

## Learn to Weave using a Cardboard Loom



You don't need expensive equipment to weave. A flat piece of cardboard or a cardboard box can easily turn into a loom that you can weave mug rugs, placemats or intricate tapestries on. This is a great project for kids or for teaching beginners to weave.

To make a simple loom from a cardboard box, find a good sturdy box. (A shoebox might not be strong enough.)



With a sharp knife, cut the flaps off the top of the box. Then using a ruler mark off the "sett" for the loom at the top edges of the box. If you are going to be using thicker yarns, you can make use a sett of 4 epi (ends per inch). Make a mark each 1/4 inch along 2 sides of your box. For narrower setts you could use 5 or 6 epi.



Use a sturdy cotton or linen yarn for the warp (the lengthwise threads of the woven piece). Secure the end of the warp thread to your cardboard loom with a piece of tape.

Begin to wrap the warp thread around the loom, placing a thread in each slit at the top of the box edge. Continue to wrap the warp around the box.

Tighten any loose threads to an even tension. Then secure the other end of the warp with another piece of tape.

Your warp of your cardboard loom is now threaded and you are ready to begin to weave.

### **Weaving on the Box Loom**

#### **Weaving a Header**



A Header is woven at the beginning of a project. This can be woven of any type of scrap yarn as usually the header is removed once the project is finished. Try to use a similar weight of yarn as what will be used in the actual piece. The Header helps to align the warp into place, allows you to check for threading errors and gives a good edge for beating the weft into place.

## Weaving Tabby



Use a knitting needle or a small stick to pick up the warp threads. In Tabby or Plain weave, every other warp thread is picked up, so the weft travels over and under each thread.

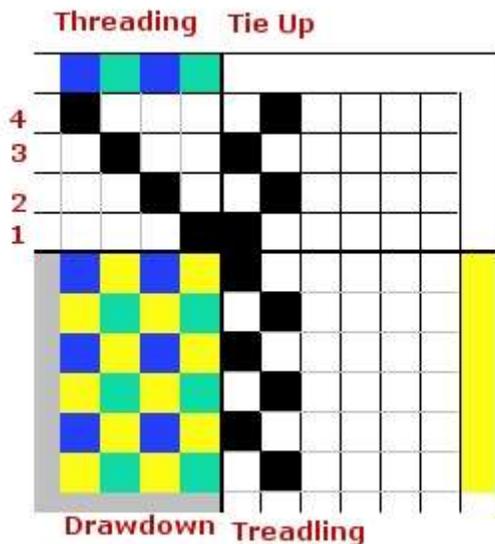
Rest the knitting needle on the edge of the box to hold the raised threads in place, while you draw the weft thread through the open shed.

For the next row, pick up the alternate warp threads with the knitting needle and weave the weft thread across.

On cardboard looms, or simple frame looms, the warp threads are hand manipulated. On larger looms with more harnesses, this task is more automated. The warp yarns are threaded through individual heddles in the harnesses. By raising a harness or shaft, this raises all the heddles that are on the shaft.

For example, on a 4-shaft table or floor loom, the warp yarn is threaded through the 4 shafts or harnesses. For this simple Tabby weave, the first warp thread goes through the first heddle of the first harness. The 2<sup>nd</sup> warp thread goes through the first heddle of the second shaft. The 3<sup>rd</sup> warp thread goes through the first heddle of the 3<sup>rd</sup> shaft. The 4<sup>th</sup> warp thread goes through the first heddle of the 4<sup>th</sup> shaft.

In a Draft Plan, the threading would look like this:



## Arc the Weft



Because the weft thread travels over and under the warp threads, it is necessary to make extra allowance for this when weaving in the weft thread. Otherwise, once the weft is beaten into place, it will cause the warp edges to draw in and can result in broken warp threads on the edges of the woven piece. One way to avoid this, is to slightly arc the weft when weaving it across.

## Beating the Weft

On a larger floor or table loom, you will have a reed and beater that will beat the weft into place. With Tapestry looms, the weft is usually beaten with a hand held beater. For this small cardboard box loom you can use a fork.

After each row of weft or pick, use the tines of the fork to beat or gently press the weft into place evenly across the loom.

## Weaving Twill



Another type of common pattern in weaving is Twill. The weft threads go over 2 and under 2 warp threads. On the following row, the next 2 threads are picked up and the following 2 warp threads are lowered. This results in a diagonal design running either to the right or left depending on the direction that you are weaving.

If you number the warp threads: 1,2,3,4 (repeat)

### Row 1

Pick up threads 1 and 2, skip over threads 3 and 4, pick up 1 and 2, skip 3, 4 (repeat).  
Pass the weft yarn through the open shed.

### Row 2

On the 2<sup>nd</sup> row, move over 1 warp thread from the previous row, and pick up the next 2 threads and lower the following 2.

