### **Prophylactic Measures**

- Prevention is better than cure
- Doors and windows should be screened with wire gauze or mesh in the entire house
- It is essential that every home has a fly swatter, a sprayer and uses a a good insecticide such as D.D.T
- All cracks, holes in walls should be filled up
- Garbage pilled near a house should be removed

- Old tins, magazines, papers, bottles and other unwanted articles should be disposed regularly
- No food should be left uncovered
- Insecticides like flit should be regularly sprayed in all cupboards, furniture, dark corners and dirty areas
- Carpets, mattresses, pillows, sofas, seats and furniture should be regularly exposed to sunlight and fresh air

#### **Curative Measures**

- Fumigation should be undertaken for the control of insect infestation
- The commonly used fumigants are aluminum phosphide tablets
- The control of termites may be carried out by chemical treatment of the soil.

- The chemicals that may be used are aldrin, benzene hexachloride, chlordane, dieldrin, heptachlor
- Cockroaches can be controlled by applying insecticides where they may live
- A paint brush may be used to apply liquid insecticides to those cracks and crevices

#### General Precautions for the use of Insecticides

- Insects are toxic substances and should be used with the utmost care
- The manufacture instructions should be carefully followed
- All insectides should be kept separetly under lock and key, out of reach of children
- Careful storage of insecticides in cool places is advisible

- The hands should be washed with soap and water after the use of insecticides
- Inhalation or contact with the skin is to be avoided as far as possible
- A first aid box should be kept ready
- The manufactures label usually indicates the type of treatment to be given in case accidental poisoning

## BLOOD SUCKERS

#### Mosquitoes

- Mosquitoes are harmful insects
- The female anopheles mosquito sucks blood and transmits malaria
- The another variety called stegomyia or tiger mosquito which causes dengue fever

#### **Control Measures**

- D.D.T Technical (8 ozs) 0.226 kg
- Kerosene oil (grade III) (1 gallon) 4.54litres

#### Fleas

- Fleas are blood sucking paraspites
- They are of different kinds such as the rat flea, dog flea and cat flea
- They are little jumping insects
- Both male and female flea suck blood when an infected flea bites a man and sucks his blood the disease germs are transmitted

#### **Control Measures**

- Sanitation of the house and its surroundings is of utmost importance
- Cracks and crevices can be cemented or plaster filled
- D.D.T Dichloro diphenyl-trichloro-ethane

Should be sprayed in the infested areas

Infected linen, bedding and pets should be exposed to the sun

### Sand flies

- Sand flies are small, slender, hairly insects found all over the world
- These dreadful little pests cause sandfly fever, a viral disease which resembles dengue fever and influenza

#### **Control Measures**

- Sandflies are small in size and they can pass through mosquito net
- The best method to keep them away successfully is to use a mosquito coil

#### lice

- Lice are small wingless insects found on the body and heads of the humans
- Head lice prefer to live in the human hair where they lay eggs called 'nits'
- Lice get easily transmitted from an infected person to others, sitting next to him

#### **Control Measures**

- Absolute cleanliness of clothing, hair and bed linen is essential
- For head lice and nits the hair is washed with certain commercially available chemicals

# Bed Bugs

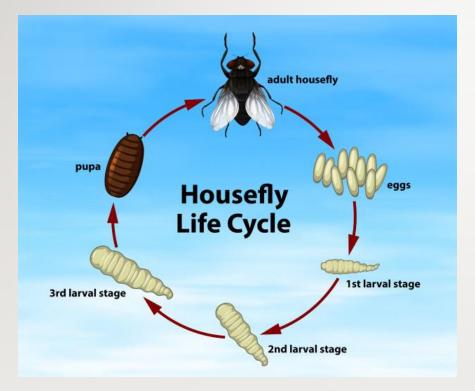
- It is one of the most annoying insects in the house
- It is flat and reddish- brown in color with a pearshaped segmented body
- It is wingless insect but its six pairs of legs enable it to run speedily instead
- It lives in the cracks in walls and behind water pipes

### **Control** Measures

- The most effective way of getting rid of bugs is to spray all the possible hiding places with kerosene oil – D.D.T emulsion
- Boiling water destroys bugs and their eggs

# FOOD POLLUTERS

# House-fly





\*The Life-Cycle of the House-fly.

- The housefly lays hundreds of tiny white eggs in garbage.
- These eggs batch out into small worms called maggots which become fully grown within 4 or 5 days.
- This stage lasts from 3 days to 3 weeks.
- The female housefly can start laying eggs after a fornight and begin another life cycle.

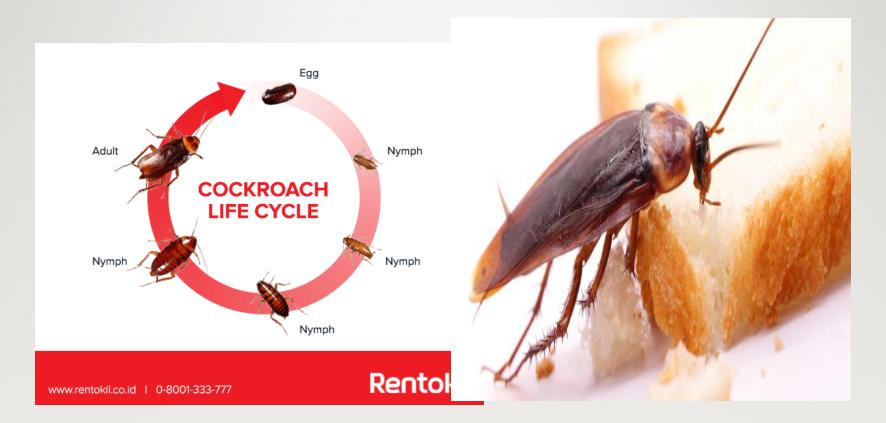
These attracted towards organic matter like meet, faeces, decomposing foods that may contain microorganisms of diseases.

