
TEXTILES TECHNOLOGY

TOPIC #10: Textiles Occupational Skills

TIME PERIOD: 3-6 Days

CORE STANDARD #2: Technology: The students will assess the relationship of technology to the home, community, and school/workplace.

CORE STANDARD #4: Careers: The students will explore careers related to family and consumer sciences, identifying skills which are applicable for both the home and the school/workplace, and the impact of career choices on family lifestyles.

OBJECTIVE: The students will demonstrate a beginning level of proficiency using the conventional (lockstitch) sewing machine, serger, and rotary cutter and mat as used in many textile-related occupations.

INDEPENDENT LIVING SKILLS (COMPETENCIES):

20.0001-0307 Demonstrate safe operation of a conventional sewing machine.

20.0001-0308 Demonstrate safe operation of a serger.

20.0001-0309 Demonstrate safe operation of a rotary cutter and mat.

20.0001-0428 Identify textile-related careers.

LIFE SKILLS:

- * Lifelong Learning
- * Complex Thinking
- * Effective Communication
- Collaboration
- Responsible Citizenship
- * Employability

TOPIC #10: Textiles Occupational Skills**Teacher Information****RELATED CAREERS:****OCCUPATIONAL CLUSTER:**

Custom Clothing Maker
 Fashion Designer
 Fashion Consultant Artistic:
 Weaver
 Fashion Merchandiser

Technical/Crafts; Family and Consumer Sciences
 Artistic; Family and Consumer Sciences
 Family and Consumer Sciences
 Artistic; Family and Consumer Sciences
 Business-Marketing/Sales;
 Family and Consumer Sciences
 Artistic; Family and Consumer Sciences
 Technical/Equipment Operation and Repair;
 Family and Consumer Sciences

Textiles Designer
 Textiles Technician

LIST OF STUDENT ACTIVITIES:**SUPPLIES REQUIRED:**

NOTE: All of the projects in this topic require the following equipment and supplies:

1. Rotary cutter and mat
2. Serger
3. Conventional (lockstitch) sewing machine
4. Thread, scissors, fabric, rulers, etc.

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|---|---|
| ♦ 1. Book Mark Project | Copies of student directions (10.11-10.14)
Heavy felt or pella fabric
Cutting patterns (3 inches by 9 inches) |
| ♦ 2. Table Pad Project | Copies of student directions (10.15-10.18)
Fabric and pella fleece for table pads
Cutting patterns (8-inch and 8 1/2-inch square)
Copies of design patterns (10.19-10.21) |
| ♦ 3. Windsock Project | Copies of student directions (10.22-10.29)
Fabric for windsocks
Cutting patterns (6 inches by 13 inches, 3 inches by 18 inches)
Lightweight nylon cord
Drapery crinoline or tagboard strips
Fabric glue sticks and a product to prevent fraying
Copies of evaluation sheet (10.30) for each student |
| 4. Additional Projects
(Optional) | See pages 10.31-10.37 |
| 5. Identification of
Related Careers | Career information (10.38-10.42)
Career posters (10.43-10.49) |



PROCEDURE

CONCEPT: Learning to use equipment designed for use with textiles is a necessary skill for many textile-related careers and a useful skill for the home.

This topic covers the suggested projects for construction. The whole textiles unit is designed so it can be used in a round-robin method of instruction. The teacher may wish to rotate students through the different projects in small groups. Each student, or group of students, will need a copy of the student directions for each project. Laminating the pages of student directions or placing them in plastic sheet protectors will allow them to be used repeatedly without recopying.

The teacher will need to have the "Student Directions" and/or "Operating Rules" with the corresponding equipment in the classroom.

It is suggested that the teacher do a demonstration of each project for the students to watch. This allows the students to visually see anything that might not be clear in the written directions.

The cutting pattern sizes are given at the beginning of the instructions for each construction project. If these can be made of masonite or some type of hard plastic, it will facilitate the cutting by the students. The patterns will need to be marked to identify project, size, etc.

Below is a summary of the specific activities the students will do at the various work areas while completing the projects:

CONVENTIONAL SEWING MACHINE AREA

- Observe the teacher demonstration for using the sewing machine.
- Go over the directions for using the sewing machine (pages 9.12-9.15).
- Sew the "Crazy Stitching" practice fabric.
- Sew a regular stitch and basting stitch.
- Sew the decorative stitches on the bookmark.
- Zigzag the design on the table pad.
- Sew around the edges of the table pad.
- Sew the casing on the windsock.
- Sew the last seam on the windsock.

ROTARY CUTTER AND MAT AREA

- Observe the teacher demonstration for using the rotary cutter and mat.
- Go over the directions for using the rotary cutter and mat (page 9.26).
- Cut out the bookmark.
- Cut out the table pad (may be torn or precut, if preferred).
- Cut out the windsock (may be torn or precut, if preferred).



