Think of a world without colour! How would it look? Dull and boring. Colour brings interest and cheerfulness to the surroundings. Colour and motifs play an integral part in creating an attractive piece of embroidery. You have already learnt about motifs or designs in lesson 29. This lesson deals extensively with the various colour schemes that can make your work easy and help you get started. With practice, selection of colours will start coming naturally to you. Have you ever noticed people, men as well as women, practicing this art at home? Some create beautiful colour schemes while some are unable to do so. Who taught them? They not only learnt by observing their elders at home but constant experimenting leads to greater knowledge of the scheme that works.

Let us learn some basics of colour and the combinations they may be used in to produce pleasant effects.

**OBJECTIVES**

After going through this lesson you will be able to:

- classify colours into different categories;
- draw a colour wheel;
- describe the characteristics of colour;
- identify and explain the various colour schemes;
- explain the symbolic meaning and psychological effect of colour;
- use a colour scheme to colour a motif.

**30.1 CLASSIFICATION OF COLOURS**

There are numerous colours all around us. The classification of these colours have been devised to organise and identify colours. A most familiar one is the 12 hue “Colour Wheel” (Fig 30.1). These colours can be classified either according to their origin or properties. The most common classifications are as follows:-
1. Primary, Secondary and Tertiary colours

Primary colours

The primary colours are red, yellow, and blue. These three colours form the basis from which other colours can be made.

Secondary colours

The colours formed by mixing two primary colours in equal quantities are called secondary colours. These are orange, green, and purple.

Tertiary colours

These are formed by mixing a primary and a secondary colour in equal quantities. For example, blue (primary) and green (secondary) mix to form blue-green (tertiary).

<table>
<thead>
<tr>
<th>Colour 1</th>
<th>Colour 2</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yellow</td>
<td>+ orange</td>
<td>= yellow orange</td>
</tr>
<tr>
<td>Red</td>
<td>+ orange</td>
<td>= red orange</td>
</tr>
<tr>
<td>Red</td>
<td>+ purple</td>
<td>= red purple</td>
</tr>
<tr>
<td>Blue</td>
<td>+ purple</td>
<td>= blue purple</td>
</tr>
<tr>
<td>Blue</td>
<td>+ green</td>
<td>= blue green</td>
</tr>
<tr>
<td>Yellow</td>
<td>+ green</td>
<td>= yellow green</td>
</tr>
</tbody>
</table>

The three primary, the three secondary and the six tertiary colours give us our set of twelve colours.

Traditional Indian embroidery uses all these colours in various shades.

Fig. 30.1: The colour wheel
Activity 30.1

Draw a circle with a diameter of 6 inches and develop a colour wheel. Place it in your design directory.

Hint: 1 drop blue + 1 drop purple = 2 drops blue purple

2. Warm and Cool colours

Make a colour wheel. Now draw a line vertically down the center of the wheel as shown in the figure. If you split the colour wheel vertically down the center, one side will have all the warm colours and one side will have all the cool colours.

Warm colours

These are red, orange, yellow, etc. These colours have the element of fire or sun within them. They project a feeling of warmth. They create a visual impact of reduced size and length. These are encouraging colours that produce a feeling of excitement and happiness. You will notice that these colours are very commonly used in traditional Indian embroideries. Since most heavy embroideries are executed for happy occasion like marriage or child birth, selection of such colours is natural.

Cool colours

These are blue, green, purple, etc. They have the element of vegetation or water in them. They project a cool feeling. These are peaceful colours that give a feeling of rest and repose. They also create a visual impact of enhanced size and length. These colours can be used to create embroidered pieces for summers. They also provide a balance to vibrant warm colours. Warm and cool colours are complementary to each other and always create very interesting effects.

The warmth and coolness of colours like green and purple, which are formed by mixing one warm and one cool colour are dependent upon the amount of primary colour used to prepare the secondary colour.

3. Neutral colours

Did you notice that we have not talked about white, black, grey, brown, tan, beige etc. These are called neutral colours. They are a very important part of any embroidery. They form a very effective background for bright colours. Whenever we are not sure of a right colour scheme, neutral colours come in very handy.
4. Metallic colours

The sparkle and shimmer of metal is always attractive to man. Metal wires were hammered to fineness of a yarn and used in the embroidery. Plain golden or silver wires are called ‘Badla’ and when these wires are wound around a thread they are called ‘Kasab’, spangles of metal are ‘Sitara’ and tiny dots made out of badla are called ‘Mukaish’.