- Like jam, sweets, cheese or milk
- So reabsorb the vomit for further digestion. They transmits diseases from cholera, typhoid, diarrhoca and dysentery.

#### **Control** Measures

- Powder borax in solution.
- The kitchen, storeroom and dining room should be rendered fly proof.
- Especially be carried out in restaurants, hotels meat and fish markets and confectionery stores.
- The display fruits and vegetables that are usually eaten raw should be under hygienic conditions.

#### Cockroaches



These are small insects which come in search of food in the house.

- These unwelcome guests in the house are kitchen, dining room.
- Female cockroaches can be identified by means of a sac-like projection at her rear end.
- This bulging sac contains her eggs.

Cleaning of the house helps to destroy the eggs and nesting places of these insects.
They love warm, dark and moist places.
It eats almost old papers, books, leather, vegetables and fruits leavings and all other scratch of food.

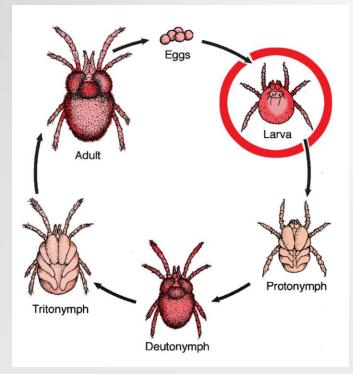
#### **Control** Measures

- These insects usually gain entrance through a common kitchen.
- All holes should be filled with plaster of paris or quick drying cement.
- Boiled with wheat flour or atta and mixed with glue makes good temporary filling.

These may be treated with 10% D.D.T and 40% Pyrethrum oil based spray or Gammexane spray.

- The poison is dry sodium fluoride or 10% Chlordane dust.
- The commercial product, Baygon (spray or dust) is also effective against cockroaches.

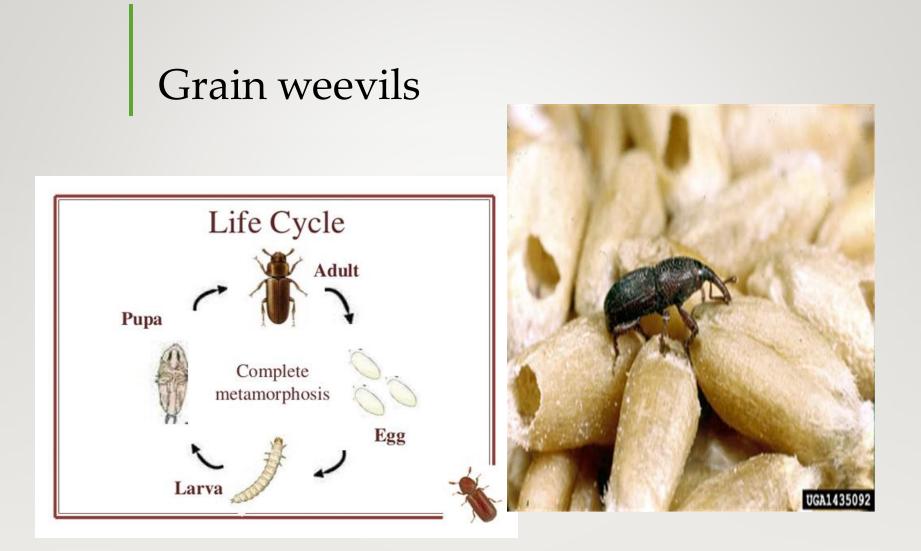
# Mites





These are of various types, and are found in flour, bran and other foods.

- They may destroyed by fumigation or by baking in hotson and shifting to remove the insects.
- Brand sometimes contains a type of mite which cases an itch called the grocers itch.
- Hence bran should be well baked before use.



These resemble bettles and are of many varieties.

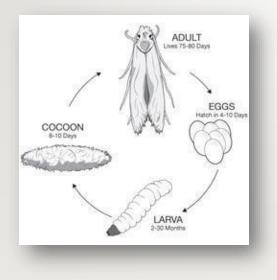
Some attack rice, pulses and flours.

- The female bores a hole in the grain, then lays egg in it and later seals it with a jelly-like substance from its body.
- On an average, the female lays about 5 eggs in a day totalling about 200 or more eggs in its lifetime.
- These eggs hatch out into larvae and them form the pupae inside the grain destroying it completely.
- It takes about a month for the life-cycle to be completed.

#### **Control** Measures

- Cleanliness of the grain and the container is important.
- \*Old and new grains should never be mixed.
- The grains should be put out in the hot sun at regular intervals and stored in air-tight containers.
- Insecticides like D.D.T. can be used to destroy these pests in large warehouses.
- However, care has to be exercised in the use of pesticides so that the foodstuff is prevented from getting poisoned.

# Flour moth





The Flour Moth lays its eggs inside or on sacks of flour.

The eggs hatch out into larvae that crawl into the flour leaving behind a shiny trail.

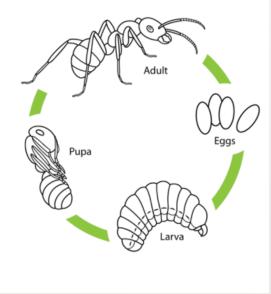
\*As a result of this the flour becomes lumpy

#### **Control measures**

- It is essential to take extreme care whilst purchasing, handling and storing flour.
- Flour should be purchased from good shops and before storage through cleaning should be undertaken.
- Infected flour should be burnt and its container properly cleaned before fresh flour is stored in it.
- It is best to buy flour in moderate quantities that can be used up quickly.
- Great care should be taken in the storage of the flour during the rainy season.

# Ant







\*It is found in garbage and in soil.

- It is one of he most active amongst insects.
- \*It spoils food by crawling over it.
- Hence meat safes or food safes should have their legs place in small containers of water.