SERGER AREA

- Watch the teacher demonstration for using the serger.
- Go over the directions for using the serger (page 9.27).
- Serge the edges of the table pad.
- Serge the seams of the windsock.
- Serge the edges of the windsock streamers.

1. **BOOKMARKS** (pages 10.11-10.14)

Good, heavyweight felt or pellon needs to be used for the bookmarks to eliminate the fabric from getting caught in the feed dogs. Pellon comes in a number of colors and may be purchased in fabric stores that cater to customers interested in crafts. Denim also works well for this project.

It is recommended that one color thread be used on the top and another color thread be used on the bobbin so the students can see the relationship of the two threads in forming the stitch.

The teacher may prefer to precut the bookmark pieces to save classroom time. The teacher will need to insert the appropriate settings for the sewing machines in his/her classroom as indicated on the direction pages.

2. **TABLE PAD** (pages 10.15-10.18)

These can be made from any type of mediumweight broadcloth. It may be possible that these could be made from some scrap fabrics found at home or school. Pellon fleece can be used for the filler. Some simple design patterns for the students to stitch are provided (pages 10.19-10.21).

3. **WINDSOCK** (pages 10.22-10.29)

These can be made from any type of broadcloth or similar fabric. It is suggested that the teacher have two or three colors of fabric available for the windsocks—possibly the school colors. Each windsock takes approximately 1/2 yard of fabric total. Strips of drapery crinoline or tagboard can be used in the casing to provide shape. (The drapery crinoline is much more weather durable.) A lightweight nylon cord is recommended for making the windsock hanger (yarn isn't strong enough).

The directions provided for the windsock project are based on the use of fabric glue and a four-spool serger. They can be modified as necessary to accommodate other equipment and supplies. The teacher may prefer to precut the windsock pieces for the students in order to save classroom time.

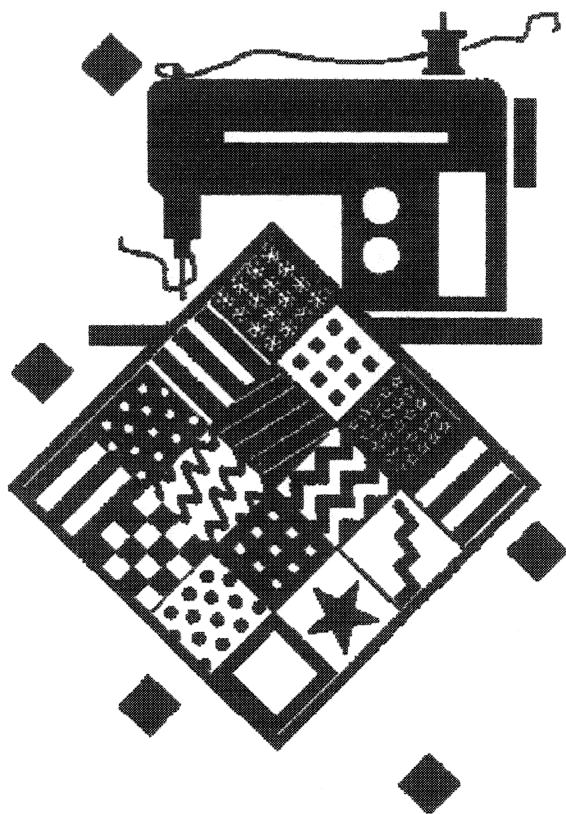
4. ADDITIONAL PROJECTS (Optional)

For students who finish early, instructions for several other miniprojects have been included on pages 10.31-10.37. Other ideas are: the puppets from the Child Care unit and hair scrunchies.

5. IDENTIFICATION OF RELATED CAREERS

Using the career information (pages 10.38-10.42) and the career posters (pages 10.43-10.49), identify and discuss the careers related to the textile occupational skills.

SUMMARY: Many textile-related careers use various types of sewing equipment. This equipment may also be used in the home and classroom to produce useful items.



**CORE TEST QUESTION BANK****UNIT: TEXTILES TECHNOLOGY****TOPIC #10: TEXTILES EQUIPMENT TECHNOLOGY****20.0001-0307*****Demonstrate safe operation of a conventional sewing machine.***

1. When you need to bring up the needle with the handwheel, you should:
 - a.* Turn the wheel toward you
 - b. Turn the wheel away from you
 - c. It doesn't make any difference
 - d. Push on the foot pedal quickly
2. When you turn the handwheel in the wrong direction:
 - a. There is no wrong direction
 - b. The machine sews backward
 - c.* The machine bobbin locks and the thread tangles
3. To make the machine sew backward you need to:
 - a. Turn the fabric around and sew forward
 - b.* Change the position of one of the selector controls
 - c. Pull the fabric toward you real hard
4. It doesn't really matter how you thread the machine as long as you get the needle threaded.
 - a. True
 - b.* False
5. The presser foot should be _____ while you are sewing.
 - a.* Lowered
 - b. Raised
6. To control the fabric as it feeds through the machine, it is best to keep your fingers:
 - a. In front of the presser foot
 - b. On the left side of the presser foot
 - c. On the right side of the presser foot
 - d.* A few inches away from the presser foot

