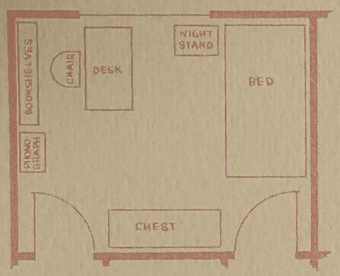
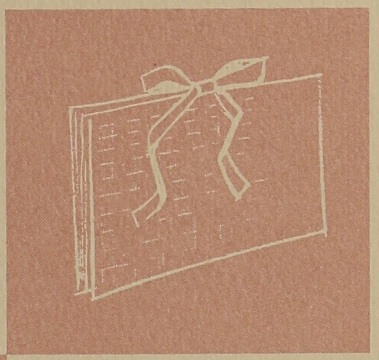
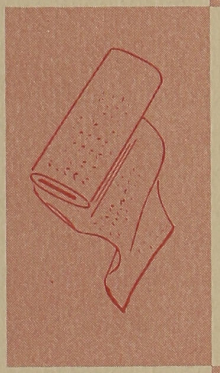
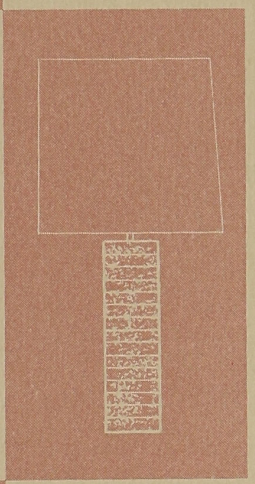
Steinhauer
4H Advisor





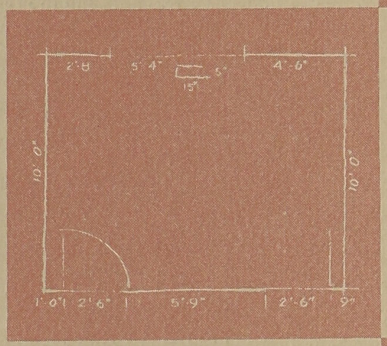
HOME FURNISHING PROJECT





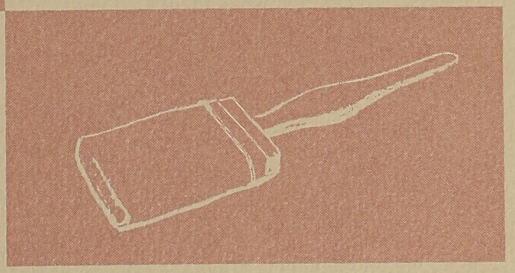
MEMBERS MANUAL





Intermediate Units

2 yrs.



UNIVERSITY OF CALIFORNIA AGRICULTURAL EXTENSION SERVICE

4-H–He46

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The author is Jane Schoppe, Extension Home Furnishing Specialist.

Learn - Do
sections are very
important

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AUGUST 1966--10,000

4-H HOME FURNISHING PROJECT

Welcome to the intermediate Home Furnishing units — Wake Up Your Room and Furnishing To Suit! Wherever you live—in a house, an apartment, a trailer home, large, small or in-between, owned or rented—you will find many things to learn and do that will make your room and your home comfortable, convenient, beautiful, and fun!

HERE ARE SOME OF THE THINGS YOU WILL LEARN

How to plan furnishings and space for family activities

How to decide between buying and making furnishings

What to look for when you shop

How to plan storage space

About color, texture, and design

About the science of lighting

About different kinds of fabric, wood, finishes, etc.

About safety in the home

Shortcuts in house care

HERE ARE SOME OF THE THINGS YOU CAN DO

To help your leader and club make plans for the year, check the things you hope to do.

- ☐ Draw a floor plan
- ☐ Make or select an article of fabric
- ☐ Make or select a reading or study lamp
- ☐ Finish or refinish a wood surface
- ☐ Make collages of colors and textures
- ☐ Make or select an article for storage
- ☐ Make a portfolio
- ☐ Help with house care
- ☐ Help your family with painting, installing wall or floor tiles, etc.

This manual contains ideas and information for both units, so you will be using your manual for at least 2 years. In each chapter you will find activities to do at home or at club meetings. The manual includes directions for making certain furnishings. You will want to work out your own plans and designs for some things, but for others you may want to use commercial patterns and directions.

Talk over your project plans with your parents and get their ideas. They'll be interested and helpful. They will help you to decide what you might do that will be the most useful and what would fit into this year's budget.

You'll also want to consider the needs and wishes of sisters or brothers with whom you share a room. As you work on your project, remember that the most important "furnishings" in a home are the courtesy, cooperation, and kindness you extend to other members of your family and your guests.

WAKE UP YOUR ROOM

In this unit you will make, select, and arrange furnishings that will help you make the best use of your room. The unit includes ideas for planning and arranging a place for study and hobby work, for dressing and grooming, and for sleeping.

TO COMPLETE THIS UNIT:

Do steps 1 through 6.

1. Select, make, or do at least two different things listed in box.

Chair pad	Accessory	Lamp
Cushions – 2	Portfolio or notebook	Bedside table
Curtains for a room	Bookshelf	Headboard for bed
Coverlet or bedspread	Shoe rack	Dressing table
Dust ruffle	Drawer trays or dividers	Bench
Dressing table cover	Other storage article	Desk or table for study or hobby work

- ★ Finish one article with clear finish.
- ★ Check the furniture arrangement of your room; if necessary, rearrange it; show before and after arrangements on floor plans.
- ★ Improve a closet by adding shelves, hooks, or rods; or by painting or papering.
- ★ Help your family paint walls, hang wallpaper, or install wall or floor tiles.
- ★ Help your family with such jobs as washing windows; cleaning garage floor; airing curtains, blankets, or bedspreads; cleaning silverware.

2. Learn about colors, textures, and design.
3. Learn the lighting requirements for study and reading.
4. Keep the Room Grooming Checksheet for at least 2 months.
5. Give a demonstration,illustrated talk, or special report.
6. Keep your record up to date.

FURNISHING TO SUIT

In this unit you will have an opportunity to select and make furnishings for any room in your home and to help your family with home improvements. Plan your project with others in the family so the furnishings will suit their needs and preferences as well as yours.

TO COMPLETE THIS UNIT:

Do steps 1 through 7.

1. Select, make, or do at least three different things listed in box.

	Storage for —
Boxed cushion	Children's clothes or toys
Slipcover for chair, sofa, couch, or bolster	Phonograph records
Curtains – 2 pair	Sports or hobby equipment
Draperies — 1 pair lined	Musical instruments and music
2 pair unlined	Magazines or newspapers
Upholster small chair or stool	Sewing supplies
Re-cover chair seats – 2	Sheets, towels, etc.
Accessory	Dishes, silverware, etc.
Lamp	Garden tools
Portfolio or notebook	Tools
Other	Other

- ★ Improve the lighting for one area or work center of a room.
- ★ Finish or refinish an article with paint, enamel, stain, or clear finish.
- ★ Check the arrangement of furniture or equipment in a room other than your own; if necessary, change the arrangement; show before and after arrangements on floor plans.
- ★ Help your family refinish floors or cabinets; build cupboards or shelves; plaster or panel walls; select and apply paint, wallpaper, wall tile, or floor covering. Learn about the different types of materials, costs, etc.
- ★ Help your family with such jobs as washing walls and woodwork; cleaning and waxing floors or furniture; cleaning venetian blinds; washing curtains, bedspread, or blankets.

2. Learn about fabric quality and labels.
3. Learn the principles of good lighting.
4. Learn more about colors, textures, and design.
5. Keep the Room Grooming Checksheet for at least 3 months.
6. Give a demonstration, illustrated talk, or special report.
7. Keep your record up to date.

YOUR PERSONAL PORTFOLIO

You might begin your intermediate Home Furnishing unit by covering a portfolio or notebook to hold your personal collection of home furnishing information. It will serve as a reference for the many things you will learn and cannot show in your record book.

At the end of most chapters, you will find suggestions for things to put in your portfolio or notebook. Neatly mount and label the materials so you will be proud to show them to friends and family.

If you made a portfolio as part of one intermediate unit, you might like the experience of covering a notebook to hold your reference collection for the other unit.

WHAT YOU NEED TO MAKE A PORTFOLIO

1 pouch file, 9½ by 11¾ inches (holds paper 8½ by 11 inches)
2 pieces of cardboard, 10 by 12¼ inches
½ yard of fabric 36 inches wide, or ¾ yard of plastic adhesive paper 18 inches wide
1 yard of ribbon about ½ inch wide, cut in half
White glue, brush, scissors, ruler, pencil

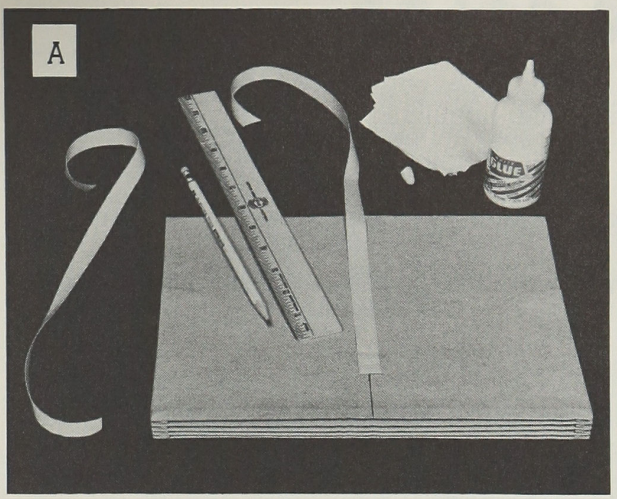
CHOOSING THE COVER MATERIAL

If you want a patterned material, choose a small allover pattern. If you choose fabric, it should be closely woven and printed on the grain.

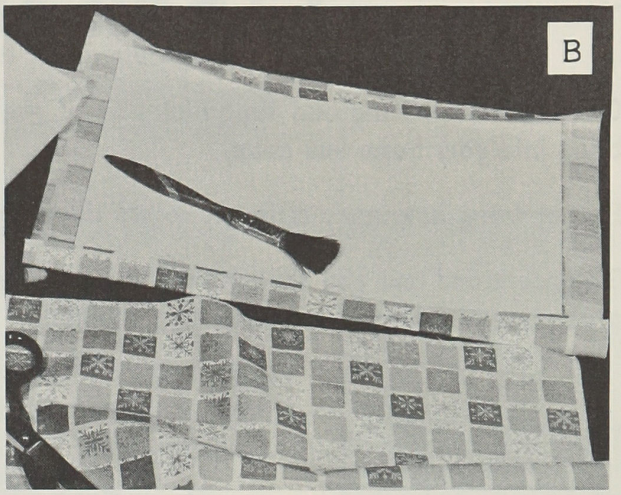
HOW TO COVER PORTFOLIO WITH FABRIC

Note: For adhesive plastic cover, follow these steps except for gluing fabric to cardboard pieces.

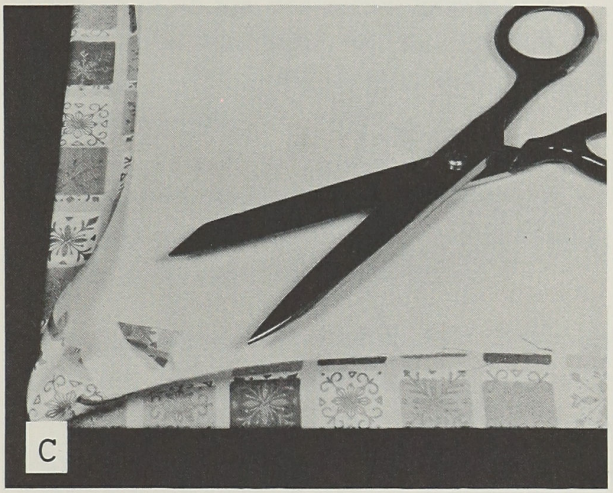
1. Trim top edges of folder to remove rounded ends.
2. Draw lines down the center of folder, front and back. Place a ribbon over each line; glue to folder (see A).
3. Line up the pattern on cardboards. Mark position on wrong side of fabric with light pencil lines.
4. Press fabric. Cut two pieces 12 inches deep and 14¼ inches wide.
5. Center cardboard on wrong side of fabric.
6. Apply glue sparingly to cardboard at center of top and bottom edges. Fold fabric over cardboard and press down. Repeat for other two edges (see B).
7. Trim fabric corners; fold out extra material and glue down (see C).
8. Brush one side of folder with glue and attach cardboard. Be sure cardboard extends the same amount beyond both ends. Cardboard and folder should be even at bottom edge. Dry under a weight (see D).
9. Repeat for second side.



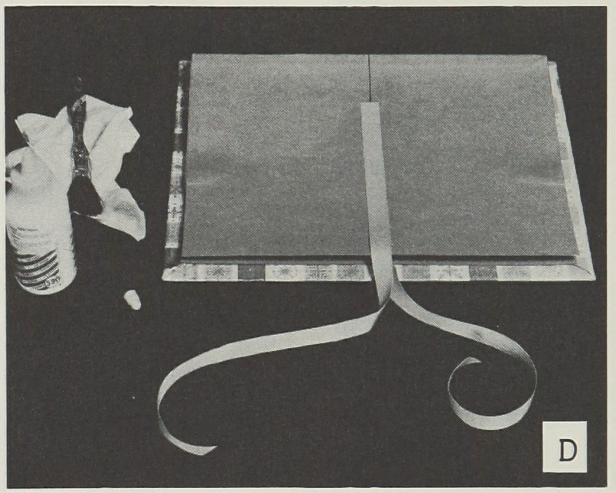
Draw lines down center of folder.



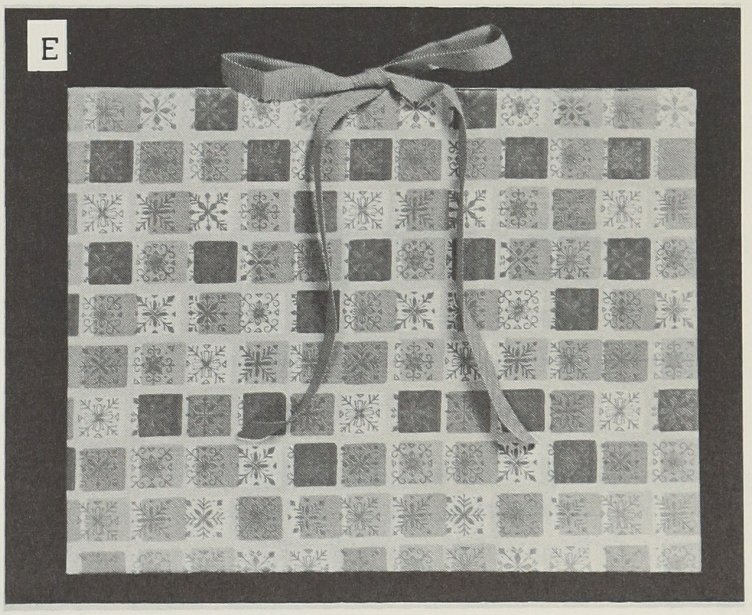
Apply glue to cardboard.



Trim fabric corners.



Glue cardboard to folder.



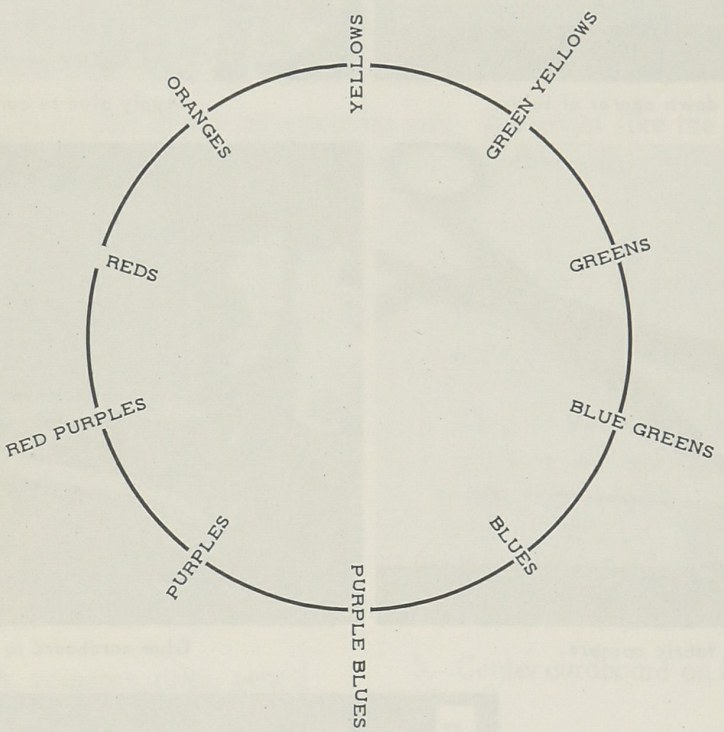
Your finished portfolio.

A LOOK AT COLOR

Color is an exciting and important part of every home furnishing project. Everything you bring into your home has color.

Do you know how many different colors the human eye can see? The answer is millions!

To understand and see more clearly this wonderful variety of colors, let's look at the three properties of color—hue, value, and intensity.



Colors, or HUES, belong to different families. Color families, or hues, often are placed in a circle to show their natural order.

Some colors are light.
Some colors are dark.
Some colors are in-between.
VALUE is the shorthand term for lightness or darkness.

Some colors are strong and vivid.
Some colors are weak.
Some colors are in-between.
INTENSITY is the shorthand term for how strong or weak a color is.

Our eyes can see many more hues than the ones in the circle. Hues change gradually from one family to another in a beautiful flow around the circle, and we can distinguish about 100 of these changes. For example, we can see many yellows, ranging from those that contain orange, to those that contain green.

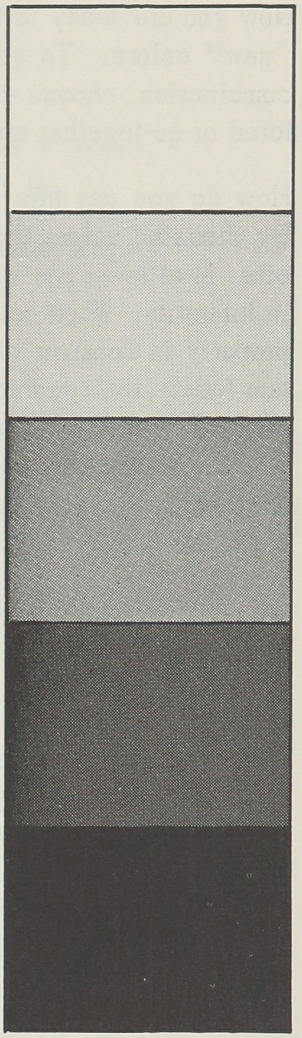
Also, there are many gradations of value, and we can see a gradual flow from the lightest colors, through the darker ones, to the darkest colors. See value scale at right.

We can see small changes between the strongest and the weakest intensities in all color families. For example, our eyes can detect the gradual changes from strong vivid red, through the moderate, in-between reds, to dull maroons, and weak reddish gray.

Each color we see has all three properties. For example, your eyes may be green blue (hue), medium light (value), and moderately intense (intensity). The California poppy is orange (hue), light (value), and vivid (intensity).

The world of nature and manmade objects is filled with many different kinds of color harmonies or combinations. Each kind of harmony creates a different effect or feeling.

Every person has his favorite kinds of harmonies. Yours may be combinations of light pastel colors that give an airy, fragile feeling. Your friend may prefer deep, jewellike colors that suggest the richness of stained glass. Some may like the striking effects of strong contrasts—black and white with accents of red; or fuschia, orange, and green yellow with lots of white.



Value scale

COLOR GUIDES

Decide the kind of color effect you'd like to have in the room.

Note the colors that will not be changed. Often these colors determine the kind of color effect you choose.

A family or 4-H member seldom can start from scratch on a home furnishing project. Instead, we have to choose new things that will go nicely with—

furnishings we already have, such as wood furniture

permanent things, such as wood paneling, floor tile, fireplace

a special treasure we want to highlight.

Now you are ready to plan and choose your "new" colors. To get unity in your color combination, choose colors that have a related or go-together quality.

How do you get this go-together quality? By choosing colors that are similar to each other in at least one way—in hue, in value, in intensity. When colors have at least one property in common with each other—their hue family, their degree of lightness or darkness, their degree of brightness or softness —the combination is orderly and related. This is the secret to color combinations that are a joy to see and to live with.

To illustrate, let's suppose you have a pretty heirloom quilt made of clear light pastels on a white background, and you want it to set the harmony for your room. The lightness and softness of the many colors in the quilt are its keynotes. Beige walls, rust curtains, and a brown rug would have nothing in common with your quilt colors—they would be too different from the fresh clear colors to give the feeling of unity you want. Instead, you could repeat the harmony of the quilt by using white and soft light pastels for walls, curtains, and dust ruffle. The rug might be a slightly darker value of one of the quilt colors and still give an airy, light feeling. Furniture that is too dark and heavy looking might be painted white or a soft light color to fit in with your new plan.

MORE COLOR FACTS AND GUIDES

- Light values reflect lots of light and, in contrast, dark values absorb lots of light.
- Strong intensities seem to come toward you and, in contrast, weak intensities seem to move away from you.
- A room will seem lighter and larger when wall and floor colors are soft and light. Curtains and bedspreads in soft light colors increase the lightness and apparent size of a room.
- Strong contrasts create movement and excitement — this makes a room seem smaller.
- Smaller contrasts create a smoother flow of color—this makes a room seem larger, more restful.
- Too little contrast lacks variety—this is monotonous.
- Strong vivid colors produce a gay stimulating effect and, in contrast, soft weak colors produce a quiet restful effect.
- It is easier to work with two or three hues than with many.
- Small amounts of strong color give variety to large amounts of softer colors.

TIMELY TIPS

Don't forget the other things in a room besides the furnishings—books, magazines, hobby and sports equipment, grooming supplies, decorations. These add color and pattern.

