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Color in Your Home

Michigan State University

Cooperative Extension Service

Home and Family Series

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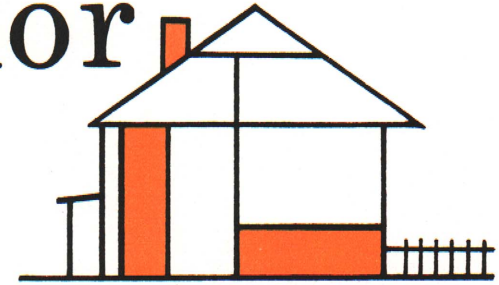
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# Color In Your Home



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Michigan State University  
Cooperative Extension Service  
Extension Bulletin 591  
Home and Family Series

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# UNDERSTANDING COLOR

Color is an abundant and vital element of our environment. Only in total darkness can we escape the sensations resulting from color. The appearance of form and space, as well as man's emotions can be altered by the use of color. This booklet is intended to help you better understand color and its use in your home.

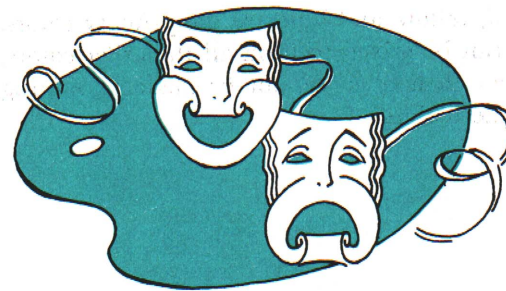
When light strikes an object some colors are absorbed and others reflected. Reflected hues give objects their color. White objects reflect almost all the colors in light, while black objects absorb most of them.

The color of light depends on its source and whatever it passes through before coming to our eyes. Light from the noon sun is colorless, while that from the moon is bluish. Open fires, candles and incandescent bulbs emit a yellow-orange glow.

## WHAT IS COLOR?

The color of an object results from two factors:

- the way the object absorbs and reflects light
- the kind of light that makes the object visible



# COLOR THEORY

Understanding facts and relationships of an organized color theory is an essential first step in becoming better acquainted with color. The more one knows about color, the more colors one is able to see, enjoy, and use with confidence.

Several color theories exist. The physicist's theory is based on light; while sensation is the basis for the psychologist's theory. Pigments and dyes are the basis for the artist's theory. Our interest is primarily in the pigment theory. Several pigment theories are accepted, but we will follow that termed the three-primary system since it is simple and familiar to many.

Red, yellow, and blue are the primary colors. They can be mixed to form all the other colors, but they themselves cannot be made by mixing any other colors.

*Secondary colors* are formed by combining equal portions of any two primary colors. For example, yellow combined with blue results in green; red and yellow form orange.

*Tertiary* or intermediate colors are formed by mixing a secondary color with an adjacent primary color. Red combined with orange, a secondary color, results in orange-red, or red-orange, depending upon the proportion of colors combined.

Primary, secondary, and tertiary colors are arranged in an orderly sequence on the color wheel. (Fig. 1) This device shows the relation of all the colors of the rainbow to each other.

*Neutrals*, white, gray and black, are not identified as colors. They are called modifiers and are added to colors to change them.

# A COLOR WHEEL

(Figure 1)



## COLOR DIMENSIONS

One's sense of sight reveals three very important properties about every color. The color's name (hue); its lightness or darkness (value); and its brightness or dullness (intensity) makes each color unlike all others. No color can be correctly described without reference to all three color properties.

### Hue

Hue refers to the family name of colors on the color wheel. Every color that exists belongs to one of the 12 color families. Pink, rose, ruby, crimson, and scarlet are common color names for members of the red, red-orange, or red-violet color families. When associating a hue with its color family consider the prominent pigment rather than its common name.

### Value

Each color has its own value which may range from almost white to nearly black. Light values resulting from the addition of white to a color are termed tints. Black combined with a color results in a darker shade of the original hue. The middle band on the color wheel represents the pure color, while tints appear in the outer band and shades on the inner one.