**TEST QUESTIONS**

7. The take-up lever should be _____ before you lift the presser foot lever and pull the fabric from the machine.
 - a.* Up at the top position
 - b. Down at the bottom position
8. Before you start to sew, be sure the lower and upper machine threads are:
 - a. Above the presser foot and pulled toward the front
 - b. Under the presser foot and pulled toward the front
 - c.* Under the presser foot and pulled toward the back
 - d. Above the presser foot and pulled toward the back
9. "Backstitching" means:
 - a. To sew backward across the fabric
 - b.* To stitch in reverse three or four stitches at the beginning and the end of a seam
 - c. To stitch on the back side of the fabric
 - d. To sew on the machine at the back of the room

20.0001-0308 Demonstrate safe operation of a serger.

1. The serger _____ sew over pins like a conventional sewing machine.
 - a. Can
 - b.* Cannot
2. The serger operator needs to be very sure his/her fingers are in a safe position _____ pressing the foot control lever.
 - a. Before
 - b. After
 - c. While
 - d.* Before, after, and while
3. While you are learning to use the serger, it is a good idea to:
 - a. Go as fast as possible so you can get through
 - b.* Go slowly at first until you get used to it
 - c. Try to finish before everyone else
4. If the serger doesn't seem to be stitching correctly or a thread breaks, it is best to:
 - a. Ask the student next to you to try to fix it
 - b. Try to fix it yourself before checking with the teacher
 - c.* Leave it alone and call the teacher to fix it
 - d. Leave without telling the teacher something is wrong
 - e. Step on the foot control and pull the thread tail

**TEST QUESTIONS****20.0001-0309 *Demonstrate safe operation of a rotary cutter and mat.***

1. The main advantage of using a rotary cutter and mat is:
 - a. It is very easy to cut your fingers
 - b. It costs less than scissors
 - c.* It cuts fabric quickly and smoothly
2. The main disadvantage of using a rotary cutter and mat is:
 - a.* It is very easy to cut your fingers
 - b. It costs less than scissors
 - c. It cuts fabric quickly and smoothly
3. While using the rotary cutter and mat, you should:
 - a. Keep your fingers as close to the cutting edge as possible
 - b.* Keep your fingers back away from the cutting edge
 - c. Keep your eyes on the pattern rather than the cutting edge
4. The rotary cutter and mat work best when used on a:
 - a.* Flat surface
 - b. Rounded surface
 - c. Wood surface
 - d. Bumpy surface
5. A _____ is a small piece of equipment that is frequently used with the rotary cutter and mat to help with accuracy and safety.
 - a. Measuring tape
 - b. Pencil
 - c.* Large clear plastic ruler
 - d. Pin cushion
6. When using a rotary cutter, the guard should be left up:
 - a.* When you are actually cutting fabric
 - b. When you put the cutter in the drawer at night
 - c. When you are handing the cutter to another student
 - d. When you are changing the position of the fabric

**TEST QUESTIONS****20.0001-0428 *Identify textile-related careers.***

1. There aren't very many careers that require a knowledge of textiles information and/or clothing construction skills.
 - a. True
 - b.* False
2. The textile industry is much different today than it was 25 years ago--it is constantly changing.
 - a.* True
 - b. False
3. Textile-related careers can:
 - a. Provide goods
 - b. Provide products
 - c. Provide services
 - d.* Provide goods, products, or services
4. There are _____ opportunities for part-time employment in the textile industry.
 - a.* Many
 - b. Some
 - c. Few
 - d. No
5. Textile-related careers tend to require:
 - a. Very little physical work and very little mental work
 - b. Very little physical work and a lot of mental work
 - c. A lot of physical work and very little mental work
 - d.* A lot of physical work and a lot of mental work
6. The beginning wages for most jobs in the textile industry are:
 - a. Above minimum wage level
 - b.* Minimum wage level
 - c. Below minimum wage level
7. Learning to use equipment designed for use with textiles is _____ for all persons in most textile-related careers.
 - a. Not necessary
 - b. Helpful
 - c.* Necessary

**TEST QUESTIONS**

8. Textile-related industries hire _____ to be machine operators.
- a. Women only
 - b. Men only
 - c.* Both men and women
9. "Assembly line production" is when:
- a.* Each person does only one part of the construction process on many copies of the same article
 - b. Each person sews a garment completely by himself/herself
 - c. Each person goes to an assembly before they start sewing and learns how to sew a garment