When you shop, take swatches of the main colors in the room. They will help you choose harmonious colors for the things you buy. Or, ask to take merchandise home so you can check the color in the room where it will be used. Try it in the daytime and at night.

POINTS TO REMEMBER

- ▲ A room is a setting for people and their activities. We want a room to be colorful and inviting, but not to overpower the people in it.
- ▲ Color is very personal and flexible. It can be used in endless ways to please our eyes.
- ▲ Learn to create your own color harmonies and enjoy them.
- ▲ Sharpen your eyes to see even the smallest differences in color; it's fun and it's useful.

COLOR

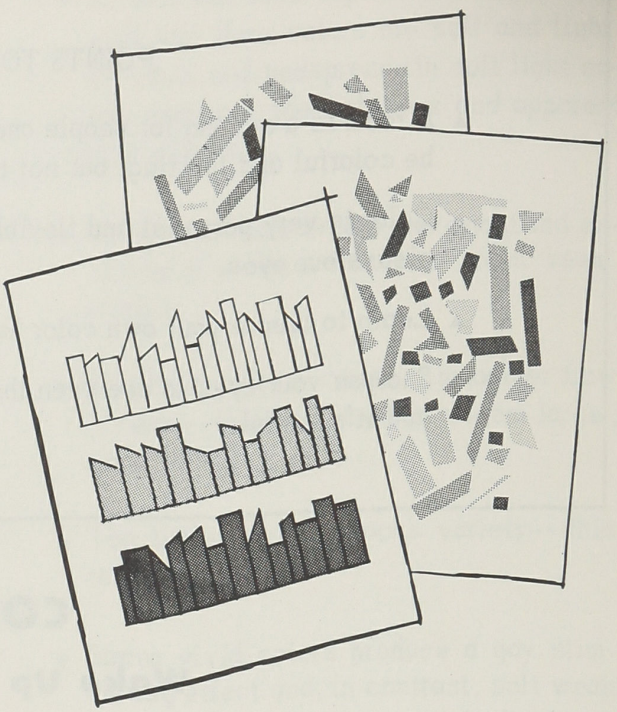
Wake Up Your Room

LEARN	DO
1. Color family (hue) names and their order.	1. Select and mount papers to show at least 10 variations of yellow, green, blue, purple, red, and orange. Label the page.
2. What intensity is; also learn to see differences in intensity.	2. Select and mount papers to show strong, moderate, and weak intensities, at least 10 of each. Include all color families. Label the page.
	2a. Select and mount a patterned fabric and small picture to illustrate each intensity group.
3. What value is; also learn to see differences in value.	3. Select and mount papers to show light, medium, and dark values, at least 10 of each. Include all color families. Label the page.
	3a. Select and mount a patterned fabric and small picture to illustrate each value group.
4. How to choose colors for the furnishings you make or select in this unit.	4. Select colors for new furnishings to harmonize with colors already in the room.

HOW TO MAKE YOUR COLOR REFERENCE SHEETS

Use colored papers for your illustrations. Six or eight magazines should provide the large amount and variety of colors you need. Cut pieces in sizes and shapes you like. Trim off all printing and adjoining colors; use only solid colors, not textured pieces.

Arrange each group of cutouts in a collage or other pattern (see drawing). Mount them neatly with rubber cement on medium gray construction paper. Gray does not absorb as much light as black paper nor reflect as much as white, so colors mounted on gray appear quite true. Plan margins that are in good proportion to your pages and arrangements.



COLOR

Furnishing To Suit

LEARN	DO
1. To recognize the effect or feeling of different kinds of colors.	1. Make color wheels of three different values and intensities. For example: soft pale colors, dark dull colors, light clear colors, dark vivid colors, etc. In each wheel, try to have all colors similar in value and intensity.
	1a. Select and mount a patterned fabric, room picture, and small picture to illustrate the overall feeling of each wheel.
2. How to choose and combine colors for furnishings.	2. Select colors for new furnishings to go with the colors already in the room.

A LOOK AT TEXTURE

Rough, velvety, fuzzy, crinkly, stiff—have you ever touched materials that feel like this? These words describe different textures. Texture is as important as color in choosing materials that look well together in our homes.

What is texture? It is the surface appearance and feel of materials–

- How they look — fine or coarse, shiny or dull, or in-between
- How they feel — smooth or rough, or in-between
- How they handle — soft or stiff, or in-between

Texture is part of every material thing. Run your fingers over your cheek, hair, clothes, and chair. This will give you some idea of the variety of textures within your reach.

You also will find a great variety of textures in all kinds of furnishing materials. They range from coarse and rough, to fine and smooth. Many materials have textures that fall between these extremes.

Have you ever noticed how materials differ from each other in the dullness or shine on their surfaces? Extremely shiny surfaces usually are not as pleasing nor as comfortable to look at as those with a softer luster.

Texture has lots to do with how formal and dressy a material is, or how informal and casual it is. Four different texture groups and their degrees of formality are shown on page 12. Can you add other examples to each group?

Texture also has much to do with how you use a material. For fabrics in Groups I and II, use tailored finishes such as pleats, cording, topstitching, and plain seams. For fabrics in Groups III and IV, use softer finishes and some tailored ones such as gathers, ruffles, and cording.

For example, organdy can be ruffled nicely because it is fine and crisp, but denim is too coarse and heavy for ruffles. A firm material, such as corduroy, looks nice with tailored trims such as pleats and cording. Finer materials, such as taffeta and polished cotton, are appropriate for smocking, which is a rather dressy stitch.

GROUP I

Some materials with coarse, rough textures:

burlap	used bricks	Your examples:
tweed	shag rug	
cork	bamboo window shades	_____
		_____

These materials give a rugged, informal effect. _____

GROUP II

Materials with in-between textures:

Indian Head	tufted bedspreads and rugs	Your examples:
denim	matchstick window shades	_____
felt	redwood	_____

These materials give a sturdy, informal effect. _____

GROUP III

Materials with in-between textures:

dotted swiss	organdy	Your examples:
polished cotton	chenille bedspreads	_____
batiste	fine-loop rugs	_____
		_____

These also give an informal effect, but are daintier than those in Group II and not so dressy as Group IV.

GROUP IV

Materials with fine, smooth textures:

satin	floor tiles with metallic chips	Your examples:
taffeta	velveteen	_____
brocade	marble	_____

These materials give a dressy, formal effect. _____

TEXTURE GUIDES

In our furnishings we want to combine textures that are similar in: 1) their feeling of formality or informality, 2) their degree of fineness or coarseness, and smoothness or roughness. Materials that are similar in these ways help give **unity** of textures.

The textures you choose for new furnishings depend on the texture of builtins, wood furniture, and the furnishings you already have in the room.

For example, redwood wall paneling is rather coarse and has an informal quality about it. Organdy curtains are too fine and dressy to give a unified effect with the redwood. Curtains made of nubby cotton would be more related to the texture and informality of the redwood.

But, if all textures in a room were the same, spice and variety would be lacking and the result would be monotonous.

You want **variety** in textures but not extreme contrasts. For example, with a coarse, shaggy cotton rug you might like the contrast of a corduroy bedspread. But a quilted taffeta spread would be too fine and formal for the coarse, rough rug.

Let's take another example. With ruffled organdy curtains, a corduroy bedspread seems heavy and tailored; organdy and corduroy are too different in texture and degree of formality. A bedspread of polished cotton or quilted chintz would have a texture similar to the organdy but different enough to give variety.

In rooms where you work and play hard and serve snacks, informal sturdy materials will be more practical for your way of living than fine delicate materials.

Some textures are so definite they make a pattern. Combine these with smoother textures and solid colors rather than materials with pattern.

POINTS TO REMEMBER

- Like color, texture is a source of beauty.
- No texture group is better than another. You can use any group of textures to make pleasing combinations in furnishings.
- Use your fingers and your eyes to learn the differences among textures and which ones go together. Sight and touch will help you enjoy the wonderful world of texture.

TEXTURE

Wake Up Your Room

LEARN	DO
1. What texture is; also learn to recognize texture differences in materials.	1. Find and mount examples of at least six different kinds of texture. Under each example, list words that describe its texture.
2. To recognize and name at least six materials that are new to you.	2. If possible, find and mount a small sample of each material and label it. Try to include fabrics, woods, floor coverings, and such things as bamboo, plastic, etc.
3. How to choose textures for the things you make or select for this unit.	3. For articles you select or make in this unit, choose textures that fit in with the main textures in the room.

Furnishing To Suit

LEARN	DO
1. To combine textures that are harmonious.	1. Collect and mount at least three examples of textures in each group, as shown on page 12. Try to include wood, plastic, floor covering, and fabric.
2. The effect of texture on the overall feeling of the room.	2. Find and mount magazine pictures of rooms in which one of the four texture groups predominates—at least one picture for each group. Label each picture.
3. How to choose and combine textures for furnishings.	3. Select textures for new furnishings to go with those already in the room.

A LOOK AT DESIGN

Have you ever thought of yourself as a designer? Actually, we all are designers.

We are creating designs when we plan and make a poster or bulletin board, or make a flower arrangement. We are assembling designs when we arrange cookies on a plate, set the table for dinner, arrange grooming supplies on a dresser, tack snapshots on a bulletin board.

We are making decisions about design when we select earrings, a necktie, shoes, or material for a dress or curtains.

> Design is the selection and arrangement of colors, textures, shapes, and lines; the aim is to create order and beauty. A design can be an individual object such as a chair or a car, or it can be a group of objects used together, such as a room with all its furnishings.

Everyone recognizes and enjoys **color** and **texture**—two elements of design. Two more design elements we need to know about are **line** and **shape**.

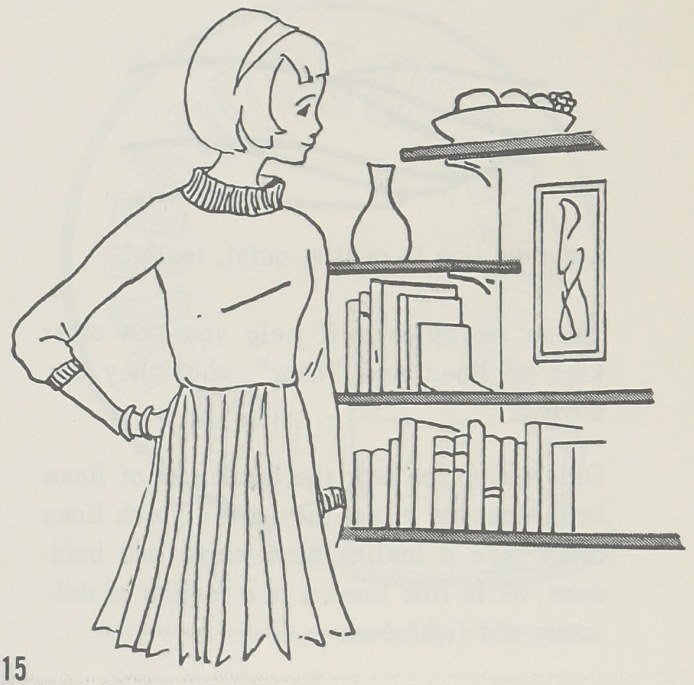
LINES

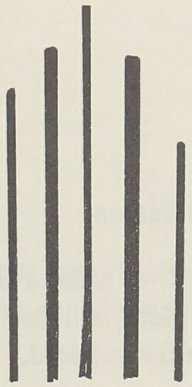
- lead our eyes through space
- give direction or movement
- outline shapes
- make spaces

Here are some examples of lines in a design—

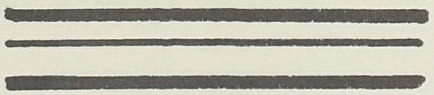
pleats in a skirt
seams in a bedspread
mortar between bricks
spiderweb
shelves for books

Can you think of others?

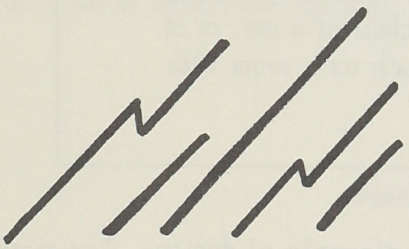




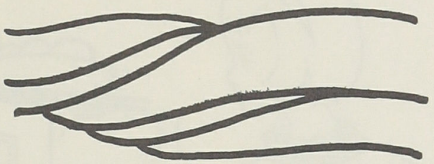
Lines have their own language. A vertical line "speaks" in a dignified formal way.



A horizontal line speaks quietly and restfully and suggests stability.



A diagonal line is active, sometime restless and exciting.



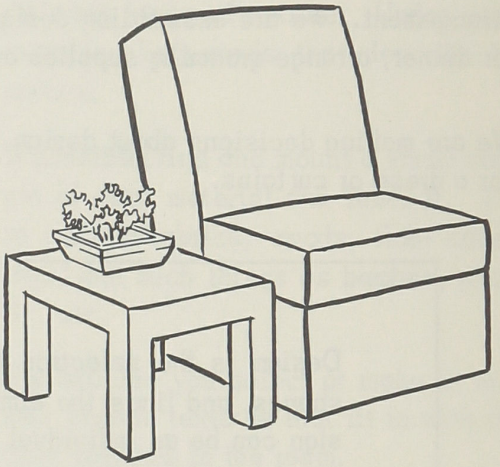
A curved line is gentle, quiet, restful.

These examples will help you see other kind of lines and "hear" what they are saying.

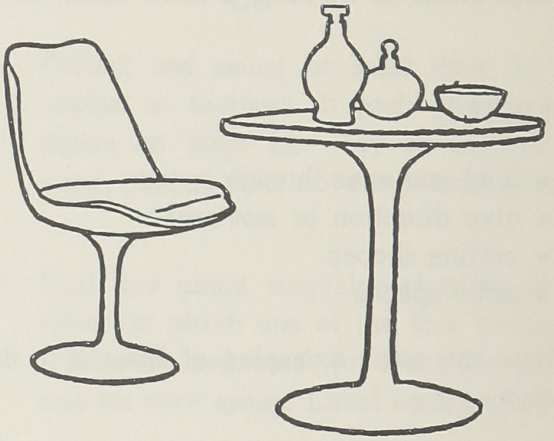
Did you notice how the thickness of lines influences the effect they give? Thick lines often give a feeling of strength and boldness, while fine lines give a feeling of delicacy and lightness.

SHAPE

When a line meets itself, we have a shape. Shape is the outline of something—a circle, leaf, spoon, cup, dog.



Shapes also create different effects. For example, shapes that are blocky and square may give a sturdy, strong, heavy effect.



Rounded shapes seem more feminine and graceful than angular shapes. The slender triangles that form church spires suggest dignity and a reaching upward.

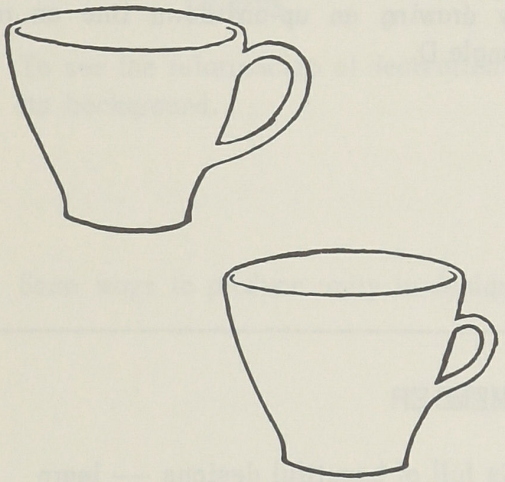
When you look at other shapes, notice your reactions to them.

DESIGN GUIDES

In today's clothes and homes, the smooth uncluttered look is the desired look. Simple uncluttered shapes are pleasing to look at and to use. Make a habit of looking first at the basic shape of an object, then at the details and decoration.

The shape of a well-designed object suggests what the object is supposed to be. For example, a clock should look like a clock, and not pretend to be something else. If a clock is attached to the flank of a dog figurine, at first glance our eyes aren't sure what this combination is supposed to be.

A well-designed object does what it is supposed to do. Let's say that two cups are equally pleasing to look at, but the handle of one is easier to grasp and hold than the other. Which one will better perform the job we expect of a cup?

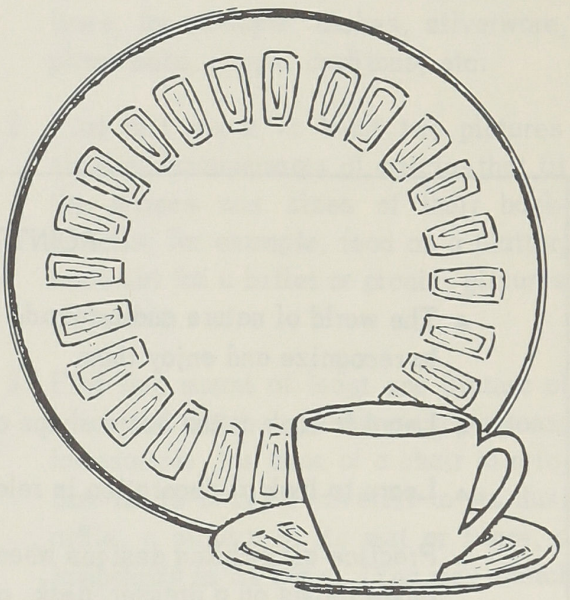


Unity + Variety = Beauty. Our eyes like to see colors, textures, shapes, and lines that are similar to each other because this gives a go-together effect, or **unity**. This doesn't mean that all parts of a design or arrangement have to be the same—that would be tiresome. Instead, we like to see small differences that give **variety**. But, when all parts of a design are completely different from each other, we are not able to see any relationship among the parts, and the result does not satisfy.

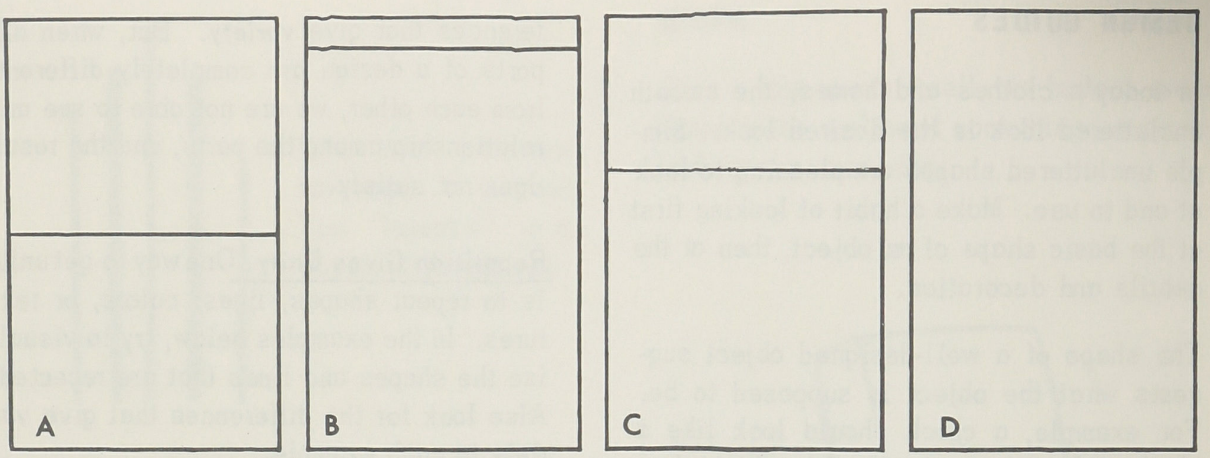
Repetition Gives Unity. One way to get unity is to repeat shapes, lines, colors, or textures. In the examples below, try to visualize the shapes and lines that are repeated. Also look for the differences that give variety to each example.

- rectangular place mats on a square table
- silverware placed at right angles to edge of table
- bed parallel to a wall
- windows in a tall building
- spokes in a wheel

Decoration. Most people like to have some of their possessions enriched with decoration or trimming. For a pleasing effect, plan or choose decoration that follows the shape of the article, or a basic construction line (see drawing).



Decoration follows shape of plate and saucer.



Proportion. Proportion is a term for the relationship of spaces in a design. We often have to make decisions about proportion in home furnishings. For example, we decide on the width of a dust ruffle in relation to a quilt or coverlet; the size and shape of a picture in relation to the wall space where we hang it.

Look at the rectangles above and decide which one has the most pleasing spaces. In A, the spaces are the same size and shape. Could they become monotonous to look at? In B, the spaces are so different that they seem unrelated to each other. In C, the spaces are enough alike to be related to each other, but different enough to give variety.

Now, try your eye and hand at dividing space by drawing an up-and-down line on rectangle D.

POINTS TO REMEMBER

- The world of nature and manmade objects is full of beautiful designs -- learn to recognize and enjoy them.
- Learn to look at the basic shape of an object.
- Learn to look at decoration in relation to the size and shape of its background.
- Practice assembling designs when you do such things as set the table or arrange things on a dresser, desk, or shelf.

DESIGN

Wake Up Your Room

LEARN	DO
1. What line is.	1. Find and mount examples of at least three different kinds of lines. They may be swatches of fabric, or pictures of rooms, dresses, flower arrangements, silverware, etc. Briefly describe the impression you get from each example.
1a. To become aware of the feeling or effect that different kinds of lines create.	
2. What shape is.	2. Find and mount at least three pictures showing different shapes. They may be of any object—a building, car, boat, sofa, dishes, etc. Briefly describe the impression you get from each kind of shape. (You may sketch your examples.)
2a. To become aware of the feeling or effect that different kinds of shapes create.	

Furnishing To Suit

LEARN	DO
1. To see the relationship of decoration to its background.	1. Find and mount at least two pictures showing objects with decoration that follows the basic shape or construction lines; for example, dishes, silverware, place mats, lamps, cushions, etc.
2. Some ways to produce unity in designs.	2. Find and mount at least two pictures showing arrangements of articles that fit the shapes and sizes of their backgrounds; for example, food on a platter, table set for a buffet or picnic, pictures on a wall.
3. To become aware of divisions of space that produce beautiful proportions in everyday objects.	3. Find and mount at least one picture of an object that has pleasing proportions; for example, the arms of a chair in relation to its back, a coverlet to its dust ruffle, a picture to its mat or frame, a lampshade to its base. (You may sketch your examples.)