### Intensity

Colors on the color wheel are as pure and strong as they can be. Most colors used in home decoration are somewhat grayed or neutralized. Intense colors may be reduced in intensity by (1) adding true gray or (2) by adding complementary color from the opposite side of the color wheel.

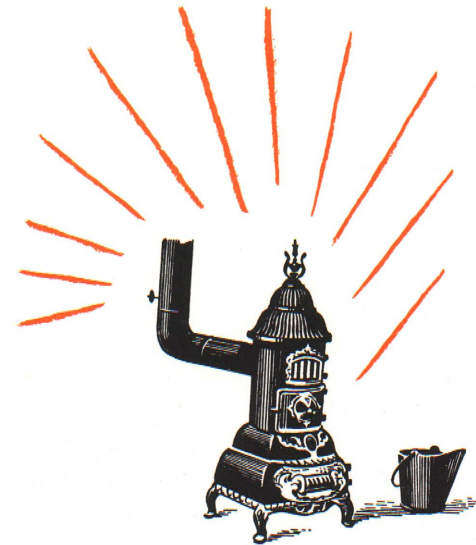
As more true gray or more contrasting color is added, the resulting color becomes more neutral. Low-intensity colors are subdued and soothing. They are among the most useful colors for home decorating. High-intensity colors are bright and stimulating, and are best used for accent.

# WARM AND COOL COLORS

Every color has its own "temperature." It is not possible to detect temperature variations in colors by feeling or touch. The difference is emotionally felt probably because of one's association of colors to certain objects having warmth or coolness. Colors containing much yellow and red are considered to be warm in nature. They are colors common to sunshine, fire and warm light. Blues and greens are suggestive of coolness. They are commonly associated with water, skies, foliage and ice.

Warm colors in medium to darker values and strong intensities tend to make a room appear smaller. Warm colors in light values can create an illusion of spaciousness. Cool colors on walls make a room look larger. Cool colors seem to recede, thus giving a feeling of space. Exceptions occur when the cool color is unusually dark in value—as in a dark green. Use of this color would make the room appear smaller.

A neutral gray or beige will take on a warm appearance if a warm color is added to it. A cool neutral will result if a cool color is added.





# USING COLORS TOGETHER

A successful color scheme does not depend upon the use of color alone. Colors are affected by adjoining hues, distance and area covered, natural and artificial light and texture variations. Pleasing results will be more likely if these factors are considered in planning a color scheme.

## Adjoining Colors

No color when seen alone will look exactly the same when used with other colors. Surrounding colors visually alter a colored surface in hue and value.

Complementary hues contrast vividly when placed next to each other. If the areas are large, each color seems more intense. If, however, the contrasting areas are very small as in wallpaper, colors will become neutralized and less competitive.

Combination of contrasting hues, values, and intensities accentuates differences. A dull medium blue chair will appear brighter and larger against a warm off-white wall than it will against a darker wall of mahogany paneling.

## Distance and Area Covered

A colored surface viewed close up will look more brilliant and lighter than it would when placed farther away.

Colors appear stronger in value when used on large areas than when used on small areas.

## Natural Light

The amount and strength of natural sunlight entering a room should be considered when planning a color scheme. Extremely sunny rooms are frequently made more comfortable by using cool colors to soften the glare. Warm colors help to bring the effects of sunlight to rooms receiving little natural light.

Reducing the amount of natural light entering a room darkens the appearance of every color present. One's choice of colors is usually determined by the strength of natural light entering a room. The lightness or darkness of colors, however, will depend on the amount of light permitted by the window treatment and on the artificial light used.

### Artificial Light

Ordinary incandescent light, like candlelight, is yellow-orange in character and intensifies all colors having a large amount of orange. Fluorescent light emits a white or bluish cast.

The effects of colored light on a colored surface will vary with the brilliance of the light. Value and intensity of the color and surface texture will also affect the resulting hue. Information in the following table suggests general results that may be expected.

