4-H

Home Environment

UNIT II

A PLACE TO WRITE AND STUDY

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Most 4-H Club members your age spend many hours each week on school assignments, 4-H records, or other reading and writing. This work involves long periods of using your eyes, sitting in one position, and a lot of concentration.

Because many young people do not have a desk space, they are forced to study at a kitchen table or card table that is not too comfortable and is not generally well lighted.

In this project you will work on improving your writing and study area. Here are some things you may do:

1. Refinish, remodel, or make a desk.
2. Provide good lighting for your desk. You can make a reading lamp or two pin-up lamps for your desk area, or buy a good reading lamp.
3. Make a desk pad and pencil holder for your desk.
4. You may wish to make or purchase a waste-paper basket to use at your desk area.
5. If you need a place for books, you can build shelves for them.

A well-planned study area will have a comfortable place to write, a convenient place for books, and will provide good lighting for reading and writing.

You will need to allocate a spot for your study area. This should be a reasonably quiet place where you can concentrate.

The table or desk you choose or make should be a comfortable height for you.

Recommended sizes for desks:
- Height: 28 to 30 inches
- Length: 36 inches or more

The size will depend partly on the space you have available.

You may find a suitable table on the back porch or in a secondhand store that will serve as a desk when remodeled and refinished.

Figure 1
For information on how to refinish furniture, ask your leader for leaflet Extension Home Economics-62, “Furniture Restoration.”

Above is a cabinet with a single set of drawers and table top with two legs which makes a convenient desk area. If there is enough space, use a set of drawers on each side of the desk area. This arrangement would take 16 inches more space. There should be from 24 to 30 inches of knee space in the desk area.

Book shelves in Figure 3 are supported by adjustable shelf brackets. Use brackets which will support heavy loads as books will be stored here. Fasten the shelf standard to a sturdy wall with screws or toggle bolts. You can get the shelf standards and shelf brackets from a building supply company or a hardware store.

To make the adjustable shelves, use these materials:
- Two shelf standards which are fastened securely to the wall.
- Two brackets for each shelf.

One 8-inch wide board the length you want for each shelf. (Two or three shelves would be good near your study area.)

The boards for the shelves should be sanded smooth and painted the color of the wall or desk or finished to match the desk.

A very simple type desk is one made by fastening a piece of plywood or a smooth door to the wall, supporting it with a chain at each end (Figure 5), or with two legs (Figure 6). The one with legs is more sturdy.

Good Lighting
Work goes faster in a study area well lighted and free from glare and shadows. Lamps should be properly placed and shaded. (Figures 7 and 8). The study surface can be covered with a light colored blotter or other dull-finished paper.
A good chair can also help make studying easier. Use a straight chair or an adjustable posture chair. The seat of a chair is usually 18 inches from the floor. If this is too low for you, use a cushion in the chair.

As you sit, the eye position should be at least 14 inches above the desk top. This locates your eyes in line with the bottom of the lamp shade and prevents your seeing the bright lining of the lamp shade.

Table Lamp
Place lamp at left if you are right-handed or at right if you are left-handed.
Glass diffusing bowl — 8 inch.
Bulb — 200 watts for desk work and general lighting is minimum.
Shade — Top 8-10 inch diameter; height, 9-12 inches; bottom, 15-18 inch diameter.
Plastic diffusing disc — About one inch above bottom edge of shade.

Two Wall Lamps
Diffuser — 6-inch plastic bowl, or flat plastic diffusing disc below bulb.
Bulb — 100 watts for each lamp.

Lighted Shelf
Bulb — Fluorescent, 36-inch, 30 watts, Deluxe Warm White in white enameled channel.
Shade — Mount ¼-inch plywood face at an angle, as illustrated. Leave 2-inch space at top open.
You can make your reading lamps. Directions for making lamps may be obtained from your leader or county Extension home economics agent.

Good Lamp Shades
Choose lampshades which have these qualities:
- White inside — for greater reflection.
- Open at the top — for greater diffusion.
- Glareless — translucent or opaque.
Translucent shades should filter out glare of lighted bulbs.
Opaque shades should be used if shade is a dark or bright color on the outside or if the lamp is placed near a dark wall.
The correct height from the desk is when the lower edge of the shade is at your eye level when you are seated in a comfortable chair.