A LOOK AT YOUR SPACE FOR LIVING

A look inside a spaceship gives us a good idea of how space or shelter can be used to best advantage. Every inch is planned and equipped to accommodate the astronauts and the tasks they must perform on their mission; not a cubic inch goes to waste. Houses are not spaceships, but we still want to make the best use of the space and furniture we have in our homes and rooms.

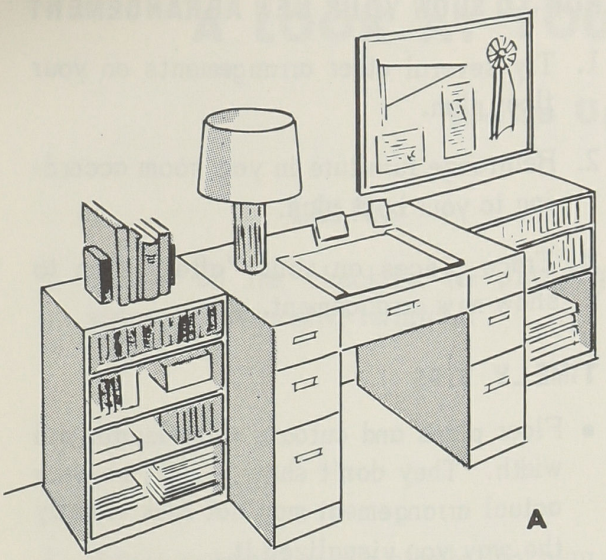
GUIDES FOR ARRANGING FURNITURE

First, think over what you do in your room. Then make a list of your activities and the furnishings and other things you need to carry out these activities comfortably and conveniently. This is what a good architect does before he designs a house for a family.

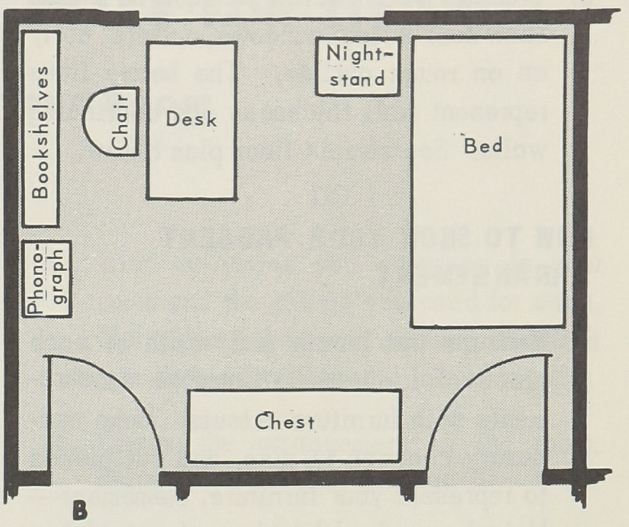
A tip or two about the bed. If you place it against the wall, you will have more floor space and comfortable seating, but it will be harder to make the bed. If easy bedmaking is more important to you than floorspace, leave at least 12 inches between the wall and side of your bed.

CHECKLIST TO HELP YOU MAKE THE BEST USE OF YOUR SPACE AND FURNITURE

- ☐ Group together the furniture and accessories you need for each activity (dressing, study, etc.).
- ☐ Arrange furniture in groups rather than as single pieces, whenever possible (see drawing A).
- ☐ Place large furniture (beds, chest, etc.) in line with the walls rather than on a diagonal line. This gives an orderly look (see drawing B).
- ☐ If possible, distribute large pieces of furniture around the room. This gives balance, rather than a lopsided look.
- ☐ Store things as close as possible to the place where you use them.
- ☐ Allow enough space to open doors and to move about easily in the room. Allow at least 24 inches in front of a chest so you can open the drawers.
- ☐ Provide good lighting for activities that require it. Take advantage of natural light in the room. Try to have the light fall on you rather than on the mirror.



Arrange furniture in groups.



Place furniture parallel to walls.

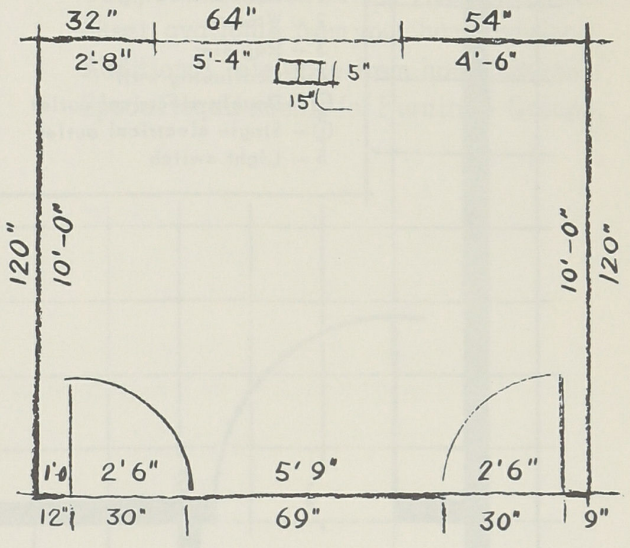
WHAT YOU WILL DO

An easy way to try out new arrangements of furniture is to draw a floor plan and use furniture cutouts. You can move the cutouts instead of furniture — this saves wear and tear on you and the floor. When your arrangement of the cutouts appeals to you, move the furniture.

- Compare your present furniture arrangement with the checklist.
- If you can improve the arrangement, draw two floor plans of your room to a ½-inch scale. This means that ½ inch on your plan will represent 12 inches of actual space. For example, a dresser 48 inches long and 24 inches deep will be 2 inches by 1 inch on the plan.
- Show "before" and "after" arrangements on floor plans.

HOW TO DRAW FLOOR PLANS

1. Make a rough outline of room on plain paper. Show doors, windows, heat and electrical outlets, etc.
2. Start at one corner of room and measure with yardstick to first opening. Write this measurement in inches in proper space on sketch (see drawing below).
3. Continue the same way around the room and write measurements on outline.
4. Change inches to feet and inches on outline (see drawing below).



Rough outline of room with measurements.

5. Transfer your sketch to squared paper. Show door swing, windows, outlets, etc., as on rough outline. The heavy lines represent wall thickness and continuing walls. See sample floor plan below.

HOW TO SHOW YOUR PRESENT ARRANGEMENT

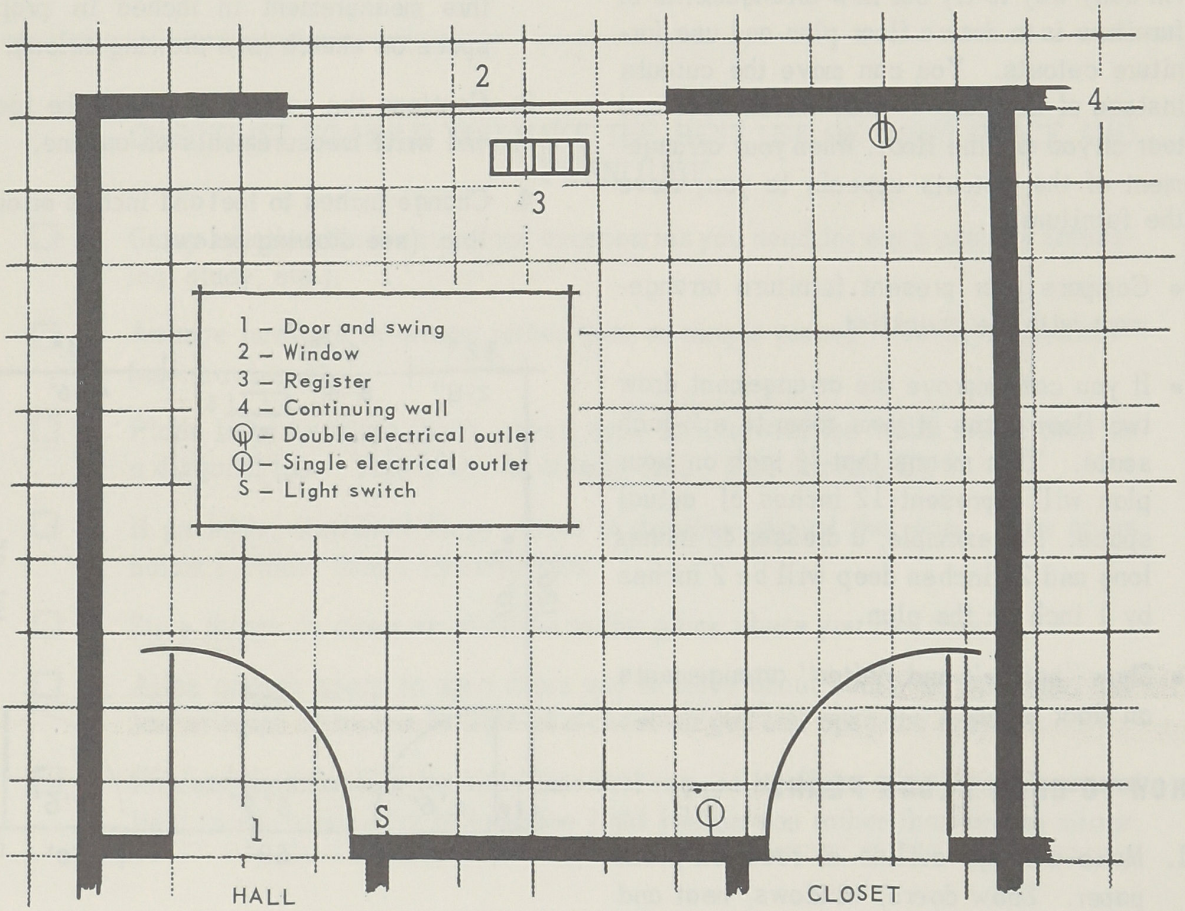
1. Measure the length and width of each piece of furniture. Compare measurements with furniture cutouts. Make necessary changes in size, and cut pieces to represent your furniture. Remember—½ inch equals 12 inches of actual furniture.
2. Trace pieces on your "before" plan to show present arrangement. Include lamps, outlets, and heaters.

HOW TO SHOW YOUR NEW ARRANGEMENT

1. Try several other arrangements on your floor plan.
2. Rearrange furniture in your room according to your best plan.
3. Trace pieces on your "after" plan to show new arrangement.

TIMELY TIPS

- Floor plans and cutouts show length and width. They don't show height, so your actual arrangement may not look exactly the way you visualized it.
- If you plan to build or buy new furniture, your floor plan and arrangement will give you clues for the size to select and where to place it in the room.



Sample Floor Plan

A LOOK AT YOUR SPACE FOR LIVING

Wake Up Your Room

LEARN	DO
1. Guides on the checklist for planning space and arranging furniture.	1. List activities you carry on in your room and the things you need for each. If you share the room, include the other person's activities and furnishings.
	1a. Check the arrangement in the room, using the checklist on page 20.
2. How to make and read a simple floor plan.	2. If you change present arrangement, show "before" and "after" arrangements on floor plans.

Furnishing To Suit

LEARN	DO
To apply guides for planning space and arranging furniture to larger areas of house that are used by entire family.	Carry out steps on Living Room Analysis Sheet, available from your home advisor. Additional reference from home advisor: Space Requirements for Furniture Groups.

FURNISHINGS OF FABRIC

Think of all the places in your home where fabric is used. Now try to imagine what your home would be like without these fabrics. You can see why people in all ages have spent much time and money to produce and purchase fabrics for their homes. Without the warmth, softness, color, and pattern that textiles give, a room seems bare and cold.

Here are some furnishings of fabric you may want to select or make for your home—covers for cushions, bolster, chair seats, storage boxes; curtains, draperies, window shades; bedspread, coverlet, or dust ruffle; wall hanging.

TO BUY READYMADE OR MAKE YOUR OWN?

This is a decision you have to make often in homemaking. The points below will help you decide which to do.

- Compare the cost of a readymade article with the cost of yardage and supplies (thread, zipper, cording, hooks, etc.). Check the selection and prices in stores and catalogs. Use form on page 25 to figure cost.
- Can you find a readymade in the style, color, texture, and quality you want at the price you want to pay?
- Do you enjoy creating unusual things? Do you also enjoy following a big project through to the finish?
- Are you ready to handle and sew large pieces of material? For example, a twin-size spread may take as much as 8 yards of fabric.

LOOK FOR LABELS

Choosing things that will be pretty in a room may be the most fun of your shopping trip. Learning what makes them practical and durable can be very interesting, too. After all, you want your materials to last awhile.

Good labels or tags on yard goods and readymades will answer these questions——

- How should you **clean** it? Can you wash it by hand or by machine? Does it have to be drycleaned? How much ironing will it need?
- How much will it **shrink**? If you find no shrinkage facts on a washable fabric, you'll need to preshrink it or allow for extra deep hems.
- How **colorfast** is it? Many materials will wash or dryclean without fading, but none is completely colorfast to sunlight.
- Does the fabric have a special **finish**? Many fabrics and readymades have finishes that give you something special—resistance to spots or wrinkles, longtime crispness, for example.
- What is the **fiber**? Fiber is the basic stuff from which threads in a fabric are made. Natural fibers come from vegetable or animal sources—cotton, linen, wool, silk. Manmade fibers come from synthesized chemicals—nylon, polyester, and acrylic are examples. Each fiber has its own way of looking and acting; with observation and study you can learn what to expect of different fibers. A federal law requires that the fiber content of yard goods and readymades be given on a tag or label. Examples: all cotton, 100% polyester, 90% rayon/10% nylon.

$$—How Much To Make or Buy—$$

Use this list to compare the cost of a readymade article with the cost of the material and supplies for making _____

(name of article)

Readymade

Kind of fabric _____

Fiber content _____

Special finish, if any _____

Size of article _____

Number you need _____

Cost of each article _____

Kind of padding or filling used (if any)

_____

TOTAL COST: $ _____

Make It Yourself

Kind of fabric _____

Fiber content _____

Special finish, if any _____

Size of article _____

Yards of fabric you need _____

Price per yard _____

Kind of padding or filling used (if any)

_____

Amount you need _____

Cost _____

Cost of small items you need:

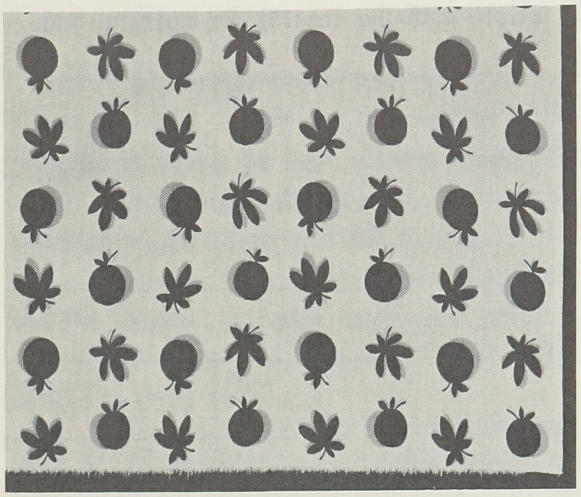
thread, zipper, _____

hooks, cording, etc. _____

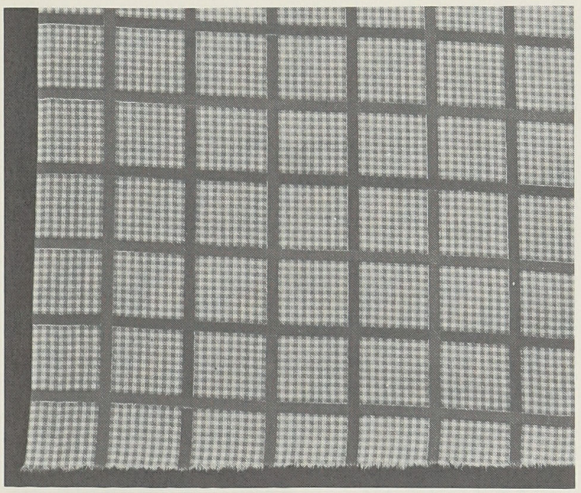
TOTAL COST: $ _____

Time estimated for you to make article

_____



Printed on grain — a good choice.



Printed off-grain — not a good choice.

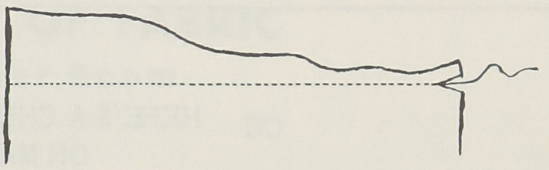
MORE SHOPPING CUES

Here are other points you'll want to check by handling the fabric and asking questions of the salesperson and your mother or leader.

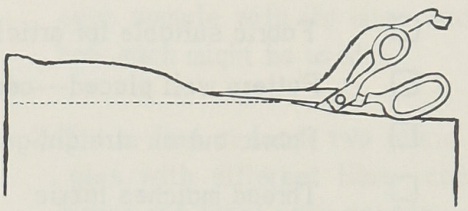
- How will it wear? Firm, closely woven fabrics are apt to wear better than sleazy, loosely woven ones.
- Is the pattern **printed** on the straight grain? If it's more than 1 inch off-grain, it will be hard to match the pattern. Choose another fabric.
- Is the material **finished** on the straight grain? If polished or resin-finished cotton is finished off-grain, you can't straighten it. Articles made of such fabric will not fit or hang well. Choose another fabric.
- For cushion covers, bedspreads, coverlets—Is the fabric firm enough to keep its shape and not wrinkle or stretch too much? Will the texture or pattern help conceal wrinkles and soil?
- For curtains and draperies—Will it resist sun-rotting? This is very important if windows get lots of sun. Will it hang in nice folds? Hold a width of fabric over your arm to see how well it drapes.
- For plastic to cover chair seats and footstools—Plastic with fabric backing will be easier to cut and tack and will wear better than material without a backing.

TIMELY TIPS

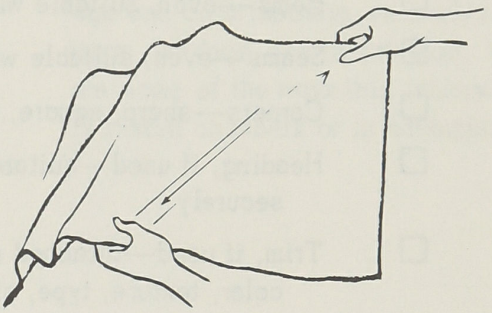
- Straighten the cut ends of your fabric before you begin—pull a thread across the width, then cut on the pulled line (see drawings).
- Square the corners by pulling on the bias (see drawing). (This step does not apply to polished or resin-finished cottons.)
- Recheck the measurements for your pieces before you cut fabric.
- Cut pieces on the straight grain.
- If fabric has a large or strong pattern, 1) decide where to place pattern, 2) place pattern in the same position if you are making matching articles such as two pair of curtains, or four chair seats.
- Trim off selvages or clip them every 2 inches. Selvages may shrink in washing and cause puckers.
- Try to work on a flat surface. This will help you make smooth hems and seams and keep fabric from stretching and wrinkling.
- Curtains, draperies, dressing table skirt, dust ruffle—For nice fullness, allow two and one-half times the distance you want fabric to cover, if you have medium weight material such as denim. For thin material, allow three times the distance you want to cover.
- Curtain and drapery lengths—Plan them to end at windowsill or below window trim, or 1 inch above floor.
- Top of curtains—Use pleat tape, hem and casing, or scallops or points with ring or clip hooks.



Pull a crosswise thread.



Cut on the pulled line.



Pull on bias to square corners.

- Bedspread or dust-ruffle length—Have it come to the floor or 1 inch above floor.
- Covers for cushions and bolsters—Use a zipper, snap tape, Velcro, or neat hand sewing.
- If you use trim, place it in seams or along edges, or choose a trim to fit the space where it will go. Choose color and texture that go with fabric.
- To cover storage boxes—Use white glue and brush; apply glue sparingly and neatly to inside edges of box and lid. Miter corners and trim off extra cloth. See directions for covering portfolio, page 4.

For directions on how to make articles, ask your leader or home advisor for leaflets or sources of booklets.

HERE'S A CHECKLIST TO HELP YOU SELECT OR MAKE A FABRIC ARTICLE

- ☐ Clean and well pressed
- ☐ Fabric suitable for article
- ☐ Pattern well placed—centered and matched
- ☐ Fabric cut on straight grain
- ☐ Thread matches fabric
- ☐ Stitching—straight, suitable length, secured at ends
- ☐ Hems—even, suitable width, don't pucker
- ☐ Seams—even, suitable width, don't pucker
- ☐ Corners—sharp, square, bulk removed
- ☐ Heading, if used—suitable width for article, attached neatly and securely
- ☐ Trim, if used—attached neatly and securely, suitable for fabric in color, texture, type, size, shape, placement

FURNISHINGS OF FABRIC

Wake Up Your Room

LEARN	DO
1. To recognize at least three different kinds of fabrics that could be used for home furnishings.	1. Try to find samples of the fabrics you have learned about. Mount and label each sample with its name and tell how each might be used.
2. What is meant by fiber content.	2. Try to find at least two fabric samples with different fiber content. Mount and label each sample.
3. What is meant by shrinkage.	3.& 4. Look for labels that tell about shrinkage and colorfastness on readymade items, yardage, and in catalogs. What are some of the ways this information is stated on labels or in advertising?
4. What is meant by colorfast.	
5. To recognize good workmanship in readymade fabric items or those made at home.	

Furnishing To Suit

LEARN	DO
1. To recognize at least four different kinds of fabrics for the home that are new to you.	1. Try to find samples of these fabrics; mount and label each. List a good use for each fabric and briefly tell why.
1a. How to choose fabrics for different uses.	
2. How to compare the cost of a readymade item with the cost of supplies for making it.	2. Use the form on page 25 to compare costs for an item you plan to make or buy, or for an imaginary situation.
3. About requirements for labeling fabrics for their fiber content, and the purpose of such labeling.	3. Look for labels that give the fiber content for readymades and yardage, in stores and catalogs. If you can find examples in ads or on family purchases, mount them.
4. The names of at least two different finishes used on fabrics, and the purpose of each finish.	4. Look for labels and ads that identify special finishes on fabrics.
5. The importance of proper care and cleaning of fabrics for the home.	5. When you shop for a readymade item or yardage, get information on how to clean it, from labels and the salesperson.

