Fixing Mistakes: Here's the way to fix a finished stitch that's slipped off a popsicle stick:

- Maybe this is obvious, and the pics are a little off. I said I was going to be thorough though, so I'm including it anyway.

Casting Off

To finish a loom knitting project like this, you can simply pop the loops off the loom one by one, cut the working end of your yarn, and sew it through the loops and tie it off. A real cast off looks way better though, and even my library kids preferred the "real cast off" to the sewn loops, even though it might be the hardest part of this process.
While you don’t need to color code your sticks to match mine, I’m going to refer to the pictured colors for easier explanation. Your loom might have way more or way fewer stitches, so you’ll need to simply cast off more stitches one by one than I did.

1. Move the loop from the red stick onto the purple.

2. Knit the bottom stitch over the top.

3. Move the loop from the blue stick onto the purple, and knit it.

4. Move the loop from the purple stick onto the blue. (You’re really just moving this stitch into a more convenient place to avoid stretching your work out.)

5. Move the loop from the green stick onto the blue, and knit it.

6. Move the loop from the blue stick onto the green.

7. Move the loop from the yellow stick onto the green, and knit it.

8. Move the loop from the green stick to the yellow.

9. Move the loop from the orange stick onto the yellow.

10. Knit the last stitch, pull the loop off the last stick, cut your working end of yarn (leaving plenty of extra yarn), and sew the cut working end through the loop.

11. (not pictured) Sew the two raw ends of your yarn into the top and bottom edges of your work and trim the tails. *If you don’t have a needle available, which we didn’t at the library, use some of your packing tape to wrap the raw end of the yarn and use it like a needle to sew in the ends.*
What can you make with a DIY knitting loom?

You can make anything from a set of easy hand warmers to back packs to scarves using this technique. If you’re working with kids on a timeframe, I like to start with the hand warmers because they work up quickly.
Pom Pom Crafts
DIY: POM POM CRAFTS

In this DIY project, I will be teaching you how to make a Pom Pom flower craft! It is very simple and easy.

---

**Step 1:**
**MATERIALS:**
- Tissue Paper (any colors)
- Scissors
- Ruler
- Nylon String or Twisty Tie (optional)
Step 2:
Fold tissue paper in half.

Step 3:
After folding, get your scissors and cut along the folded line.
Step 4:
When finished cutting tissue paper in half, count 15 sheets. Since I used 2 colors, I had 8 blue sheets and 7 black sheets. After sorting that out, fold accordion style.

Step 5:
After folding, grab a twisty tie or string (which ever works best for you) and tie around the tissue paper. Make sure to tie it very tight so it won't come apart later on.

Step 6:
When you are done tying it, open each side up. To get that flowery effect, cut the ends round or pointy. I cut mine pointy because it looked more unique.
Step 7:
After cutting the ends, you are going to separate each piece of tissue paper and bring it down to the middle of the Pom Pom. BE CAREFUL!!! Make sure to do it one by one and don't pull it apart too hard. Always remember to be gentle when doing this, it takes time and patience.
Step 8:
This is what the final product should look like!!

Step 9:
These DIY Pom Pom crafts can be used for party decorations. They are very easy to make and look very cute when finished!!

#ferociousdoughnuts
GREETING CARD CRAFTS

Supplies:

Construction paper
Craft scissors (design cuts)
Scissors
Glue
Tape
Markers
Crayons
Craft supplies: feathers, sequins, glitter, etc

Design Challenge: create greeting cards for any occasion, allow students to freely create cards. Provide a theme or a person intended for the card (friend, family member, teacher, neighbor, etc)
Lego Challenges
LEGO CHALLENGES

1. Utilize Lego Challenge cards provided on the following pages or create your own.

2. Engineering design challenges—allow students to build solutions by using LEGO Bricks! For full design challenges, visit http://www.educatingyoungengineers.com/lego-club-activity-ideas/
   - Name challenge
   - Bridge
   - Water filtration systems
   - Pressure Proof Structures
   - Pyramids
   - Transportation innovation
   - Tallest structure
   - Musical monster
   - Boat building
   - Drop test
   - Amusement park design
   - Amazing Mazes

3. Free play—allow students to design their own LEGO creations
BUILD AN ICE CREAM CONE
BUILD A TREE HOUSE
BUILD A SWIMMING POOL
BUILD A WATER SLIDE
BUILD A BEACH UMBRELLA
BUILD A SAND CASTLE
BUILD A LEMONADE STAND
BUILD A WATER SLIDE
Build an animal.

Build something with one hand.

Build something in one minute.

Build something using only red LEGO.

Build a spaceship.

Build LEGO pattern using different colors.

Build something that starts with the letter "T".

Build a pattern with different sized LEGO.
**Lego Challenge**
This busy Postman has lots of letters to deliver.
- Can you build something to help him carry his letters?
- Have a go at making a postbox too.

**Lego Challenge**
The waiter is very busy tonight and has too many plates to carry.
- Can you build something to help him carry the plates to and from the kitchen?

**Lego Challenge**
The Chef has some important visitors coming to his restaurant.
- Can you create a special, 3 course meal for his guests?
- Don't forget to build them somewhere to sit and eat.

**Lego Challenge**
This business woman is late for a very important meeting.
- Can you help her get to London?
- What type of transport will you build for her?

*These resources are not endorsed by LEGO in any way.*
K’Nex Challenges
1. Utilize Challenge Cards (next page)/Design your own cards

2. Advanced Design Challenges (team or individual)
   https://www.knex.com/bonus-builds


   - Crane
   - Fan
   - Bridge
   - Bear
   - Stroller
   - Swing
   - Roller coaster
   - Car
Design and build a model of what you think robots might look like in the future.

Design and build something that spins.

Design and build something useful.

Build a Creature...

Cable Cars are used to carry people to the top of mountains, such as when people go skiing. However, most cable cars, or chair lifts, only transport 2 people. Can you engineer a cable car that will carry 4 people?

Please help! Our baby isn't old enough to walk yet long distances yet, and we need to take her on a hiking trip. Could you engineer a baby stroller for us to push her in that would keep her safe and warm?

Medieval castles were once defended by archers who lived in Europe and were the royal family's spies. You have heard that enemies plan to invade the castle. Engineer a fortress to keep the kingdom safe.
II. Resources

A. The Youth Makerspace Playbook

B. Websites

   - DesignMakeTeach.com
   - Makezine.com
   - Makerspace.com
   - Instructables.com
   - Exploratorium
     www.tinkering.exploratorium.edu/