SAINTS GLOBAL

ACTIVITY PLAN

SEWING

INTELLECTUAL CORE

Version 2026.1

Companion to the BRC: a series of one-hour activity sessions for use on weekly activity night or at home. Each session declares which requirements it contributes to.

THE CULMINATING EVENT

The two textile-skill activities

Each saint completes two hands-on textile activities in Session 3 — a frame-loom weaving square and a wet-felted wool square — and presents both finished pieces in front of the leader. The two swatches are the field test for the technique, the vocabulary, and the construction differences the first two sessions prepared for.

INDOOR — TABLES, PLASTIC SHEETING ON THE FLOOR, A SINK FOR WET-FELTING

4 SESSIONS IN THIS PLAN

SESSION 1 · INTELLECTUAL CORE

60 min target

Fibers, fabrics, and what they do

Name the fibers and fabrics around you and what each is good for.

SESSION AIM

Run Step 1 end to end — define fiber, fabric, and textile with examples each saint can point to; collect and label the five required fabric samples; and explain the origin and traits of each fiber including the cellulosic-versus-synthetic distinction. Saints leave with Step 1 marked on the BRC and a labeled swatch card carried through the rest of the badge.

WALK AWAY WITH

- Can define fiber, fabric, and textile and point to examples in his own clothing and gear
- Has a labeled swatch card with two natural, two synthetic, and one cellulosic-manufactured fabric
- Can explain the origin and one performance trait of each fiber, and the cellulosic-versus-synthetic split

BRING / SET UP

- A pre-collected swatch tray: 100% cotton, 100% wool (or linen/silk), nylon, polyester, and rayon (or lyocell/acetate) — one set per saint or one shared
- Index cards or cardstock for the saint-built swatch card, plus glue sticks or tape
- A magnifying glass or a phone macro lens (two or three to share)
- Fabric scissors for trimming swatches (adult-supervised, with sheaths)
- Printed Fiber Categories card (one per saint)
- BRC printouts and pens

THE HOUR

BLOCK 1 · DISCUSSION Opener — Point to a textile

5 min

Ask the group: "Without leaving your chair, point to three textiles you are wearing or using right now." Each saint points and names one — a shirt, a sock, a backpack strap, a chair cushion. Take the answers without correcting yet. The point of the opener is to put textiles on the table as something each saint is already in physical contact with, not a subject he learns about from a book.

SESSION 1 · FIBERS, FABRICS, AND WHAT THEY DO (PAGE 2 OF 3)

THE HOUR — CONTINUED

BLOCK 2 · SKILL PRACTICE Build the swatch card

15 min

1. Hand out the swatch tray. Each youth pulls one of each: a cotton or wool or linen or silk (natural), a second natural, a nylon or polyester or acrylic (synthetic), a second synthetic, and one rayon or lyocell or acetate (cellulosic manufactured).
2. Verify fiber content from the source — the original garment tag, the bolt label, or the leader's key card. The natural samples must be 100% — no blends. Set aside anything labeled as a blend.
3. Trim each swatch to roughly two inches square. Mount the five samples on the index card with glue or tape and label each: fiber name, source (plant, animal, manufactured), and where it came from (an old t-shirt, a wool blanket, a windbreaker).
4. Each youth handles all five samples — stretch one, fray one, hold it to the light. Predict aloud which sample is strongest, which will hold heat, which dries fastest. Do not check the predictions yet — that is the next block.
5. Leader confirms 1b: the swatch card has the correct mix, no blends in the natural samples, and one cellulosic-manufactured sample present.

