



YARN – THE ESSENTIAL ELEMENT OF KNITTING

Project Skills:

- Identifying various fibers and their sources.

Life Skills:

- Learning to learn; making decisions

Academic Standards:

This activity complements these academic standards:

- Art and Design Education: A.4.1. Develop a basic mental storehouse of images. A.4.2. Learn basic vocabulary related to their study of art.
- Family and Consumer Education: F.4. Demonstrate the ability to use self-evaluation skills.
- NA-VA.5-8.1. Understanding and applying media, techniques and processes.

Grade Levels: 5-8

Time: 60 minutes

Supplies Needed:

- Skeins or balls of yarn to show (e.g., wool, mohair, alpaca, cashmere, angora, silk, cotton, linen, soy, bamboo, acrylic)
- Several boxes that have a hole in the top to make mystery boxes. Square tissues boxes work well. Brown paper lunch bags or similar bags may also be used.
- Samples of raw fiber (or roving or yarn) for Mystery Boxes (e.g., wool, mohair, alpaca,

BACKGROUND

Fiber is used by knitters to create a fabric which becomes a sweater, a pair of socks, an afghan or another item. In early days, raising animals to provide the fiber for knitting clothing was a common practice. Knitters cleaned, spun and knitted the fiber to make socks and sweaters to cloth their families. Based on the fiber they raised and used, they knew how to care for it so the item would last.

These days, a knitter can go to a store to buy yarn to make knitted items for their families and friends. In planning a project, the knitter needs to consider what yarn to use based on whom the item is for, how it will be used and how it will be cared for. For these reasons, it's important for a knitter to be able to identify the type and source of their yarn. In this activity, youth will explore the many types of fibers and their origins.

WHAT TO DO

Activity: Where Does Yarn Come From?

Youth will learn the types of fiber and learn the characteristics of various yarns. Youth will be able to identify the animals and plants that fiber comes from.

1. Use "Fiber Guide" as a resource. Ask youth to name where they think yarn comes from. (The answer isn't a store!) Show or pass around the various skeins or balls of yarn. Discuss the differences between natural (animal and plant) and synthetic fiber. For natural fibers, be sure to discuss the animal or plant from which it comes.
2. Distribute the "Fiber Source Identification Activity" worksheets and pencils to youth. Instructions: Have youth identify each animal or plant by writing its name under its picture.
3. Go through the answers with the youth.
4. Use "Fiber Guide" as a resource. Discuss the characteristics of natural and synthetic fibers.



TALK IT OVER

Reflect:

- What surprised you about where fiber comes from?
- What are other animals or plants that produce fiber? (llama, corn, buffalo, yak)

Activity: Mystery Boxes

Youth will use their sense of touch to identify fibers.

1. Have mystery boxes set up on a table. Give each youth the list of fibers.
2. Depending on how many boxes there are and how many youth, have the youth go one at a time to each box.
3. Have youth reach their hand into the box and feel the fiber. Have them think about how they would describe what it feels like.
4. On their fiber list, have youth identify the fiber that is in each box by having them write the number of the mystery box next to the name of the fiber.
5. When all youth have completed the activity, go over the answers one at a time. Have youth take the fiber out of the boxes so they can see, smell and touch the fiber. Encourage youth to say what fiber they think it is.

angora, silk, cotton,
linen, soy, bamboo)

- List of fibers you have in the mystery boxes
- Pencils

Do Ahead:

- Ask youth leaders to help with activities by setting out the supplies or leading one of the activities.
- Gather fiber as indicated in supply list.
- Make enough copies of “Fiber Source Identification Activity” for one per youth.
- Prepare Mystery Boxes. For each fiber, have a separate box with a hole that is big enough for the youth to put their hand through to touch the fiber inside. Label each box with a number: 1, 2, 3, etc.
- Prepare a list of the fibers in the boxes. Make one copy for each youth.
- Cut “What Yarn Should I Use?” scenarios.

Sources:

- Created by Annette Bjorklund, 4-H Youth Development Educator, UW-Extension, Washburn County.
- *Vogue Knitting: The Ultimate Knitting Book*, by the editors of Vogue Knitting Magazine, ISBN 1-931543-16-X (2002) Sixth & Spring Books.
- *The Knitter’s Book of Yarn*, by Clara Parkes, ISBN 978-0-307-35216-3 (2007) Potter Craft.

Keywords:

Fiber, wool, alpaca, synthetic fiber

TALK IT OVER

Reflect:

- Describe how various fibers felt. (soft, scratchy, greasy, coarse, smooth, curly, etc.)
- Which fiber would you want to work with the most? The least? Why?

Activity: What Yarn Should I Use?

Youth will decide which yarn to use for a particular project.

1. Have scenarios copied on colored paper and laminated so they can be reused.
2. Ask a youth to pick a card. Have them read the scenario aloud and tell the group what type of yarn they would use for that project.
3. Have the group discuss whether that is a good choice or if there are other options.

TALK IT OVER

Reflect:

- What was hard or easy about deciding which yarn to use?
- What guided your choice?
- Why is it important to think through and decide what fiber is best for your project?

HELPFUL HINTS

- Alternative Idea. Copy the scenarios on paper, fold them and put into a basket with candy. Pass the basket around. Youth take a slip of paper and a piece of candy. Then they respond to the scenario.

TALK IT OVER

Reflect:

- Why is it important to know about fibers?
- What did you learn from these activities that you didn’t know before?
- Why is learning with others sometimes more fun than learning alone?
- What did you learn about making decisions?
- How will knowing about fibers affect decisions you make when you plan a project?

