

Lesson 5.11: Build the Drawstring Bag, and the Stitch Sampler Check

Unit: Unit 5, Make It, Mend It, Wear It (Apparel and Textile Production and Design) **Topic:** 5.2 Hand and Machine Sewing Skills **Grade:** 6 to 8 (written at grade 7; see Differentiation for the grade 6 support and grade 8 stretch) **Days:** 3 class periods of 40 minutes (days 129, 130, and 131 of the year) **Room:** FACS lab with the numbered machines from Lesson 5.10, the spares, and the hand station. A no-machine version is below.

This is the build. Every hand skill from Lessons 5.6 to 5.9 and every machine skill from Lesson 5.10 goes into one object a student made and keeps: a drawstring bag in woven cotton, cut to a pattern, seamed on the machine, turned right side out, with a working drawstring channel. It is a real construction piece, not a craft: it has a seam allowance, a right side and a wrong side, a turn, and a closure that has to actually close. It is not the unit project; the Upcycle Challenge in Topic 5.4 is. This is Topic 5.2's product, and together with the Stitch Sampler Performance Check on Day 3 it is the topic's formal check.

The hand path stays, in full: a student at the hand station builds the felt pouch from the same handout, hand-backstitched, on the same three days and the same rubric. The hand path is where a student goes when their machine is down and the spares are full, when the reduced-dexterity alternative fits better, or when they choose it; it is a legitimate build, not a lesser one. The archived all-hand version of this lesson is in 00 _admin/_archive/2026-09-14 Unit 5 pre-machine revision/ for a room with no machines at all.

The machine management layer runs all three days and is already routine from Lesson 5.10: assigned numbered machines, the threading buddy system, the machine doctor tag, and the close-down routine at the end of every period. For Day 1 only, I pre-thread every machine before class, because the first fabric day spends its minutes sewing, not threading. From Day 2 on, licensed threaders thread their own machines and buddies cover the rest.

Standards

- NYS module line: NYS ATPD 2. Production c) Demonstrate basic hand and machine sewing techniques by creating or repairing a textile product
- NYS module line: NYS ATPD 2. Production b) Demonstrate safe use and storage of equipment used in hand and machine sewing
- NYS module line: NYS ATPD 2. Production a) Identify common equipment and supplies used in hand and machine sewing
- CTE theme line: CTE PSI 2. Design Process (Proactive) a) Implement a formal design process to solve a given problem by b. Defining criteria that must be met through the finished design; f. Developing and constructing a prototype or model of the selected design; g. Testing and evaluating the prototype and model against the design criteria and constraints
- CTE theme line: CTE HSW 4. Classroom and Workplace Safety c) Apply safety practices when using tools, machines, and equipment

- CTE theme line: CTE HSW 4. Classroom and Workplace Safety i) Demonstrate development of workplace safety skills through practice of these skills in a variety of classroom applications
- NYS FACS Learning Standard 2 (Intermediate), Key Idea: Students will know the basic principles of home and community safety. They can demonstrate the skills necessary to maintain their homes and workplaces in a safe and comfortable condition. They can provide a safe and nurturing environment for themselves and others.; Performance Indicator: Students use age-appropriate techniques to select and maintain clothing.
- CDOS Standard 2: Students will demonstrate how academic knowledge and skills are applied in the workplace and other settings.
- CDOS Standard 3a Universal Foundation Skills: Technology. Students select and use appropriate technology to complete a task.
- National FCS 3.0: 16.4.5 Show the basic skills for making, altering, repairing, and recycling textiles and apparel.
- National FCS 3.0: 16.2.7 Judge the construction quality and fit of textiles, fashion, and apparel.
- National FCS 3.0: 16.4.1 Work skillfully with traditional and newer equipment, tools, and supplies to construct, alter, repair, and recycle textiles and apparel.

Note on the citations: ATPD 2. c) names hand and machine techniques together, and this build now demonstrates both: machine seams on the bag, hand skills in the sampler and the closure work, so the line is met in full. The crosswalk's ATPD 2. c) row pairs with PSI 2. a) and CDOS 2 plus 3a Technology, all used here because the student works to criteria, builds, and tests against the criteria. Sub-lines b., f., and g. are the three this build uses; brainstorming and optimizing belong to the Upcycle Challenge.