REQ 1B

BLOCK 3 · SKILL PRACTICE Define and explain each fiber

18 min

1. Define the three terms plainly. Fiber: the raw material (cotton bolls, wool clipped from a sheep, nylon pulled from a chemical bath). Fabric: how the fiber is built into a sheet (woven, knit, bonded). Textile: the finished product made from the fabric — a shirt, a sail, a seatbelt. Each youth gives one example of each from his own life.
2. Walk the four fiber families on the Fiber Categories card: plant (cotton, linen), animal (wool, silk), cellulosic manufactured (rayon, lyocell — made from wood pulp), synthetic (nylon, polyester — made from petrochemicals). Each youth points to the matching sample on his swatch card as each family is named.
3. The cellulosic-versus-synthetic distinction is the one most often missed. Cellulosic manufactured fibers start from plant cellulose and are reshaped chemically — the raw material is biological. Synthetic fibers are built from petrochemicals — the raw material is fossil fuel. Both involve a manufacturing process; the source material is what makes them different.
4. Each youth, in turn: holds up one sample and explains its origin, one trait that comes from that origin (cotton breathes because the fiber wicks; nylon resists abrasion because the polymer is tough), and one item it shows up in. Use the swatch as evidence, not memory.
5. Leader confirms 1a and 1c: definitions clear with concrete examples; each fiber explained with origin and a real trait; the cellulosic-versus-synthetic difference stated correctly.

REQ 1A REQ 1C

SESSION 1 · FIBERS, FABRICS, AND WHAT THEY DO (PAGE 3 OF 3)

THE HOUR — CONTINUED

BLOCK 4 · DISCUSSION Pick the right fabric for the job

17 min

1. Lay out three real items the group can pass around: a cotton t-shirt, a synthetic athletic shirt, a wool sock or sweater. For each, the group names the fiber, two traits that come from the fiber, and one tradeoff (cotton breathes but dries slowly; synthetics dry fast but hold odor; wool insulates wet but costs more).
2. Each youth picks one item he might actually buy in the next few months — a winter jacket, hiking socks, a uniform piece, a backpack, a towel. Name the use, the conditions it will face, and how often it will be washed.
3. For that item, the youth chooses a fiber or blend and gives three reasons tied to use: purpose (what it does), durability (how long it lasts), and care (how it gets washed and dried). One of the reasons must include cost — premium synthetic versus budget cotton is the most common tradeoff.
4. Hand the choice to a partner. The partner asks one hard question: what about the worst weather; what about a sweat-heavy day; what happens after fifty washes. The youth defends or revises his choice.
5. Connect the work to stewardship: a fabric chosen for the job lasts longer and gets replaced less often. Cheap fabric that fails in a year is more expensive than good fabric that lasts five.
6. Leader confirms 2b: each youth has named a specific item with a specific fiber or blend and three use-tied reasons.

REQ 2B

BLOCK 5 · REFLECTION Close — Step 1 marked

5 min

1. Confirm on each saint's BRC: 1a, 1b, 1c, and 2b are marked.
2. Each youth carries his swatch card home and brings it back next week. The card is the reference for the construction sketches in Session 2 and the comparison table in Session 4.
3. Next week the group covers how fibers become fabric and the three constructions — woven, knit, and nonwoven. Bring the swatch card and the Fiber Categories reference.

AT THE CLOSE · DEBRIEF

1. Which of your five swatches surprised you most when you stretched and felt it?
2. Where on your own clothes is a cellulosic-manufactured fiber, and how did you confirm it?
3. What is one item you are now planning to buy in a different fiber than you would have before today?

Initial 1a, 1b, 1c, and 2b on each saint's BRC after this session. Step 1 completes in-session. Note any saint whose swatch card is missing a category and bring the missing sample next week.

SESSION 2 · INTELLECTUAL CORE

60 min target

From fiber to fabric

See how fiber becomes yarn, yarn becomes fabric, and structure changes performance.

SESSION AIM

Walk the production flow from raw fiber to finished fabric, sketch and explain the three constructions (woven, knit, nonwoven) from real samples, and lock in the textile vocabulary needed for Session 3. Saints leave with the construction sketch sheet completed, ten terms defined in their own words, and the loom and felting setups previewed for the activity session.