Make a Desk Pad
To make a desk blotter holder you will need, in addition to basic tools, these things:
- A piece of heavy cardboard about 14" x 20".
  Two thicknesses of a suit box will do.
- A roll of paper kitchen towels.
- A piece of corrugated cardboard such as grocers use.
Cut a piece of heavy cardboard 14" x 20". Cut a piece of self-adhesive decorating covering 18" x 18" in the color selected for the lining of the desk pad.

Remove backing sheet by running the thumb nail between the backing sheet and the adhesive paper. Peel apart.

With the adhesive side of the paper up on a flat surface, place the cardboard in the center. One inch of cardboard will extend on two sides of the adhesive. Wrap the adhesive paper around the cardboard.

Cut two strips of corrugated paper from a corrugated box two inches wide and 14 inches long. This is done best with a metal edged ruler and a single edge razor blade or a sharp paring knife.

To pad the pieces of corrugate, cut eight thicknesses of paper towels the exact size of each strip. Fasten to the corrugate with cellophane tape.

To cover the strip of padded corrugate, cut two strips of adhesive paper 8" x 18". Remove the backing sheet. With the adhesive side of the adhesive paper up on a flat surface, place one of the padded strips (padded side toward the adhesive) in the center, 1½ inches from the edge. The long sides of the strip should be parallel to the long side of the adhesive paper.

Wrap the 1½-inch side of the adhesive paper tightly up over the top of the corrugate strip. From now on all work will be done on what will be the bottom of the desk blotter holder.

The padded corrugate with the adhesive paper around it will have a squarish edge. Continue the crease on these corners out to the end of the adhesive. From the top corner of the extended adhesive paper, cut in toward and up to the corner of the corrugate. From the bottom corner of the extended adhesive paper, cut in toward and up to the bottom corner of the corrugate (Figure 11).

Fold the little resulting strip around the edge of the corrugate. Cut off the top corner along the top edge of the corrugate. Repeat procedure on the opposite end of the corrugate (Figure 12).

Place the adhesive covered cardboard (adhesive side down) over the corrugate up to the exact inside edge of the corrugate (Figure 13).

Pull the side pieces of extended adhesive paper up over the end of the corrugate and snugly up over the cardboard.

Continue the crease at both top and bottom to the end of the adhesive paper.

Cut along the top crease in toward and up to the top corner of the blotter holder. Cut along the bottom crease in toward and up to the bottom of the blotter holder. Cut off the top flap along the edge of the blotter holder. Fold the narrow strip around the end of the blotter holder (Figure 14).

Repeat the procedure on the opposite end.
Pull up the large flap over the end. Cut a small
diagonal piece off the flap after the end is cov-
ered. Stick the flap to the bottom of the blotter
holder (Figure 15).

Figure 15

Repeat the procedure with the other strip of
corrugate on the other end of the blotter holder.

Make a Tin Can Pencil Holder
To make a pencil holder from an empty tin
can that has the top and bottom rolled rim still
in place, follow these instructions:
Cut a strip of adhesive decorative covering
two inches wider than the height of the can and
long enough to go around the can.
On the backing sheet, draw a straight line
down the middle of the length of the strip.
Measure the distance between the top and bot-
tom rim of the tin can (the rounded side, not
including the rim). Divided by two, mark this
dimension above and below the center line
(Figure 16).

Figure 16

Draw straight lines the length of the adhesive
strip at these points.
From the edge of the strip, clip in towards and
up to the outside straight lines at about ¼-inch
intervals (Figure 17).

Figure 17

Repeat along the other edge.
Remove the backing sheet by running your
thumb nail between the backing sheet and the
adhesive paper. Peel apart.
Apply the adhesive paper to the can so that
the inner edge of the “fringes” extend to the
inside edge of both top and bottom rim (Figure
18).

Figure 18

One by one, stick the fringed strips to the bot-
tom of the can. Repeat at the top, securing the
strips to the inside of the can.
Place the can upright on the backing sheet
and trace around the bottom of the can with a
pencil. Cut out the circle and trim ¼ inch off
around the circle.
Fit the circle to the bottom of the can; trim
if necessary.
Remove the backing sheet and secure the circle
to the bottom of the can.