WOOD FINISHING

Many 4-H'ers enjoy getting acquainted with a very important furnishing and building material—wood—and learning how to give it a beauty treatment.

This chapter tells how to finish an article you have built or a piece of unfinished furniture. Or, you may wish to help your family finish floors, cabinets or wood paneling, or refinish a worn piece of furniture. (Refinish means to remove old finish and put on a new one.)

What is a finish? It's a thin layer of liquid material, applied to wood, that dries to a hard coat. We use finishes on wood to enhance its beauty or cover up defects, to protect it from soil and moisture, and to keep it from drying. We classify finishes as **clear** and **opaque**.

Clear finishes are transparent and show off the color and pattern of wood. Examples: penetrating wood seal, varnish, shellac, lacquer, varnish stain. In these units, we recommend that you use penetrating wood seal because it gives a fine durable finish in the shortest time.

Opaque finishes conceal the surface of wood and come in many colors. Examples: paint, enamel, colored lacquers; in high gloss, semigloss, low gloss, and flat (no gloss). For the richest effect on furniture, use low gloss or flat types. For small articles, you may want to use an aerosol spray lacquer or enamel.

You can use either kind of finish on any wood, but the following list shows the best choice for different woods.

Use clear finishes on—

- Wood with natural beauty of color or pattern (walnut, teak, mahogany, birch, ash, oak, etc.)
- Top grades of pine and hemlock.

Use opaque finishes on——

- Wood that's discolored, blemished, full of knots
- Lower grades of pine and hemlock
- Fir plywood
- Any wood when you want a certain color as part of your color plan.

Whichever finish you choose, work for a satinlike luster, not a glasslike shine. The finest furniture and cabinetwork have a lustrous finish rather than a shiny one. Shiny finishes are uncomfortable to look at because they reflect glare from light.

When you use a clear finish, you may want to enrich the natural wood color or to blend uneven colors. You can do this by applying stain to the wood before you put on the finish. Stain is made of oil, turpentine, and pigments, and comes in many colors.

Another way to get color in a clear finish is to use a product that combines color with the finishing material itself. For example, varnish stain is a mixture of varnish and pigments and it comes in many wood tones. Also, a few brands of penetrating wood seal are available in colors. It is much easier to get a smooth finish with colored penetrating wood seal. A good varnish job requires a top-quality brush, a dust-free workroom, and lots of skill.

Two special finishes you might like to try are the "pickled" finish and antiquing. Both are fun to do.

A pickled finish is especially suited to fir plywood and woods with open pores, such as ash and oak. Thin paint of the desired color is applied to wood, then wiped off while wet. The color remains in the pores of the wood. Ask for directions at a paint store.

Antiquing is produced by applying a clear glaze over a dry coat of paint or enamel. The result is a mellow look with deeper color tones in corners and carved parts. Materials are available in kits.

A reminder—no finish can be smoother than the wood under it. Before you put on any stain or finish, be sure the wood is as smooth as you can make it.

SAFETY FIRST

Safety is an important part of every job. We can work safely if we follow certain precautions and understand the nature of finishing materials.

Most finishing materials 1) give off strong fumes, 2) irritate if spilled on the skin, and 3) are **flammable** or **combustible** (burn easily). Rags and papers used with these materials may heat spontaneously when exposed to air, and ignite. This is called **spontaneous combustion.**

Federal and California laws require that flammable mixtures be clearly labeled "flammable" or "combustible." Read container labels so you will know if the contents are combustible.



FOR SAFETY FIRST

- Handle flammable materials carefully—enamel, oil-base paint, varnish, lacquer, penetrating wood seal, turpentine, paint thinner, stain, paint and varnish remover.
- Work outdoors or in a well-ventilated room with NO open fires and NO smoking.
- Avoid prolonged breathing of fumes.
- Put rags and papers in a metal waste can with a tight lid until they can be burned safely outside. To prevent spontaneous combustion, DO NOT let them lie around exposed to the air. DO NOT burn them in a fireplace or furnace.
- Be sure all containers are closed tight before you store them. Store them outside the house – out of the reach of children – away from a heater or stove.

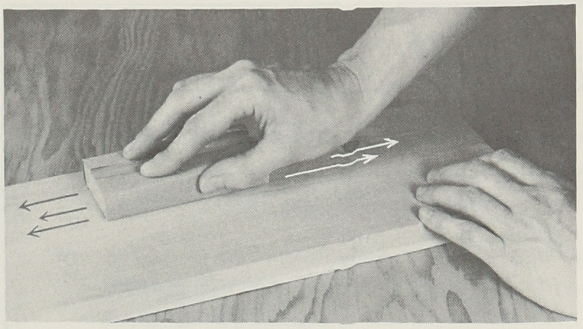
FINISHING AT A GLANCE

<table>
<tr><th>With Penetrating Wood Seal</th><th>With Paint or Enamel</th></tr>
<tr><td>1. Smooth the wood by sanding by hand or machine.</td><td rowspan="3">Steps 1 – 3 are the same as for penetrating wood seal.</td></tr>
<tr><td>2. Plan the order of your work— underneath parts first, top surface last.</td></tr>
<tr><td>3. Remove all dust by wiping wood with a tack rag.</td></tr>
<tr><td>4. Apply stain, if desired.</td><td>4. Apply undercoater.</td></tr>
<tr><td>5. Apply seal – 2 to 4 coats – dry thoroughly between coats.</td><td>5. Apply paint or enamel – 1 coat may be enough – if not, go to step 6, then apply second coat.</td></tr>
<tr><td>6. Buff lightly between coats with fine sandpaper – remove dust with tack rag.</td><td>6. Same as for penetrating wood seal.</td></tr>
<tr><td>7. Buff final coat lightly with fine steel wool. After 1 week, apply a thin coat of paste wax, and buff.</td><td>7. After 1 week, apply a thin coat of white cream wax, and buff.</td></tr>
</table>

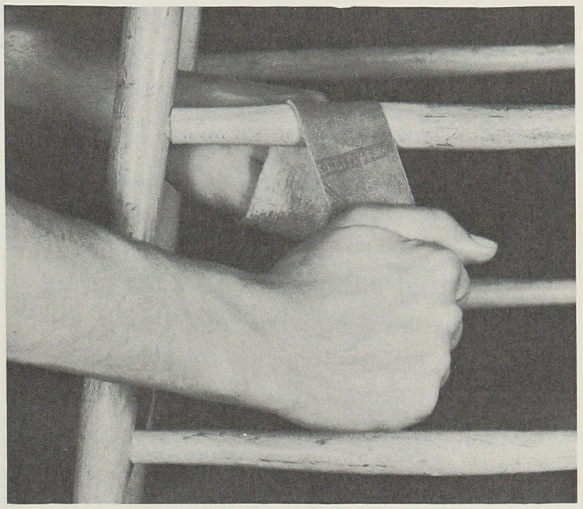
REMINDERS

- Be sure furniture and brush are free of dust and lint.
- Be sure each coat is completely dry before you go to next step.

SUPPLIES YOU WILL NEED	
For Penetrating Wood Seal Finish	For Paint or Enamel Finish
1. Sandpaper, garnet type – fine grit (4/0)	The first 8 items are the same as for the penetrating wood seal finish.
2. Steel wool – very fine (3/0 or 4/0)	
3. Tack cloth – for dusting, has film of varnish that holds dust – get at paint store, keep in metal can with lid	
4. Turpentine or paint thinner – solvents for these finishes, use to clean brush and spills	
5. Can opener	
6. Wood blocks or jar lids – to set furniture on while drying	
7. Paper towels or rags for cleanup	
8. Newspapers or drop cloth to cover work surface	
9. Penetrating wood seal	9. Paint or enamel
10. Nylon hose for applying seal	10. Brush – natural bristles hold paint and enamel better than nylon; 1 or 1½ inches good size for small jobs
11. Cup or small dish	11. Undercoater – seals wood, makes a smooth base
	12. Sticks for stirring
	13. Small can, nylon hose for straining paint or enamel
	14. Small cans, two or three for cleaning brush



Sand with the grain of the wood.



Smooth turned parts with emery cloth.

TIMELY TIPS

- Try to work during warm dry weather.
- Work in a place where there is little dust.
- Follow directions on containers of all finishing materials.
- Cover work surface with newspapers or a drop cloth.
- Remove drawers, knobs, and pulls from furniture.
- Set furniture on wood blocks or jar lids so finish won't stick to newspaper.
- Be sure brush is clean and in good condition.

HOW TO SMOOTH THE WOOD

1. For new wood only: Wipe with a clean damp cloth to raise the grain of the wood. Let dry.
2. Sand by machine or hand with the grain of the wood, with very fine sandpaper. On rough spots use medium or fine paper. For hand sanding—
   - Crease and tear paper into quarters.
   - Pull pieces across a sharp edge to make them flexible.
   - To sand flat surfaces, wrap sandpaper around a small wood block. This will speed the job and prevent gouging. Apply pressure evenly as you sand.
   - Smooth turned parts with a narrow strip of fine emery cloth.

HOW TO APPLY PENETRATING WOOD SEAL

Penetrating wood seal gives a durable clear finish with a satin luster. You can apply it with a pad of cloth – you don't have to use a brush. Use this finish only on bare wood so it will soak into the wood. Do not use it over another finish. Note: If you plan to stain your wood, read page 35 before you apply the seal.

1. Do not shake or stir seal—this makes bubbles.
2. Pour a little seal into a clean cup. Put lid back on can.
3. Dust wood with tack cloth.
4. Dip pad into seal – apply a generous coat to the wood.

5. Let seal stand about 5 minutes or until it soaks in. Wipe off the excess with pieces of nylon stocking. Set piece on wood blocks or jar lids. Let each coat dry at least 12 hours before you go to the next step.
6. Buff lightly with very fine sandpaper. Remove dust with tack cloth.
7. Repeat steps 3, 4, 5, and 6 for each coat.
8. Buff final coat lightly with very fine steel wool (4/0).
9. A week later, apply a thin coat of paste wax, and buff.

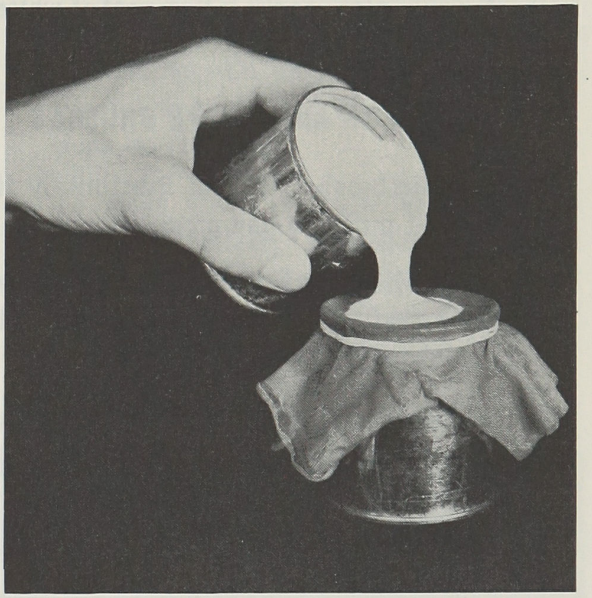
HOW TO APPLY STAIN

Wood varies in its ability to absorb stain (porosity). Crosscuts are very porous and and may stain darker than denser sections of the wood. Try to get an even blend of color, but don't expect a completely uniform color. On fir plywood, dense and porous sections make a zigzag pattern. Stain emphasizes this contrast and makes a strong light and dark pattern (wild grain). To prevent this, apply a coat of resin sealer according to directions on container before you put on the stain.

1. To keep crosscuts from getting too dark, seal them with a coat of colorless penetrating wood seal – let it dry.
2. Stir stain thoroughly.
3. Apply stain with a brush; let it soak in several minutes.
4. Wipe off excess stain – check amount and evenness of color.
5. If you want more color, apply another coat of stain.
6. If you want less color, wipe surface with cloth dampened in turpentine.
7. Let stain dry 12 hours before you apply clear penetrating wood seal.

HOW TO APPLY PAINT OR ENAMEL

1. Apply an undercoater to all surfaces—let it dry 12 hours.
2. With a clean flat stick, stir paint or enamel back and forth until smooth. Do not shake enamel—this makes bubbles.
3. To remove lumps or scum, strain paint or enamel through an old nylon stocking into a small clean can.



Strain paint to remove lumps.

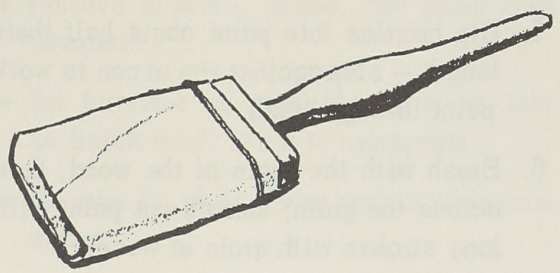
4. Dust surface with a tack cloth.
5. Dip bristles into paint about half their length – slap against rim of can to work paint through brush.
6. Brush with the grain of the wood, then across the grain; smooth out paint with long strokes with grain of wood.

7. Work on one surface at a time – cover it evenly. Smooth out runs and drips. On flat surfaces such as table tops, paint from the ends and work toward center.
8. To remove bubbles, hold brush straight up and down and skim the surface lightly.
9. Let finish dry at least 12 hours before you move furniture or apply second coat.
10. If second coat is needed, buff surface lightly with extra fine sandpaper; dust with tack cloth.
11. Put on second coat the same as the first one.
12. A week later, apply a thin coat of white cream wax, and buff.

HOW TO CLEAN AND STORE BRUSHES

A good paintbrush will last indefinitely if you clean it promptly and properly.

1. Pour a little turpentine or paint thinner into a small can. Work solvent through bristles and wipe on newspaper.
2. Use fresh solvent and clean cans and repeat step 1 until you have removed paint from bristles.
3. Wash bristles in warm detergent suds two or three times. Rinse well.
4. Smooth out bristles. Wrap brush in clean paper – let it dry. Store it flat.



REFINISHING AT A GLANCE

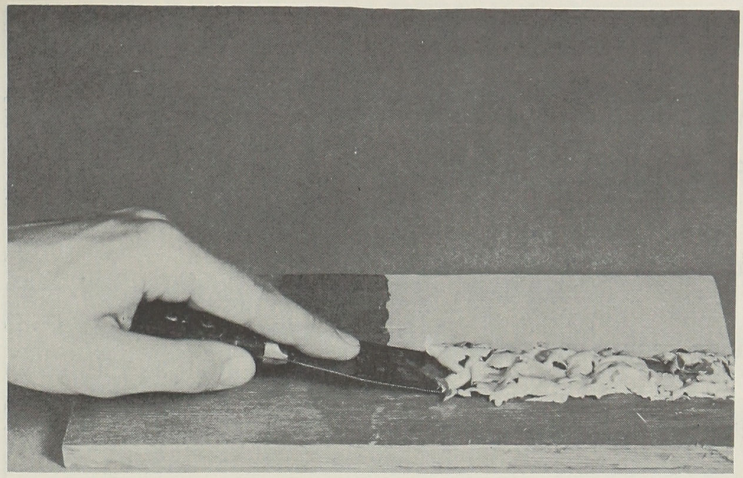
1. Remove old finish.
2. Make needed repairs: glue loose joints, fill cracks and holes, raise dents, remove stains.
3. Sand surface smooth.
4. Apply new finish.

HOW TO REMOVE OLD FINISH

Use a commercial paint and varnish remover and follow directions on container. Removers come in two types—flammable and nonflammable. The nonflammable does not burn, but gives off strong fumes and is irritating if spilled on the skin. DO NOT use lye—it may interfere with the new finish.

To prepare for a paint, enamel, or antique finish: Instead of removing old finish, 1) scrape off loose finish, 2) wash piece with warm suds, 3) rinse well, and 4) smooth rough spots by sanding. Use water sparingly – it may loosen glued joints and veneer. Or use "liquid sandpaper" to level the old finish and smooth the surface.

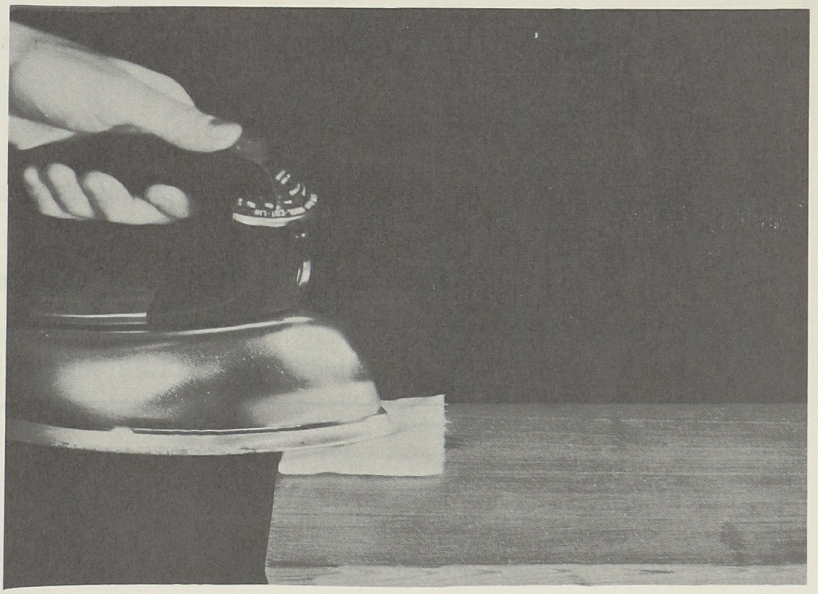
1. Work on a small section at a time.
2. Apply remover generously with an old paintbrush. Let remover stand without brushing until it softens old finish. Let the remover do the work!
3. Lift off softened finish with a putty knife. Be careful not to scratch the wood.
4. Wipe surface with small rags or newspaper. Clean corners with a wooden skewer, carvings with an old toothbrush.
5. If necessary, apply more coats of remover.
6. When finish is removed, wipe surface with cloth dampened in the liquid listed on container.



Remove softened finish with a putty knife.

HOW TO MAKE REPAIRS

- To reglue loose joints – Follow directions in California Agricultural Extension Service leaflet "How To Re-glue Furniture," available from your home advisor.
- To fill cracks and holes – Use plastic wood in a color to match wood, following directions on container. For a new paint or enamel job, use crack filler mixed with water. Fillers shrink as they dry, so do not level them off while they are moist. When dry, carefully shave off the excess with a knife or by sanding.
- To remove stains – Remove surface stains by sanding. On deep stains, use a commercial wood bleach according to directions on container.
- To raise dents on solid wood (not on veneer) – Moisture and heat swell wood fibers and fill in dents. Dampen a thick pad of cloth with water, lay it on dent, and set a hot iron lightly on pad.



Use moisture and heat to raise dents in solid wood.

Stds. to work for

HERE'S A CHECKLIST FOR A FINISHED OR REFINISHED ARTICLE

- ☐ Piece clean and in good condition--
  - ☐ joinings secure and smooth
  - ☐ cracks and holes filled neatly
  - ☐ no glue spots
  - ☐ nails set and holes filled to match wood
- ☐ Wood sanded smooth—no scratches
- ☐ Finish applied evenly—no runs or brush marks
- ☐ Finish smooth to the touch
- ☐ Edges and ends of article well finished
- ☐ Finish thoroughly dry—not sticky
- ☐ Dull or lustrous—not "glassy"
- ☐ Enough coats to give depth to finish

If stain has been used—

- ☐ Applied evenly—no runs or streaks
- ☐ Enhances grain and pattern of wood

WOOD FINISHING

Wake Up Your Room

LEARN	DO
1. To recognize a good quality clear finish—how it looks and feels.	1. Observe the finish on at least three pieces of furniture in a store or your home; and on floors, cabinets, or wood paneling. Note smoothness, amount of gloss, spots and scratches.
1a. Why finishes are used on wood.	
2. The steps in finishing wood with penetrating wood seal, and the tools and materials you need.	2. Finish an article with penetrating wood seal.
2a. The purpose of sanding, buffing with steel wool, setting nails; a tack cloth, wax.	2a. Help your family finish floors, furniture, wood paneling or cabinets.
	2b. Make a sanding block.
	2c. Mount samples of steel wool and two kinds of sandpaper, in different degrees of fineness and coarseness; tell where they should be used.
3. To use and store finishing materials safely; the reasons for safety precautions.	3. Read and observe safety precautions listed on container and in your manual.
	3a. Label a can for storing a tack cloth.
4. To identify two kinds of softwood (pine, fir, hemlock, redwood, cedar) and two kinds of hardwood (walnut, birch, maple, oak, ash, mahogany, teak, gum).	4. If possible, collect small samples of wood, label and mount them.

Note: If you learned to sand and use penetrating wood seal in the Start with a Small Change unit, you may go the the Furnishing To Suit list.

WOOD FINISHING

Furnishing To Suit

LEARN	DO
1. To recognize a good quality paint or enamel finish, and staining job—how they look and feel.	1. Observe the stain and paint or enamel finish on at least four surfaces—furniture, floors, walls, cabinets—in your home or in a store.
	1a. Collect magazine pictures of rooms with painted furniture; note how each fits into the color plan of the room.
2. To identify several kinds of finishing materials and their purpose——undercoater, low and high gloss enamels, floor paint, water-base wall paints, oil stain , varnish stain, plastic wood, and crack filler.	2. Mount enamel and paint chips of different degrees of gloss; list suitable uses for each.
3. The steps in finishing wood with enamel, and with stain and penetrating wood seal.	3. Finish or refinish an article with paint, enamel, stain and penetrating wood seal, or an antiqued or pickled finish.
3a. To organize your work for efficiency and good results.	3a. Help your family paint or finish floors, furniture, walls, wood trim, or cabinet.
4. To clean and store brushes.	4. Take good care of your brushes.
5. About state and federal laws on labeling finishing materials for safety.	5. Look for labels on containers that give safety precautions.
	5a. Practice safety precautions listed on containers and in your manual.
	5b. Make a poster for an exhibit, showing safe use and storage of finishing materials.