#### **Control Measures**

Include keeping the house clean, sprinkling either commercial insecticides, borax or turmeric powder around their haunts. PROPERTY DAMAGERS

### **Clothes Moth**



- The larvae of this insects destroy woolen clothing and knitted garments which are stored away in summer .
- The adult is harmless, but the eggs which are laid on woolen articles develop into restrictive larvae.
- These feed on the garments leaving them riddled with holes .

#### Control measures

- The best way to control these larvae is to sun the clothes frequently enough.
- Comphor and naph-thelene balls may also be used .
- Wollens should be stored in air-tight tin —lined boxes after wrapping in newspaper.
- Cupboards , chests, and other storage places can be sprayed with kerosene emulsion . (eg : D.D.T)

## White ants (Termites)



- These are social insects and colonies of them are generally found in soil , in timber and in wooden buildings.
- They cause great damage to wood and wooden Structures –including door frames furniture ,tree ,wooden pillars .
- The colony is formed of fertile males and female and soildiers and workers.
- These differ very much in shape ,size and structure from each other .

### **Control measures**

- The best method of control is to destroy the communication galleries made by the workers in moist soil .
- Once they are destroyed their homes will dry up and the insects will perish .
- If plants are attacked by termites , kerosene oil mixed with insec-ticides can be sprayed at the roots.

# Carpet beetles



- This are found chiefly in carpets especially underneath those fitted once which are seldom disturbed.
- The egg of the carpet bettle are laid on woollen materials or leather .
- Under favourable conditions of temperature and humidity the larvae hatch out.
- The larvae of the carpet beetle is hairy in nature and is called a "woolly bear "
- It can cause a lot of damage to woollen Carpets and textiles.

#### Control measures

- It is important that carpet should be kept clean and free from dust.
- Fitted carpets should be regularly vacuum cleaned.
- Dieldrin an insecticide may be effectively, sprayed over the carpet .
- It is essential that storage spaces like attics and lofts where beetles might thirve be kept absolutely clean .

#### Furniture beetles or wood worms



- These insects cause extensive damage to wood work both inside and outside houses.
- Is is the larvae that does the damage by boring into the wood –work .
- It can attack any type of wood but has a preference for plywood.
- The female beetles lays about twenty egg in suitable cracks and crevices in the wood.

- About three weeks later the white larvae emerge and make their home inside the wood for a period of two to three years .
- They burrow into the wood deeply by eating it.
- It has been noticed that when they attack plywood they attain maturity quickly.

#### **Control measures**

- The presence of the woodworm in wood may be detected by the presence of small round holes on its surface with finally powdered wood dust lying near them.
- It is therefore very important that woodwork and furniture in houses should be inspected regularly.
- If the insects are visible they can be killed with a thin long sharp article like a knitting needle.
- If possible, spraying of D.D.T is helpful whever the holes are present.

#### The silver fish

- If is found in houses behind photos frames, amongst books and clothing which it eats way.
- It devours artificial silk and starched clothes, paper and paste.
- It is a small wingless silvery. white insects with a long ,tapering segments and scaly body.
- The head has jointed antennae.
- It gets is name from is resemblance to a fish and its smooth gliding movements.

#### **Control measures**

- The best way to prevent silver fish from infesting the home is to frequently clean neches and corners, cupboard shelves and boxes.
- Unwanted scrap material like paper should not be dumped in the home.
- Books should be examined periodically.
- Fresh pyrethrum powder should be dusted in their haunts.
- Another method of control is the use of sulphur or phruthum frames.

## FAMILY RESOURCE MANAGEMENT 1

Prepared by

U. Krishnapriyal

**Assistant Professor** 

### Class II B.Sc

- Unit 3
- a) Elements of Design
- b) Principles of Design



### **Have you heard about Element** of design ?

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quick reference sheet



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## **TOPIC:-"ELEMENT OF DESIGN"**

- What is element of design ?
- What are the basic elements of creating design ?
- Briefly describe about the element of design ?

## What is element of design ?

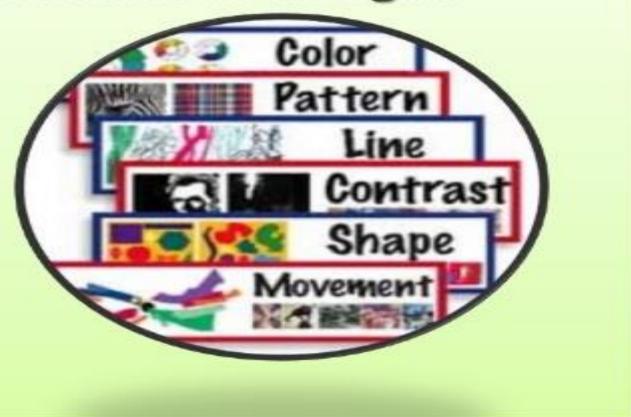
 The element of design is define as the element required for making design or A plan or drawing which is used to show the look and function of building & other object before it is made is called as element of design.

### **Element for creating design**



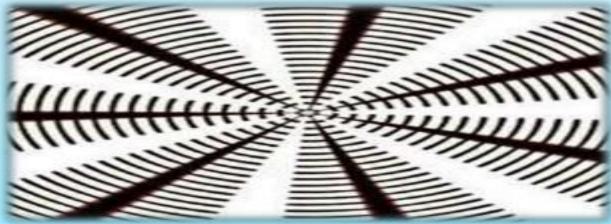
#### What are the basic elements of creating design ?

