## Sew a Puzzle Ball with Faith Hale

## Chapter 1 - Sew a Puzzle Ball

Overview
(upbeat music) - I sew a lot of meaningful or useful things like quilts or clothes, but sometimes I really like sewing something that's silly and fun, and this puzzle ball totally fits the bill. I'm Faith Hale. I'm a sewer, a maker, and a Creativebug staff artist. And in this class, I'm going to show you how to make a puzzle ball from scratch. You'll learn how to make your own template so you can customize it to any size you'd like, then we'll sew together our pieces using both machine and sewing by hand, and then you'll discover the mystery of how it all comes together. This is a great toy for really young children. It helps them with their grabbing skills. It's also super fun for pets, especially if you add like a squeaker toy or rattles. And I think it's just a really nice thing to have around and look at and puzzle over. Making this is so much fun. Can I stop? (laughs) I just keep going.

## Materials

- This is a great scrap busting project, so you can use whatever scraps of fabric you have on hand, but if you are starting from scratch you'll need a fat quarter of a darker and a lighter shade fabric. Something that has a fairly tight weave, like a quilting cotton or a linen, something that's not too thick. You'll need about an eighth of a yard each of a lighter and a darker fabric. I have a hand sewing needle and a neutral color thread. You'll need some Polyfil. A bag is more than enough. Fabric shears, a marking pencil. We have this pokey tool for helping us get the stuffing into the corners of our pieces, paper scissors and paper or card stock, or even template paper to make up our templates. I have a compass that's going to give us a six-inch circle, but if you have a six-inch bowl or even a thumbtack and a piece of string to make a six-inch circle, that'll work just fine. Our ruler is going to tell us where six inches is. You'll also need a sewing machine with neutral thread, and be sure to have a pencil for helping you draw your template.

Prepare pieces

- We're gonna be making a six inch template which will give us a five and a half inch ball. If you'd like to scale up or down, use exactly the same proportions. We're using our compass and measuring three inches between the pointy side and the pencil. If you have a dish or a circle you can trace around, that's fine. You might even wanna use a thumbtack and a piece of string. And then we will cut out our circle. (scissors crunching) We'll then fold our circle in half and in half again, along that crease. Cut it in half (scissors crunching) and we're going to overlap our two wedges to make this is ellipses shape. Make sure the points are lined up. Cut out the resulting shape. (scissors crunching) Cut 12 of these out of your darker fabric and 24 of these out of your lighter fabric. They'll look like this.


## Sew pieces

- We'll be sewing with a quarter of an inch seam allowance, so l've put a quarter inch foot on my machine. But if you just have a regular foot, make sure you know where that seam allowance is. We'll make a mark that's a quarter inch in from each side. So use your ruler to find the point in between the two and make a mark. You might be tempted to mark in a quarter inch from the end, but that's not going to be as precise of a measurement as a quarter inch in from each side. You'll
repeat that measurement on the other side. And I'm guessing you'll be batch sewing these, so go ahead and mark the rest of your ellipses. You might be wondering why we didn't just cut out half circles, here's why. We're going to be sewing our top piece to one bottom piece and then flipping it over and attaching another bottom piece. So it's much more cumbersome if you're working with this half circle. This makes it a lot easier. This should line up pretty well. You can see I have a tiny bit poking over on either end. It's probably due to imprecise cutting, but that's fine. Bring it to the machine and sew about three stitches before doing a back stitch. And sew to the end. Do a little back stitch and cut your tails. And then we'll repeat the same process, folding up our circle and adding the wedge. You'll line it up exactly the same way. You're welcome to use clips or pins if that feels good to you. Because it's such a small piece, I feel like it hinders my progress. And again, we're going to sew it with a quarter inch seam allowance. Giving a little back stitch at the beginning and end. Take it out of the machine, trim your tails. And now we'll be sewing all the way along one side about a quarter of the way up and leaving a space. So the space should be at least a thumb's width apart to turn it inside out, but I do like having a little bit of stitching down here and a little bit of stitching up here to just anchor our sewing. You'll see what I mean in a minute. Fold it in half and start at that point. Back stitch. Stop a quarter of the way or a quarter inch from the end. Leave your needle down and pivot. Can you just jump ahead leaving tails? You're welcome to. I find this makes it a little bit easier. Trim your tails. And we're gonna snip off our points, leaving at least an eighth of an inch at the end just to decrease bulk, but we wanna leave a decent amount of material there because it's gonna be tugged on a bit. Now we turn our piece inside out. Oh, see, I said give yourself a thumb's width. I might have been overoptimistic about the size of my thumb. I'm gonna use my poking tool which is just a knitting needle. But if you have a chopstick or even a mechanical pencil with the lead retracted, that should work fine. Make sure to really pull out your corners. There we go, and now we will stuff with our Polyfil. It's always better to stuff using tiny increments rather than jamming in a big ball of stuffing. You can also use a hemostat or tweezers to help you with this part. The smaller the opening, the easier it is to hand stitch but the harder it is to stuff. So you decide in which way you'd like to be inconvenienced less. You wanna continue stuffing your piece until it's fairly firm, so like this. And I'm using a white thread for visibility, but you'll probably wanna use the same color thread as your light color fabric. Thread your needle with a double length of thread. You won't even need this much. It's more of a force of habit. Give yourself a tiny, little double knot. The tails will be hidden inside. And I like to sew from the bottom up and we're just gonna do a whip stitch. You can try to do a ladder stitch. It's more finicky, but all these points end up being hidden inside the ball. So as long as you keep your stitches nice and even, I think a whip stitch is just fine. I like to go in my fabric directly above the stitch but turn my needle so that I have a line of really tidy vertical stitches. Make sure you're stuffing doesn't get tangled with your thread. Because you've stuffed it so tightly, that is a possibility. Just take your time with it. And we're making pretty shallow stitches. Shallow, tiny, even stitches. If your stitching is not delicate, that's totally fine too. Like I said, these ends will get hidden inside of our ball. When we get to the end, we'll do a little double knot. So pull it until you have just a tiny loop left and go through two times, one, two. That should hold it and then stick your needle in. Pop it up about an inch away. Snip it as close as you can and it'll become invisible. So I suggest making one of these pieces from start to finish. Sewing it up, turning it inside out, stuffing it, hand stitching it because you might come across a technique that works a little bit easier for you or you'll think oh why did I make that opening so large or so small? So do one first. When you've completed all of your pieces, you'll have 12 little wedges.