Enduring understanding and essential question

Big idea: A finished object is measured, cut, pinned, and stitched in that order, and skipping a step costs you the whole thing. The machine multiplies your speed and it multiplies your mistakes; quality is still checking as you go. **Essential question:** What makes a constructed item good enough that somebody would actually use it?

Objectives

By the end of this lesson, students will be able to:

1. (Low: remember or understand) Given a paper pattern, measure, mark, and cut the fabric to within a quarter inch of the pattern, and mark the seam line and the channel area.
2. (Mid: apply or analyze) Construct the bag by pinning and machine-sewing the side seams with backstitching at both ends, sewing the drawstring channel, turning, and threading the cord, checking against the seam quality checklist at each stage; on the hand path, construct the felt pouch with hand backstitch to the same checklist.

3. (High: evaluate or create) Evaluate the finished item against the five-point checklist, assemble and submit the six-part sampler card, and name one thing they would change in the next one and why.

Vocabulary

Tier 2 (general academic): pattern, criteria, construct, closure, quality Tier 3 (FACS): pattern piece, seam allowance, seam line, right side and wrong side, turn (a bag), channel, drawstring, backstitch (machine reverse), pivot, sampler. See the unit vocabulary list (Vocabulary 05.md) for Turkish, Portuguese, and Spanish.

Materials and setup

- The numbered machines, tested, with the assignment list posted; every machine pre-threaded by me before Day 1. One or two threaded spares with the SPARE card, the machine doctor tags in reach, and the hand station set with the Lesson 5.5 kit, counted.
- Materials per student: one piece of medium-weight woven cotton about eight by eighteen inches (a fat quarter, or a cut from a thrifted flat sheet or pillowcase); about 30 inches of cord, ribbon, or shoelace; one paper pattern printed from Handout 05.11 - Bag and Pouch Pattern Cut Guide and Seam Quality Checklist.md; thread. Hand path per student: two pieces of craft felt about five by seven, a button, elastic cord or a felt strip for the loop.
- Per table: fabric shears, paper scissors, snips, tailor's chalk, measuring tape, ruler, pins in a counted cushion from the station kit.
- Sampler cards, one per student plus five spares, printed from Handout 05.11 - Sampler Card.md; glue sticks, stapler, tape.
- Each student's named zip bag with the practice cloth, felt pieces, and portfolio card from Lessons 5.6 to 5.8, plus the machine seam scrap from Day 1 (it becomes the sampler's machine box).
- Assessment 05.2 - Stitch Sampler Performance Check.md, printed: the student checklist copy for every student and the scoring sheet for me.
- The iron and pressing surface at the front, one operator, me. Two finished examples made ahead, one bag and one felt pouch, plus one deliberately bad bag with a wandering seam, an unbackstitched seam end, and a channel sewn shut at one end. The bad one does the most teaching.
- Slides: Slides 05.11 - Build the Drawstring Bag and the Stitch Sampler Check (Day 1, Day 2, and Day 3 labeled). Timer visible.
- Setup notes: print and cut the paper patterns ahead; pre-cut the cotton into eight-by-eighteen rectangles; lay fabric out so choosing takes forty seconds. Pre-thread every machine the morning of Day 1. Set the sampler cards out on Day 3 only, or they get bent. Check every zip bag during Day 1's do now and list who is missing a sampler piece, because a missing piece can be remade on Day 1 or 2 and cannot on Day 3.

Pre-assessment

The Lesson 5.10 record is the pre-assessment: the license line says who threads, and the three control boxes say who drives with the pedal and who starts on the hand wheel. Any student missing a Day 3 control box repeats that paper drill during Day 1's cutting time and sews their first seam with me beside them.

Do now and hook (Time: 5 min Day 1, 4 min Days 2 and 3)

Day 1. On the board: "You are building a drawstring bag today. Write what you will put in it. Then write the order: cut, mark, pin, sew. What happens if you swap the first two?"

Hook: hold up the good bag, then the bad one. "Same fabric, same machine, same forty minutes. Pass the bad one around and write down three things wrong with it, because your checklist is exactly that list."

Day 2. On the board: "Needle down, foot up, pivot, foot down. Where in today's sewing will you actually use that?"

Day 3. On the board: "Look at your bag. Write the one thing that still has to happen for it to be finished, and how long it will take. Then list the six things that have to be on your sampler card."

