



meet the

Builder in Design



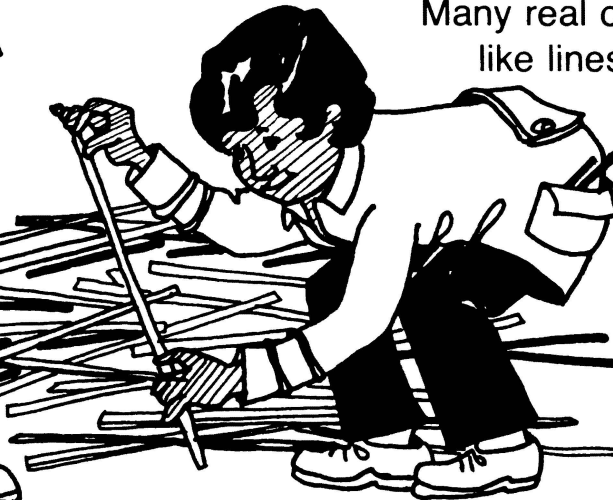
LINE

is a building block, or an element, of DESIGN.

Many real objects look like lines and can

be used to build forms.

We can call these forms three-dimensional



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BLACKSBURG, VIRGINIA

Make a list of real objects that look like lines.

object	description
wire	smooth, thin, stiff



TO DO AT HOME — BUILD A 3-D DESIGN

glue toothpicks together to make a cube

or

wrap wire around a broom handle to make a cylinder

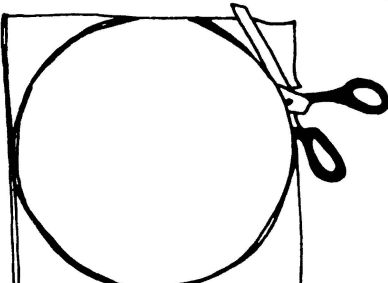
or

weave yarn around a circular loom to make a container. *

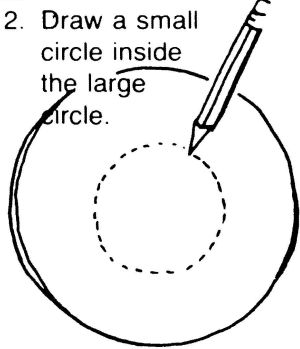
or

all three!

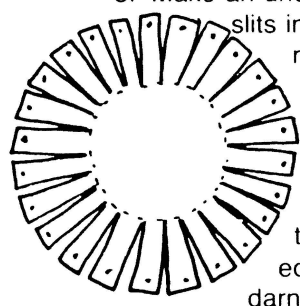
Look carefully at all the blocks below. One contains the secret of weaving a three-dimensional form. Can you find the clue? Circle the number in that block.



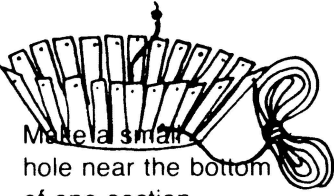
1. Draw a circle on a piece of stiff cardboard. Cut out.




2. Draw a small circle inside the large circle.



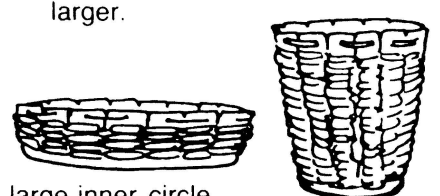
3. Make an uneven number of slits in the cardboard right down to the inner circle. Punch small holes near the outside edge with a darning needle.



4. Bend each section up carefully. Make a small hole near the bottom of one section. Thread with yarn and knot the end.



5. Weave over and under each section with yarn. Finish by threading yarn through end holes. Cut yarn and tie.



6. You can change the height of your container by making the inner circle smaller or larger.

large inner circle small inner circle

* This process is called "weaving in the round."

DID YOU KNOW THAT

1. a *loom* is a frame to hold the warp?
2. the *warp* is a set of threads or yarn?
3. the *weft* is the single thread or yarn?
4. the weft goes over and under the warp?
5. the *shed* is the opening between the top and bottom layers of warp?

Yes no

What can you do with Line in three-dimensions?

Turn on
your imagination
with

Stuffed Stuff



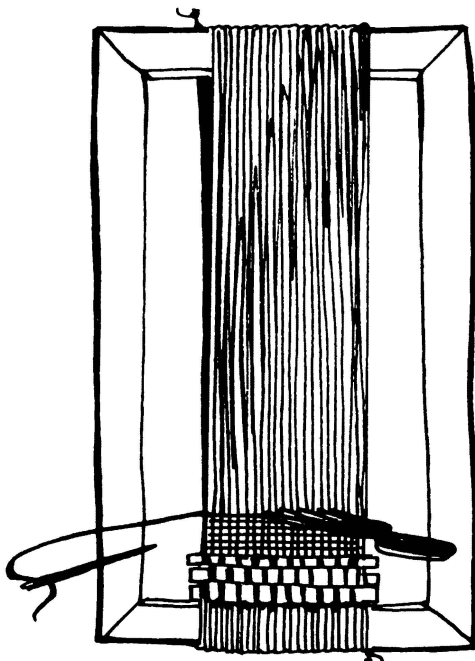
YOU WILL NEED:

- ___ 3 skeins bulky yarn
- ___ dark yarn scraps
- ___ wood or metal frame
38cm(15") by 51cm(20")
- ___ wood or cardboard strips 15mm(3/4") wide

- ___ scissors
- ___ metal fork or sturdy comb
- ___ weaving needle or darning
needle with a large eye
- ___ two nails with flat round heads