Assembly

- Our puzzle ball consists of three rings made up of four pieces each. We'll hold them point to point and I have my thread double knotted. You can use button thread for this if you think it's going to get a lot of use. I'd also recommend using a color that matches either of your fabrics. I'm just using this white one for visibility. And we'll sew it together at the point. Going under our seam. We're wrapping it around our seam. That just gives us some extra structure. And we're gonna do six to eight stitches here. I'm not really worried about the knot showing. You can always snip off the tail later. Go through these two pieces here. And cinch it together. And we're going to repeat this, making sure we go through two layers of fabric each time. You could use safety pins to hold your pieces together. I found that when I'm sewing, my thread gets wrapped around them, so it ends up being more trouble than it's worth. And I think it works just fine holding it by hand. If you're really confident in your sewing, you could use a contrasting color, like a pop of cherry red would look really nice or like a bright orange. But I think that strength is the most important part here. And when this feels nice and secure, I'm gonna wrap this around a few times, taking care not to twist my pieces. I think I wrapped that around about five or six times. And we're going to make a knot on the inside. So I'm stitching through our fabric, making a double knot, so going through twice. Just because it's really important that this stays together, I'm gonna make a second knot. Going in right next to our knot and out about an inch past. And snipping it. You'll repeat this three more times so that you have a ring. And then, we'll sew the insides of our rings together in a pretty specific way. So one ring will have the insides sewn together, attaching all four pieces together. So in a plus. Our next ring, I'll show you how to sew 'em together so they're in two parallel lines. And then the last one we leave open. So this one's totally done. And I'll show you how I sew up this seam. Gonna get a little bit more thread. And you can see, the sewing is definitely not that pretty, but it's hidden, so I'm not too worried about it. We're going to sew halfway up. So we're actually even going over the hand sewing we've done previously. And go through both sides of the fabric each time. And we're just doing whip stitch. The first few are always the most awkward, but you can leave it fairly open and then cinch it up. Down through this piece. Up through this piece. I think, don't wait too long to cinch it up. It's pretty malleable. And once you've gone about halfway up, make a double knot. One, two. And make a double knot again. So take a stitch just a little bit higher. Pop the needle through. (scissors clicking) So these two pieces are done. And for your third and final piece, you'll sew one more seam in the center halfway across. We have our plus sign. Now you're ready to assemble your puzzle ball. It comes together so interestingly and it's really fun, and if you have a friend who figures it out independently, tell them that only geniuses can do it. You'll make their day. You start with the base that's been sewn all together. And you'll slot the piece that's sewn in pairs over it. And then, rotate it, and this one with only the edges connected goes over the top and its points will fit in here. This part's so satisfying. And there you have it. An intriguing, exciting, spectacular puzzle ball. You can add jingle bells into each piece if you want it to be more of a rattle. They won't jingle. They'll only rattle. But jingle bells are the best way to get that effect. Or you can even put in squeakers if this toy is intended for a pet. I think it's really aesthetically appealing. It looks great on a shelf and people just gravitate towards it. They just wanna start playing with it immediately. If you'd like to scale up or down the pattern, just make sure that your circle is a $1 / 2$ an inch larger than the finished size you want it to be. I think it would look green teeny tiny hanging as an ornament, but it might be a pain in the neck to stuff those up. And you can make it bigger, like the one I have right here. (laughing) This is eight inches versus six. I think you could go much bigger too, though.