The days of using real gold or silver are now history, what you now get is synthetic zari or ‘tested zari’.

INTEXT QUESTIONS 30.1

I Fill in the blanks –
1. Red, ____________ and _____________ are primary colours.
2. Brown, beige and tan are _____________ colours.
3. Tertiary colours are obtained by mixing one __________ and one __________ colour.
4. __________ colours form effective background for dark colours.
5. Orange colour can give you a feeling of __________ during winters.

II Complete the equation
1. Red + Blue = ___________
2. Yellow + ______________ = Yellow orange.
3. ______________ + Green = Blue green.

30.2 CHARACTERISTICS OF COLOUR

Just like every object has three dimensions i.e., length, breadth and height, colour also has three dimensions. They are described by using the terms hue, value and intensity.

Hue: Refers to the name of the colour e.g. red, orange, blue etc.

Value: Refers to the lightness or darkness of a hue. By adding white to a hue a lighter colour can be obtained. It is called tint. By adding black to a hue a darker colour can be obtained. It is called shade or tone. Henceforward, we shall refer to all the light shades as tints and dark shades as tones. Tints and tones are specially useful when you are embroidering a natural design eg. - if you have to embroider a flower, you can use the hue along with two tints and one tone. Motifs like fruits, birds, nature scene etc. can all be embroidered in a similar fashion.
**Intensity** refers to the brightness or dullness of a colour. If all the colours used in embroidery are bright or dull a balanced look will not be created. So, it is a good idea to use both dull and bright colours in the correct proportions, for example red and golden yellow flowers can be balanced by tints of green leaves and brown stems. To increase the intensity of a colour place the complementary colours next to each other. This kind of placement produces very bright colour schemes, for example, red and parrot green.

**Activity 30.2:** Market Survey: Conduct a market survey on various colours of embroidery threads available in the market. Collect and paste at least 3 embroidery threads in your file according to the following categories.

1. Primary colour
2. Secondary colour
3. Tertiary colour
4. Warm colour
5. Cool colour
6. Metallic colour

**Activity 30.3:** Paste embroidery threads of at least 5 tints and 5 tones of one primary colour in your file.

**INTEXT QUESTIONS 30.2**

1. Give one word for the following.
   1. Brightness or dullness of colour. ___________________
   2. Lightness or darkness of colour. ___________________
   3. Technical name of the colour. ___________________
   4. A lighter colour. ___________________
   5. A darker colour. ___________________

**30.3 COLOUR SCHEMES**

A colour combination that matches and looks pleasing to the eye is called a colour scheme. Whenever more than one colour is placed next to another, a scheme is automatically created.

There is a definite scheme through which you can always produce pleasing effects when more than one colour is used. These colour schemes could be:

1) Monochromatic colour scheme
2) Analogous colour scheme
3) Complementary
4) **Split complementary**

5) **Triad**

6) **Tetrad**

1) **A Monochromatic colour scheme** uses a single colour. It consists of tints and shades of the same colour e.g. on a pale blue kurta you may embroider sky-blue, dark blue and navy blue motifs or Lucknow chikankari where white motifs are embroidered on white fabric. This kind of scheme is quite restful, easiest to produce and is always successful.

2) **An analogous colour scheme** is also called adjacent colour scheme. It uses adjacent or neighboring colours on a colour wheel. Such colours have at least one hue in common. E.g. yellow flowers, yellow green leaves and green stems can be embroidered. It is a very pleasing combination. If you add a dash of blue green embroidery or sequins to it, it will become very eye catching and exciting.

3) **Complementary colour scheme**: It is a two colour scheme. In this scheme colours that are placed opposite to each other in a colour wheel e.g. red and green, are used.

Look at the colour wheel that you have made. Can you find how many such pairs are formed? Yes, you are right. The twelve colours in the wheel will give us six such pairs. Let us list them:

- Yellow and purple
- Orange and blue
- Red and Green
- Yellow green and red purple
- Blue green and red orange
- Blue purple and yellow orange

This colour scheme results in a very bright and cheerful colour combination. This is especially suitable for children-wear and garments for happy occasions like
marriages. If you change the value or intensity of these colours then the scheme can be used for older people or for summers for example, a lemon suit with lilac embroidery will look refreshingly cool during summers. While using the complementary colours take care to see that one colour is prominent while the other remains subdued.