Procedure

Day 1: cut, mark, pin, first seam

Step	Teacher will	Students will	Time
1. Direct instruction: the pattern, the seam allowance, and the machine difference	Hold up the pattern. Three ideas, fast, because they know two of them from hand sewing: (a) the pattern is the plan, paper first because paper is free; (b) the seam allowance is a quarter inch and the machine's needle plate has a guide line for it, which is the machine's version of the chalk line; (c) the bag is pinned right sides together, inside out, because it gets turned on Day 3 and	Fill in Part 1 of the handout; watch the pinning demonstration.	8 min

	the seams end up inside. Demonstrate the cut and the fold, then the pinning rule for machines: pins go in perpendicular to the seam, heads out, and they come out before they reach the presser foot. You never sew over a pin: a machine needle that hits a pin breaks, and a broken needle is the handed-over-flat-on-the-palm rule from Lesson 5.10.		
2. Practice: trace, cut, mark, fold, pin	Release by table. Trace, mark the cut line, the seam lines, and the channel area, cut, fold right sides together, pin both side seams. I check two things at every table before anyone sews: the chalk lines before the cut, and the right-sides-together fold before the pinning. The wrong fold is the mistake that survives to Day 3, so it gets caught here. Hand path: trace and cut the two felt pieces, pin facing out.	Trace, mark, cut, fold, pin; write the pin count in the notes column of the count sheet.	14 min
3. Practice: the first side seam, on the machine	Send students to their assigned machines, which are threaded. The seam:	Sew the first side seam with backstitching at both ends, stopping	12 min

	line the cut edge on the quarter-inch guide, needle down at the top edge, three or four reverse stitches (the machine's backstitch), then sew the side seam at the slowest steady speed, stopping at the mark where the channel area begins, then three or four reverse stitches. Pins out before the foot. The buddy at the next machine watches the first six inches of each first seam: hands to the sides, pins out in time. Rotation as needed if machines are shared; the table task is the second side seam's pinning check and the sampler bag check. Hand path: begin the hand backstitch on seam one.	at the channel mark; then park the work in the named zip bag.	
4. Count in, close down	Pins counted, the count sheet's notes column carries "N pins in work"; every machine through the close-down routine, out loud. Exit line: what does the reverse lever do, and where did you use it?	Run the count and the close-down routine.	6 min

Day 1 total: 5 plus 8 plus 14 plus 12 plus 6 = 40 minutes, with the do now inside Step 1's board work. The count and close-down are the closure.

Day 2: second seam, the channel, and the machine seam scrap

Step	Teacher will	Students will	Time
1. Demonstration: the channel	Threading first: licensed threaders thread their own machines from nothing; buddies verify; I thread for the rest and note who still needs the license. Then the channel, under the camera: fold the top edge down one inch toward the wrong side all the way around, pin every two inches, press the fold once at my iron, then sew along the bottom of the fold, and leave the channel open at both side seams, which is why the side seams stopped short of the top. Say "both ends stay open" twice.	Watch; read the channel steps in Part 3 of the handout.	7 min
2. Practice: second seam, then the channel	Release. Second side seam first, same rules, stopping at the channel mark, backstitched both ends. Then the fold, the pins, one pass at the iron (mine), and the channel seam. The check-as-you-go rule from hand sewing still runs: every few inches,	Sew seam two and the channel; run the three checks; keep pins counted.	21 min

	stop, look, three questions: on the line, even, flat. Circulate and score rubric rows 1 and 2 live. A jammed machine gets the doctor tag and the student moves to a spare or the hand station without waiting. Hand path: seam two and the bottom, then the pouch's button-and-loop closure begins.		
3. The machine seam scrap	Last working task: two scraps, one short seam, backstitched both ends, name on it in chalk. This is the sampler card's machine box, and it is sewn today so Day 3's minutes go to finishing and the check.	Sew the sampler scrap and park it in the zip bag.	4 min
4. Count in, close down	Count, notes column, close-down routine out loud, chairs in. Exit card: how many seams done, and the one thing that gave you trouble.	Run the count and the close-down routine; hand the exit card.	4 min

Day 2 total: 4 plus 7 plus 21 plus 4 plus 4 = 40 minutes. The count and close-down are the closure.