WALK AWAY WITH

- Can name the steps from raw fiber to finished fabric and the three main constructions
- Has a labeled sketch of one woven, one knitted, and one nonwoven fabric and can explain how the structure changes performance
- Can use ten textile terms accurately and give a real example for each

BRING / SET UP

- Each saint brings: his swatch card from Session 1 and the Fiber Categories handout
- Three sample swatches large enough to fray: a woven (denim or canvas), a knit (t-shirt jersey), a nonwoven (felt or interfacing) — one set per pair
- Magnifying glasses (one per pair) and plain paper for sketching
- Printed Construction sketch sheet (one per saint)
- A simple frame loom (cardboard or wood) pre-warped, and a small bag of carded wool roving — set up at the side of the room for a preview
- BRC printouts and pens

THE HOUR

BLOCK 1 · DISCUSSION **Opener — How did this get made**

5 min

Hold up a plain t-shirt. Ask the group: "From a cotton boll to this shirt, how many steps would you guess?" Take three or four answers. Most saints guess too few. The point of the opener is to put production on the table — the shirt did not arrive in this shape; somebody cleaned, carded, spun, knitted, cut, and sewed it, and a saint who buys clothes is buying all of that work.

SESSION 2 · FROM FIBER TO FABRIC (PAGE 2 OF 4)

THE HOUR — CONTINUED

BLOCK 2 · SKILL PRACTICE **Fiber to yarn to fabric** 16 min

1. Walk the production flow on the board: raw fiber → cleaning and carding → spinning → yarn → fabric construction → finishing. Use one plain noun for each step; do not make the saints memorize a dictionary.
2. For each step, name one thing that can happen there. Cleaning removes seeds and grease (cotton ginning, wool scouring). Carding aligns the fibers so they spin smoothly. Spinning twists the aligned fibers into a continuous strand — that is yarn. Construction turns yarn into a fabric sheet.
3. Demonstrate spinning with a length of carded wool roving and your fingers: pull a thin section, twist it as you pull, and the fibers grab each other into a yarn. Pass the roving around so each youth feels the twist take.
4. Three constructions, each with a sample passed around: woven (warp yarns run lengthwise; weft yarns cross under and over them — denim, canvas, dress shirts). Knit (one continuous yarn loops through itself — t-shirts, sweaters, socks). Nonwoven (fibers bonded by heat, pressure, or moisture, never spun — felt, interfacing, dryer sheets).
5. Each youth matches one item he is wearing to one of the three constructions and says why it makes sense for that use (a shirt knit because it stretches; jeans woven because they resist abrasion; the interfacing inside a collar nonwoven because it does not need to drape).
6. Leader confirms 2a: production steps named in order; the three constructions distinguished correctly with real items.

REQ 2A

SESSION 2 · FROM FIBER TO FABRIC (PAGE 3 OF 4)

THE HOUR — CONTINUED

BLOCK 3 · SKILL PRACTICE Sketch the three constructions

18 min

1. Hand each saint the Construction sketch sheet, a magnifying glass, and the three sample swatches at his table. Plain paper for working sketches.
2. For each swatch, the youth looks under the magnifier or a phone macro lens until he can see the structure. He sketches what he sees on the sheet, life-size or a little larger — not a stylized version copied from a textbook.
3. On the woven sketch, label the warp (long-direction yarns) and the weft (cross-direction yarns) — fray one edge of the swatch to expose them. On the knit sketch, label one loop and trace where the single yarn enters and leaves. On the nonwoven sketch, label two crossing fibers that are bonded rather than woven.
4. Under each sketch, write one performance trait that comes from the structure. Woven: dimensionally stable, frays at a cut edge, does not stretch much without spandex. Knit: stretches in two directions, does not fray, runs if a loop breaks. Nonwoven: does not fray or stretch, tears in straight lines, holds shape under heat.
5. Each youth explains one of the three sketches to a partner using the labels he wrote. The partner checks the labels against the swatch in his own hand.
6. Leader confirms 3b: each sketch reflects observation (not a copied diagram), the labels are correct, and the youth can explain how the structure causes the trait.