LIGHTING THAT BRIGHTENS

GOOD LIGHTING

- Makes a room friendly and inviting
- Helps you see more easily
- Reduces eyestrain and tension
- Helps prevent accidents

EYES are one-half the team that enables you to see—LIGHT is the other half. Light is the only one of this team you can change easily—light is what YOU make it. The right kind of lighting can brighten your room and lighten the work your eyes have to do.

This chapter describes the steps to good lighting, how to light the places where you study, what to look for when you shop for a study lamp, and two ways to make a lamp.

STEPS TO LIGHTING THAT BRIGHTENS

- Have enough light for the task (quantity)
- Be sure the light is free from glare (quality)
- Eliminate strong contrasts between light and dark areas (balance)
- Place lamp correctly (placement)

QUANTITY – Have Enough Light for the Task

Did you know that the quantity of light can be measured scientifically? The unit of measure is a **foot-candle**––the amount of light on a book 1 foot away from a standard candle. The measuring tool is a light meter similar to the one used to measure light in photography.

Jobs differ in the amount of light they require for easy seeing. For example, with normal eyes we need about three times more light for studying than for playing cards. We need ten times more light for sewing on dark-colored fabric than for reading a piano score.

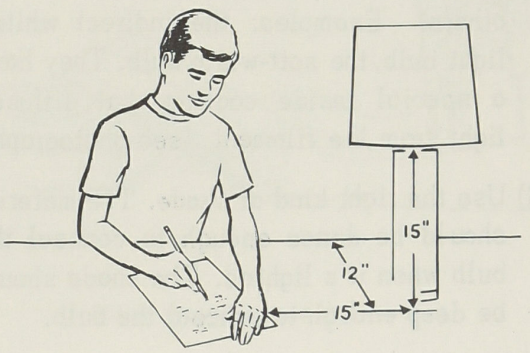
For the main section of your study desk or table, research findings recommend a light level of 50 to 70 foot-candles.

Amount of light from a lamp depends on—

1) the bulb **wattage**. Study and reading lamps should have a bulb of at least 150 watts. A 3-way bulb of 50/200/250 watts would be even better.

2) the **color** of the shade lining, desk top, wall behind the desk, and the ceiling. Light colors reflect light; dark colors absorb light. To get the most light from the bulb(s) in your lamp––
   - Use a shade with a white lining
   - Have the desk top, walls, and ceiling of very light colors
   - On a dark desk top, use a large light-colored blotter

3) where you place the lamp in relation to your work.



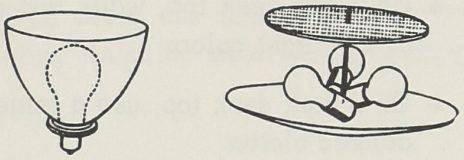
QUALITY — Be Sure the Light Is Free from Glare

Good quality light is comfortable because it is free from glare. Glare interferes with seeing and causes fatigue. It may come from the light source itself—light bulb, sun, headlights. It also may come from light reflected from shiny surfaces—glass, mirrors, glossy metals, and wood finishes.

One rough measure of glare is the sharpness of shadows cast on a surface. Hold your hand under a lamp or fixture and 6 inches from a flat surface. Now look at the shadow. Is it sharp or blurred? Sharp shadows indicate glare; blurred shadows or no shadows indicate that the light is diffused and not glaring.

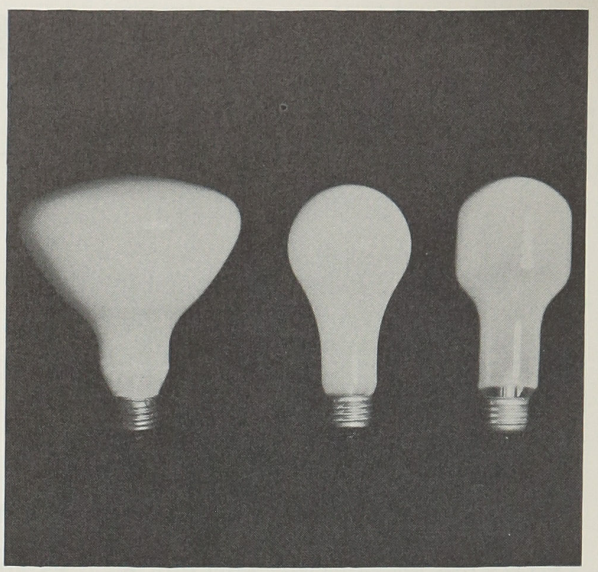
How Can We Get Good Quality Light from Lamps and Fixtures?

1) Use a **diffuser**—a bowl, disc, or shield of heavy plastic or milk glass—to diffuse, or "break up" light from the bulb (see drawing below).



2) Use **bulbs** that give more diffusion than others. Examples: the indirect white-light bulb, the soft-white bulb. They have a special inside coating that diffuses light from the filament (see photograph).

3) Use the right kind of **shade**. The material should be dense enough to conceal the bulb when it's lighted. The shade should be deep enough to conceal the bulb.



These bulbs minimize glare.

BALANCE — Eliminate Strong Contrasts Between Light and Dark Areas

When you eliminate strong contrasts, you create a better balance of light and make it easier for your eyes to do their work.

Structurally, the eye is similar to a camera. The iris of the eye corresponds to the camera's diaphragm; it automatically opens and closes depending upon the amount of light it receives. It takes time for the eye to adjust to changes, and frequent changes are tiring and annoying.

You experience a contrast when you raise your eyes from a well-lighted desk top and look toward darker sections of the room.

Also, the eye cannot adjust easily to widely different amounts of light reaching it at the same time. For example, the white pages of a book reflect much more light than a dark walnut desk top, and the eyes get tired trying to adjust to this difference.

How Can You Get Balanced Light in Your Study Area?

1) Have some light in other parts of the room, from fixtures or other lamps.

2) Use a shade that's open at the top—at least 8 inches—so that some light goes upward. Metal shades for pull-down lamps should have lots of holes to let some light go upward (see drawing A).

3) Use a moderately translucent shade or an opaque shade (transmits no light) in a color similar to wall above desk.

4) Don't place your desk in front of a window because the sunlight will shine in your eyes.

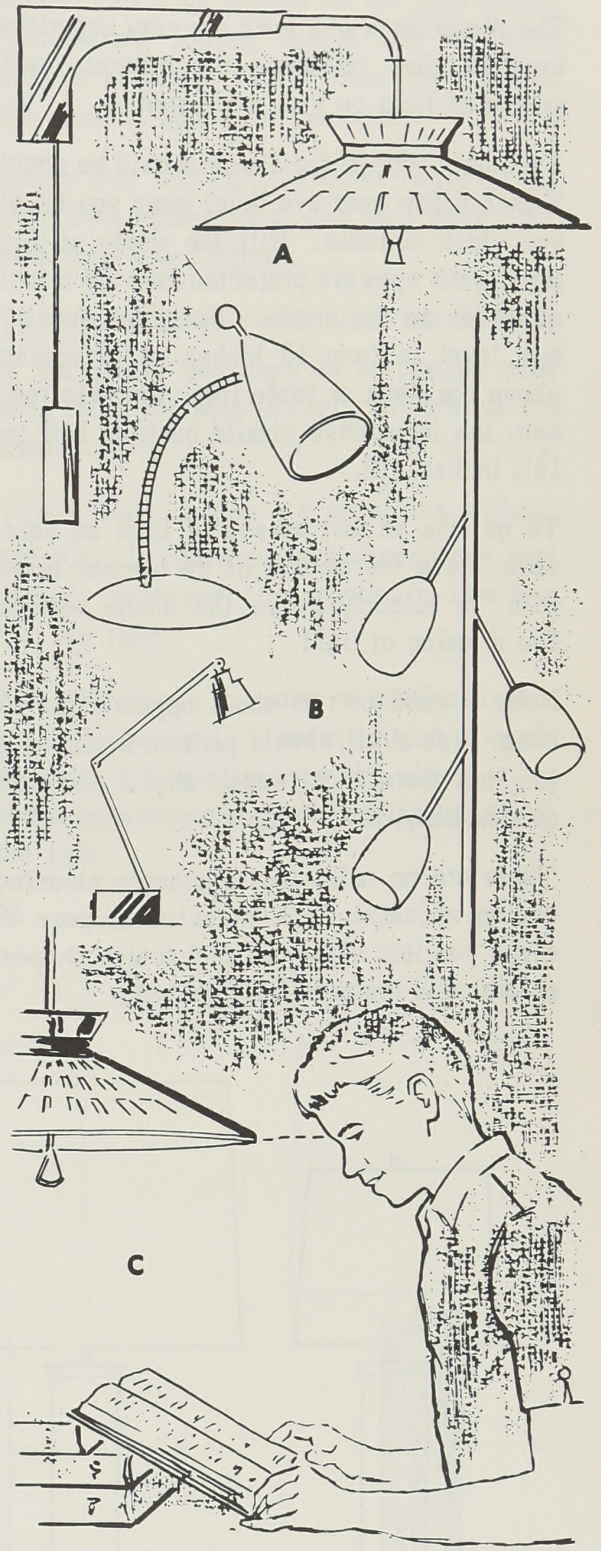
5) For study and reading, don't choose a "bullet" or pole lamp, or a miniature high-intensity lamp (see drawing B). They produce glare and strong contrasts because their shades are small, closed at the top, and they have no diffuser. Their best use is for extra light for sewing, making models, and other fine-detail hobbies.

PLACEMENT – Place Lamp Correctly

Maximum light on your work, minimum glare in your eyes—these are your guides for correct placement.

To keep shadows off your work, place the lamp opposite your "working" hand—on the left if you are righthanded, on the right if you are lefthanded.

Install hanging and pin-to-wall lamps high enough to give a good spread of light on your work area. Place them low enough that you do not see inside the shade when you look up from your work to rest your eyes (see drawing C).



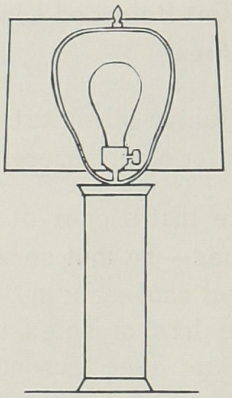
Which are good reading lamps?

TIMELY TIPS FOR YOUR NEW LAMP

The dimensions of a lamp are very important because they influence the amount and spread of light on your work area.

The lower edge of the shade should be about ½ inch below your eye level when you sit at your desk or table. With the shade at this level, your eyes are protected from the bright glare inside the shade. For most people, eye level is from 15 inches to 17 inches above the desk or table top. For this reason, the lamp base should be from 14½ to 16½ inches tall.

To get the widest spread of light on your work, have the bottom of the socket level with or slightly below the shade bottom. See drawing at right.



Bottom of socket goes near bottom of shade.

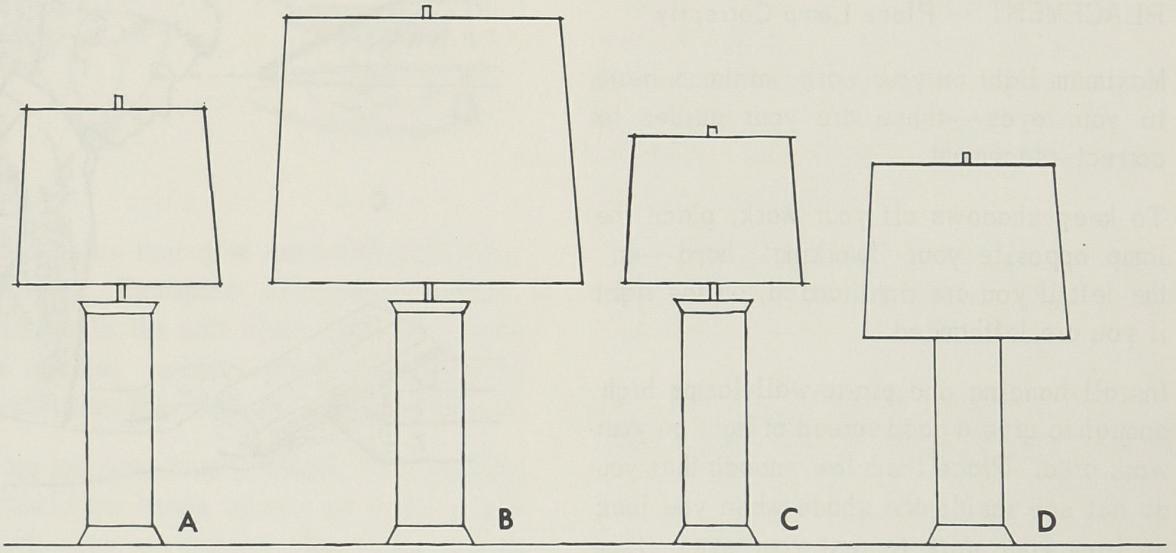
Now, a word or two about appearance. A lamp, first of all, should perform its lighting job, but there's no reason why it can't be goodlooking, too.

There are no rules that guarantee pleasing design in lamps. The checklist on page 46 gives you lots of leeway in choosing shapes, colors, and textures for your lamp.

Because the base and shade are seen together, we want them to make a pleasing unit—in size, shape, color, and texture.

Size. We want the size of the shade and base to seem right for each other (see drawing A). We don't want the shade to look too large or too small for the base (see drawings B and C). Space relationships (proportions) are more pleasing when the shade and base are not the same height.

The whole lamp is apt to look topheavy if the shade comes below the top of the base (see drawing D). We can raise the shade by adding a riser to the top of the harp. A riser



For good looks and good lighting, choose the right size shade for your lamp.



is a piece of threaded brass sold at electrical supply shops in lengths from ½ to 2 inches (see drawing). If there is a "neck" between the base and socket, it can be exposed if it improves the design of your lamp.

Shape. Simple uncluttered shapes make nice looking bases and are most suitable for their purpose—to support a light bulb and the necessary electrical equipment. How logical is a lamp base in the form of a plant holder, ballet dancer, or bird?

Decoration that follows the shape of the base seems to "belong" to the base and to emphasize its shape (see drawing below).

Color. You will want the lamp colors to fit into the color plan of the room where you will use the lamp. For the shade, a color from the same hue family as the base helps "tie" the shade and base together.

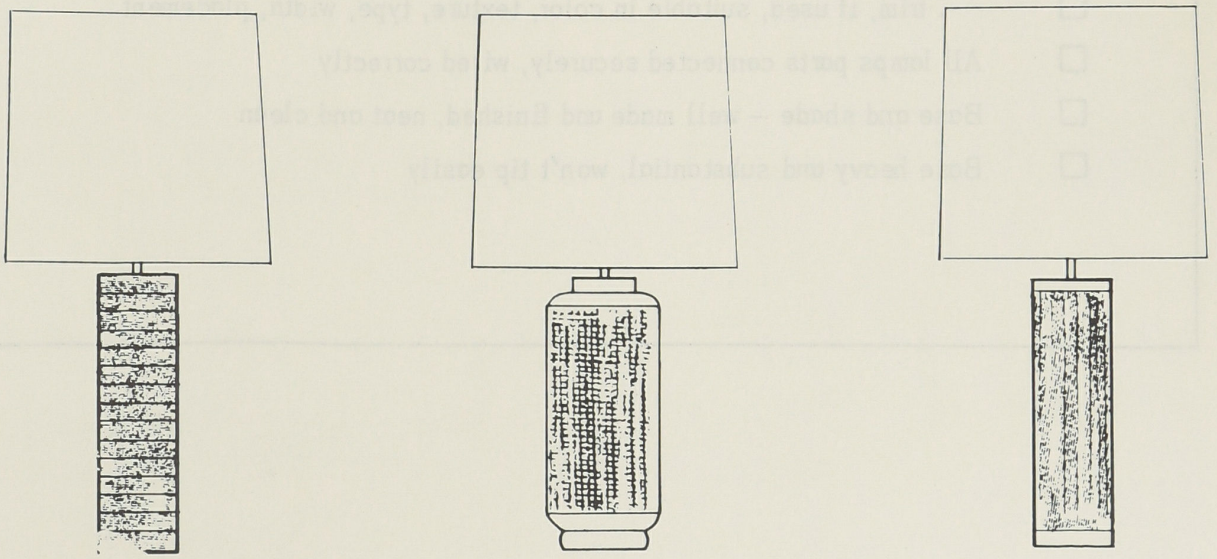
For the comfort of your eyes, an opaque shade should be similar to the wall color. Translucent shades should not be highly colored because, like a filter, they distort the color of light from the bulb.

Bases that are light in color reflect more light than darker ones, and will make your work area seem lighter.

Texture. You also will want the textures of the shade and base to harmonize with each other and with the main textures of the room.

Trim. Many shades are attractive without any trim. If you want trim, choose one that doesn't overpower the shade or interfere with the light.

Flat trim that is the same or similar in color to the shade makes a smooth finish. Decals and other decorations on the sides of the shade give a spotty effect and interfere with the light.



Decoration that follows the shape of the base seems to "belong."

HERE'S A CHECKLIST TO HELP YOU SELECT OR MAKE A STUDY LAMP

- ☐ Base height . . . . . 15 to 17 inches

Shade

- ☐ . depth . . . . . 8 to 12 inches
- ☐ . bottom diameter . . . . . 15 to 17 inches
- ☐ . top diameter . . . . 8 inches minimum, 13 to 15 inches preferred

Bulb – one of the following types, at least 150 watts:

- ☐ . indirect white type
- ☐ . soft-white or eye-saving type
- ☐ . inside-frosted type used with diffusing bowl or disc
- ☐ Bottom of socket – level with or slightly below shade bottom
- ☐ Base – design suitable for its purpose
- ☐ Base and shade suitable for each other in color, texture, size, shape

Shade

- ☐ . dense enough to conceal lighted bulb
- ☐ . white lining
- ☐ . outside a soft light color
- ☐ . trim, if used, suitable in color, texture, type, width, placement
- ☐ All lamps parts connected securely, wired correctly
- ☐ Base and shade – well made and finished, neat and clean
- ☐ Base heavy and substantial, won't tip easily

LAMPS AND LIGHTING

Wake Up Your Room

LEARN	DO
1. The lighting requirements for a study center.	1. Check the color and gloss of desk or table top and background where you study; make any changes that are needed.
2. What makes a good lamp for reading and study.	2. Look at study lamps in stores or catalogs, using checklist; note prices.
2a. To apply principles of color and design to the lamp you make or select.	2a. Select or make a lamp for study center (dowel or newsprint-core base).
3. How to use a light meter.	3. Measure the amount of light on desk or table and wall where you study BEFORE you add or change anything.*
	3a. Measure the amount of light AFTER you have made changes or additions.

* Most light companies will lend a light meter to educational groups such as 4-H Clubs.

LAMPS AND LIGHTING

Furnishing To Suit

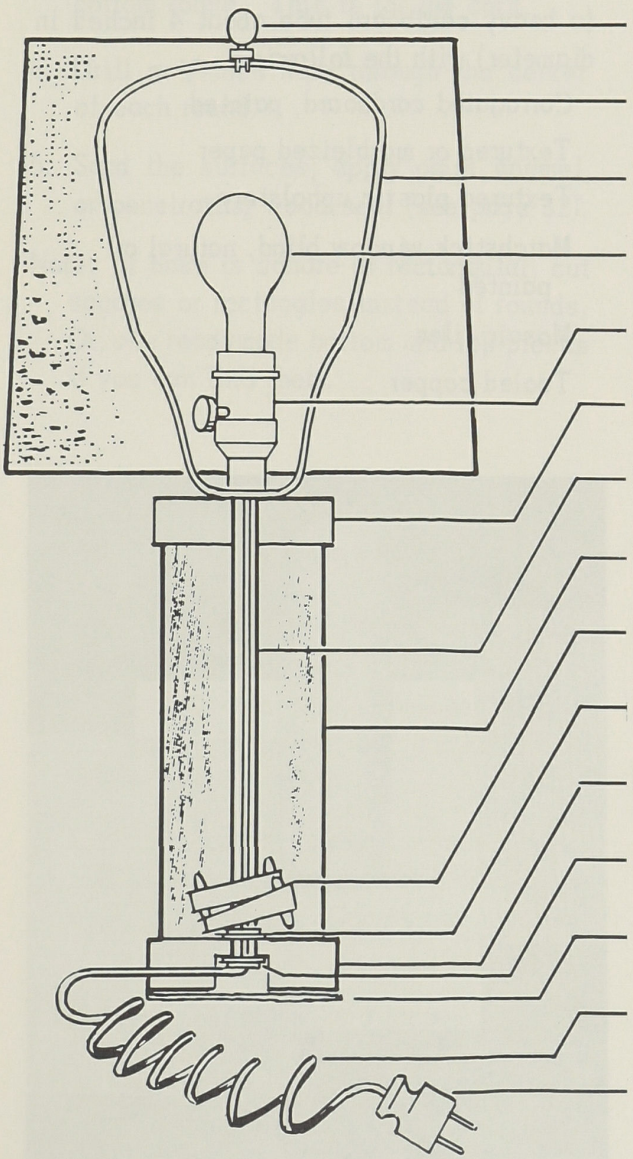
LEARN	DO
1. To apply lighting principles to other areas in the home.	1. Work out the lighting for a family business center, a study center for a brother or sister, or other area. 1a. Select or make a lamp for this center. 1b. Make a poster for an exhibit to show lighting requirements for easy seeing.
2. To analyze lamps in terms of lighting principles.	2. Analyze a lamp in your home for — • total height in relation to person seated on chair or sofa • device for diffusing light • wattage and type of bulb(s) • size and shape of shade or globe • color of shade lining • placement 2a. If needed, make changes that will improve lamp or fixture. 2b. Find and mount at least two pictures that show good and poor lighting for specific visual tasks. Under each, briefly give reasons for your choice.