Figure 19

To line the bottom of the can, follow this pro-
cedure:
• On the backing sheet side of the adhesive
paper, trace around the bottom of the can.
• Cut out the circle, then trim off about ¼
inch. Fit into the bottom of the can before
removing the backing sheet. Trim if
necessary.
• Remove the backing sheet and apply the
adhesive paper to bottom of the can.
To cover the inside walls of the can, follow this procedure:
- Measure the depth of the inside of the can up to the bottom of the rim.
- Cut a strip of adhesive paper as wide as the depth and long enough to go around the can.
- Fit before removing the backing sheet. Fit with the backing sheet facing the inside of the can to avoid wrinkling the adhesive paper.
- Remove the backing sheet and fit the strip in place.
- Small designs may be cut out of the lining color or other colored adhesive paper and applied to the outside of the can.

**MAKE A STUDY LAMP**

**What Is Good Study Lighting?**
Many years of research by lighting and eye specialists have been spent in defining good study lighting. The standards they have developed are very important in keeping your eyes from being strained or harmed in any way.

Since you will be making a study lamp, let us examine the qualifications of good study lighting.

First, a good study lamp will not create a harsh glare on your work or in the lampshade itself. It will be soft and will not tire or hurt your eyes.

Second, it will not cause distinct shadows. The light will not be concentrated on one spot. It should surround you as well as your work surface with an evenly distributed light. Shadows and unevenly distributed light cause eyestrain because your eyes must constantly adjust from light to darkness.

Third, you must have the proper intensity of light. This is measured in “footcandles” by an instrument called a light meter. Too little light causes eyestrain, but too much brightness may tire your eyes quickly.

Fourth, a good study lamp must be properly proportioned and properly located with relation to your work. A lamp which is well-proportioned and well-positioned will provide good distribution of light.

Now let us find out what a study lamp must have in order to meet these qualifications.

**What Is a Good Study Lamp?**

- **Shade**
  - Light color
  - Fairly dense
  - Correct size

- **Socket**
  - At or slightly below lower edge of shade

- **Base**
  - Height to bottom of shade
  - Stable construction
  - Weighted at bottom

- **Bulb**
  - Minimum 200 watts for reading
  - 50-200-250 watts
  - 100-200-300 watts
  - White inside-frosted or Soft White

- **Diffuser**
  - CLM Glass
  - Bowl Shaped
  - Plastic Disc
  - Refracting Bowl
  - Fiberglass Diffusing Disc
A Good Study Lamp Should Do These Things:
• Provide enough light for the task it is used to light.
• Prevent glare. No direct light should be visible from above, beneath or through the shade.
• Give off some upward light to add to general lighting in the room.

Materials You’ll Need:
• Two pieces of wood 1” x 2” x 18” for the stem.
• One piece of wood 7½” x 7½” x ¾” for upper half of base.
• One piece of wood 8” x 8” x ¾” for lower half of base.
• Lamp socket with 3-position switch for 3-light bulb. Socket should be threaded for ½-inch pipe.
• A piece of ¼-inch pipe 14½ inches long, threaded at both ends.
• Lock washer and nut to fit threaded pipe.
• Shade holder to fit socket. This will support the diffusing bowl. (Shade holder not needed if bowl is threaded plastic.)
• White lined shade with 16-inch bottom diameter.
• Three-light bulb (60-200-250 watt) or 200 watt bulb. This size will provide more than the minimum 70 footcandles on your work surface, but it will not cause glare. The bulb should be inside-frosted or white, not colored.

• A 9½-inch diffusing bowl or other refracting or diffusing device. Refractors may be dish-shaped, clear plastic with prisms. They redirect the light to cover all of the working area. Glass or plastic diffusing bowls and fiberglass or plastic diffusing disks are good. This makes the light softer and keeps it from glaring.
• Nine-foot lamp cord with plug. It should not be smaller than No. 18 AWG UL-approved conductor.
• Six ¾-inch No. 10 flat-head wood screws.
• Wood glue.
• Fine sandpaper.
• Carpenter’s tools.