REQ 3B

BLOCK 4 · CREATIVE Ten terms, in your own words

16 min

1. On the back of the sketch sheet, each youth writes ten textile terms he will use in his Session 3 work. He picks the terms tied to what he has actually done so far, not random picks from the list.
2. The list to choose from: warp, weft, loom, spindle, roving, staple, worsted, ply, denier, carding, spinning, knit loop, weave, nonwoven, felt, fulling, bond, cellulose, cellulosic manufactured, synthetic, spinneret, extrusion, sericulture, dyebath, mordant.
3. For each term, the youth writes a short plain definition in his own words and a real example tied to a swatch, a sketch, or an item he has on. The example matters more than the definition — if a youth cannot tie the term to something, he picks a different term.
4. Trade sheets with a partner. The partner reads each definition and asks one clarifying question per term. The youth fixes any definition he cannot defend out loud.
5. Leader confirms 3c: ten terms defined accurately and each tied to a concrete example.

REQ 3C

SESSION 2 · FROM FIBER TO FABRIC (PAGE 4 OF 4)

THE HOUR — CONTINUED

BLOCK 5 · REFLECTION **Close — Preview the activity session** 5 min

1. Confirm on each saint's BRC: 2a, 3b, and 3c are marked.
2. Walk the group past the side table: the pre-warped frame loom and the carded wool roving for next week's two activities. Each youth picks the two activities he will run in Session 3 — weaving and felting are the default; substitute a fiber-identification break test for a saint with a wool allergy.
3. Each youth brings an old cotton t-shirt or piece of light fabric to Session 3 to protect his work surface. The felting block uses warm water and soap and the table will get wet.

AT THE CLOSE · DEBRIEF

1. Which structure was hardest to sketch accurately, and what was your eye missing?
2. Which of your ten terms did your partner force you to rewrite, and why?
3. Which of the two activities next week worries you, and what do you want to ask before Session 3 starts?

Initial 2a, 3b, and 3c on each saint's BRC after this session. Confirm each saint has chosen his two Session 3 activities and noted any safety needs (wool allergy, latex sensitivity).

SESSION 3 · INTELLECTUAL CORE

60 min target

Weave one, felt one

Make the two textile pieces you will present and explain.

SESSION AIM

The activity session. Each saint completes two hands-on textile activities — a frame-loom weaving square and a wet-felted wool square — and presents the finished pieces with a plain account of technique, what worked, and what he would change. Saints leave with two real swatches that prove the craft and Step 3a marked on the BRC.

WALK AWAY WITH

- Has woven one square on a frame loom with even tension and a finished edge
- Has wet-felted one wool square that holds together when handled
- Can explain the technique, the result, and one improvement for each of the two activities

BRING / SET UP

- Pre-warped frame looms (one per saint, or one per pair to share) with cotton warp yarn
- Weft yarn in two or three colors and a tapestry needle or shuttle per saint
- Carded wool roving in two or three colors (about 1 oz per saint)
- Plastic sheeting for the floor and a sink or large bucket nearby
- Warm water, mild dish soap, and one towel per saint
- Aprons or shirts the saints can get wet, plus the old t-shirt each youth brought to protect his surface

THE HOUR

BLOCK 1 · DISCUSSION **Opener — Two activities, two outputs** — 5 min

Lay one finished weaving and one finished felt square on the table where the group can see them. Tell the group: "By the end of the hour, every saint has two pieces like these on the table. They will not be perfect. They will be his." Walk the safety call-outs in plain language: tapestry needles are blunt but still pierce; scissors stay sheathed when not cutting; the felting block gets wet, so set up on the plastic and dry hands before touching anything electric.