- There are 7 basic elements of design :-
- 1.Line
- 2.Color
- 3.shape
- 4.space
- 5.texture
- 6.space & size
- 7.value



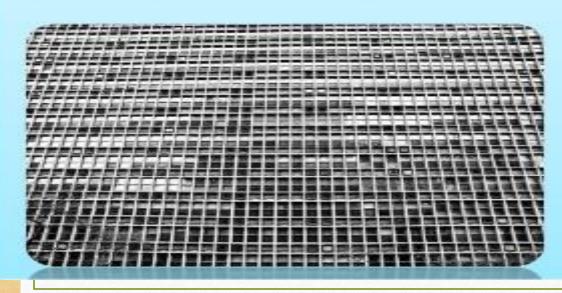
## Line

 Line is the first and most basic element of design. A line is a form having length & width, without depth.
 Lines aid the artist in dividing space and drawing the attention to a particular location. Typically lines are used to create edges, outlines of objects,texture, etc.



# Line & its Type

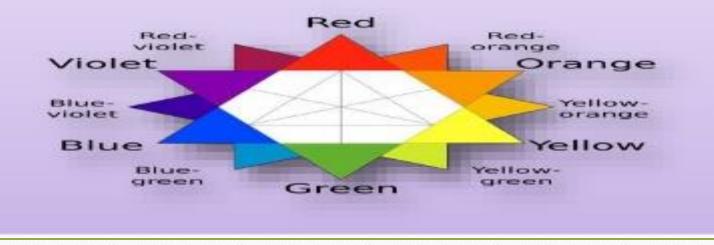
- There are 3 types of lines are:-
- **1.Horizontal lines**
- 2.Vertical lines
- **3.Diagonal lines**





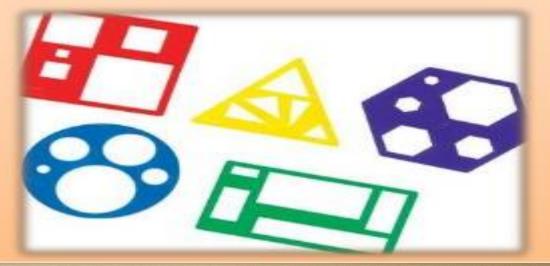


 Colour is one amongst the foremost obvious elements of design, for the designer. It will stand alone, as a background, or be applied to different elements, like shapes, lines, textures or typography. Color creates a mood within the piece of art and narrates a story regarding brand or product.





 Shapes whether natural, geometric, or abstract add interest in the design always. Shapes are outlined by boundaries, like lines or color, and are often used to emphasize specific portion of the page. In essence, everything is a shape therefore you must always think in terms of how the various elements of your design are creating shapes, and the way those shapes are interacting.





 Space is an element that gives to readers a room for breathe and leads their eyes through the design.
 Space also helps in adding emotional feel such as free, open, crowded, claustrophobic etc.





 Textures are very useful when you want add realism and visual interest in your design. Textures will produce an additional 3D look appearance on 2D surface. It conjointly helps build an immersive world in your design.



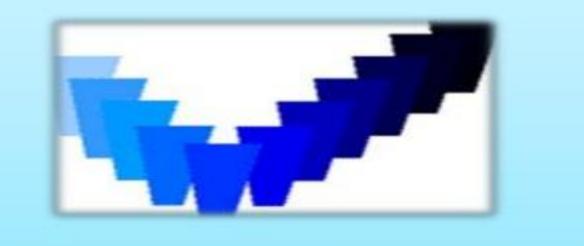
## Scale & Sizes

 Scale and size can bring contrast and balance in your design if you know how to manage them with perfection. Size is the actual dimension of an object while scale is the element's relation to its original form and size.





 value is a most neglected element of the design. Generally designers don't focus on this point. Value is very good for adding unity and controlling readers eyes through the designs. It plays a vital role in managing contrast and balance in the design.

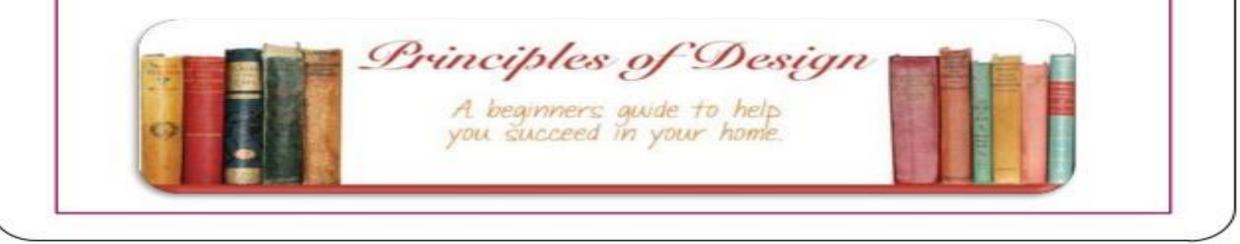




## **Principles** Of **Design**

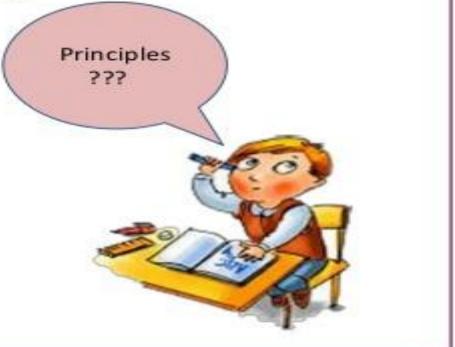


#### "The **Principles of Design** are the artistic guidelines used to organize or arrange the structural elements of design."



#### **Basic Principles of Designing**

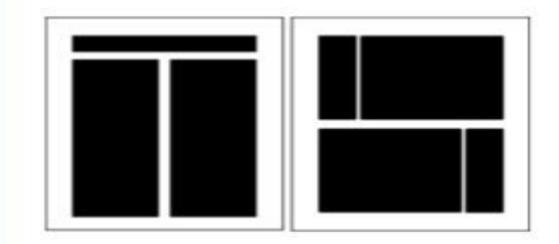
- Following are the six basic principles of effective design which are common throughout the field of designing (i.e. from print design to lithography, typography, & industrial design).
  - 1. Balance
  - 2. Contrast
  - 3. Emphasis
  - 4. Pattern
  - 5. Rhythm/Movement
  - 6. Unity



#### Balance

- Balance refers to the appropriate arrangement of objects in a design to create the impression of equality in weight or importance. Balance provides stability and structure to a design. Balance may be symmetrical and asymmetrical, but the goal should be to achieve equilibrium.
- Symmetrical Balance can be described as having equal "weight" on equal sides of a centrally placed fulcrum. It is also known as formal balance.
- Asymmetrical Balance is more complex and difficult top envisage. It involves placement of objects in a way that will allow objects of varying visual weight to balance one another around a fulcrum point. It is also known as informal balance.