LAMPS YOU CAN MAKE

When you know the essential parts of a lamp and how to assemble them, you can make a good-looking lamp from almost any material that's the right size and pleasing in design. The main parts are 1) a shade and bulb, 2) a pipe to carry the cord through the base to socket, and 3) a base to conceal the pipe and support the socket, bulb, and shade (see drawing).

Before you decide to make a lamp, you'll want to figure the cost of supplies. Then compare the total cost with prices of readymade lamps in local stores or catalogs.

Use the checklist on page 46 to judge readymade lamps. Remember – a lamp that doesn't meet the requirements of good lighting is not a wise buy.

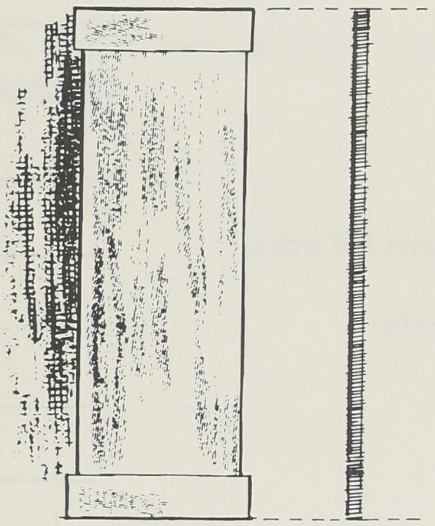


Your Shopping List	Prices
	$
Finial	_____
Shade	_____
Harp	_____
Bulb (at least 150 watts)	_____
Socket (3-way)	_____
Top round	_____
Pipe	_____
Base	_____
Weights	_____
Locknut and washer	_____
Bottom round	_____
Locknut and washer	_____
Felt to cover bottom	_____
Cord (9 to 12 feet)	_____
Wall plug	_____
Total	$_____

TIPS ON PLANNING YOUR LAMP

Harp. If you are going to use an indirect white bulb, you will need a wide harp. The height of the harp will depend on the depth of your shade. Choose a harp that fits under the socket; it's sturdier than the type that screws onto the top of socket.

Pipe. Use threaded $\frac{1}{8}$-inch electrical pipe. To figure the length of pipe you need: Add the height of your base and the thickness of the top and bottom rounds—this is pipe length (see drawing).



Weights. A lamp needs to be weighted near the bottom to keep it from tipping easily. To keep the weight from shifting and rattling inside the base, anchor it to the pipe with plastic electrical tape or wire. Suggested weights: lead discs, sinkers, plaster of Paris, or rocks in small bag. One pound of weight is enough for a base 15 inches high.

Planning the base. Of all parts, the base gives the most opportunity for individuality. It may be made of wood, pottery, glass, metal, heavy cardboard, or a clay drain tile. Browse in building supply and hardware stores and second hand stores for other ideas. You'll want the material to be cleanable and durable. Keep in mind that the base must have a hole down the center for the pipe and cord.

Be sure the base is **cut square at the top and bottom** so it will be perpendicular to the desk when the lamp is completed. A good miter box will help you cut your base pieces accurately.

Tubes or pipes 3 to 5 inches in diameter lend themselves to a variety of designs. For example, you can cover newsprint core (a heavy cardboard tube about 4 inches in diameter) with the following —

Corrugated cardboard, painted

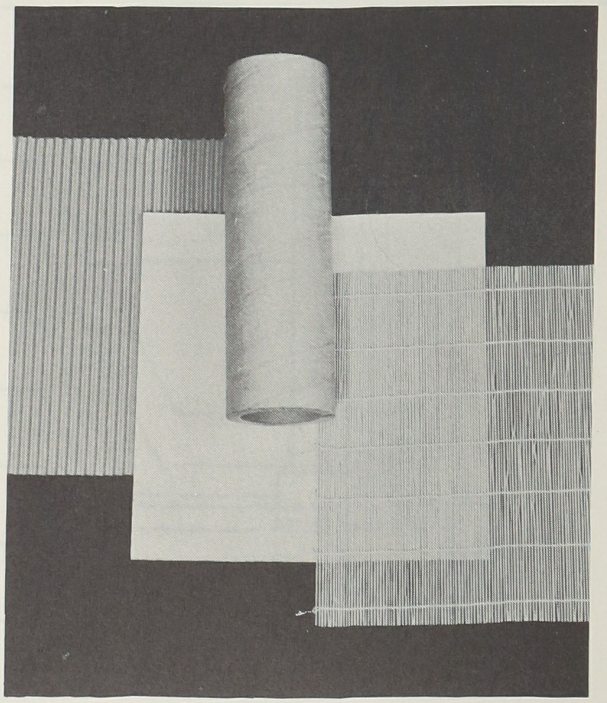
Textured or marbleized paper

Textured plastic upholstery

Matchstick window blind, natural or painted

Mosaic tiles

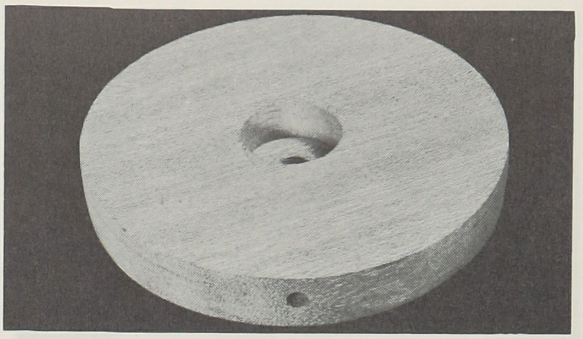
Tooled copper



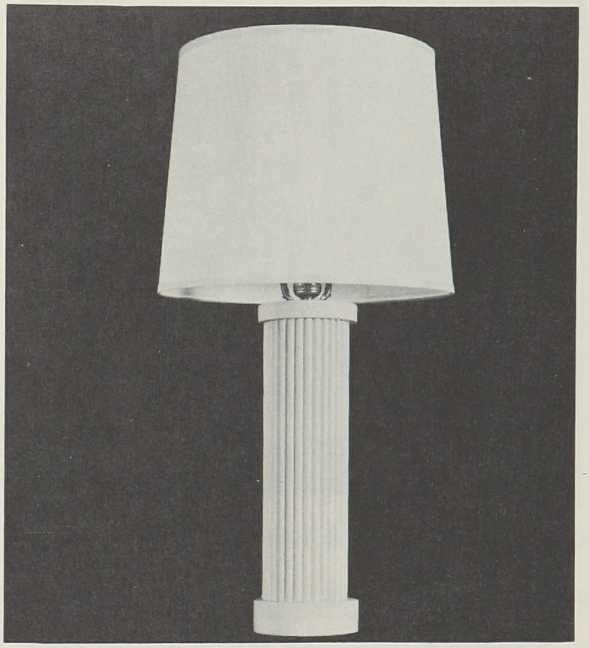
HOW TO MAKE ROUNDS

1. Cut two from solid lumber ⅝ to 1 inch thick. (Top piece may be thinner—½ to ¾ inch thick.) Rounds that are 1 or 1½ inches wider than diameter of the base will be substantial and in good proportion.
2. In the exact center of the bottom round, countersink a hole 1 inch in diameter and ½ inch deep (⅜ inch deep on a thinner piece).
3. Drill a ¼-inch hole through the side of bottom round. This is for the cord.
4. Drill a ⅜-inch hole through the center of each round.
5. Sand the surfaces; apply paint, enamel, or penetrating wood seal (see page 32).

Note: If base is square or rectangular, cut squares or rectangles instead of rounds. Or, use readymade bottom and top pieces if you can find them.



Bottom round.

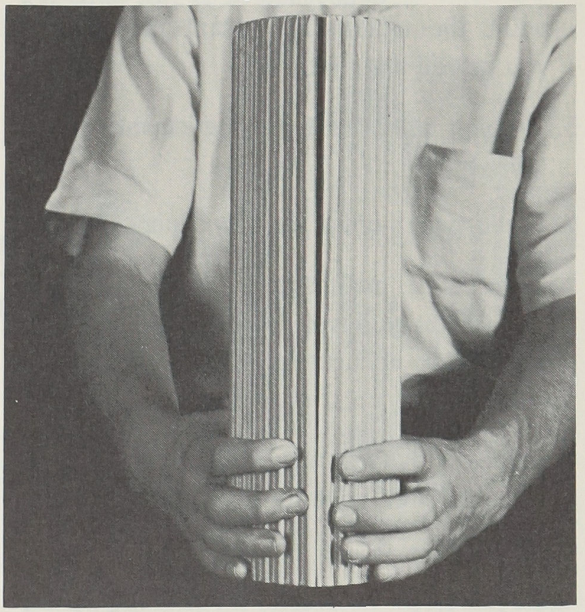


Lamp made from newsprint core and corrugated cardboard.

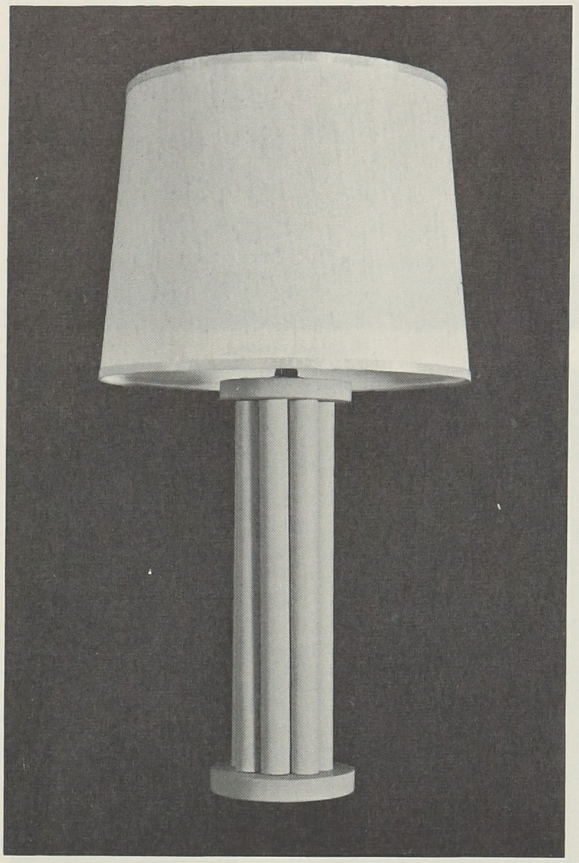
HOW TO MAKE A BASE FROM NEWSPRINT CORE

1. Decide total base height you want. Check total thickness of top and bottom rounds; subtract this from base height. Cut core this length; be sure both ends are square.
2. Cut cover materials exact length of base, and as wide as the distance around the base, plus ½ inch. Covers can be of various materials.

- On paper covers, make a lapped seam.
- Fit corrugated cardboard and plastic smoothly around core; trim off extra width to make a butted seam.



Fit cover smoothly around core.



- Fit matchstick blind smoothly around core. Remove extra sticks but do not cut cord. Tie ends of cord together. If you plan to paint the matchstick, paint tube before you attach matchstick.

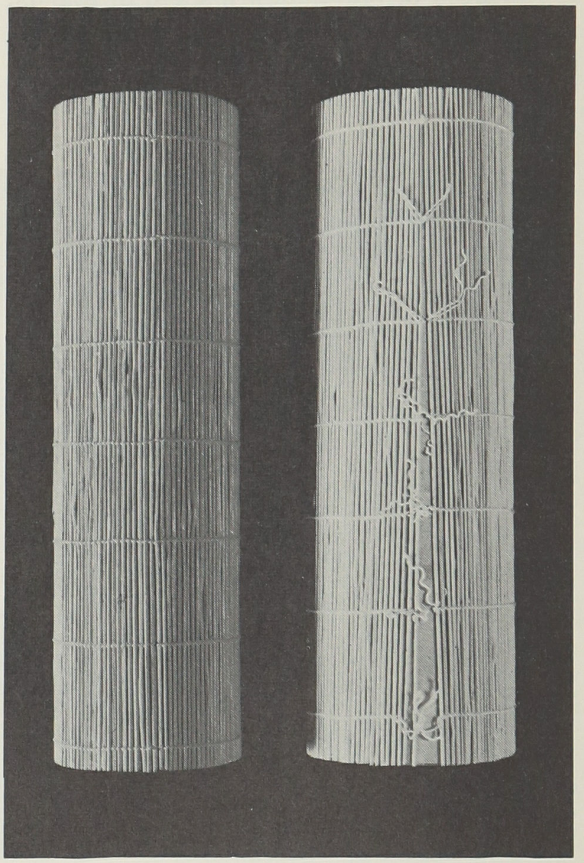
3. Attach cover to the base smoothly and evenly.

- For a paper cover, use wallpaper paste.
- Corrugated, matchstick, and plastic: apply white glue where seam edges meet; hold cover accurately in place with large rubberbands until glue dries.
- Attach mosaics and tooled copper with recommended adhesives. Add grouting to mosaics.
- Be sure all materials are **thoroughly dry** before you assemble lamp.

HOW TO MAKE A BASE WITH DOWELS

Materials: Mailing tube 1¾ inches in diameter; 8 lengths of pine dowel 1 inch in diameter. If the diameters of your materials are different from these, experiment to see how many lengths of dowel you need. Do not use dowel that is warped.

1. Decide total base height you want. Check total thickness of top and bottom rounds; subtract this from total base height. This is the length for your base pieces.
2. Cut tube and dowels the length of your base. Be sure all pieces are the **same length** and **square** at **both ends**. Cut mailing tube with sharp knife.
3. To see if you have enough dowels to cover the tube, arrange them around tube and hold with rubberbands. If dowels

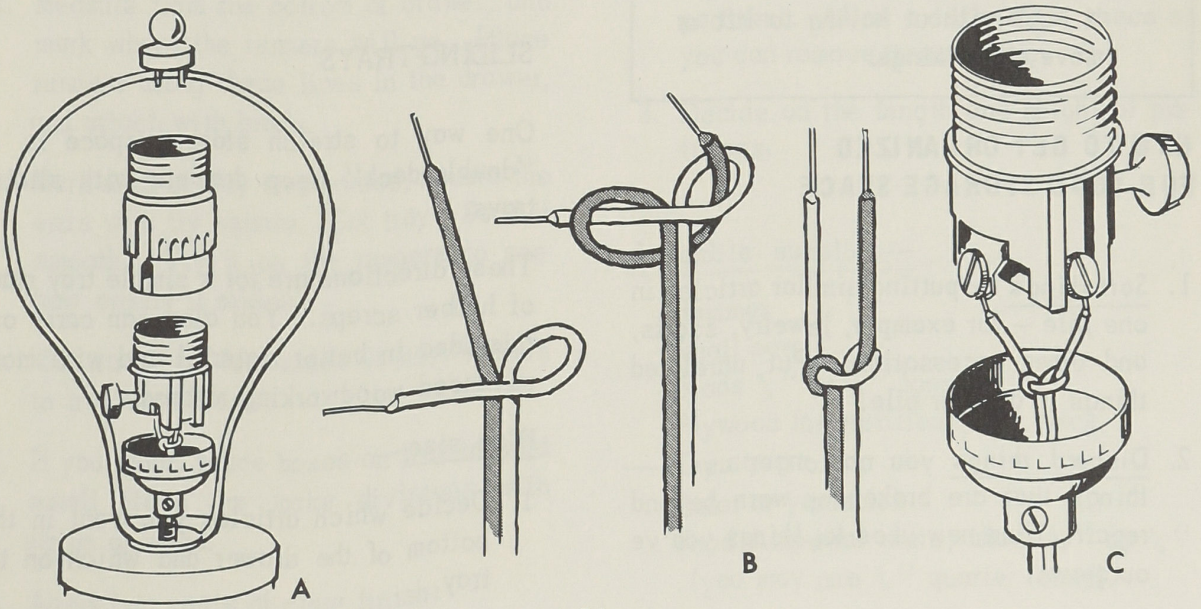


do not fit close together, leave small even spaces between them.

4. Sand and smooth dowels.
5. Apply a straight line of white glue to one dowel. Lay dowel against tube on a level surface with cut ends even. Hold them close together with a rubberband at each end until glue dries.
6. Attach second dowel the same way, placing it next to the first one. Attach the rest of the dowels two at a time.
7. After glue dries, apply paint or low-gloss enamel.

HOW TO ASSEMBLE YOUR LAMP

1. Put locknut and washer on one end of pipe.
2. Add the bottom round below nut.
3. Put second locknut and washer on pipe below round. Adjust them so pipe doesn't extend below the round. Pipe is now secured to bottom round.
4. Drop sinkers over pipe and attach them to pipe with tape or wire. Weights must fit inside the base.
5. Set base over pipe and weights; add top round. Be sure base is exactly centered on bottom and top rounds.
6. Put harp over pipe (see drawing A).
7. Remove cap from socket and loosen setscrew on cap.
8. Screw socket cap to pipe; tighten setscrew.
9. Run one end of cord upward through holes in the bottom round and pipe. Allow about 1 foot of cord above socket so you can work easily on socket and cord.
10. Tie an Underwriters' knot in end of cord to take the strain off wires in the cord (see drawing B).
11. Attach cord to body of socket (see drawing C). Replace insulating paper and brass shell.
12. Pull extra cord down through pipe and bottom round. Press shell into socket cap.
13. Attach cord to plug the way you attached cord to socket.
14. Glue felt to bottom round.



STORAGE

Planning storage space is like working a puzzle — it challenges your imagination and your originality.

What is good storage space? It is a handy place to put specific things – jewelry, neckties, sweaters, phonograph records, dishes, tools, etc. Well-planned storage helps you use the space in your house and garage to the best advantage. It also helps reduce clutter and makes a place more attractive. Can you think of other benefits to your family?

THE ABC's
OF GOOD STORAGE SPACE

- Each article is nearest the place you use it.
- Articles you use together are stored together.
- The space fits the article that's stored in it.
- You can reach an article and put it back without having to lift or move other things.

HOW TO GET ORGANIZED FOR GOOD STORAGE SPACE

1. Sort things by putting similar articles in one pile – for example, jewelry, scarfs, and other accessories. Put unrelated things in another pile.
2. Discard things you no longer use — things that are broken or worn beyond repair. Find new uses for things you've outgrown.
3. Plan the size of the spaces by laying out and measuring the articles you intend to store together. For example, measure gloves, scarfs, and jewelry to determine the size and position of sliding trays or partitions for drawers. Allow a little extra space so you can remove items easily.
4. Decide whether you will buy or make the storage device you need. Consider the cost of readymades and materials for do-it-yourself, and your time and budget.
5. Add glamour with fabric, wallpaper, plastic adhesive paper, paint, etc. A few personal touches make good storage space more fun to use.

SPACE STRETCHERS FOR DRAWERS

Do you need more drawer space in your home? Or just better organized drawers? If your answer is yes, try some of the following ideas.

SLIDING TRAYS

One way to stretch storage space is to "double-deck" deep drawers with sliding trays.

These directions are for a simple tray made of lumber scraps. You also can carry out this idea in better material and with more advanced woodworking methods.

Plan size—

1. Decide which articles you want in the bottom of the drawer and which on the tray.

2. Decide which way you want the tray to slide—front to back or side to side; also how near the top of drawer the tray should be (see drawing).

3. Plan the size of the tray. Don't make it larger than half of the drawer area minus 2 inches. If tray is larger, it will be hard for you to see items in the bottom of drawer.

Assemble supplies—

Hammer
Small saw
Brads ⅜" or ½" long
Plywood for tray, ¼" or ⅜" thick
Try square
Ruler or yardstick
Wood strips for runners and sides of tray, about ¼" by ½" (you may use ¼" quarter round for runners).

Make tray—

1. Cut two runners the length or width of inside drawer, depending upon which way the tray slides. Sand the runners smooth.

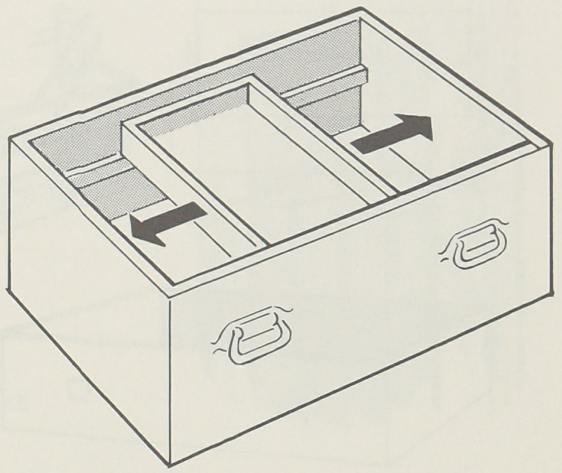
2. Measure from the bottom of drawer, and mark where the runners will go. Place runners along these lines in the drawer, and attach with brads.

3. Mark size of tray on plywood; square the ends with try square. Cut tray. Sand it smooth. Try it on the runners to see how easily it slides.

4. Cut strips for four sides of tray. Attach to tray with brads.

5. If you wish, place boxes on tray to hold small items, or make divisions with strips of wood.

6. Apply two coats of clear finish.



DRAWER PARTITIONS

Partitions help keep drawers neat and the articles in good condition and easy to reach. Whether you make or buy partitions, the main job is to plan the compartments to fit the things you want to keep in the drawer.

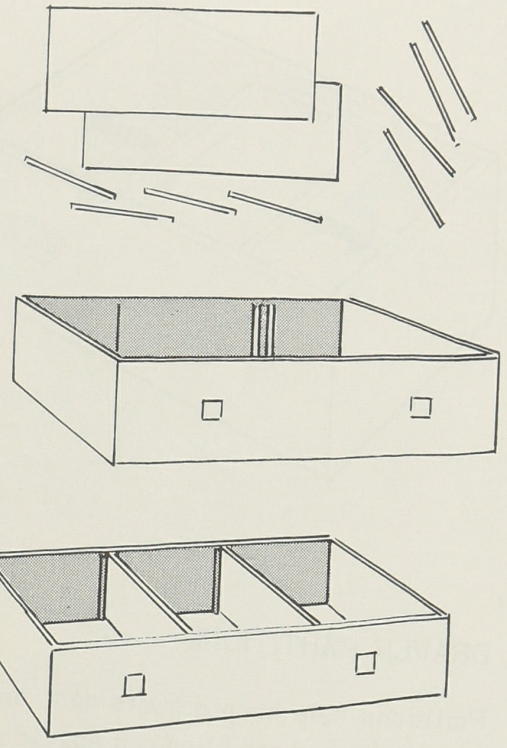
Plan size—

1. Measure items that will go in each compartment. Allow a little extra space so you can remove items easily.

2. Decide on the length and height of partitions.

Assemble supplies—

Hammer
Small saw
Brads ⅜" or ½" long
Plywood for partitions, ¼" thick
Try square
Ruler or yardstick
Wood strips for slots, about ¼" by ½" (you may use ¼" quarter round).