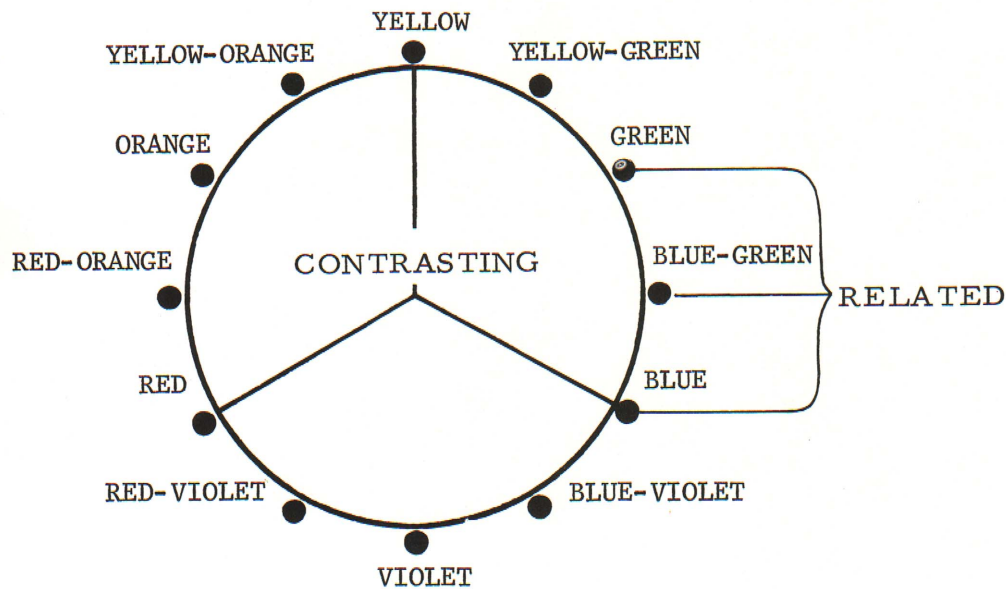
### Texture

Any surface variation that alters the way light is reflected will change the appearance of a color. Smooth, shiny surfaces reflect light causing colors to appear lighter than they would on a dull surface. Rough uneven surfaces cast shadows which result in a darker appearance.

Dominant Wall Hue	Color of Light	Resulting Wall Color
Red	Yellow	Red-Orange
	Blue	Purple
	Red	Gray
Blue	Yellow	Green
	Blue	Gray
	Red	Purple
Yellow	Yellow	Gray
	Blue	Green
	Red	Orange
Green	Yellow	Blue-green
	Blue	Yellow-green
	Red	Gray

# COLOR SCHEMES

Typical color schemes are related or contrasting. Related schemes, composed of one or several closely neighboring colors, help to establish unity and harmony. Contrasting schemes, based on hues far apart on the color wheel, use both warm and cool colors. Such schemes have much contrast and variety. Use of the color wheel will be helpful in understanding the relation of hues in these standard combinations.



## Related Schemes

*Monochromatic* color schemes are based on a single hue, although small amounts of other hues are usually used as accents. A one-color scheme promotes unity and harmony; makes areas appear more spacious; and gives a quiet, peaceful effect.

Monotony is possible in a one-color arrangement. But, it can be avoided by using different values and intensities of the hue, a variety of textures, variations in space relationships, generous amounts of black, gray and white, and accents of other hues.

*Analogous* schemes are formed by combining colors that are related through a common hue. Yellow-green, green, and blue-green which adjoin on the color wheel, are related by the common hue, green. Such schemes are predominately warm or cool.

### Contrasting Schemes

*Complementary* color arrangements are based on the use of any two hues directly opposite each other on the color wheel. Green and red, yellow and violet, and orange and blue are typical. Though strong in contrast, complementary schemes are always balanced by the use of both warm and cool colors.

*Triad* color schemes employ the use of any three hues equal distance apart on the color wheel. Red, blue and yellow, and green, orange and violet are examples. If colors of high intensity are used, a vigorous effect is the result. Dulled hues combined in a triad scheme can be subdued and relaxing.