#### Examples



Balance is formal when both sides are symmetrical in terms of arrangement.



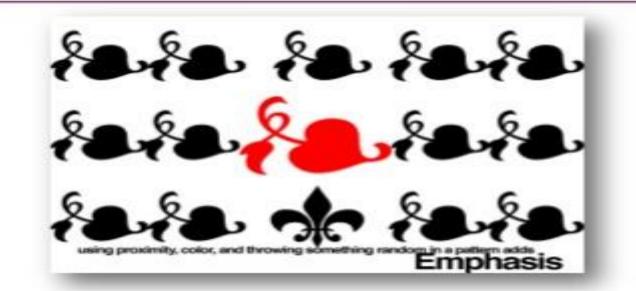
Balance is informal when sides are not exactly symmetrical, but the resulting image is still balanced.

### Rhythm



- Rhythm or movement is regarded as a visual temp or beat. It refers to a regular repetition of elements to produce the look and feel of a movement.
- Rhythm can be achieved through the careful placement of repeated components. It can be directed for example, along edges & by means of shape and colour.
- Rhythm can be categorized Random, Regular, Alternating, Progressive, and Flowing.

#### Emphasis



- The term emphasis literally means to give importance.
- Emphasis in designing refers to give special attention to one part of a work of art.
- It can be achieved through placement, contrast, colour, size, repetition, etc.

For example: A dark shape in a light composition

#### Contrast

- Contrast refers to the juxtaposition of different elements of design (for example: rough & smooth textures, dark & light values)in order to highlight their differences or create visual interest, or a focal point.
- Contrast allows us to emphasize or highlight key elements in your design.

#### Contrast

Make like things like and different things different

Make big things big and and things are

Use different sizes, colors, and fonts



#### Pattern



- Pattern in a design simply refers to keeping your design in a certain format.
- It is often described as a regular arrangement of alternated or repeated elements (shapes, lines, colors) or motifs.

For example: One could plan to have curved lines all around a design as

a pattern.

#### Unity



Unity refers to the arrangement of elements to give the viewer the feeling that all the parts of the design or piece form a coherent whole i.e. designs must be in harmony in which all sections of the pattern make other sections feel complete.

It enables the design to be seen as one complete piece of art or design.

#### Absolute examples of Designing Elements & Principles!!!



One can create such aesthetic piece of art if he strictly adhere to all *Elements & Principles of Designing*.

Paintings by student of ADMEC

## F&MILY RESOURCE MANAGEMENT 1 **Prepared by U. Krishnapriyal Assistant Professor**

### UNIT – 4 COLOUR

- a) Qualities of colour
- b) How to use colour
- c) Use of colour in interior decoration

Colour plays a profound role in our lives.

- Used in a planned, controlled arrangement colours can produce many moods; can reduce or increase tension; causes excitement or soothe a tried person.
- Colours may be used to create illusions of space, luxury, warmth or coolness.
- Since colour is a source of pleasure to almost everyone, all homemakers should try to have beautiful colours in their homes.

#### Let us first understand what colour is

- When light is passed through a prism, the white rays of sunlight are separated into the colours of the rainbowviolet, indigo, blue, green, yellow, orange and red.
- In other words, white light is a combination of these colours.
- All objects in the world around us have the capacity to absorb one or more of these colours.
- Rays that are not absorbed are reflected to the eye.

These rays falling on the retina (the light-sensitive layer inside the eye) stimulate the optic nerve.

- This in turn produces the sensation of light and colours in the brain.
- An object that appears green to our eyes is one that absorbs all other colours present in white light and reflects only the green rays.
- Black is seen when all the rays are absorbed completely.
- White objects can reflect all the rays of different colours; their combination appears to our eye as white.

The colour of an object depends on the light falling on it and also the pigment (dyes) used in its making.

- Three colours- red, yellow and blue- are the primary colours available in pigments which are used to colour the various objects we see in room.
- All other colours are made by mixing one or more of these basic colours in various proportions.

When they are mixed two at a time, in equal proportions we obtain the following which are also known as secondary colours.

Red + Yellow = Orange

Yellow + Blue = Green

Blue + Red = Purple

### **DIMENSIONS OF COLOUR**

- There are three properties or qualities which may be called the dimension of colour, and which are just as distinct from one another as the length, breadth, and thickness of an object
- All the three of these dimensions hue, value and intensity are present in every colour, just as every object has length and breadth and thickness
- These colour dimensions are Hue, Value , Intensity or chroma

# HUE

- Hue refers to the name of the color such as red, yellow, blue and it describes the kind of colourand also represents the difference between the colours
- The hues or colours can be divided into warm and cool colours.
- The colors that have of yellow, red are considered to be warm colours as they represent the colours of fire, sun and heat

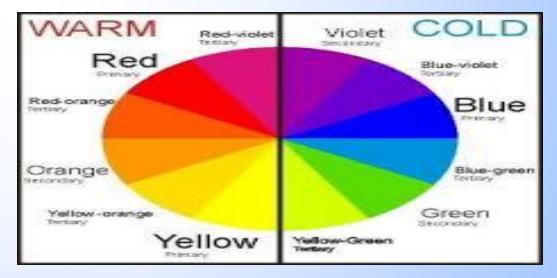
The colour which have more of blue are considered to be cool colours as they represent the sky and water