Make partitions—

1. Mark size of partitions on plywood. Square the edges with try square. Cut partitions. Sand them smooth.
2. For one partition, cut 4 wood strips the height of the partition. Sand them smooth.
3. On the sides of drawer (inside) mark where the partitions will go.
4. On each side of drawer, nail a strip along the pencil lines.
5. Hold the partition against the nailed strips. Then draw a line along the partition at each end.
6. Nail two more strips along the new pencil lines. Insert the ends of the partition in the slots.

MORE ON DRAWERS

Have you ever used plastic trays with compartments to hold jewelry, grooming aids, or sewing supplies? They are colorful, easy to clean, and good organizers.

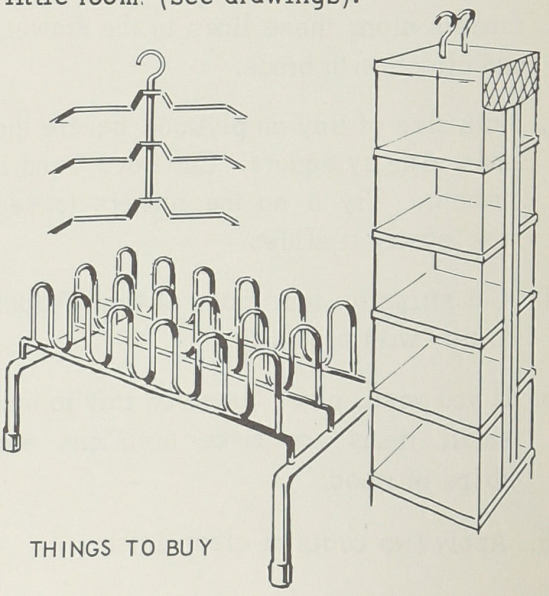
A few variety stores carry metal clips that can be driven into the sides of a drawer. Each clip makes a slot or groove that holds the end of a ¼-inch plywood partition.

Drawer lining of heavy paper or plastic adhesive paper will wrinkle less and clean more easily than thinner paper.

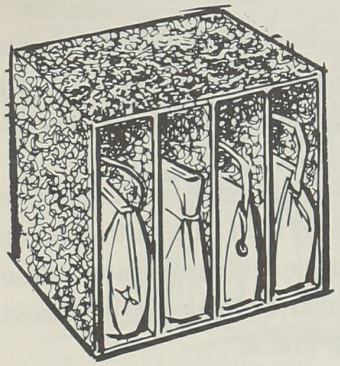
SPACE STRETCHERS FOR CLOSETS (CUPBOARDS, TOO)

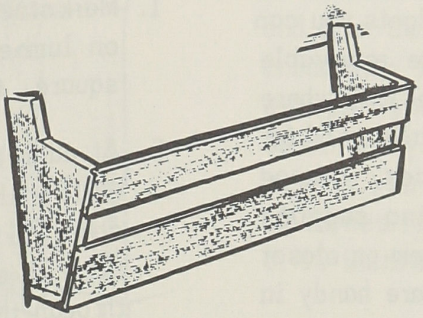
Even a cubbyhole closet can be organized to hold lots of things and keep them in good condition. Whatever size a closet is, the ideas below will help you stretch the space and make it handy to use.

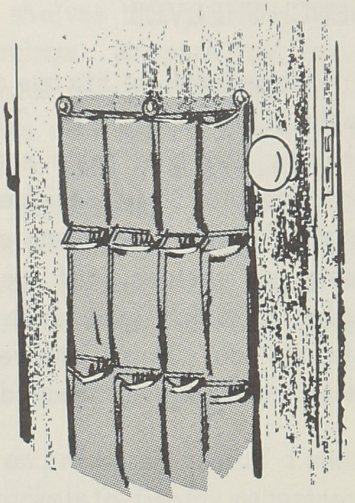
Things to buy. You will find a big assortment of hangers, hooks, rods, racks, and other accessories in notions departments, variety and hardware stores, and mail-order catalogs. Readymade metal and plastic accessories are lightweight and take very little room. (see drawings).



THINGS TO BUY







THINGS TO MAKE

Things to make. You also can make storage racks and shelves from lumber, and bags and cases from fabric or plastic for shoes and purses. You can paint or cover boxes with pretty paper or fabric to hold hats, shoes, sweaters, etc. (see above).

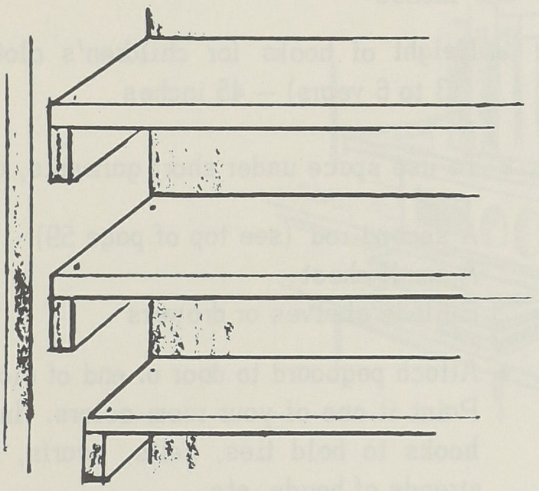
Shelves. You often can improve a closet or cupboard simply by adding a shelf or two. One easy way to add a closet shelf is to screw wood cleats to opposite walls. The cleats should be about ¾ inch by 2 inches, and as long as your new shelf is wide. Set the shelf on the cleats, then nail it to each cleat at the front and back (see below).

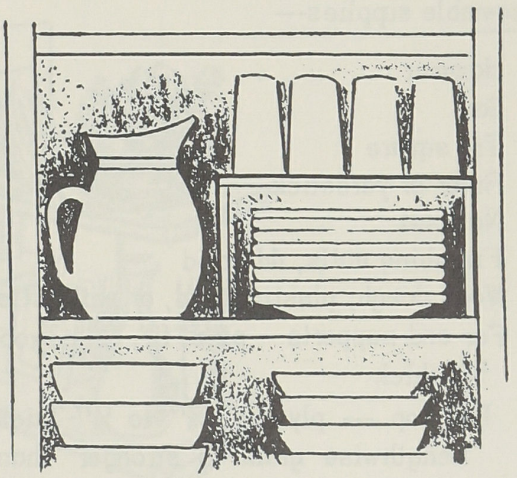
To add a shelf to a wood cabinet or cupboard, use cleats about ¾ inch by 1 inch. Use bench shelves in metal cabinets (see drawings below).

Space between shelves. Lots of good space goes to waste in many places because the shelves are much farther apart than they need to be.

Plan the space between two shelves to fit the height of the things you will keep on the lower shelf. Be sure to add 2 to 3 inches so your fingers can easily grasp the items to be kept on the shelf.

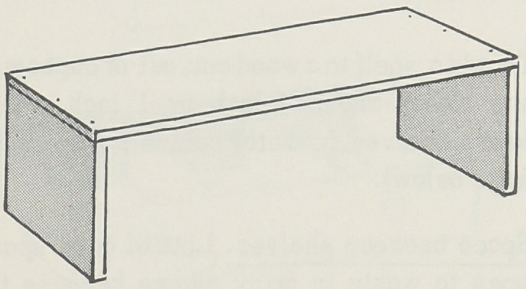
In a closet, place the first shelf 3 inches above the rod.





BENCH SHELVES

One of the handiest storage gadgets you can build is a bench shelf. These removable shelves give you extra space just where you want it. They are especially good for holding dishes, glasses, spices, canned foods on shelves, and cleaning supplies under the sink. You can use them on closet shelves too. Bench shelves are handy in metal cabinets and in rented homes.



Plan size—

1. Line up the items to be kept on the shelf and below it. Measure them.
2. Decide on the height, length, and depth of the shelf.

Length _____ Height _____ Depth _____

Assemble supplies—

Hammer
Saw
Try square
Ruler or yardstick
Nail set
Finishing nails, 4d or 6d
Wood dough, plastic wood, or putty stick
For end supports – pine, fir, or redwood ¾" thick
For top — plywood ¼" to ½" thick
Lengthwise grain is stronger than crosswise.

Make shelf—

1. Mark size of end supports and top pieces on lumber. Square the edges with try square. Cut pieces. Sand them smooth.
2. At each end of top, lightly mark where nails will go – ⅜ inch from cut ends and about 2½ inches apart (use at least three nails at each end). Drive nails almost through the top piece.
3. Set top on end supports and drive in nails.
4. Countersink nails about 1/16 inch with nail set. Fill holes with putty stick or wood dough in matching color. When dough is completely dry, sand off excess.
5. Apply two coats of clear finish.

MORE ON CLOSETS

- Height of closet rod needed for—

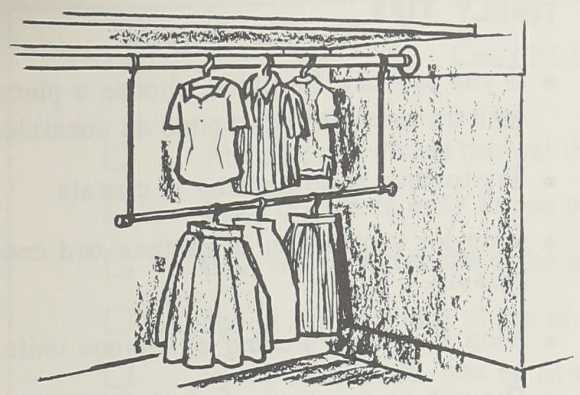
  Dresses – 58 to 63 inches
  Skirts, blouses – 40 to 45 inches
  Trousers, suits – 40 to 45 inches
  Children's clothes (6 to 12 years) – 45 inches
  Children's clothes (3 to 6 years) – 30 inches

- Height of hooks for children's clothes (3 to 6 years) – 45 inches

- To use space under short garments, add:

  A second rod (see top of page 59)
  A small chest
  Built-in shelves or drawers

- Attach pegboard to door or end of closet. Paint it one of your room colors. Insert hooks to hold ties, belts, scarfs, long strands of beads, etc.



OTHER SPACE-STRETCHING IDEAS

Every family has possessions that aren't stored in closets, cupboards, or drawers. To see the variety of readymade storage units that you might use for these possessions, check mail-order catalogs and your stores. Look for do-it-yourself directions at hardware stores, lumberyards, and in books and magazines at your library.

BOOKS

- Unfinished readymade bookshelves
- Board-and-brick shelves (directions in Start with a Small Change members' manual)
- Shelves on brackets fitted into wall strips
- Shelves on floor-to-ceiling poles

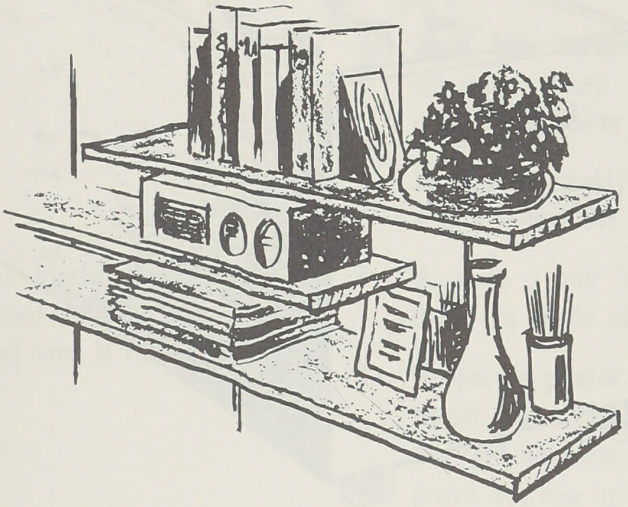
Select or build shelves that you can adjust to different spacings. Measure your books and plan the space between shelves to accommodate books of several heights. For example, you may need to allow an 8-inch space for your paperbacks, 10 inches for most of your hardbound books, and perhaps 12 inches for your largest books. A depth of 10 inches will take care of most books.

MAGAZINES

- Wall shelves on brackets – install a shelf on sloping brackets to display magazines; stack back issues on a regular shelf.
- Bookshelves – adjust shelves to fit the size and number of magazines you keep on hand.
- Box – paint or cover with wallpaper a very sturdy carton that fits your magazines.

PHONOGRAPH RECORDS

- Metal racks to set on a shelf or in a cabinet near your record player.
- Box – same idea as for magazines but of a size and height to fit your records.



TOYS

Store toys so children can easily reach them and put them away. Leave off lids and doors that might pinch children's fingers. Use a different color on the storage unit for each child's toys.

Three- to six-year olds can reach shelves up to 48 inches high.

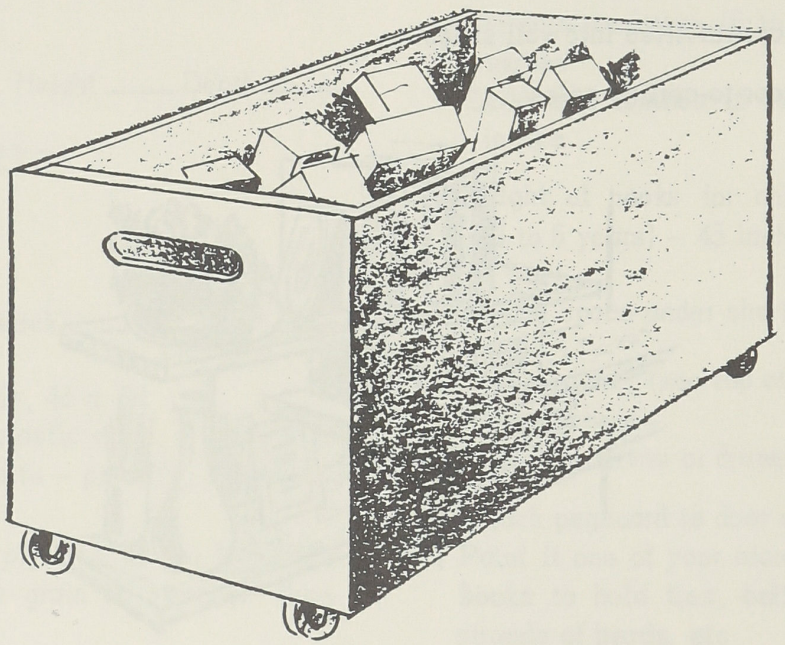
- Plastic vegetable bins for small toys, placed on open shelves. Paint shelf same color as bins to show where to place them.
- Boxes – cover strong, small cartons with plastic adhesive paper; mark each child's box with his name in large letters.
- Plywood box or fruit box on casters that child can roll in and out of closet. To prevent splinters, be sure wood is sanded very smooth, inside and out.
- For children's drawings – attach fiberboard to wall; paint it a color that looks nice with other room colors. The height of the board depends upon the height of the children who will use it.

TIMELY TIPS

- If you buy new furniture, choose a piece with as much storage space as possible.
- Try to have good lighting in closets.
- Plan for ventilation in clothes and coat closets.
- Plan for easy cleaning of storage units.
- Prevent an invasion of clothes moths or other household pests.

POINTS TO REMEMBER

- ▲ Convenience comes from making the best use of the storage space you have in your home.
- ▲ Be a space saver – not a space waster.
- ▲ Well-planned storage space should be well used – make a habit of putting things back in their appointed places.



CHECKLIST FOR STORAGE SPACE

- ☐ Articles are stored nearest the place where you use them.
- ☐ Each article is easy to see and reach.
- ☐ Only articles that are alike are stacked or stored in front of each other.
- ☐ Space fits size and shape of articles stored.
- ☐ Space is flexible, can be changed to add new articles.
- ☐ Arrangement is attractive and orderly.
- ☐ Useless or outgrown articles are removed from prime storage space.
- ☐ Arrangement is easy to keep clean; protects articles from dust.
- ☐ Storage unit is well made – neat, sturdy, smooth.

STORAGE

Wake Up Your Room

LEARN	DO
1. How to plan storage for things you keep in your room.	1. List the personal belongings that are hardest for you to keep in order. Plan a better way to store them.
2. Ways to add and improve storage in your room.	2. Carry out the plan you made in step 1 by making or buying a storage device, adding hooks or shelves, covering boxes, etc.
	2a. Sand the inside of a rough clothes drawer. Then apply clear finish or plastic adhesive paper.
	2b. Help your family paint or paper closet walls, renew the floor, etc.
3. About the different kinds, sizes, and grades of lumber that can be used for storage devices, and how it is measured and sold.	3. Arrange a tour of a lumberyard to see different kinds of lumber.
	3a. Prepare a poster or exhibit to show different kinds, sizes, and grades of lumber and how they might be used to improve storage space.

STORAGE

Furnishing To Suit

LEARN	DO
1. How to apply the ABC's of good storage to any part of your home or to any type of household article.	1. Plan the storage space for an area of your house or garage that needs more or better storage. Check your plan and the estimated cost in money and time with your parents. Carry out your plan by buying, building, or making whatever storage devices are needed.
1a. About different kinds of cabinet materials, closet doors, and ways of attaching storage units to walls.	1a. Help your parents build or install cupboards, cabinets, or a closet, or remodel a closet.
	1b. Make a collection of storage ideas from ads, magazines, catalogs, etc.
	1c. Prepare a poster or exhibit to show the principles of planning storage space.
2. How to keep clothes moths and carpet beetles, out of your clothing storage areas.	2. Carry out preventive measures.

FINISHING TOUCHES-ACCESSORIES

A room needs finishing touches--or accessories—just as an outfit of clothing does. Accessories are the small things—some useful, some just for fun—that spice up a room. Selecting, making, and arranging them is a wonderful way to personalize a room. But, like cake frosting and costume jewelry, they should not be overdone.

Some accessories are useful – they work for you—

- Grooming supplies
- Wastebaskets
- Desk supplies
- Bulletin boards
- Calendars
- Clocks

Some are decorative only, or mainly for fun—

- Pennants
- Pictures, wall decorations
- Photographs, snapshots
- Ribbons, medals, trophies
- Stuffed animals
- Souvenirs
- Plants, flowers
- Mobiles

Some accessories can be useful and fun, too—

- Books, magazines
- Maps, globe
- Collections
- Models
- Cushions
- Jewelry box

The more pattern and different colors you have in the basic furnishings, the fewer accessories the room can use. Our eyes enjoy the variety that accessories add to a room, but too much variety confuses and tires our eyes. For example, patterned wallpaper, a travel poster, a bulletin board, and a pennant would keep our eyes too busy. A plain wall makes a smoother background for pictures, posters, and other wall decorations.

HOW TO ARRANGE ACCESSORIES

You can learn lots about design by experimenting with arrangements of everyday objects. For example, try arrangements of—

- Your grooming supplies on the dresser
- Your writing and study accessories on the desk or table
- Decorative accessories on a shelf, coffee table, or mantel
- Cooking utensils on a pegboard in the kitchen
- Sewing tools on a pegboard above your sewing area
- Dishes, flatware, centerpiece, etc. on a picnic or buffet table

Here are guides for making your arrangements--

1. Arrange objects in a cluster or group instead of lining them up in a row or spreading them over a large surface. Our eyes like to see things organized and related to each other. For example, a group of cosmetics arranged on a small tray.

2. Within a group, combine different shapes and sizes. For example, something high, something low, something large, something small.

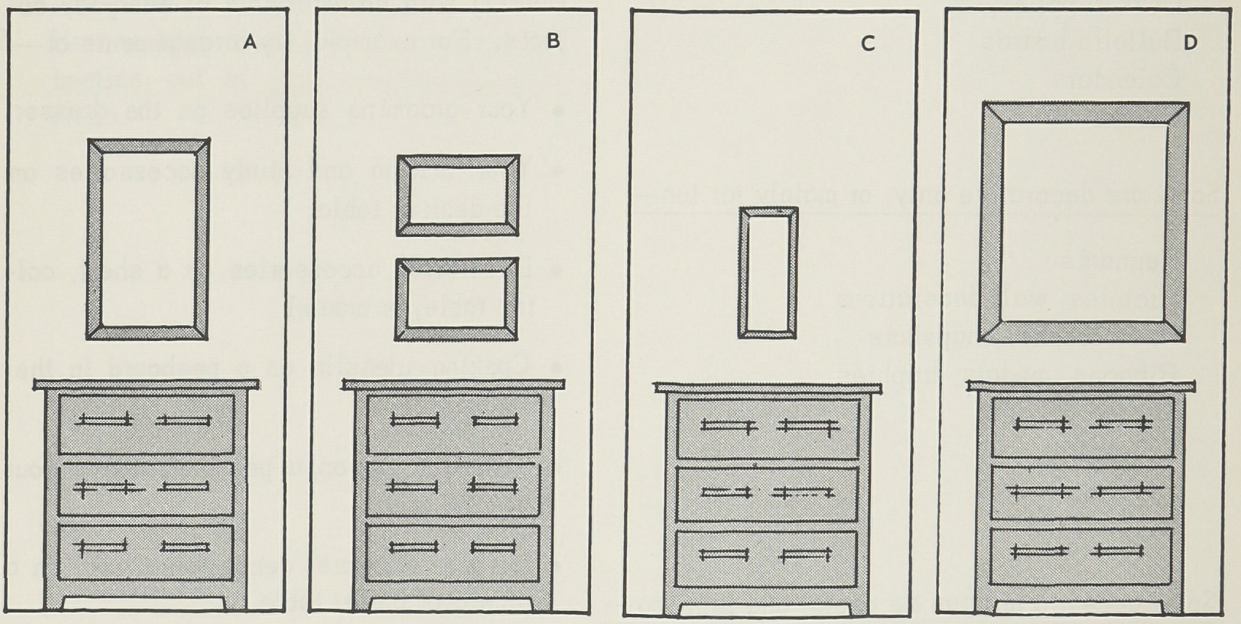
3. If you have a large accessory that is especially beautiful or very important to you, place it by itself. Choose a space that will show it to best advantage.