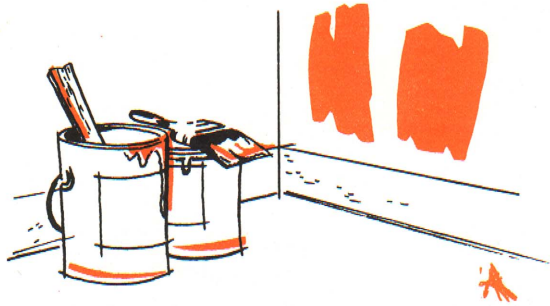
## PLANNING A COLOR SCHEME

One's goal in assembling a color scheme is to bring together colors that have a pleasant effect on one another and on family members. Color preference is an individual matter. The colors in your home should be a source of enjoyment for all family members. When planned with this in mind, the colors in your home will be good year after year regardless of the color trend. Choose in terms of your own preferences and way of living, and not in terms of short-lived color fads.

There is no 'fool proof' method or guide to follow in making a successful color scheme. Whatever procedure is used, observance of a few guides will be helpful in selecting and combining colors. Use of fabric swatches, color chips, and an understanding of how other factors affect color is a must!

Only a few families have the opportunity to furnish and decorate a home with everything new. More typical are those who purchase new furnishings or change the color of walls when the need arises, or when they can spend the money. This means that new colors must be chosen to blend with those already in the room.

Begin by looking carefully at the entire room. Do you wish the total effect to be informal? Quiet and dignified? Larger, more roomy and lighter than it is now? Smaller and



warmer in appearance? Such a decision is an important one, for the sum total of all the colors used in a room will add up to a general impression. And you must decide what that impression will be!

Before buying new furnishings, analyze the situation colorwise: the colors you prefer . . . the colors you don't especially care for . . . and the appearance of the total room. If the colors already in the room don't appeal to you, buying a new sofa or draperies won't solve the problem. Often the solution lies in adopting a new color plan. The price tag on a new color plan is often much less than the price of new furnishings.

If, however, you like the room as it is and merely want to purchase a new sofa and chair, the problem is more clearly defined. It is a matter of knowing the present color plan and what colors and textures will enhance it.

# YOUR COLOR PLAN

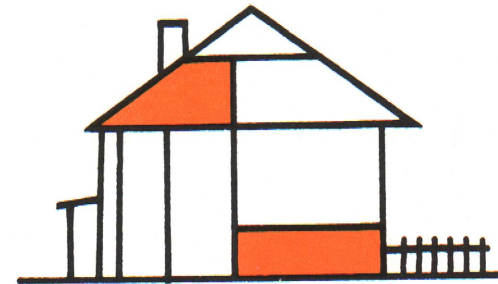
## STEP 1

A fabric, painting, wallpaper, floor covering or decorative object may be a point of departure for an entire color scheme. Such sources point up colors that agree with each other and give helpful clues to the proper proportions of color to use. You may need to consider the item you will need to use for the longest period of time and use it for the basis of your color plan.

Your plan may be shaped around an item that you cannot change. The floor covering, for example, might be the start of your plan.

## STEP 2

Study these colors by determining to which color family each belongs. Use the color wheel on page 3 to aid in identifying each hue.



### STEP 3

Identify the type color plan you have now by comparing it with the examples on pages 16-19. Is your plan neutral with one accent color? A scheme that uses tints and shades of one color? Or, perhaps it's a plan that contrasts. New furnishings should be planned to fit into your color plan. Don't forget that the room you're decorating is only a part of a larger unit. Relate your new color plan to adjoining areas for a more unified atmosphere.