Warm colours make the subjects appear bigger and closer where as cool colours make the objects appear smaller and far away

Warm colours are cheerful and stimulating where as cool colours are calm and rest ful

- Advancing colours such as yellow, red are those that tend to advance towards one by reducing the distance
- The advance colours make the room smaller
- Reducing colours are those that tend to recede or go back by increasing distance and make

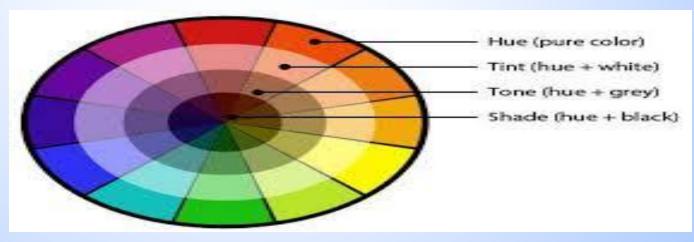
the room larger



# VALUE

- It indicates the lightness or darkness of a colour in relation to white or black
- Light values are called tints and dark values are called shades
- Tints are made by addition of white and shades are made by addition of black
- The lightness and heaviness are given by the use of the different colours

- Red and yellow seem to be heavy colours while blue or purple are considered to be light colours
- Heavy colours are used at the lower part of the room and light colours are used on the upper side of the room
- Light values increases the size of the rooms / objects and dark values reduce the size



# INTENSITY / CHROM&

- It refers to the brightness or dullness of a colour
- It also refers to the degree of purity or saturation of a colour with respect to grey
- It can be said it is the property describing the distance of the colour from grey or neutrality line.
- Eg as in the case of the lemon which is brighter than the banana though both of them are of the same colour

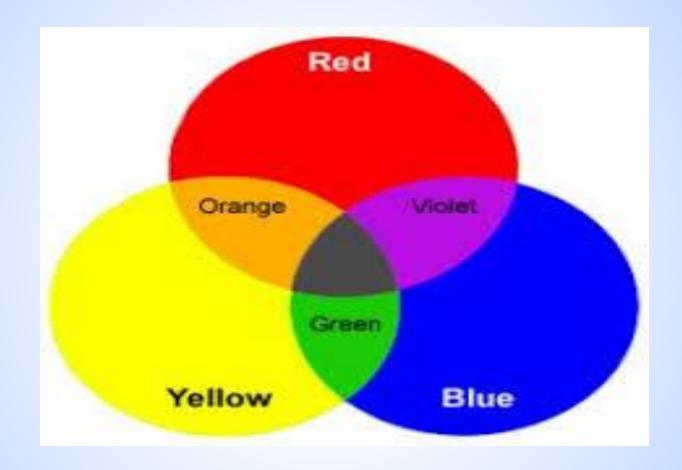
- A colour in its purest has the greatest brilliance or intensity
- Adding more of hue strengthens the intensity, adding grey or complementary colour lowers it. Hues that are neutralized or greyed are called tones
- Warm colours like yellow, orange, and red with high intensities are stimulating, visually active and therefore should be used in small areas
- Cool colours like blue, purple and green with low intensities are subdued and relaxing, can be enjoyed in large areas

# CLASSIFICATION OF COLOURS

Colours may be divided into five classes: primary, secondary, intermediate, tertiary and quadternary

#### 1) Primary Colours

- All colours may be obtained by mixing in various proportions three fundamental hues are red(R), yellow (y), and blue(b).
- These are called three primary colours, because they are the elements in the use of pigment.
- They are the only hues in pigment that cannot be obtained by mixing other hues.



#### 2) Secondary Colors

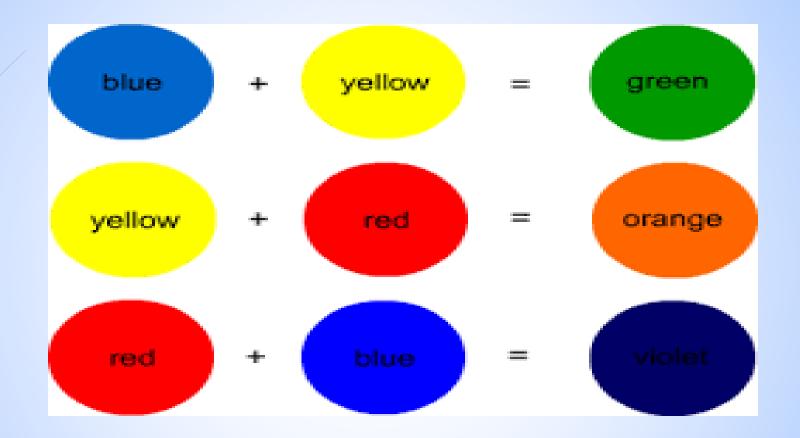
When two primary colours are mixed in equal proportion, we get secondary colours

Yellow + blue = green

Blue + red = violet or purple

Red + yellow = orange

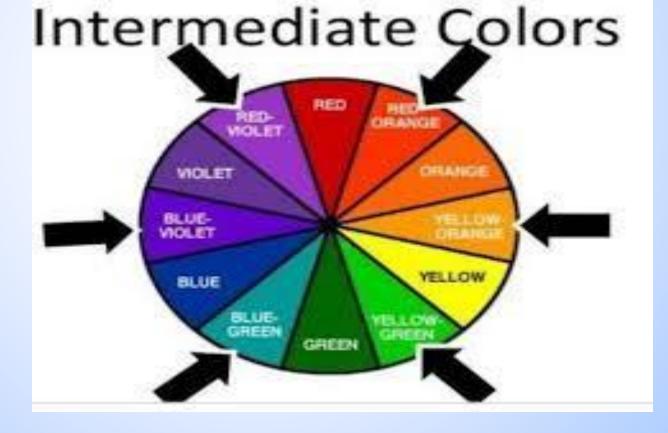
The primary colors together are called basic colors



### 3) Intermediate Colours

When a primary and an adjacent secondary colour is mixed an intermediate colour is produced.