TO BEGIN YOUR PROJECT

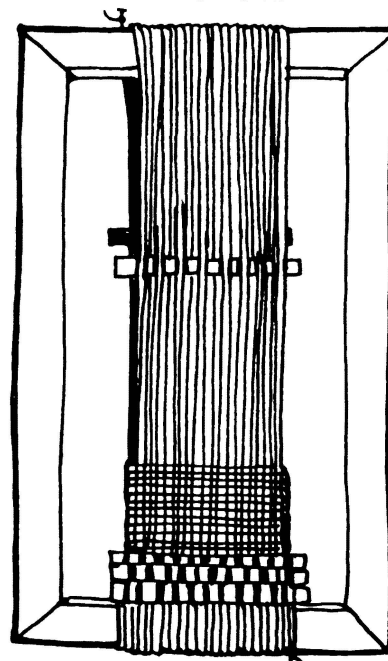
- Wrap yarn *around* frame as wide as you want.
- Be sure you wind an *uneven* number of warp ends.
- Tension should be *taut*, not tight.
- Weave strips into the warp to make it "plucky."
- Thread needle with weft and begin to weave
over and under.
- "Beat" each "shot" of weft with comb or fork.



MAKING THE "HEADER"

The *header* is a solid area of your project made of plain weave or "tabby."

It is done by weaving about 15 rows of weft over/under each warp end.

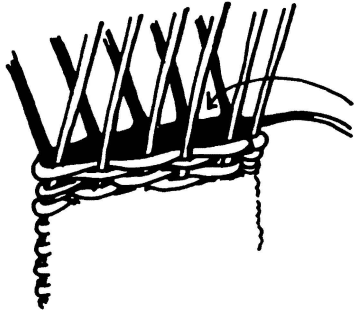
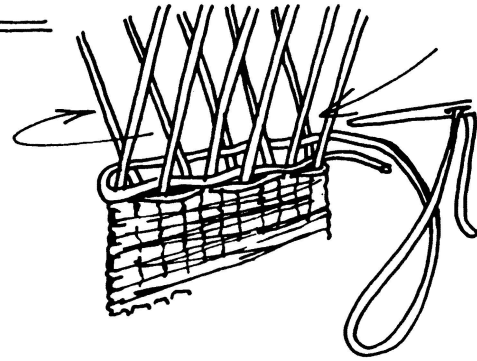


Now you are ready to begin weaving
in the round!

Start by weaving a strip near the top
of the warp on *each* side of the loom

NOW THE FUN BEGINS!

- You now have two layers of warp.
- Weave across one layer.
- Turn the loom over.
- Continue weft into other layer.
- Push down weft firmly all around with the comb or fork beater.



**YOU ARE WEAVING IN THE ROUND
LEAVING AN OPEN SPACE IN THE MIDDLE.**

- Weave for about 15 rows.
- Then begin to stuff dark yarns into the opening.
- Push firmly down into the corners to shape.
- Weave around and around until your "STUFFED STUFF" is the size and shape you like.

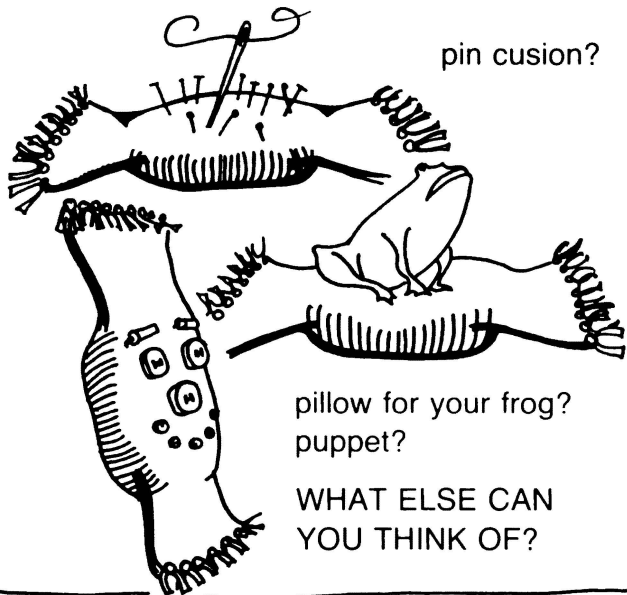
NOTE!

Allow enough warp to weave a header at the top.
The header closes the stuffed part and finishes the weaving.

TO FINISH YOUR PROJECT

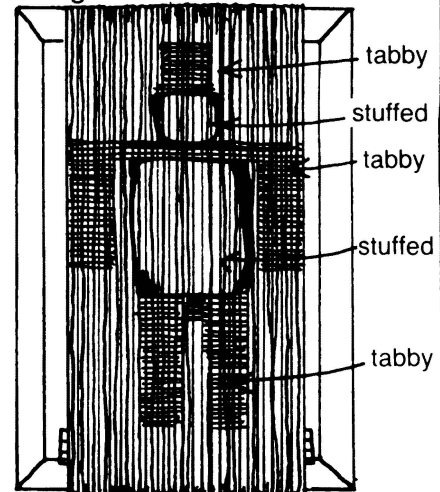
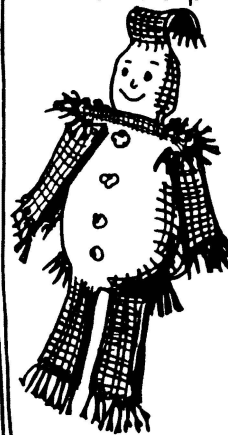
- Turn your loom upside down.
- Weave in the same way you did when making the first solid section.
- Weave over/under right into the stuffed section to close the opening.
- Cut the warp from the loom and make a knotted fringe.

TO USE YOUR PROJECT



FOR EXTRA FUN TRY A WOVEN DOLL!

Prepare a large frame for STUFFED STUFF
now weave solid and stuffed areas
as shown in the diagram below.
cut off warp.



Finish by knotting all ends neatly.