Shuttle Scuttle: All you need to know about shuttles...

You’re warped and ready to weave. Now, all you have to do is pick up your shuttle—and weave. Right? Yes and no. While it’s true that most any shuttle will carry your weft to and fro, the right shuttle can make weaving not only more efficient but more pleasurable too. Shuttle choice can even make a difference in your final product. No kidding.

But what shuttle to choose? Boat? Stick? End-delivery? Rag? Why choose one over the other? Below we strive to untangle the finer points of shuttle selection that will lead to more fun at the loom.

Stick Shuttles
The first shuttle you ever wove with was most likely a stick shuttle, probably because they’re inexpensive and excellent for use with rigid heddle, tapestry, or small frame looms such as our School Loom. You can actually get more yarn on a stick shuttle than you’d think—put on as much as will still allow the shuttle to go through the shed. But even if you regularly weave with a boat shuttle, there are other times, even on big floor looms, when a stick shuttle is just the thing: like when you’re sampling, or carrying a supplementary weft over a short distance, or weaving a very narrow fabric or band.

Boat Shuttles
Do you remember when you “graduated” from a stick shuttle to a boat shuttle, and you were, like, “Wow, I can really WEAVE”? Throwing and catching the shuttle, changing sheds and beating suddenly became rhythmic. This, you said to yourself, is weaving! You’d never go back to a stick shuttle again!

Boat shuttles offer greater efficiency than stick shuttles. The pleasure of throwing and catching a shuttle is often what weavers enjoy most about weaving. But which boat shuttle to choose? It depends.

You probably want a longer (and consequently heavier) shuttle for wider distances. Think physics: a heavier object will travel farther and faster than a lighter-weight one. A longer shuttle also has a longer bobbin and will hold more yarn. Therefore you increase your efficiency in two ways: you increase your throwing speed and decrease the number of times you need to wind bobbins because your bobbin capacity is greater. We offer four boat shuttle lengths with several variations.

Here are some things to consider:
Length. Choose from four lengths—9”, 11”, 13”, 15”. General rule of thumb: the narrower the warp, the shorter the shuttle. But also important to consider is your hand size. If you have small hands, even if you’re weaving a wide warp, a bigger shuttle may not feel as comfortable.
Shuttle Scuttle: All you need to know about shuttles, continued...

**Height and width.** Our most popular shuttle, the 11" boat shuttle, comes in two sizes: Our 11" regular boat shuttles are 1 1/4" high and 1 7/8" wide; the 11" slim is 1" high and 1 5/8" wide (the 9" mini is 1" high and 1 5/8" wide). Choose the slim version if you have a narrow loom shed or small hands, or just like the feel of a smaller shuttle. The 11" regular holds more yarn than the slim version.

**With or without bottoms.** The closed bottom and open bottom shuttles in either 11" regular or 11" slim function pretty much the same, except that some weavers like how a closed bottom shuttle slides across the shed with no yarns in the shuttle coming into contact with the warp yarns. Our seasoned weavers here in the office prefer shuttles with open bottoms because you can place a finger underneath to stop the bobbin from rotating.

**With rollers.** This traditional Scandinavian shuttle is our closed bottom shuttle with little rollers inserted underneath. If you’re used to roller shuttles, then you might want to give this one a try. Ours holds more yarn and is wider and higher than the traditional Scandinavian roller shuttle.

**With double bobbins (say that really fast just for kicks!).** If you are doubling wefts, then using a double-bobbin boat solves the main problem that occurs when weaving with two wefts wound together on a bobbin. That is, you can never get the two yarns to wind or weave exactly the same, the consequence of which is little loops developing at the selvedge, which, by most standards, is undesirable. Winding each yarn of the doubled two on separate bobbins eliminates this problem beautifully. We designed our double-bobbin boat shuttle so that with two separate bobbin shafts it is possible to remove one bobbin without bothering the other. We offer the double-bobbin boat shuttle in both slim and regular versions. This shuttle uses two 4" bobbins.

**Cherry or maple.** Whether your shuttle is made of cherry or maple, it will do the same job. Cherry costs a little more, but the real question is, “Which wood do you love best?”

**A word about our bobbins.** Our 9" mini and 11" shuttles use a 4" bobbin, the 13" takes a 5" bobbin, and our 15" shuttle accommodates a 6" bobbin. If a bobbin can have a better design, then we’ve accomplished this by adding nibs on the ends of the bobbins that prevent the bobbins from jamming in the end of the shuttle, ensuring trouble-free yarn release.