4) **Split complementary colour scheme:** It is a three colour scheme. It is made by using any one colour and splitting its complementary colours into two parts e.g. yellow, red purple and blue purple, (Purple is the complementary colour for yellow).

You can embroider a yellow, orange and red orange sun with blue clouds on a child’s frock. Again, you will see that by changing the value and intensity of the split complementary scheme, it can be made suitable for all types of ages, occasions and seasons.

5) **Triad colour scheme:** It is a three colour scheme. It combines any three colours that form an equilateral triangle on the colour wheel. eg: yellow, red and blue or orange, green and purple.

6) **Tetrad:** This is a four colour scheme. It combines any four colours that form a square on a colour wheel. These schemes are being used in Kashida of Jammu and Kashmir, Kantha of Bengal and Chamba Rumal of Himachal.

Example: Green, yellow orange, red and blue purple.

The choice of colour is the most important decision a designer will make. Before making that decision the effect of combining colours and the impact that each colour will have both individually and when combined with others, needs to be considered.
If two colours appear striking when used together they are said to **contrast** well. Complementary colours contrast well. A good contrast also occurs when light and dark shades of two colours are used e.g., pale yellow and dark red. The excellent contrast of black with white is an extreme example of this principle.

Contrasts can be emphasized by using black or white outline on a motif. It is seen that a white border seems to deepen a colour. If you give a design a black border it will appear to lighten and brighten the entire design. Black or white line separating colours makes each colour show up more.

Colours from the same area of the colour wheel go well together, i.e., they produce a pleasing overall effect called harmony.

Pastel yellow and deep green, or pale pink and purple, are examples of harmonious colours going well to produce a gentle and pleasing effect.

**Activity 30.4:** Using a shade card or skeins of embroidery thread, experiment with colour to find harmonious and contrasting combinations. Show at least 5 colour combinations each with the help of colour diagrams, in your note book.

**INTEXT QUESTIONS 30.3**

I State whether the following statements are true or false.

1. Monochromatic colour scheme consists of tints and shades of the same colour.
2. Red, blue-green and yellow-green form a tetrad colour scheme.
3. Colours that are opposite each other in the colour wheel are known as complementary colours.
4. Split complementary colour scheme is placed equilaterally on the colour wheel.
5. Analogous is also known as adjacent colour scheme.

II Match the statements in Column A with those in Column B.

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Yellow and purple</td>
<td>(a) Split complementary colours</td>
</tr>
<tr>
<td>2. Yellow, red-purple, blue-purple</td>
<td>(b) Triad colour scheme</td>
</tr>
<tr>
<td>3. Red, yellow, blue</td>
<td>(c) Tetrad colour scheme</td>
</tr>
<tr>
<td>4. Green, Yellow-orange, red, blue-purple</td>
<td>(d) Complementary colours</td>
</tr>
<tr>
<td></td>
<td>(e) Monochromatic colour scheme</td>
</tr>
</tbody>
</table>

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**HOME SCIENCE**
30.5 SIGNIFICANCE OF COLOURS IN DAILY LIFE

The history of colour is as old as the history of mankind. Colour, for primitive man, possessed magical properties. Long before man wore clothes, the body was adorned with colours from natural sources like berries.

Different colours have different meanings. Each colour has a different psychological effect on us. Red – out of fire – means heat to us, green – out of freshly sprouted plants – means freshness and gold – out of sunlight – means gaiety. Colours have different meaning in different parts of the world. For example, in the western world, people grieve in black but in India and China people mourn their dead in white. Even in India some brides wear red whereas in certain areas girls get married in white and gold/red. Let us study these effects so that we can use these colours effectively.