 There are six intermediate colours they are Yellow + green =yellow green
 Blue + green = blue green
 Red + violet = red violet
 Red + orange = red orange
 Yellow + orange = yellow orange The three primary colours and the three secondary colors and six intermediate colours form the outer circle of the prang colour chart

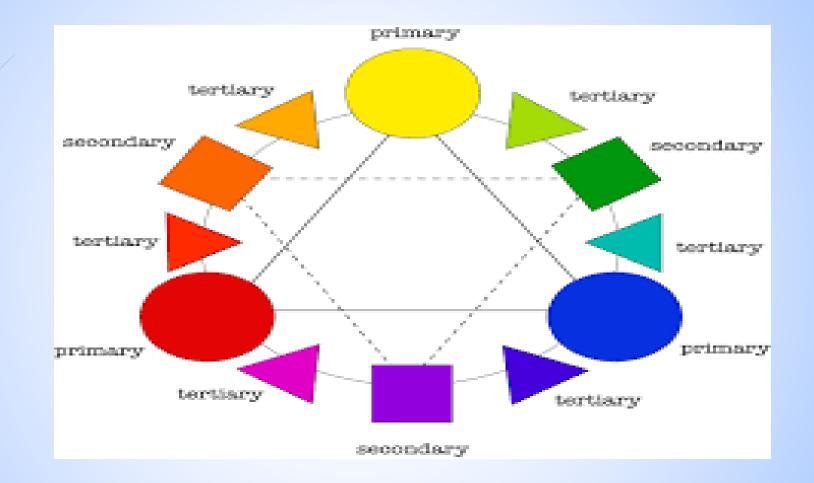


### 4) Tertiary Colours

When two secondary colours are mixed a tertiary colour is produced

There are three tertiary colours. They are,

Green + orange = grey yellow or smoky yellow Orange + violet = grey red or old brick red Green + violet = grey blue or slate blue



#### 5) Quaternary Colours

- When two tertiary colours are mixed a quaternary colour is produced.
- There are three quaternary colours. They are,

Smoky yellow + old brick red = grey orange

Smoky yellow + slate blue = green green

Old brick red + slate blue = grey violet

- The three tertiary and three quaternary colours form the inner circle of the prang colour chart.
- Grey colour is in the centre of the prang colour chart

### **Planning Colour Schemes for Specific Areas in the House**

- The first step towards a decision about the colours needed for any area or room in a house is a clear understanding of what use is made of that space
- The size of the room; the size, number and direction of the windows; the number of doors and the kind and finish of fixed furniture are some other factors to be taken into account before starting.
- Another important factor in the appearance of a room is the number, size and height of curtains and drapes.

- Floors and floor coverings (carpets, rugs, linoleum, mat) need to be carefully chosen so that they do not upset the balance of colour in the room.
- Accents in a colour scheme are provided by cushions, lampshades, pictures and other objects like flower vases, porcelain, cut glass, brassware, wood work, metal figures and silverware.
- They are also called accessories.
- They play a much more important role in interior decoration than is often realised.
- They bring charm and individuality to a room and provide focal point of interest in it.

- Colour schemes in a room may be similar or contrasting.
- Similar colours put together are restful, but may become monotonous if hot relived sometimes by a neutral colour or a bright accent.
- Contrasting colours are interesting but need to be combined carefully.
- If they are too far apart, the contrast is too great and they may prove disturbing.
- ► White, black and grey may be included in any colour schemes.

#### **Similar or Related Colour Schemes**

- These are produced by combining colours that lie near each other on the colour wheel.
- They are monochromatic and analogous colour schemes.
- A monochromatic colour scheme is a one-colour scheme (mono=one, chromac colour).
- It consists of using several values and intensities of the same hue (colour).
- Light, medium and dark-blue combined could be one illustration of this type of scheme.

The hues must match, but the values must contrast.

- The basic colour and one or two variations of it, plus some neutralising black or white makes a simple, liveable setting.
- This kind of scheme is quit and restful and makes a good background for interesting accessories.
- An analogous (adjacent) colour scheme is a combination of neighbouring colours on the colour wheel.
- Adjacent colours are harmonious because they have one hue in common.

Generally, it is safe to use colours contained within one-quarter of the circle and include only one primary colour. For example;

In the group; red-purple, purple, blue-purple and the blue, one could choose red-purple, purple and blue; red-purple, bluepurple and blue or red-purple, purple and blue-purple.

Yellow, yellow green and green is more pleasing than yellow- green, green and blue-green.

Soft colours seen in spring time are an example of this kind of schemes seen in nature. Related schemes gain in interest by varying the value and intensity of the colour used.

### **Contrasting Colour Schemes**

- These are produced by combining colours that are far apart on the colour wheel.
- There are four types of such schemes which are discussed here briefly:
- A Complementary Colour Scheme: Complementary colours are those that are opposite to each other on the colour wheel.
- There are six such pairs: yellow and purple; orange and blue; red and green; yellow –green and purple-red; blue-green and red-orange; blue-purple and yellow-orange.

- Contrast colours are lively and vibrant and the room must be carefully divided in the use of two or three hues.
- It is best to let one colour dominate.
- A vivid hue and its complement may be quietened down by graying them or reducing their value.
- There will be both warmth and colour in such a room.

A split complementary colour scheme is obtained by using any one colour and the two colours on the either side of its complement.
 Here are some examples:

- Yellow, blue-purple and red purple (Purple is the complement of yellow).
- Red, blue-green and yellow-green (Green is the complement of red)
- Such a plan, carefully used, can produce subtle combinations and interesting effects.