SESSION 3 · WEAVE ONE, FELT ONE (PAGE 2 OF 4)

THE HOUR — CONTINUED

BLOCK 2 · SKILL PRACTICE **Weave a square on a frame loom** 25 min

1. Each youth takes a pre-warped frame loom. Walk the structure once: the warp yarns run vertical and are already strung; the weft yarn is what each youth weaves across, over and under, to build the fabric.
2. Demonstrate one pass: thread the weft on the tapestry needle, take it across the warp going over-under-over-under for the first row, then under-over-under-over for the next, alternating each row. Push each weft row down snugly against the row before it with a comb or fingers.
3. Each youth weaves a square roughly four-by-four inches. Tension matters: pull the weft just past the edge warp and let it relax before pushing down — pulling too tight bows the warp in and narrows the weave; leaving it slack leaves loops. Practice the tension on the first three rows before settling in.
4. Change colors at least once. To change, end one color by tucking the tail back into the weave for half an inch; start the new color the same way, tucking its tail in for half an inch. No knots.
5. When the square is full, finish the edge: tie adjacent warp yarns together in pairs at the top, then cut the warp off the loom about an inch above the knots. Trim any long weft tails on the back.
6. Leader walks the room throughout. Note where a youth is struggling with tension, an over-under count, or an edge — adjust as he goes, do not wait for the debrief.

REQ 3A

SESSION 3 · WEAVE ONE, FELT ONE (PAGE 3 OF 4)

THE HOUR — CONTINUED

BLOCK 3 · CREATIVE Felt a square of wool

20 min

1. Each youth lays a piece of plastic sheeting or bubble wrap, bumpy side up, on his work surface — felting needs a textured base to grab the fibers. The old t-shirt goes under the plastic to catch drips.
2. Pull thin tufts of carded wool roving and lay them down in a square roughly six-by-six inches, all running in one direction. Lay a second layer on top running at ninety degrees to the first. Add a third layer in the first direction. The crossed layers are what make the felt hold together.
3. Add a fourth layer of contrast color for a pattern if there is time. Keep the layers thin and even — thick spots felt slower than thin spots and make a lumpy square.
4. Drizzle warm soapy water over the wool until it is damp through, not soaking. Press it down gently with flat hands. The fibers will not move yet; that comes next.
5. Rub the surface in slow small circles for at least five minutes. Light pressure first; the fibers need to start hooking before they tolerate harder rubbing. Check progress by lifting a corner — when the layers lift as a single sheet instead of separating, the felt has started.
6. Switch to firmer pressure. Roll the bundle in the plastic and roll it back and forth on the table for two or three minutes — fulling, this is called, and it tightens the felt into its final form. Rinse in clear water, squeeze out, lay flat to dry.
7. Leader confirms 3a on both activities: each youth has a woven square and a felt square, even if rough. The leader inspects the product and asks the youth to walk through his technique and what he would change.

BY TIER

ENTRY	Pair with an established saint for the first ten minutes of each activity. Watch his weave or his felt-rubbing motion, then do your own. Ask one question per activity rather than guessing the technique.
ESTABLISHED	Run both activities on your own. Add one variation: a knot-and-pile texture in the weave, or a felted pattern with two contrasting colors.
MENTOR	Finish your own pieces by the 20-minute mark in the weaving block and the 12-minute mark in the felting block. Spend the remaining time coaching one entry-tier saint through tension or layering — coach, do not take over.

REQ 3A

BLOCK 4 · DISCUSSION Present the two pieces

5 min

1. Each youth, in turn, holds up his weaving and his felt square. One sentence on the technique he used for each — over-under for the weave, three crossed layers for the felt.
2. One sentence on what worked: the tension on the third row, the color change, the way the felt held together. One sentence on what he would change next time: tighter weft, more layers, more rubbing time.
3. For each piece, name how the construction affects performance: the weave is dimensionally stable and will fray at a cut; the felt does not fray but tears in straight lines. Tie the words back to the sketch sheet from Session 2.

SESSION 3 · WEAVE ONE, FELT ONE (PAGE 4 OF 4)

THE HOUR — CONTINUED

BLOCK 5 · REFLECTION Close — Pieces saved, hands washed

5 min

1. Confirm on each saint's BRC: 3a is marked for both activities. The leader has inspected both finished pieces.
2. Each youth labels his two pieces with his name and the date and sets them on the drying table. The felt needs to dry overnight before it travels.
3. Clean up the wet block before the dry block: wring towels, drain the felting water into the sink, fold and store the plastic sheeting. Hands washed before anyone touches the looms or the dry tray.