<table>
<thead>
<tr>
<th>Colour</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dark red</td>
<td>Love, health, vitality</td>
</tr>
<tr>
<td>Bright red</td>
<td>Passion, danger</td>
</tr>
<tr>
<td>Dark gray red</td>
<td>Evil</td>
</tr>
<tr>
<td>Pink</td>
<td>Femininity, festivity, delicacy, innocence</td>
</tr>
<tr>
<td>Orange</td>
<td>Ambition, enthusiasm</td>
</tr>
<tr>
<td>Brown</td>
<td>Utility, maturity</td>
</tr>
<tr>
<td>Yellow</td>
<td>Inspiration, wisdom, gaiety</td>
</tr>
<tr>
<td>Dark gold</td>
<td>Luxury, riches</td>
</tr>
<tr>
<td>Light yellow, green</td>
<td>Freshness, youth</td>
</tr>
<tr>
<td>Blue</td>
<td>Calmness, sincerity, idealism</td>
</tr>
<tr>
<td>Purple</td>
<td>Magnificence, royalty</td>
</tr>
</tbody>
</table>

30.6 FACTORS INFLUENCING THE USE OF COLOURS IN DAILY LIFE

- Age of person
- Sex of the person using the colour
- Profession
- Occasion
- Season
- Type of garment
- Body structure of person

Whenever you have to make a selection of colour for a person, you must take into account the person’s age and sex. Children and young adults look better in brighter
colours. Older people must appear responsible, so you could choose those kinds of colours for them. Men must look mature and keeping their job profile in mind may have to project an image of dependability and sternness. So, choose colours accordingly.

Occasion also plays a very important role in selection of colour. Before deciding on a colour, make sure that you know what the occasion is-if it is a marriage or a party, whether it is a morning function or an evening one.

Choice of colours is very largely dependent upon the season too. Time and again we have talked about using cool, fresh and soft colours during summers. One can use bright, dark and cheerful colours in winters. The type of the garment also has an influence on the selection of colour. Choice of colour for embroidery on a western outfit will definitely be different from those used on a sari or lehnga. Before deciding on the colour, check a person’s height and weight. Check out special body features like long legs, short waist or large hips. A deep knowledge and understanding of colours can help you emphasize good features.

Colour is the most effective tool in your hand-a tool by which you can create the most harmonious and flattering effects. All you have to do is to practice to achieve good results.

**INTEXT QUESTIONS 30.4**

I Indicate the colours you think are most suitable for the following:

i) wedding dress of a bride in your area : __________

ii) a girl’s frock: __________

iii) salwar kurta worn in summer: __________

iv) gents kurta worn in winter: __________

v) curtains in children’s room: __________

vi) bed cover in bedroom: __________

vii) king’s dress for a child’s fancy dress show: __________

**TERMINAL EXERCISE**

1. What are related colour schemes? Explain with the help of a colour wheel.

2. List the various factors influencing the choice of colours. Explain giving examples.

3. List the similarities and differences between complementary and split complementary colour scheme.
4. Consider the given situation then answer the following questions.

Situation: a middle-aged man is wearing a navy blue three piece suit for an evening party.

a) Name two different colours of the shirt in monochromatic colour scheme and analogous colour scheme.

b) Name the complementary colour for tie and pocket-handkerchief.

5. What is the relationship between primary, secondary and tertiary colours? Using a colour wheel, show how tertiary colours are prepared.

6. In a square of size 8 by 8 inches draw a composition of different geometrical shapes. Now colour the design in: a) Primary colours b) Tertiary colours

**WHAT YOU HAVE LEARNT**

**Colour**

- Primary Colours
- Secondary
- Tertiary
- Warm/cool
- Neutral
- Metallic

**Characteristics of colour**

- Hue
- Value
- Intensity

**Colour Schemes**

- Monochromatic
- Analogous
- Complementary
- Split complementary
- Triad
- Tetrad

**Factors influencing the use of colour**

- Age
- Sex
- Job profile
- Occasion
- Season
- Type of garment

**ANSWERS TO IN TEXT QUESTIONS**

30.1 I 1. Yellow, blue II 1. Purple
  2. Neutral 2. Orange
  3. Primary, secondary 3. Blue
  4. Neutral
  5. Warmth

30.2 1. Intensity
  2. Value
  3. Hue
4. tint  
5. Shade/tone  

30.3 I  
1. True  
2. False  
3. True  
4. False  
5. True  

II  
1. (d)  
2. (a)  
3. (b)  
4. (c)  

30.4  
i) red/white  
ii) pink  
iii) yellow/green/blue  
iv) brown/grey  
v) orange/yellow  
vi) blue,  
vii) purple/gold