Day 3: turn, cord, finish, and the Stitch Sampler Performance Check

Step	Teacher will	Students will	Time
1. Demonstration: turn, cord, finish	Three short demonstrations: (a)	Read the closure cards in Part 3; then	5 min

	turn the bag right side out through the top, push the corners out with a blunt pencil eraser or a chopstick, never the shears; (b) safety pin on the cord, feed it through the channel, knot the ends, pull, the bag closes; (c) the finish check: trim every thread end, look inside at every seam end, three hand stitches close any gap. Hand path: turning does not apply; the button and loop finish per the handout.	go.	
2. Practice: finish the bag	Release. Turn, cord, trim, fix. Circulate and score rubric row 3. Finishers run the five-point seam quality checklist (Part 4) on their own bag, then start mounting the sampler card: six boxes, the five hand pieces from Lessons 5.6 to 5.9 plus the machine seam scrap from Day 2, labeled, with the printed self-checklist run on each.	Finish the bag, self-check it, begin the sampler card.	11 min
3. Stitch Sampler Performance Check	Call the check at minute 20. Minutes 20 to 24: finish mounting, run the self-checklist.	Submit the bag and the card, hear the score, complete the reflection box and the tool safety self-	20 min

	Minutes 24 to 38: I score at the tables, station by station, about 40 seconds a student, out loud, so the student hears the score and the reason: the bag on the 20-point item rubric rows that remain, the card on Assessment 05.2. Minutes 38 to 40: the last count of the topic, the magnet sweep, and every machine through the close-down routine one more time.	report while waiting, run the count and the close-down.	
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Day 3 total: 4 plus 5 plus 11 plus 20 = 40 minutes. The reflection box on the sampler card is the closure, written inside the check.

Questions to ask

Monitor understanding:

- Which sides of the fabric are facing each other, and why that way?
- Where does the side seam stop, and what is that gap for?
- The pin is two inches from the presser foot. What happens next?
- Show me your seam ends. Where is the backstitching?
- Both ends of your channel are sewn shut. What now?

Deepen learning:

- Your machine seam wandered an eighth of an inch for two inches. Is that worth ripping out? How do you decide on a machine, where ripping costs more than it did by hand?
- What did the paper drills buy you today? Point to the place on your bag where it shows.
- A factory sews this bag in ninety seconds. What does your version have that the factory's does not, and the other way around?
- Somebody uses this bag every day for a year. Where does it fail first, and what would you reinforce?

- The hand path and the machine path made different objects to the same checklist. What does that tell you about what quality is?

Check for understanding

Day 1: chalk lines checked before any cut, the fold checked before any pin, and the buddy watch on the first six inches of every first seam. Day 2: the check-as-you-go stops, asked out loud twice per period at each table, and the channel's two open ends checked before anyone sews the fold. Day 3: the tug test on the cord, a look inside every bag, and the scored check. The item rubric is scored live on the clipboard across all three days, not collected at the end.

Closure

Day 1 and Day 2 close with the count and the machine close-down routine. Day 3's closure is the reflection box on the back of the sampler card, three lines: the stitch or seam you are best at, the one you would redo, and one thing you can now make or fix that you could not a month ago. Read three aloud at the bell. The cards go in the FACS folder; the bags go home after the check.

Differentiation and supports

- ELL: the pattern guide and the closure cards are numbered picture steps; every direction is demonstrated before it is said; the three check questions are posted at each station in English, Turkish, Portuguese, and Spanish (see Vocabulary 05.md); the sampler boxes are labeled with a picture of each stitch as well as its name.
- IEP and 504 (general): the hand-path felt pouch is a legitimate choice, not a modification, so a student can take it without any conversation; pre-cut fabric and pre-marked seam lines available; the hand wheel replaces the pedal for any student, one stitch at a time, scored the same; a student with a startle response to machine noise builds at the hand station with ear protection available, and their ATPD 2. c) evidence is the pouch; extended time means the closure or the card can be finished at a lunch period the same week, and the missed-days version in Assessment 05.2 covers absences; the self-checklist may be run orally.
- Grade 6 support: pre-cut rectangle, pre-marked seam lines and channel line, and the channel fold pressed by me before they pin it; on the sampler, the machine box may be the Day 1 seam if the scrap ran out of time.
- Grade 8 stretch: a lined bag, a boxed bottom corner, or a bag drafted to hold a named object and tested against it, which is PSI 2. a) g. done for real; on the machine, a pivoted square patch pocket sewn to the front before the side seams, which uses the Day 3 drill on fabric.
- UDL checkpoint used: multiple means of action and expression (machine path or hand path, pedal or hand wheel, written or spoken self-check) and multiple means of engagement (the bag is the student's own, in their fabric, holding a thing they named on Day 1).
- No-machine alternative: the archived hand-sewn build (felt pouch or hand-backstitched drawstring bag) in 00 _admin/_archive/2026-09-14 Unit 5 pre-