- A triad colour scheme is one which combines any three colours that form an equilateral triangle on the colour-wheel---that is they are equidistant from one another.
- This can be a well-balanced scheme provided the colours are subdued. Some possible combinations are:
  - Yellow, blue and red
    - Green, purple and orange
  - Blue-green, red-purple and yellow-orange
- This type of combination is often found on printed materials and must be borne in mind when choosing colours for the room and the upholstery.

- Accented neutral colour scheme is one in which the largest areas of the room are neutral, with small areas of bright colours used as accents.
- For example, the walls, rug and diwan might be beige of different colours with occasional chairs in bright colours torming the accents.
- When planning a colour scheme, it is useful to choose one colour as a starting point.
- Keeping in the mind the mentioned factors earlier, one can decide the focal point of the colour scheme will be and what type of colour scheme is to be followed.

- The walls are the largest area and it is wise to choose the colour first.
- Quiet colours for large area are more restful to live with and one does not tire of them as quickly.
- The second colour or colours may be a bit brighter. Generally, upholstery and curtains fall into this category.
- The third sets of colours are the sharp, intense colours used as accents and they make up a small portion of the total colour in the room.

The textures of the various materials used make a big difference to the colour as seen.

- ► In soft furnishings, this variation may be considerable.
- The same colour in casement rough weave handloom material, silk and nylon net cannot look identical.
- The textures of natural surfaces in wood, marble and so on can be taken advantage of.

A little experimenting, an open mind and a keen eye will lead the homemaker to success in this fascinating field.

**Colour and texture:** Texture of a fabric can affect a colour favourably or adversely.

- Lighter shades on thinner material and darker shades on thicker material.
- Some dark colours fade fast and look dull, on material of certain texture (khadi).

**Colour and occasions:** Bright warm colours befit festive occasion's like- yellow, gold, silver and bridal array.

- People are affected by sentiment in the use of colours. White for purity; Saffron for austerity and piety; green for felicity.
- Many show Black –associating it with sorrow, death, evil, sadness.
- Yet many have positive preference. In Bengal plain white is associated with widowhood.
- Magenta; Purple; flaming orange; Royal blue; Emerald green are flashy colours.

- Hence these colours cannot be used for daily wear in all seasons.
- Seasons also have particular bearing of colours. Cool colours in summers- (Blue; lavender; green).
- ► Warm colours in winter (Red; grey; yellow).
- **Colour and light:** Artificial light can play extra ordinary tricks on colours.
- Red can turn brown orange and khaki; Blue to Purple.
- One should always be on guard against optical illusions while selecting fabric in electric light.

**Colours and character:** Colours are an index of character. Each one of us either has a cool eye or a warm eye or both.

- It is said if you prefer
- a. Purple you are magnetic.
- b. Red Passionate, Love and Martyrdom.
- c. Orange Sociable.
- d. Yellow Idealistic, Cowardice, Jealously, Gaiety, Wisdom, Warmth.
- e. Pink –Feminine.
- f. Blue Cool, Competent, Sincere.
- g. Green Neighborly.

**Colour and emotions:** Colours have an emotional appeal and this has been built up through the ages.

An atmosphere in the home usually shows it.

There are colours which can excite different emotional responses – to some it is sensitive, to some it stimulates.

- Yellow, from the family of warm colours, representing the sun odds an effect of prosperity, gaiety, exceltation in fact shows excitement sending vibration of loud music and laughter, at home it adds light, supplies sunshine.
- Our walls usually have the cream, raw silk, buff ivory, beige, lime yellow.
- It harmonises very well with other colours in draping upholstery and floor coverings.
- Yellow is supposed to be a friend of the poor.
- It takes the dye quickly and does not fade easily. Well polished brass wares brighten up a home. It is a symbol of power.

**Red** - Associated with blood - therefore life associated with fire - therefore danger.

- Red is a very forceful colour.
- It expresses war, passion, vigour, aggression.
- It's one of the most bellowed colours of children.

**Orange:** which is a combination of red and yellow is very warm, hence sparingly used.

It expresses spirit, hope, courage and cordiality. Some shades of orange like peach, rust, radiate hospitality and cheer. **Blue:** blue is colour of the seas, oceans, skies, Mountains at a distance, hence associated with coolness.

- It is one of the vast colours of nature.
- It expresses death, distance, spaciousness, dignity, calmness, serenity, reserve, and formality, lack of sympathy, coldness, happiness, truth, honour and repose.
- Blue in its various forms is used to a large extend in interior decoration.

Purple: is an ancient colour made of blue and red.

- It is a symbol of royalty, associated with mystery, dignity, mourning and twilight.
- Mauve, lavender and other shades are frequently used in dignified elegant rooms.

**Green:** Found in abundance in nature made of blue and yellow (cool and warm).

- Thus it associated with rest, cool, shade, shelter, refreshment giving positive effect.
- On the other hand it suggests envy, jealousy and ill- health showing its negative qualities.
- It is cool enough to be restful and warm enough to be friendly depending upon the intensity and value of colour.
- ► It goes very well with natural woods, (wooden furniture).
- It is used extensively in home decoration (draperies, upholstery, walls).

#### **Neutral colours - Black, white, Grey**

- Black said to be the first colour recognised by man.
- It symbolises life for out of it is born the day. It is associated with death, darkness, evil, mystery, wisdom and sophistication.
  - In interiors black can be used in luxurious setting.
- ► White symbolic of innocence, purity, faith, peace and surrender.
- In India it is still used as a shroud mourning colour. In interiors it is mostly used in ceilings, kitchens and bathroom.

- White can bring out the effects of other colours very well. Both cool and warm.
- It gives a luxurious delicate and feminine touch to the interior. Very expensive to maintain.
- ► Grey it's a sober colour mixed with black and white.
- It is associated with masculinity, dignified, sadness, and modest gentle and sincere, indifference.
- ► In interiors grey can be accompanied with brilliant colours.
- Used for walls, draperies, floors, upholstery, steel cupboards, grille and gates.