**Specialty Shuttles**

Other shuttles have their place, too. Again, the kind of weaving you’re doing will determine which you’ll choose.

**Belt Shuttle.** The belt shuttle is used for band weaving, especially on the inkle loom. Similar to stick shuttles, belt shuttles have one beveled edge used for pressing in the weft. If you’re weaving bands, this is a must-have shuttle.

**End-delivery Shuttles.** First, how an end-delivery shuttle works: Instead of a free-spinning bobbin like a boat shuttle uses, an end-delivery shuttle has a pirn that remains stationary. The weft yarn unwinds off the pirn’s tip when the shuttle is in motion and stops unwinding when the shuttle stops. It is the motion of the shuttle that causes the yarn to unwind. If the shuttle stops, the yarn stops, as opposed to a boat shuttle where the bobbin keeps spinning even when the shuttle stops. This may not seem like a big deal, but it is. Because the yarn unwinds as the shuttle moves, perfect selvedges are possible, with no fiddling whatsoever. Weaving is also more efficient because the hands stay close to the shed to send and receive the shuttle, staying completely clear of the selvedges.

A set of tension pads through which the yarn passes are another unique element of an end-delivery shuttle that makes it work so wonderfully. These pads are controlled by a screw that adjusts the amount of tension applied by the pads. To create a perfect selvedge, adjust the pads until the selvedge neither pulls in nor forms weft loops. Once set, your weaving will proceed rapidly with perfect edges every time (no kidding!).

The great design of our end-delivery shuttle makes it adjustable to a wide variety of yarns and super easy to thread. It also comes in two sizes: 12" and 15", with 6" and 8" pirns, respectively. We are highly enthusiastic about our end-delivery shuttle. Try it—you too will become an end-delivery shuttle devotee.
Shuttle Scuttle: All you need to know about shuttles, continued...

**Ski Shuttles** hold medium to heavy yarns. You might use them for holding a fuzzy mohair for blanket weaving or for rags or rug yarns. Generally, choose a longer shuttle for a wider warp, though because these shuttles are fairly long another consideration is that a longer shuttle needs to be pulled out farther from the shed and could impact efficiency. If possible, try both sizes and see which suits your purposes best. Available in 18” and 24” lengths.

**Rag Shuttles** have traditionally been used for rag rug weaving. They are sturdy and broadly built to accommodate fabric strips. Some folks are confused as to which side of the shuttle to use. Think of the sides as runners—the runners run across the warp. Choose from two sizes: 14” and 20”.

**Rug Shuttle.** Last but not least, our 20” rug shuttle is another unique shuttle that we love for weaving heavy rug or novelty yarns. We like how this streamlined shuttle feels and are always surprised at the amount of yarn it can hold.

So in the final analysis, which shuttle should you choose? It depends: on what you’re weaving, how much efficiency matters to you, your budget, and what feels good in your hand. Because the shuttle is the most important piece of equipment besides your loom, and the thing which you hold and touch the most, it is important to choose a shuttle that is appropriate to the task at hand. As you’ve no doubt discovered, or soon will, one shuttle is never enough.

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**Dear Violet Rose**

**Dear Violet Rose,**

What should I use to make my wonderful Schacht wheel look even better. An oil? A wax?

--Mlung33 via email

Dear Mlung33,

We finish our wheels with a hand-rubbed Danish oil. We use Deft Oil in natural. Generally, for regular maintenance we recommend wiping the wheel off with a slightly damp rag. If a more thorough cleaning is needed, use a Scotch Brite pad to gently remove grime. If desired you can re-oil with Deft Oil. We don’t recommend using wax because spots will develop if water comes into contact with the wheel. We also don’t recommend furniture polish as this can become sticky. If, however, you can’t resist polishing your wheel, try your product in an inconspicuous place to test the results.

--Happy Spinning, V.R.

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Dear Violet Rose,

Sure hope someone can help make a suggestion that would teach me about looms. I am basically new to weaving, except I have gotten much better and do not get the hourglass effect as much. First, I like to work with a variety of fibers from thin to chenille. I do not see myself doing tapestry. Can you tell me the basic differences between the tapestry loom and the rigid heddle loom? The tapestry loom looks like it fits the bill. Does it have a device that creates the sheds to weave tabby weave?

The rigid heddle loom looks more tabletop-like, and the warping looks tedious and time consuming. For the tapestry loom, when it says it has an 18” weaving width and can warp up to 60”, what does this mean? Can you use a shuttle with the tapestry loom? How does the tapestry loom vary from the school loom? Does the tapestry loom come with instructions? Where can I read more? I just need some help in knowing what to choose. I desire portability and fun more than production.