Skip warp thread 1

Pick up warp threads 2 and 3

Skip threads 4 and 1

Pick up threads 2 and 3

Skip threads 4 and 1

Repeat to the end, and pass the weft thread through the open shed.

### Row 4

Skip warp threads 1 and 2

Pick up threads 3 and 4

Repeat to the end of the row and pass the weft thread through the open shed.

### Row 4

Pick up warp thread 1

Skip threads 2 and 3

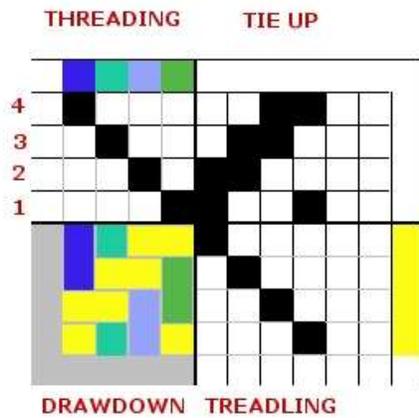
Pick up threads 4 and 1

Skip threads 2 and 3

Pick up threads 4 and 1

Repeat this sequence to the end of the row and pass the weft thread through the open shed.

On a 4 shaft loom, the weaving draft for twill would look like this:

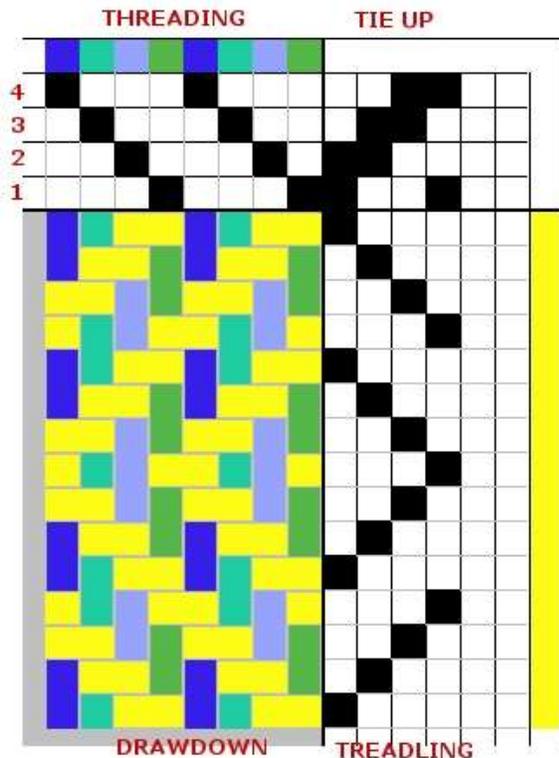


### Twill Variations



Twill is a very versatile weave structure, and you will find many variations in twill design. By changing the direction of the pickup, the diagonals will change to the right or to the left. Twills are also woven by varying the number of warp threads that are picked up or lowered.

On a 4 shaft loom, the weaving draft for this twill design would look like this:



Twills can also be woven by changing the number of threads that are picked up. You can weave 2,1 twills picking up threads 1 and 2, lowering only 1, and pickup the next 2.

Try to invent some of your own twill designs by changing the number of threads that you pick up or lower, or by reversing the direction.



### **Weaving Clasped Weft**

In addition to using twill, tabby or other types of weave structures, an easy way to add interest to your weaving is to use different colored weft yarns. Clasped weft is a technique that uses 2 different colored weft threads in the same row of weaving.

Although this technique is being shown on a cardboard loom, the clasped weft technique can be done on larger looms as well, using 2 shuttles.



### **Clasped Weft – Step 1**

Working from the right pass to the weft yarn through the open shed, creating a loop on the left side of the warp.



### **Clasped Weft – Step 2**

Thread the second yarn color through the loop.

### Clasp Weft – Step 3



With your right hand, pull the weft yarn back through the open shed, pulling the second yarn with it. Place the yarns in the location that you want them to be, and straighten out the weft ends.

Beat the weft into place.

Note that this does create 2 rows of weft yarn in the same shed.

### Advancing the Warp



Are you getting near the end of the box and don't have room to weave anymore? You don't have to quit yet, as you still have lots of warp left, wrapped around the box.



Slide a knitting needle or other stick under the warp threads at the beginning of your woven piece.

- Lift up gently on the needle and remove the warp threads from the notches on the box.
- Gently pull on the warp threads and slide the project forward on the loom, leaving the top end of the warp threads in the other notches.
- Adjust the tension on the warp threads if necessary, securing them with tape.
- You are now ready to continue weaving.

### Weave a Circle

Although this sample project isn't done this way, you could keep weaving all around the box, creating a complete circle.

### Finishing

Once you have woven the length of project that you wish to have, cut the warp off the loom, leaving a 2-3 inch length of warp at each end for the fringe.

Group 2 or 3 warp ends together and secure with an overhand knot.