Steps to Take
1. Prepare the base. Drill a ½-inch diameter hole in the center of the upper half of the base. (This is 7½” x 7½” x ¾” piece.)
2. Drill a 1¼-inch diameter hole in the lower half of the base. (This is the 8” x 8” x ¾” piece.)
3. In this same piece, drill a ¼-inch hole from an edge to the center hole.
4. If you wish, round the upper edges of both pieces with a wood rasp and sand to a smooth finish. This gives you a base with a slightly different style.

Make the Stem
1. Cut a “V” groove the length of each stem piece. Make sure the grooves match (Figure 2). Make grooves 7/16-inch wide and ¼-inch deep. [Note: Another way to make the stem is to take four pieces of wood 1”x1”x13” and bevel a corner the length of each piece. Then join the four pieces (Figure 3). Either method provides a channel for the pipe which will carry the wire up the stem.]
2. Match the grooves and glue the stem pieces together. Follow instructions on the glue containers so you’ll clamp the stem properly and let it dry long enough.
Now Assemble the Lamp

1. Center the stem over the hole in the upper half of the base and secure it from beneath with two wood screws. Countersink the screws.

2. Insert the pipe into the stem and top half of the base. Remove the socket and screw it onto the pipe at the top of the stem.

3. At the bottom of the stem, place the lock washer and nut on the pipe. Tighten the nut.

4. Thread the lamp cord through the hole in the bottom half of the base and up through the top half of the base and stem. Pull the cord well up through the stem and knot it loosely so that it won't pull out when you assemble the base.

5. Strip insulation from the other end and attach to the plug, using Underwriters' knot.

6. Center the stem and upper half of the base over the hole in the lower half of the base. Glue the base together. When it is dry secure it from the underside using one wood screw at each corner. Counter sink the screws.

7. Now untie the loose knot in the cord at the top of the stem. Strip the insulation from the ends of each wire and tie the Underwriters' knot again here. Fasten to screw terminals of the light socket.
8. Assemble the socket and screw the shade holder onto the socket.
9. Insert the bulb and place the shade on the completed lamp.

**Variations You Can Make**
You can finish your wood lamp with colored enamel, shellac, stain or varnish. Or you may want to cover it with imitation leather. You can vary the stem and base of your lamp to achieve different pleasing designs. Or perhaps you would like to make your own lamp design, using the same length stem and same size shade, diffusing bowl and bulb. Work your design out in detail and show it to your leader before starting work.

**Select the Right Study Lamp**
A lamp with the tag shown below meets the rigid specifications of the Better Light Better Sight Bureau and the Illuminating Engineering Society.

In 1964 the Better Light Better Sight Bureau asked the technical committee of the Illuminating Engineering Society to develop a new set of standards and tests for study lighting. This they did and the result was a lamp which meets the requirements they established. These standards included the Illuminating Engineering Society's specifications for study lighting as well as the Bureau's requirements for electrical and mechanical safety.

In order for a manufacturer to get a tag of approval to put on each study lamp or study lamp kit, rigid tests have to be passed. These tests are conducted by the Electrical Testing Laboratories. The report is then sent to the BLBS Bureau.

**HERE ARE THE 10 OUTSTANDING FEATURES OF A BLBS LAMP:**

1. Perforated Disc
2. Detachable Harp
3. White Parchment Shade
4. Prismatic Refractor
5. Turn Knob Socket
6. Fluted Walnut Column
7. Six Foot Electrical Cord
8. Molded Brass Base
9. Marproof Felt Base
10. BLBS Bureau Tag

**CHARACTERISTICS OF A BLBS LAMP**

**Assemble a Lamp with a Lamp Kit**
Follow the instructions in the kit. After making the lamp, check to see if it meets the good lighting requirements that you have learned. Use your lamp in a proper location for study.
I. Describe the place you used for study before taking this project. Include a picture of this place if you have one.

II. Describe the place you now use for study. Include pictures if you have them.

III. What did you learn in this project?

IV. Give an itemized account of expenses for this project.

V. List demonstration you gave in this project.

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VI. Describe the exhibits you made

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VII. Describe the articles you made or purchased in this project.

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VIII. Below describe any interesting experiences you encountered in this project. You may add a sheet of paper for pictures and experiences if you wish.

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This publication was promulgated at a cost of $557.01, or 9.3 cents per copy, to inform Florida youth on how to create a well-lighted study area. 7-6M-81

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