AT THE CLOSE · DEBRIEF

1. Which of the two activities took more concentration than you expected, and where exactly did it ask for it?
2. On the felt square, the moment the layers became one sheet — when did that happen for you?
3. If you ran both activities again next week, what is one thing you would do differently in the first five minutes?

Initial 3a on each saint's BRC after this session. Both finished pieces must be inspected and explained — no sign-off on a square the leader has not seen and the youth has not walked through.

SESSION 4 · INTELLECTUAL CORE

60 min target

Ecology, careers, and BRC sign-off

Compare the categories, name a path, and finish the badge.

SESSION AIM

The review session. Saints lay out the four fiber families against each other for trade-offs and ecological impact, name five textile careers and two in real detail with training, cost, and duties, and walk the BRC for sign-off. Saints leave with the badge complete and one habit of careful purchase or care they plan to keep.

WALK AWAY WITH

- Has a one-page comparison of the four fiber families with advantages, disadvantages, and four ecological concerns
- Can name five textile careers and explain two with training, cost, and typical duties
- Has a signed BRC and one written purchase or care habit he plans to keep

BRING / SET UP

- Each saint brings: his swatch card and Construction sketch sheet, the two finished pieces from Session 3, and his BRC
- Printed four-column comparison sheet (plant / animal / cellulosic manufactured / synthetic) — one per saint
- Three or four printed career-pathway sheets to share (design, manufacturing, quality, sustainability, fashion merchandising, textile engineering)
- Half-sheets for the keep-and-drop close (one per saint)
- Pens and a few highlighters

THE HOUR

BLOCK 1 · DISCUSSION **Opener — One piece you carry** — 5 min

Each saint holds up his felted square or his weaving and says one sentence: what fiber it is, and one place in his own life where that fiber shows up — a sweater, a sleeping bag, a sock. Take the answers without commentary. The opener ties the work to the rest of the badge: the saint already owns and uses what he has just learned to make.

SESSION 4 · ECOLOGY, CAREERS, AND BRC SIGN-OFF (PAGE 2 OF 4)

THE HOUR — CONTINUED

BLOCK 2 · DISCUSSION **Compare the four fiber families** 20 min

1. Hand out the comparison sheet — four columns, one per family: plant, animal, cellulosic manufactured, synthetic. Each youth fills it in from his swatch card and the work of Sessions 1 and 2.
2. For each family, write one advantage and one disadvantage in plain terms. Plant: comfortable and washable; dries slowly and wrinkles. Animal: insulates wet and resists odor; expensive and needs careful care. Cellulosic manufactured: drapes well and feels like silk; chemical processing and weak when wet. Synthetic: cheap, durable, fast-drying; petroleum-based, sheds microplastics in the wash.
3. List four ecological concerns across the table. Each youth picks four from this set and notes which families each one applies to: water use (cotton growing), chemicals (cellulosic processing, synthetic dyes), microplastics (synthetic washing), labor and ethics (anywhere production happens), land use (cotton, wool), energy (synthetic production), waste (fast fashion, end of life).
4. Each youth writes one personal habit that reduces his own textile impact. Examples: wash synthetics in a microfiber bag; buy one quality item instead of three cheap ones; mend a worn item instead of replacing it; buy used; air-dry instead of tumble. Plain and doable — not a slogan.
5. Trade sheets with a partner. The partner challenges one ecological claim with a question: where does that water go, what does that chemical do, what happens to the microplastic at the wastewater plant. The youth defends or revises.
6. Leader confirms 3d: each youth has a complete comparison, four real ecological concerns, and a specific habit.