machine revision/ replaces this lesson wholesale, and the sampler card runs with five boxes instead of six; the unit still meets every hand line of ATPD 2, and the site's standards note says the machine demonstration half of 2. c) is not met, which is the honest version. Reduced-dexterity alternative: hand wheel driving; pre-threaded machines all three days; a buddy pulls pins; the felt pouch path with pre-cut pieces, a whipstitch, and a pre-made loop, scored on the same rubric.

Assessment

Objective	Standards met	Learning task	Assessment (formative or summative; tool)
1. Measure, mark, and cut to the pattern, with the seam line and channel marked	ATPD 2. a); PSI 2. a) b.; CDOS 3a Technology	Day 1 Step 2	Formative; chalk lines checked before cutting; scored as row 1 of the item rubric
2. Construct the bag: machine seams backstitched both ends, channel sewn and open at both ends, turned, corded; or the hand path to the same checklist	ATPD 2. b), 2. c); HSW 4. c), 4. i); PSI 2. a) f.; Std 2 PI C; National FCS 16.4.1, 16.4.5	Day 1 Step 3, Day 2 Steps 2 and 3, Day 3 Step 2	Summative; rows 2 and 3 of the item rubric, scored live
3. Evaluate the item, assemble and submit the six-part sampler card, name one change	PSI 2. a) g.; CDOS 2; National FCS 16.2.7	Day 3 Steps 2 and 3	Summative; row 4 of the item rubric from the checklist and tag, and Assessment 05.2 - Stitch Sampler Performance Check.md, scored at the table in the last 20 minutes

Topic 5.2's formal check is this finished item plus the sampler card. Both are required; the item carries the construction and the card carries the individual skills, hand and machine.

The rubric: Constructed Item (Lab Rubric pattern, 20 points)

This is Rubric 01 - Lab Rubric.md extended to five rows for a three-day build. The tool safety and count row is the same standard as the kitchen's safety row and it never changes. Category: Labs and projects (40 percent). The Scope and Sequence lists this as the item rubric for Topic 5.2. It scores the machine bag and the hand pouch on the same rows; where a row says machine seam, the hand path reads hand backstitch.

Criteria	Not Yet (1)	Approaching (2)	Meets (3)	Exceeds (4)
1. Cutting and marking. Cut to the pattern; seam line and channel area marked	Off the pattern by more than half an inch, or cut without chalk lines; no seam line marked	Within half an inch; seam line marked on part of the item	Within a quarter inch; seam line and channel area marked before stitching	Meets, and adjusted the pattern on purpose for a stated reason and marked the change
2. Seaming. Straight seams on the marked line, backstitched at both ends, flat	A seam off the line by more than a quarter inch, unbackstitched ends, or gathered fabric; or a hand seam that is a running stitch	Seams near the line; one drifting section or one missed backstitch	Every seam on the line, backstitched at both ends (or hand backstitch throughout), fabric flat, the side seams stop correctly at the channel marks	Meets, and found and fixed a problem mid-seam using the three checks and can say what it was
3. Finishing and closure. Turned cleanly, channel open both ends, cord threaded and knotted, ends trimmed	Channel sewn shut, cord missing, corners not turned out, or thread ends hanging outside	The closure works with a fight; some ends loose; one corner soft	The bag turns clean, the cord draws and the bag closes with a small tug, every end trimmed and inside	Meets, and the channel is pressed and even or a stress point is reinforced, so the item would survive real use
4. Self-evaluation. Ran the five-point checklist and named one change with a reason	Checklist blank or all top scores with no evidence; no change named	Checklist filled but the scores do not match the item; the change is "make it neater"	Scores match the item; the change is specific and the reason is about function or quality	Meets, and the change names the exact step where it would happen
5. Tool and machine safety and the count (same standard as the kitchen's safety row)	A rule broken: hands past the needle line, sewing over a pin, a needle or pin outside a legal place, a broken needle not reported, or a count that did	Rules followed with one reminder needed	Every rule kept all three days: hands to the sides, pins out in time, the close-down routine run unprompted, the count matched	Meets, and caught a problem before I did, tagged a machine correctly, or reminded a neighbor of a rule without being asked

	not match without stopping. A 1 here means a conversation with me and it zeroes the week's participation and safety score (see the Grading Plan)			
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Total: ____ out of 20