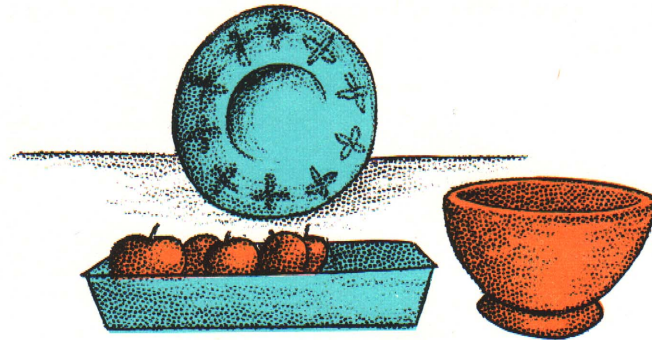
### STEP 4

Think of a room in terms of these major areas of color distribution:

Large areas — walls, floor, windows, and ceiling

Medium areas — upholstered furniture, bed-spread

Small areas — small pieces of furniture, accessories



Study the large areas first. Walls, window treatments, floor, and ceiling form the background for furnishings. It is important that the colors for these areas not compete for attention with other furnishings used in front of them. Results are usually more pleasing when background colors are kept soft or grayed. Stronger, deeper colors are more successfully reserved for medium and small furnishings.

Inexpensive sources, such as fruits, vegetables, pottery and books can provide accent colors.

### STEP 5

Medium and small areas of color in foreground objects (furniture and accessories) appear against the background colors chosen. When furniture and accessories and background colors do not enhance each other, a decision must be made to:

- change the walls to harmonize with present colors in furniture and accessories;
- or, change the colors of major furniture pieces and accessories to harmonize with the background. Such a change may call for slip covers, new upholstery fabric or even a few new accessory items.

A good rule is to use no more than three colors regardless of how many furnishings one has. More variations of each color can be used when only a minimum number of colors are

used. Remember, one color should clearly dominate; a second color be used in lesser amounts; and the third color used in small accent areas.

### STEP 6

A more accurate image of a planned scheme is possible when color samples proportioned to their respective areas are assembled. Sample color schemes can be worked out with paint, wallpaper swatches, fabrics, carpeting samples, and other items that will be used in the room.

The sample chart on page 22 will be helpful in preparing a color scheme for a single room. Each sample is proportioned to the approximate area occupied in the average room. The chart may be used in its actual size, or it can be doubled or tripled in size and drawn on heavy paper.



## HELPFUL HINTS ON COLOR

When all colors in a room have the same degree of lightness (light value) or darkness (dark value), they give a quiet effect which may lead to monotony since there is no contrast for relief.

Limit pure and intense hues to small areas.

Use unequal proportions of each color in a color scheme. Use dull or grayed or low-intensity colors for large background areas.

Contrast colors through the use of something dull, bright, light and dark.

Shades — dark values — absorb light. They seem to reduce the size of art objects and furnishings.

Use Shades . . .

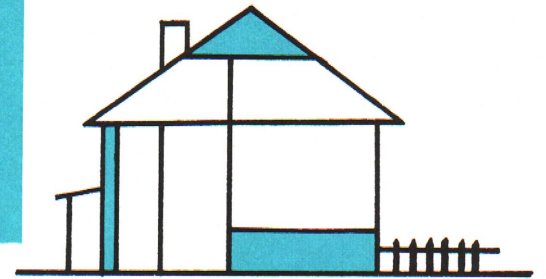
- to make a large room appear smaller
- to make a light room appear darker
- to make the ceiling of a room appear lower

Sharp contrasts between light and dark values (tints and shades) in a room draw attention to each other. They create a feeling of unrest.

Tints — light values — reflect light. They make art objects and furnishings seen against them look larger.

Use Tints . . .

- to make a small room appear larger
- to make a dark room appear lighter
- to make the ceiling of a room appear higher



# NEUTRALS AND ONE ACCENT COLOR

## Method:

Black, off-white, light and dark values of clay beige and a single accent color, citron yellow, are used in the plan.

Neutral tones are used in large areas.  
Guard against the use of too many different patterns in furnishings.

## Example:

### *Background:*

Walls — off white  
Window Treatment — Translucent casement fabric of coarse texture  
Floors — warm brown oak tile

### *Furnishings:*

Sofa — Rough textured upholstery fabric with light, medium and dark values of clay

beige in a striated pattern. Where large areas of pattern are used elsewhere in the room, plain upholstery fabric is desirable.