REQ 3D

SESSION 4 · ECOLOGY, CAREERS, AND BRC SIGN-OFF (PAGE 3 OF 4)

THE HOUR — CONTINUED

BLOCK 3 · CREATIVE Five careers, two in detail

22 min

1. Open the career pathways: textile design, textile engineering, manufacturing and quality, sustainability and circularity, fashion merchandising, technical sales, mill operations, costume design, conservation and repair. Each pathway is a real job somebody has today.
2. Each youth lists five careers in textiles on the back of his comparison sheet. The five must span at least three of the pathway types — not five flavors of designer.
3. Pick two of the five that interest him and go deep. For each: education or training (degree, certificate, apprenticeship), typical cost of that path (community college tuition, a four-year program, an apprenticeship stipend), and the typical duties of a person in that role on a normal week.
4. Use a real source. A college program page, a job posting on a textile-industry board, an interview with a working professional, or a tour writeup from a mill. Cite it in one line at the bottom of the page — where the information came from.
5. Each youth, in turn: one minute on his two careers, to the group. He names the job, the training, the cost, and one duty. The group asks one question per saint — not commentary, a question.
6. Connect career discussion to the rest of the badge: each of the careers named uses some part of what the group has done in four weeks — the fiber knowledge for a sustainability role, the construction knowledge for engineering, the comparison reasoning for sourcing. The training is the next step, not a different subject.
7. Leader confirms 4a: five careers listed, two explained with training, cost, and duties, and a source named.

REQ 4A

BLOCK 4 · ROLEPLAY Teach one thing to one person

8 min

1. Each youth picks one thing from the four sessions he can teach in two minutes to somebody who was not in the room: the swatch card, the three constructions, the fiber families, the weaving technique, the felting technique, the comparison table, or one of the careers he researched.
2. Pair up and trade. Two minutes each, taught as if to a younger saint or a parent. Use the swatch card, the sketch sheet, or the two finished pieces as evidence.
3. Each youth commits aloud to teach that same thing once outside the session in the coming month — to a sibling, a parent, a friend. The teach is not a requirement on the BRC; it is the habit of careful explanation the badge has trained.

SESSION 4 · ECOLOGY, CAREERS, AND BRC SIGN-OFF (PAGE 4 OF 4)

THE HOUR — CONTINUED

BLOCK 5 · REFLECTION **Close — BRC sign-off** 5 min

1. Walk the BRC with each saint, requirement by requirement. Mark what is done. Note anything outstanding with a concrete deadline before the Board of Review.
2. Each saint, on a half-sheet: one purchase or care habit he plans to keep, and one habit (a default buy, a careless wash, a fast replacement) he plans to drop.
3. Leader gives one short, specific note to each saint by name: one thing he did well in the four weeks that earned the badge.

AT THE CLOSE · DEBRIEF

1. Which of the four families came out worst on your comparison sheet, and what is the part you actually carry in your own life?
2. Which of your two careers would you take if the training was paid for tomorrow, and which one would you rule out?
3. What is one purchase you were about to make that you will now think about for a week first?

Initial 3d and 4a on each saint's BRC after this session. With Step 1 done in Session 1, 2a, 2b, 3b, and 3c done in Session 2, and 3a done in Session 3, the BRC should fully sign off tonight. Anything outstanding gets a dated deadline.

HANDOUT 1 OF 2

FROM SESSION 1 — DEFINE AND EXPLAIN EACH FIBER

Fiber Categories

Match each swatch on your card to one of the four families. Carry the card through the rest of the badge.

SEWING · FIELD CARD

Match each swatch to one of four families.

Use this card to confirm the source and traits of every fiber on your swatch card.

THE FOUR FAMILIES

source · traits · examples · what you own

PLANT — natural · cellulose

SOURCE
Cotton bolls, flax stems, hemp.

TRAITS
Breathes and wicks. Wrinkles, dries slowly, weakens at the rotting point.

EXAMPLES
cotton, linen, hemp — t-shirt · jeans · sheets

ANIMAL — natural · protein

SOURCE
Sheep fleece, silkworm cocoons.

TRAITS
Insulates even when wet, resists odor. Costs more, washes carefully.