How to use: score rows 1 and 5 live on Day 1, rows 2 and 5 on Day 2, and rows 3, 4, and 5 on Day 3, on the clipboard, per student. A student absent one day is scored on what exists plus the missed-days version in Assessment 05.2; rows scored out of what was possible and scaled to 20. Students copy their five numbers into the FACS folder with the item.

Homework

None. The bags stay in the room until the check is done, then go home. Optional: put the bag to work tonight and report what it carried.

Connections

Mathematics: quarter-inch seam allowance, pattern as scale drawing, and the channel's circumference. Technology and engineering: the machine is the room's first real machine tool, and the pivot is tool-path thinking; a technology teacher can run the same language. Career awareness: this build is the room's version of a production sample, which is the bridge to Lesson 5.19's careers work. Community: simple drawstring bags are a real donation item for shelters and hospital volunteer offices; a class that makes thirty has made a real donation. *[Sal: if the class wants to donate, ask the partner before Day 1 so size and fabric fit what they need.]*

Sources

- NYS Middle Level CTE FACS Content Module 03, Apparel and Textile Production and Design (nyctecenter.org, June 2018), lines 2. a), 2. b), and 2. c). Copy in 02 Standards/NYS Module PDFs/.
- NYS Middle Level CTE Theme Module, Problem Solving and Innovation, line 2. a) with sub-lines b., f., and g.; Theme Module 04, Health, Safety, and Wellness, lines 4. c) and 4. i). Text per 02 Standards/NYS ML CTE FACS Modules - verbatim extract of all twelve.md.
- NYS Learning Standards for Health, Physical Education, and Family and Consumer Sciences (1996), Standard 2, Intermediate, Key Idea and PI C. Wording per the crosswalk, Part A.6.

- CDOS Standards 2 and 3a, Intermediate, per the crosswalk, Part A.7.
- National Standards for Family and Consumer Sciences Education 3.0 (LEAD FCS Education, 2018), competencies 16.2.7, 16.4.1, and 16.4.5, per 02 Standards/STANDARDS SOURCES - web research.md, section 4.16.
- The rubric follows the pattern of Rubric 01 - Lab Rubric.md, extended from four rows to five for a three-day build. The bag pattern and construction order are standard beginner machine sewing; written new for this course.

Teacher notes

- Pre-thread every machine before Day 1, even for licensed threaders. The first fabric day has exactly enough minutes if nobody threads; it has too few if anybody does.
- Make all three examples yourself, including the bad one, and keep the bad one on the table all three days.
- The mistake that survives to Day 3 is the wrong fold: right side out instead of right sides together. Check every fold before pins go in.
- Say “both ends stay open” twice on Day 2, and once more to the room right before the channel seams start. The sewn-shut channel is the classic.
- The machine seam scrap on Day 2 is four minutes that saves Day 3. Without it, students sew their sampler box during the check window and the check runs out of time.
- Pins out before the foot, every time. A machine needle that hits a pin breaks, and the broken needle rule from Lesson 5.10 runs: handed to me flat on the palm, both pieces, never the trash, never the floor.
- The doctor tag earns its keep this week. A jam on Day 2 with the channel half sewn is exactly when a student would otherwise sit and wait; the tag moves them and the lesson does not stall.
- Photograph the display after the check for the website’s Unit 5 page; no student in the frame.
- *[Sal: prices. Costed for three tables of about seven, 21 students. A thrifted flat sheet at about \$4 cuts into roughly fifteen bag rectangles, so two sheets cover a class with spares; cord or shoelaces about \$4 for 21; thread and pins in the unit bin; felt for the hand path about \$2. About \$14 total, and less if students bring an outgrown pillowcase, which is the upcycle version of this build and worth offering. A section of 28 adds a third sheet and about \$2 of cord.]*