--Lisa Spivey, Lafayette, Tennessee, via email.

Look for answer on next page...
Dear Lisa,

Whoa! You’ve asked a lot of great questions and I’ll do my best to try to answer them all. First, I would encourage you to find a good weaving shop and teacher. Both can be excellent resources to unravel some of the mysteries.

You are heading in the right direction in regard to matching the loom to your needs. This is the best way to begin. First, let me compare the looms you’ve asked about, and in the process I think a lot of your questions will be answered.

I’ll start with the simplest, the School Loom, which is a small frame loom with a built-in stand.

This is a dandy little loom that can weave up to 15” wide and 20” long. Pieces can be smaller, but not larger. You place the warp directly on the loom, wrapping around plastic teeth spacers (6 per inch) that provide uniform spacing. This loom comes with two shed sticks. In weaving tabby, or plain weave (over, under, over, under), you insert one stick that remains in place throughout the weaving. The opposite shed is picked every other shed. This loom lends itself well to weft-faced or balanced weave (equal warps and wefts per inch). Table mats, small hangings, coasters, small bags are possible on this loom. We recently saw a wonderful little purse woven on this loom with many different leftover knitting yarns.

The Tapestry Loom is next in complexity, but again it is a simple concept. The main difference between this loom and the school loom is the ability to weave a longer length. This simple, portable loom is essentially a souped-up frame loom. It has tension adjustment at the top, the warp is applied directly to the loom, and shed sticks with string heddles for holding the warp ends are used to make the sheds.

This loom does not have teeth for warp spacing so that very fine to very heavy yarns may be used. To space the warps evenly, a row or two of twining is all that is needed at the start of the project. Though we call this loom a tapestry loom—and it can certainly be used as such—a shuttle can easily be used to weave from edge to edge. We offer the tapestry loom in 18” and 25” weaving widths, and both looms can accommodate a 60” warp length. An optional A-frame Stand or Trestle Stand lends comfort and convenience.

The Rigid Heddle Loom is our most sophisticated small loom because it has features that do more work for you. Warp and cloth beams allow warp and fabric storage so that projects several yards long can be woven. The rigid heddle, which is a plastic device with alternating slots and holes, provides both warp spacing and shedding capability, as well as serving as a beater.

This loom is ideal for plain weave, but it is excellent for pick-up pattern weaving as well. It is true that the warp needs to be measured prior to warping the loom, but I would encourage you to “get over this.” Once tried, warping isn’t really so difficult. Like anything new, it will feel awkward at first. (You’ll need warping pegs or board and a threading hook to measure and thread your warp.) Our rigid heddle loom comes in 20” and 25” weaving widths.

All the instructions for these looms are on our web-site. To read more, please go to:

- School Loom Instructions
- Tapestry Loom Instructions
- Rigid Heddle Loom Instructions

--Good luck and happy weaving, V.R.
I wanted to design something for special gatherings that celebrated the magic of the winter season, so I decided to depict a woven snow scene. My goal was to capture the feeling of being out on a crisp winter night. I wove my project on the rigid heddle loom because it allowed me to weave two different weaves plus pick up on the same warp. I found patterns that felt reminiscent of snow textures in Betty Linn Davenport’s Textures and Patterns for the Rigid Heddle Loom. I decided to add inlaid evergreen trees to my snowy scene. These I designed as I wove, each tree taking on its own individual character. All and all I feel I have created a world that when spread out on a holiday table or buffet bar will remind guests of the magic that makes winter special.

--Liz Good

**Equipment:** Schacht Rigid Heddle Loom, 2 stick shuttles, 1 pick-up stick.

**Yarn:** UKI Supreme 3/2 Perle Cotton (1260 yd/lb): #79 Natural (7 oz), #126 Denim (4 oz), #62 Moss Green (1/2 oz), #137 Forest Green(1/2 oz).

**For the trees:** Forest Green novelty boucle (~1oz) and Wilde Yarns Berber (4 ply=160 yd/lb) in Dark Brown (~3 yards).

**Warp Length:** 2.5 yards (90 inches) long, and 16 inches wide.

**E.P.I.:** 12, sleyed 1 end per dent in a 12-dent reed.

**Total Warp Ends:** 192. 168 Natural, 10 Forest Green, and 14 Moss Green.

**Warp Color Order:**

<table>
<thead>
<tr>
<th>Color</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural</td>
<td>168</td>
</tr>
<tr>
<td>Forest Green</td>
<td>5</td>
</tr>
<tr>
<td>Moss Green</td>
<td>7</td>
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</tbody>
</table>

**Instructions for weaving:**

1. Begin with a plain weave border to match the selvedges: 5 rows of Forest Green, 7 of Moss Green.

2. Begin the white ground in huck lace, following the huck lace pick-up pattern below. Pick up the white ground only so that the green selvedges will be woven in plain weave (I felt that the floats in this section were too long for the edge of the weaving). Weave about 6”.