4. Leave some open space around groups or individual objects. Open space shows off accessories and gives our eyes resting places.

5. Select and arrange objects so they harmonize with the **size** of the surface or background (see drawings A and B). Things should not be so small that they seem lost in the space (see drawing C) nor so large that they appear crowded (see drawing D).

6. Select and arrange objects so they harmonize with the **shape** of the surface or background.

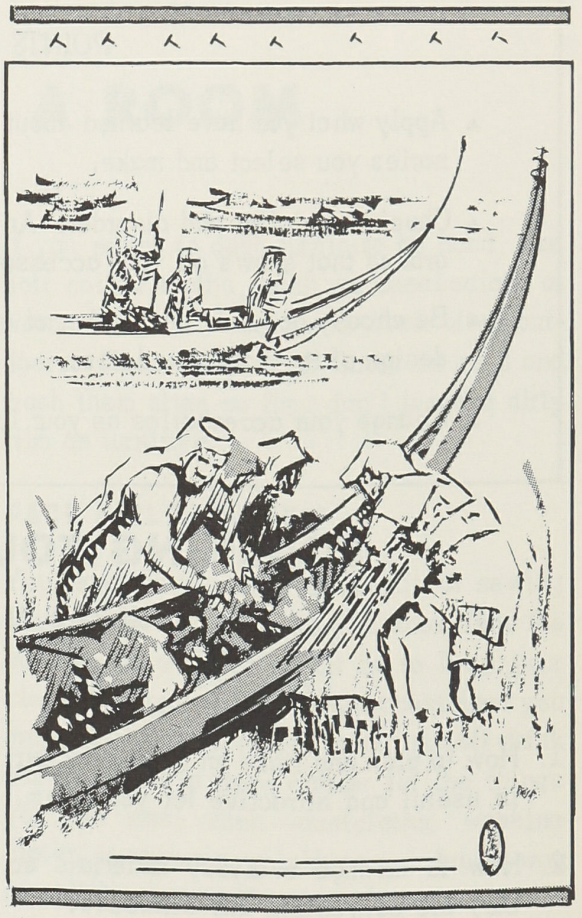
7. Hang a picture so it is a visual part of the furniture under it.

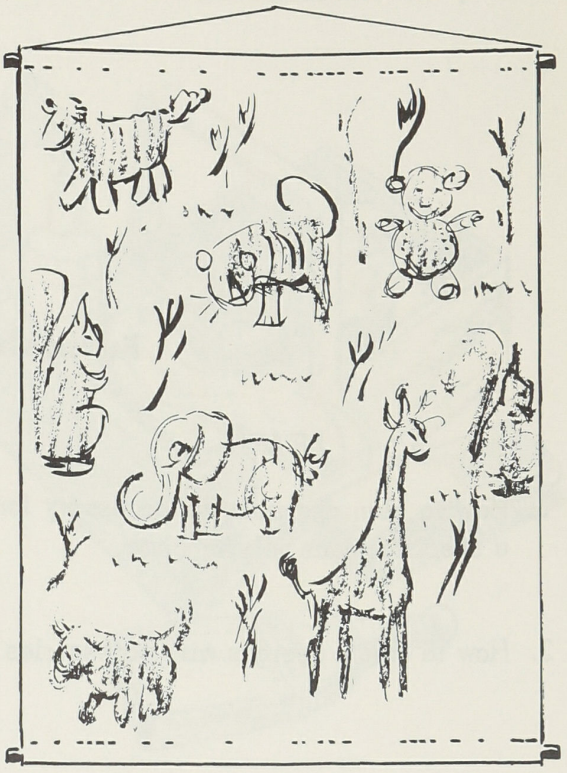


IDEAS TO TRY

Here are some ideas you might like to try in your home. Can you think of others?

- Place jewelry in a flat basket or on a tray on your dresser.
- Use heavy stones or pieces of quartz, with felt on bottom, for bookends.
- Arrange a rock collection on a slab of wood or wood tray.
- Mount seed, pod, and cone collection on straw place mats.
- Make a matching desk set – pencil holder, letter box, etc.
- Mount a map on ½-inch wallboard with wallpaper paste. Cut wallboard the same size as map. Cover the edges with plastic tape, at least 1 inch wide, in a harmonizing color.
- At the top and bottom of a travel poster, glue and tack strips of wood after you sand and paint them a harmonizing color. The poster will lie flat when you hang it (see drawing).
- Make a fabric wall hanging, lined like a drapery with sateen or muslin. Insert a painted wood dowel at top, or tack fabric to a flat strip of wood (see drawing).





TIMELY TIPS

- To keep your finishing touches looking their best, keep them clean and dusted.
- Be sure that small things, such as rocks or shells in a collection, are anchored or tacked down so they can't be spilled or lost easily.
- Throw away things that are no longer useful or of interest to you.
- Change some of your finishing touches with the seasons to give freshness and variety.

POINTS TO REMEMBER

- ▲ Apply what you have learned about colors, textures, and design to the accessories you select and make.
- ▲ Chuck the clutter and disorder. An uncluttered room makes a smooth background that shows off your accessories.
- ▲ Be choosy about 1) the number of accessories you use in a room and 2) the design of the ones you do use.
- ▲ Change your accessories as your interests change and grow.

FINISHING TOUCHES-ACCESSORIES

Wake Up Your Room

LEARN	DO
1. How to plan and make an accessory that is useful and attractive for your room.	1. Make one accessory from the list on page 65, or one of your own plan.
2. How to arrange everyday materials so they are convenient and attractive.	2. Try two different arrangements of the things you keep on your dresser, desk, or table. Make a brief sketch of each arrangement. Give two reasons why one is more pleasing to you than the other.
	2a. Arrange tools or utensils on a pegboard or other background.

Furnishing To Suit

LEARN	DO
1. How to plan and make an accessory for a specific place in your home.	1. Make an accessory from the list on page 65, or from an idea you have seen in a magazine or a friend's home.
2. How to create designs with accessories.	2. Try three different arrangements of accessories on a mantel, coffee table, buffet, lamp table, etc. Make sketches of each arrangement.

GROOMING A ROOM

A well-groomed room is nice in every way—to study and play in, to dress in, to sleep in, and to look at. Besides taking care of your room, it's also nice to know how to help care for other parts of the house. Your family will appreciate the smooth, efficient way you go about your cleaning activities.

A GOOD, FAST CLEANING JOB

The secrets of doing a good cleaning job in the shortest time are—

1. Have a convenient place for your things and make a habit of putting everything in its place when you're through with it—chuck the clutter!
2. Plan the order of your work—step by step or task by task; then test your plan to see if you can improve it. Work goes faster when you follow a tested, logical order for each job. For example, do above-the-floor dusting first, the floor last; work from the top of the room downward.

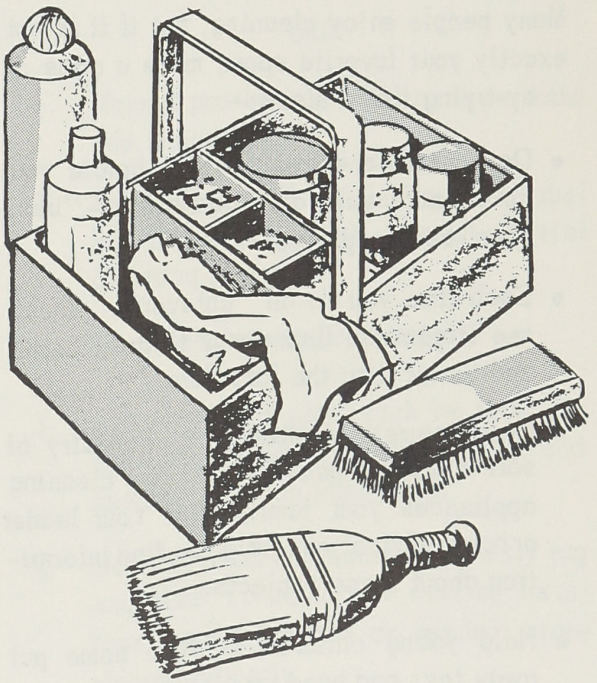
THE VACUUM CLEANER – A HELPING HAND

You probably already know how to use the vacuum cleaner to clean rugs. Have you learned how to use it for other cleaning jobs? The attachments are the best tools for dusting furniture and floors. They remove dust from the room instead of scattering it from one place to another.

If you prefer to dust furniture by hand, use soft cotton cloths, such as cheesecloth or worn outing flannel. Shake them often outdoors. Keep a supply of cloths on hand and wash them often so they don't leave a dirty film on furniture.

PACK A CLEANING KIT

You may already have a toolkit or sewing box to hold supplies, so you know that the purpose of a cleaning kit is to keep your cleaning supplies in a compact container you can carry and store with ease. A soft-drink carton makes a good carrier for the things you use most often—dustcloths, washing cloths or sponges, whiskbroom or brush, wax or polish, glass and mirror cleaner, etc.



SAFETY FIRST—AND LAST

- Read and follow directions on containers of cleaning products.
- Store cleaning products out of the reach of small children.
- Cloths with wax, polish, oil, or turpentine on them are flammable. Store them in a covered metal container.
- For jobs above your reach, stand on a sturdy step stool, not a chair or other furniture.
- Don't touch electrical switches or appliances with wet hands.
- Keep toys and small objects off the floor—they can cause falls.
- Don't stack things on steps or landings.
- Wipe up water and spills on floor—they can cause falls.
- Avoid a "lazy man's load"—don't carry more than you can see over.
- Keep babies and toddlers in playpen or out of room where you are cleaning.

TIMELY TIPS

Many people enjoy cleaning, but if it is not exactly your favorite sport, make a game of it by trying these ideas—

- Do your room-grooming jobs before you go to more enjoyable activities—"business before pleasure."
- Each time you do an "unfavorite" task, see if you can find a way to do it better and faster than the last time.
- Learn something about the chemistry of soil and soil removers, and any cleaning appliances your family has. Your leader or home advisor can help you find information about these subjects.
- Help young children in your home put away toys and hang up clothes.
- Wipe bathtub and washbowl after you use them.
- Straighten your towel and washcloth after you use them.
- Can you think of other timely tips for keeping your home clean and orderly? List them here.

GROOMING A ROOM

Wake Up Your Room

LEARN	DO
1. Some shortcuts in taking care of a room.	1. Assemble a cleaning kit. 1a. Make a bed in one trip around it.
2. How to plan timesaving steps for doing one task, such as changing bed linen, dusting furniture and floors.	2. Jot down the steps in the task. Experiment with your plan to see if you can improve it.
3. Safety first in cleaning and house care.	3. Make a poster to show safety tips in cleaning and house care. 3a. Practice safety tips when you clean your room.
4. How to do a job that is new to you, by yourself or helping your family.	

Furnishing To Suit

LEARN	DO
1. About two different kinds of household soil and soil removers.	1. Make a poster or exhibit to show soils and removers.
2. About the safety precautions and labeling requirements for cleaning products containing hazardous substances.	2. Make a poster or exhibit to show label information and safe use of several cleaning products. 2a. Use cleaning products safely.
3. How to plan and organize the tasks included in the weekly cleaning of a room.	3. Jot down your plan, task by task, for cleaning a room. Try out your plan and see how you can improve it.
4. How to assemble the vacuum cleaner attachments, clean rugs, dust floors and upholstery, empty the bag, and store the cleaner.	4. Use the vacuum cleaner for weekly rug and floor cleaning and dusting furniture; empty the bag as needed; store cleaner properly.

ROOM GROOMING CHECKSHEET

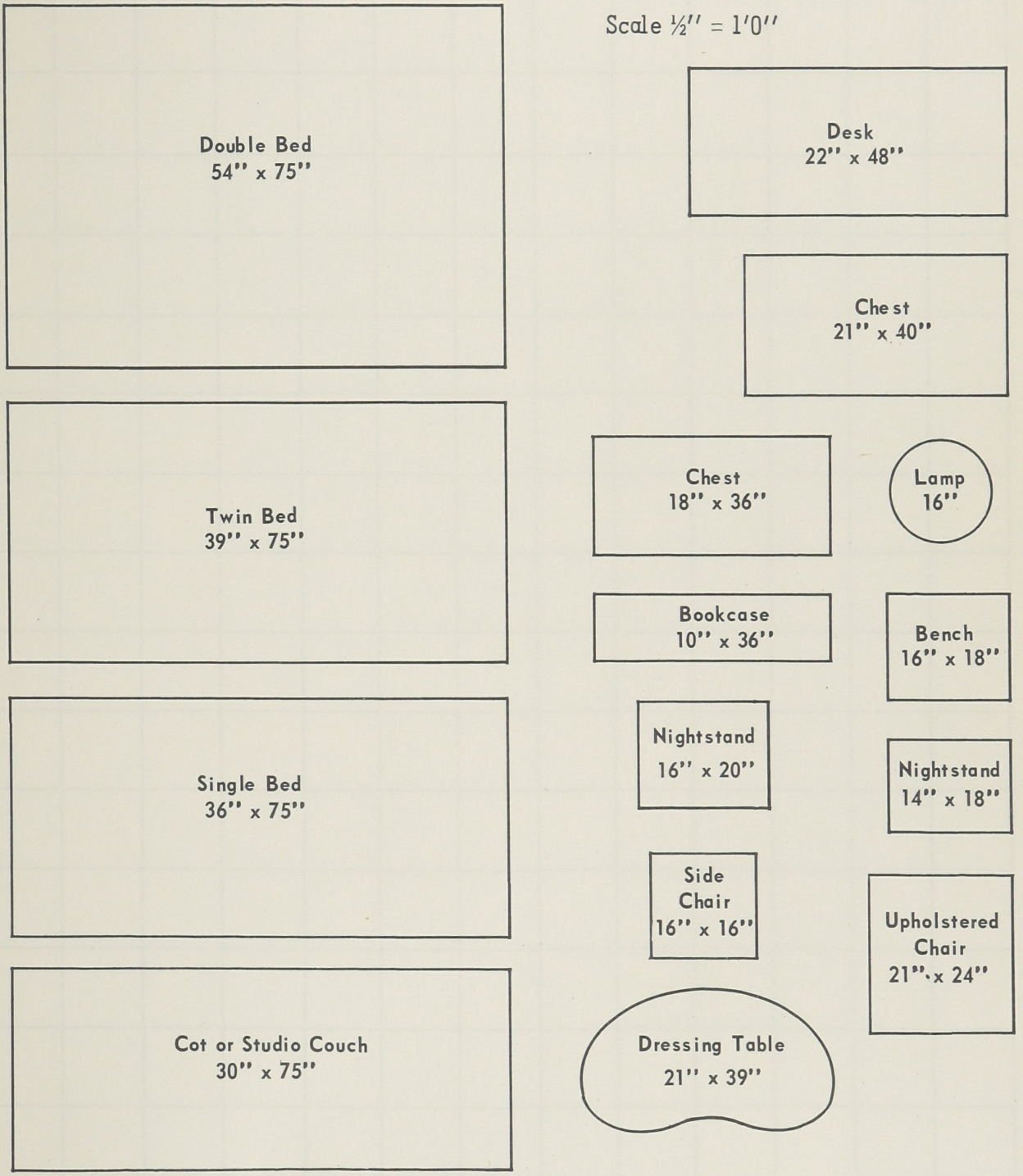
Good grooming is as important for a room as it is for your personal appearance. Make a habit of noticing and improving the grooming of a room, just as you have made a habit of combing your hair and washing your hands.

Check These for Daily Grooming	YES	NO
Have you made your bed so it is neat and smooth?	____	____
Have you hung up your clothes and put away your shoes?	____	____
Have you put soiled clothes in the laundry bag or hamper?	____	____
Are small rugs straight and flat?	____	____
Is the room free of clutter?	____	____
Check These for Weekly Grooming		
Have you changed your sheets and pillowcases?	____	____
Have you dusted floors, furniture, and windowsills?	____	____
Have you dusted books, magazines, and hobby supplies and arranged them neatly?	____	____
Have you dusted lamps, shades, and light fixtures?	____	____
Have you dusted picture frames and other accessories?	____	____
Are closets and drawers clean and well organized?	____	____
Have you discarded worn or useless objects and old magazines?	____	____
Have you emptied the wastebasket?	____	____
Check These for Special Grooming, As Needed		
Are picture glass, mirrors, and windows clean and sparkling?	____	____
Are curtains clean and fresh, and the fullness evenly distributed?	____	____
Are floors clean?	____	____
Are desk, shelves, table, and chairs clean?	____	____
Are walls and woodwork clean and free from fingerprints?	____	____
Are bedspread, upholstery, or chair covers fresh and clean?	____	____
Grooming Extras		
Are shades or blinds straight?	____	____
Are pictures and lampshades straight?	____	____

FURNITURE CUTOUTS

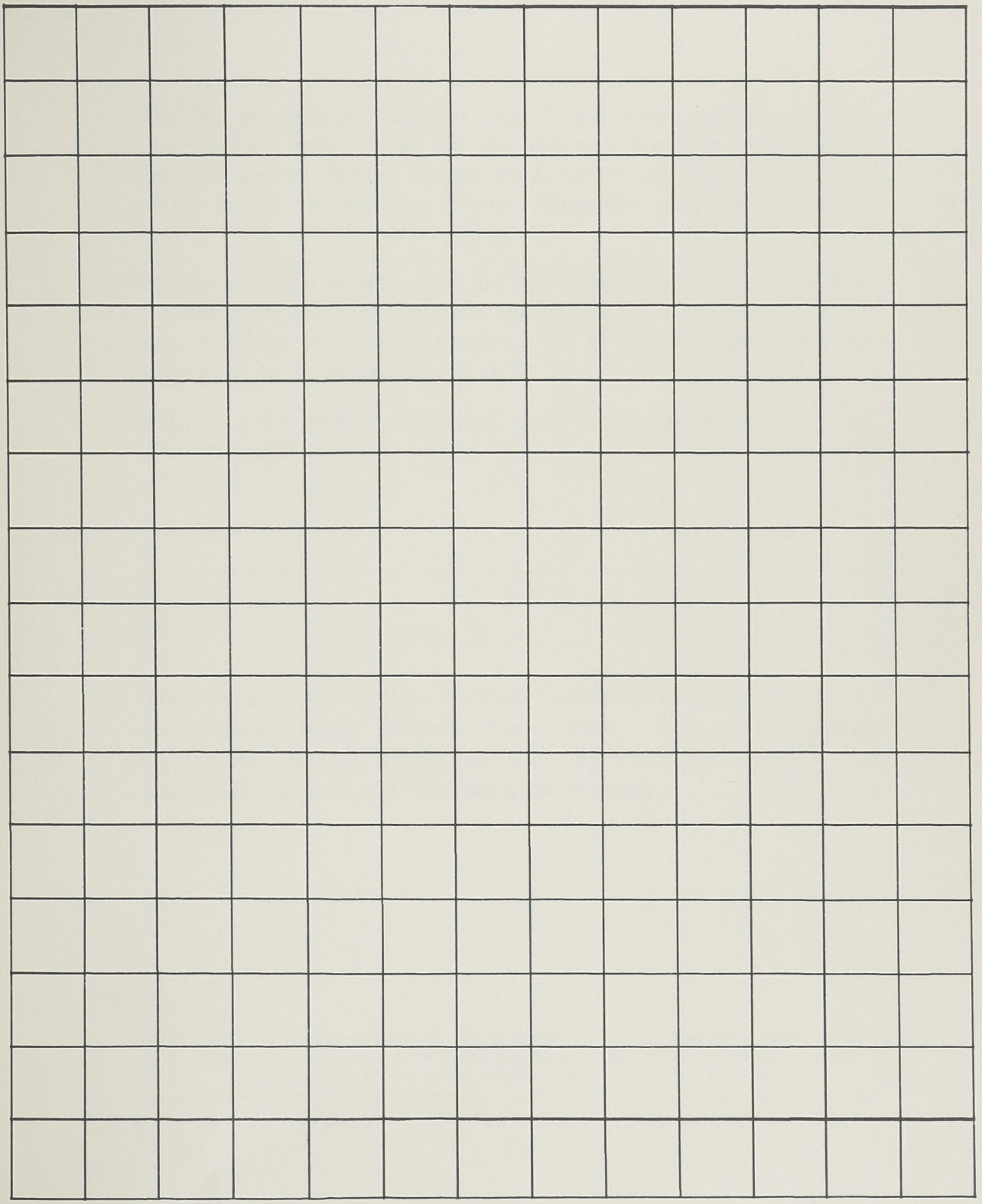
FOR FLOOR PLAN AND FURNITURE ARRANGEMENT

Scale ½" = 1'0"



Beds do not include head- and footboards. You may wish to measure your own furniture for accuracy.

WORKSHEET FOR FLOOR PLAN



A LOOK BACK
A LOOK AHEAD

Now that you have finished your project, look around your home to see what you have accomplished and what your project work has meant to you and your family. Browse through the things in your personal portfolio, review your Home Furnishing Record. Altogether, it's pretty impressive, isn't it?

It's not too soon to make plans for your next Home Furnishing project. Perhaps there are things in these units you didn't have time to do this year, or things you'd like to improve. And, of course, you now have the experience for larger and more difficult jobs.

Until your new project year begins, enjoy the results of this year's accomplishments!

The following members of the 4-H Home Furnishing Committee assisted with this manual: Delores Bonander, Fresno County; Gladys Boone, Alameda County; Ann Haddock, Santa Clara County; Virginia Porter, Sonoma County; and Dorothy Duncan, 4-H Club Specialist, Berkeley.

To simplify information, trade names of products have been used. No endorsement of named products is intended, nor is criticism implied of similar products which are not mentioned.