Chairs — Two fireside chairs, one covered in pebbly citron yellow fabric, the other in a smoother beige fabric with small slubs of citron and white.

Table — Ebony coffee table of Oriental design.

### *Accessories:*

Citron yellow accessory pillows for sofa. Textured area rug of light and dark values of citron. Rough pottery lamp base of clay beige with dull black and citron design. Off white lamp shade.

Note: The effect of the entire scheme can be easily changed by using a different accent color.

# ONE-HUE COLOR PLAN

## Method:

Tints and shades of only one color are used. Monotony is avoided by varying intensities and textures and by use of black, white and gray.

Dulled and neutral tones are used in larger background areas.

Pure colors are strong and advancing. They are best used in small proportions.

## Example:

### *Background:*

Walls and Woodwork — light tan.

Window Treatment — Translucent draperies of rough texture in rust, a medium to darker value of dulled orange.

Floors — Heavily textured carpet of rust, brown, beige and black in a tweed effect.

### *Furnishings:*

Sofa — Upholstery fabric of medium brown, a dulled shade of orange.

Chairs — dark brown and a dull rust fabric covering.

Tables — Coffee and lamp tables of medium brown walnut.

### *Accessories:*

Accessory pillows of orange, rust, and dark brown. Bright orange ceramic container for plants.

Lamp bases of hammered copper, off-white shades. Painting in tones of rust, orange, and brown.

# NEIGHBORING COLOR PLAN

## **Method:**

A related plan which uses colors that are next to each other on the color wheel. Blue, blue-green and violet are examples.

Two colors which are too far apart on the color wheel to seem related can be made to harmonize by using a third color found between them.

## **Example:**

### *Background:*

Walls and Woodwork — very light tint of blue-green.

Window Treatment — Draperies of semi-sheer fabric in a subdued vertical stripe of blue, blue-green and violet.

Floors — Textured covering of dull-toned blue-green.

## *Furnishings:*

Sofa — Textured fabric of blue, blue green and violet.

Chair — Violet of medium value.

## *Accessories:*

Purer, brighter tones of violet, blue, or blue-green are used for accent pillows, lamp bases, and art objects. Pictures or other wall hangings containing similar color tones may be used.

# CONTRASTING COLOR PLAN

## Method:

Hues opposite each other on the color wheel are used.

Complementary colors differ strongly. They compete for attention. A color can be intensified (appear stronger) when placed next to its complement.

Neutrals, white, gray and black, are needed in a contrasting plan to counteract competitive colors. Use opposing hues in unequal amounts.

In the example orange, used in tints and shades, is the dominating color. Since pure orange is much too bold to use in large areas, subdued peach and brown tones are used. Bright blue can be effectively used in limited areas for some accessories and small furnishings.

Color intensifies itself when used in large areas. A color may look several shades deeper on the walls or floor than it does in a sample.

Select a lighter color tone to achieve the color desired.

## Example:

### *Background:*

Walls and Woodwork — Peach toned off-white.

Window Treatment — Blue, brown and black geometric print on background matching walls.

Floors — Covering of rough texture in light peach-toned beige.

### *Furnishings:*

Sofa — Blue and brown tones.

Chairs — Covers of rust fabric with subdued bright blue and brown yarn.

### *Accessories:*

Pictures, accent pillows, bowls, lamp bases in bright blue. Off-white lamp shades are desirable.

# SAMPLE CHART

Color for Walls	Color for Sofa	Color of Wood Trim	
		Color for Chair Cover	
	Color for Floor Coverings	Color for Draperies	Color for Chair Cover
Accent Color			Accent Color
Accent Color			Accent Color
Accent Color			Accent Color

Good decorating is not based on unbreakable rules. But it cannot succeed without organization and an expression of one's own personal color preferences. Use colors that YOU like to complete a good color plan.

Colors are meant for YOUR enjoyment. Keep your long range plan in mind — and may your decorating be fun!





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