EXAMPLES
wool, silk, alpaca — sweater · base layer · scarf

CELLULOSIC MANUFACTURED — made · plant-sourced

SOURCE
Wood pulp, dissolved and extruded into new fiber.

TRAITS
Drapes well, feels like silk or cotton. Weaker when wet; chemical processing.

EXAMPLES
rayon, lyocell, acetate — summer blouse · lining · workout shirt

SYNTHETIC — made · petrochemical

SOURCE
Petrochemicals, polymerized and extruded into fiber.

TRAITS
Cheap, durable, dries fast. Holds odor, sheds microplastics in the wash.

EXAMPLES
nylon, polyester, acrylic — athletic shirt · backpack · fleece

NATURAL VS MANUFACTURED

NATURAL FIBERS

Arrive as fiber.

Cotton off the boll, wool off the sheep, silk off the cocoon. Cleaned, carded, spun into yarn.

Plant and animal families fall here.

MANUFACTURED FIBERS

Built into fiber.

Cellulosic starts from plant pulp and is reshaped chemically. Synthetic starts from petrochemicals — fossil source.

Both run through a spinneret.

USING THE CARD

1. **Read the tag first.** If a fiber name is on the label, the family follows.
2. **Handle the swatch.** Stretch, fray, hold to the light. Traits show in your hands.
3. **Match to the family.** Source explains the trait — natural or manufactured.
4. **Tie it to the use.** Pick the fiber for the conditions, not the price tag.

Read the label, handle the swatch, and pick the fiber for the conditions.

Print this handout for in-person reference during session 1 — define and explain each fiber.

HANDOUT 2 OF 2

FROM SESSION 2 — SKETCH THE THREE CONSTRUCTIONS

Woven, Knit, Nonwoven

Sketch from the magnified swatch, not from this card. Use the labels here to check your own.

SEWING · FIELD CARD

Sketch the structure you actually see.

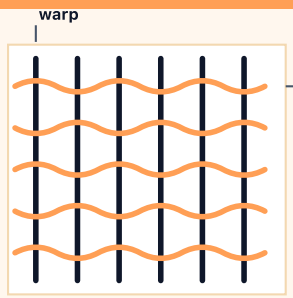
Use this card to check your own sketch. The structure determines how the fabric behaves.

THE THREE CONSTRUCTIONS

structure · traits · examples

WOVEN

warp and weft crossing at right angles



STRUCTURE

Warp yarns run lengthwise on a loom. Weft yarns cross under and over them.

TRAITS

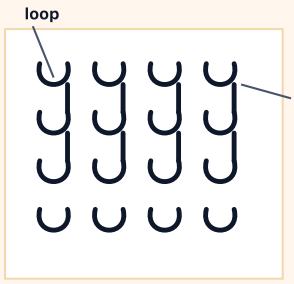
Dimensionally stable — holds its shape.
Frays at any cut edge unless finished.
Limited stretch without added spandex.

EXAMPLES

denim, canvas, dress shirts, sailcloth

KNIT

a single yarn looped through itself



STRUCTURE

One yarn loops through itself, row by row, like a long continuous chain.

TRAITS

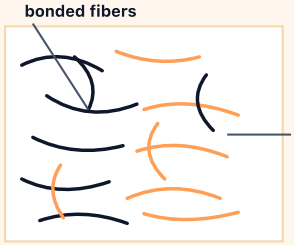
Stretches in two directions.
Does not fray, but a broken loop runs.
Soft and shape-recovering.

EXAMPLES

t-shirts, sweaters, socks, athletic shirts

NONWOVEN

short fibers bonded into a mat



STRUCTURE

Short fibers laid in a mat and bonded by heat, pressure, moisture, or glue.

TRAITS

Does not fray; tears in straight lines.
Holds shape under heat; no stretch.

EXAMPLES

felt, interfacing, dryer sheets, mask layer

Sketch from the swatch in your hand — the structure tells you how the fabric will behave.

Print this handout for in-person reference during session 2 — sketch the three constructions.