3. Begin weaving the tree trunk. About a third of the way over from the left edge, insert 3 pieces of the Wilde Yarns Brown Berber in between the warp yarns. The brown yarns act as warp, passing over and under the weft yarns. Weave them in the same parallel paths, with two warp yarns in between each brown yarn. If you wish to make a smaller tree, use only 2 brown yarns. Simultaneously weave the huck lace and the inlaid tree trunk for another inch.

4. Start the bottom branches of your tree. To do this, insert the dark green boucle into the same pick you just wove, making your inlay as wide as you want your branch to be. Pull up loops to create the desired fullness. The next pick of the white huck lace pattern will hold the loops in place. Continue in this manner until your branch is the desired height. This is a freeform tree: it’s fun to shape your branches as you weave. I found that it looked best to stagger the end points of the branches and that at least 2 or 3 picks were needed for a good-sized branch. I also found that the branches looked more natural if I staggered the starting picks of each branch, giving a more natural asymmetrical look. Leave white space between the branches for definition.

Remember to keep weaving your brown yarn in and out of the weft as you continue to weave and create your tree. You can cross in front of the brown “trunk” with the green yarn or behind, depending how you want it to look. Also, when the floats run into the “trunk” you can use your shuttle to create plain weave in those places so the brown yarns stay in place. After another 2”, switch to blue yarn to start the spot weave for the snow-filled sky. Begin weaving the spot weave using the pick-up pattern below, picking up across the entire width of the warp, including the borders.

Continue weaving the tree for about another 6”, gradually tapering the branches as you weave upward, and reducing the trunk yarns as you reach the top of the tree.
Instructions for weaving, continued...

5. Weave about 29” after completing the tree and before beginning the trees on the other end of the runner (the total length of the blue spot weave is about 42”).

6. Start the top of a tree (continuing to weave spot weave) using the same method as before but in reverse, first beginning one tree and then the other. After weaving trees for 7”, switch to white yarn and return to the huck lace pattern, weaving about 10”, and ending the trees when the trunks seem proportional to the branches. Weave a plain weave border of 7 Moss Green rows and 5 Forest Green rows.

After the piece was off the loom I added light blue shadow details by needle weaving them into the finished cloth. It is important to do this before you block so the shadows will become integrated into the fabric.

Finishing: Cut the cloth off the loom and tie in a tassel fringe every 6 warp yarns. Machine wash in warm water using the gentle cycle. Lay flat to dry. Steam press on the wrong side.

Pick-up Stick Basics  Insert pick-up stick behind the rigid heddle, between the rigid heddle and the warp beam. You can slide the stick to the back of the warp to store it until you need it. Behind the rigid heddle the stick will not interfere with plain weave.

The pick-up stick is only used to pick up threads that are in the slots of the rigid heddle, not the threads in the holes between the slots.

To position the pick-up stick, start by placing the rigid heddle in the down position. Place a strip of cardboard into the shed behind the heddle to separate the two layers of warp so you can only see the top layer. (You can store this cardboard in the back of the warp with the pick-up stick to use when switching patterns.) Weave the pick-up stick into this top layer to create the pattern. For example, with a pattern of 3 up and 3 down, the stick goes under 3, and then over 3, all the way across the warp.

To create weft floats, raise the pattern stick shed. To do this, place the rigid heddle in the neutral position (neither up nor down) and turn the stick onto its side. Slide the stick close to the back of the reed to raise the yarns. This will create a shed out of the warp yarns on top of the pick-up stick. After you have passed the shuttle through the shed once, return the pick-up stick to the back of the loom.

To create warp floats you will combine a pattern stick with the reed in the up position. To do this, simply place the reed in the up position and slide the still flat pattern stick up to the back of the reed. This will bring the warp threads that are on top of the pick-up stick up to combine with the warp yarns in the up position.

Special Notation: If the pattern stick sequence is noted (1 up) 3 down, 3 up, this means that 1 yarn is picked up at the beginning of the row only and the pattern inside the parenthesis is repeated across the warp.