Apply:

- Where else can you gather information about fibers?
- What are some ways you like to learn?
- What will you do to help yourself continue learning?
- How will you apply what you’ve learned here to help you make better decisions in the future?

ENHANCE/SIMPLIFY

Enhance for Older Children:

Where Does Yarn Come From? Activity

- On a map or globe, find the country of origin of the animals and plants. Have youth research the history of the animal or the significance of the animal/fiber to its country of origin. Have them report back at your next meeting.

Simplify for Younger Children:

Where Does Yarn Come From? Activity

- Instead of a worksheet, make flash cards of the pictures and have youth say the name of the picture. Consider laminating pictures for use in the future.

Mystery Boxes Activity

- Have youth go as a group to each mystery box. Have each reach in to touch the fiber. As a group, try to determine which fiber it is.

HELPFUL HINTS

- Have knitted swatches of the various yarns to show the characteristics (such as drape and stitch definition).

- Youth may be interested in the process of how silk is made from the cocoons or how bamboo is made. It may be helpful to have that information ahead of time.
- For a deeper look into the types of fiber and their historical and cultural values, refer to the listed sources: *Vogue Knitting* and *The Knitter's Book of Yarn*.
- This activity has been used at knitting and crocheting project meetings. It could be used at 4-H project days or in 4-H afterschool programs.

ADDITIONAL WEB LINKS

- Oklahoma State University, <http://www.ansi.okstate.edu/breeds/>. This site has information on a variety of fiber-producing sheep and goats.

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FIBER GUIDE

Category	Fiber	Source	Characteristics
Protein <i>from animal hair</i>	Wool	sheep	warm, elastic, durable, insulating, absorbs moisture, natural crimp, resilient, receptive to dye, naturally flame-retardant
	Mohair	angora goat	lightweight, warmer and stronger than wool, insulating, receptive to dyes, less resilient than wool, flame-retardant, silky appearance, reputation for being scratchy
	Alpaca	alpaca	long fibers, absorbs moisture, soft, warm, lustrous appearance
	Cashmere	cashmere goat (combed from belly)	airy, soft, light weight, insulating, resilient, receptive to dye, expensive, luxurious, weaker than wool
	Angora	angora rabbit	short hairs, soft, fluffy, warm, light weight, expensive
	Silk	silkworm	insulating, dyes well, strong, not resilient, expensive, slippery
Cellulose <i>from cellulose that naturally occurs in plants</i>	Cotton	cotton plant	absorbs moisture, dries quickly, easy to wash, not elastic, strong and durable
	Linen	stem of flax plant	absorbs and evaporates moisture, lustrous, strong, washable, lacks elasticity
Cellulosic <i>from natural resources but may be chemically altered</i>	Soy	pure soybean fiber created from byproducts of the tofu-making process	lustrous appearance, soft, resilient, drape, warm, wicks moisture
	Bamboo	bamboo stalk	antibacterial, absorbs and evaporates moisture
Synthetics <i>chemically synthesized from coal and petroleum</i>	Nylon/polymide	petrochemicals	strong, durable, lightweight, elastic, not absorbent
	Acrylic	vinyl cyanide or acrylonitrile	for softness and bulk, imitates wool but not insulating, excellent elasticity, lightweight, abrasion-resistant, wicks away moisture, quick drying
	Polyester	polypropylene and polyethylene	wrinkle resistant, holds shape, lightweight, strong, softer and warmer than nylon

Sources:

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FIBER SOURCE IDENTIFICATION ACTIVITY

Identify each plant or animal by writing its name under its picture.



- Alpaca
- Angora goat
- Angora rabbit
- Bamboo
- Cashmere goat
- Cotton
- Flax (linen)
- Merino sheep
- Silkworm
- Soy

FIBER SOURCE IDENTIFICATION ACTIVITY (KEY)

Identify each plant or animal by writing its name under its picture.



Cotton

Photo by Annette Bjorklund



Angora rabbit

www.petplanet.co.uk/



Silkworm

www.silkwormshop.com



Merino sheep

www.rmncsba.org



Flax

www.life.uiuc.edu



Alpaca

*Photo by Sue Groeschl,
Joyful Journeys Alpaca*



Soy

www.gothamstudio.com



Angora goat

www.margarets.com/fashionablecarefiles/



Cashmere goat

www.fiberfrolic.com



Bamboo

<http://bamboo-fibre.net>

- Alpaca
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WHAT YARN SHOULD I USE?

 <p>My cousin is having a baby and I want to make a baby blanket as a shower gift.</p>	 <p>My dad likes to ice fish in the winter. I want to make him a pair of socks to keep his feet warm and dry.</p>
 <p>I want to make a felted bag.</p>	 <p>I want to make a summer top.</p>
 <p>My grandma loves to bake. I want to make her hot pads and a trivet for Christmas.</p>	 <p>My dog loves to play outside during the winter but she doesn't have much hair and gets cold fast. I want to make her a sweater.</p>
 <p>I want to make dishcloths.</p>	 <p>I want to make a pair of socks for my mom that she can wear in the spring with her sandals.</p>
 <p>I want to make a hat and scarf for my little brother. He plays outside a lot and isn't very careful with his clothes.</p>	 <p>I want to make a special sweater for my favorite aunt. She's sensitive to wool.</p>
 <p>I want to make mittens for my sister who's in college.</p>	 <p>I want to make a special sweater. I understand the care that a fine yarn requires and am willing to take the time to wash it as needed.</p>