

Class 7	Subject: Science	Topic: Fiber to Fabric
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SUMMARY SHEET		
Learner Previous Knowledge	Clothing Journey of plant fibres (cotton and jute) from plant to fabric	
Target Knowledge for this Topic	• Animals fibres (wool and silk) • Journey of fibres from sheep to woollen sweater • Life cycle of silk worm • Processing of silk	
Learning Goals		
<i>More Complex Learning Goal-</i> Students will be able to demonstrate their understanding about the whole process of getting fabric from animal fibres.		
<i>Target Learning Goal-</i> Students will be able to describe the formation of animal fiber to fabric.		
<i>Simpler Learning Goal-</i> Students will be able to list out various types of animal fibers.		
Period No.	Lesson Objectives	Teaching Learning Materials Required
1	• Understand that wool is obtained from the hair of the animal. • Define selective breeding. • Name different animals which yield wool	• Board and markers • Reference sheet 1
2 and 3	• Understand and explain the process of processing of wool from fibres.	• Board and markers • Reference sheet 2

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4	Describe the life cycle of silk moth.	- Board and markers - Reference sheet 3 - Worksheet 1
5	Explain the process of the making of silk from cocoon	- Board and markers - Reference Sheet 4

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Period 1

Lesson Objectives

At the end of this lesson students will be able to:

- Understand that wool is obtained from the hair of the animal.
- Define selective breeding.
- Name different animals which yield wool

Teaching Learning Materials required

- Board and markers
- Reference sheet 1

Details of Teaching Learning Experience

Seating Arrangement: - Individual

Lesson Beginning <u>Time:</u> 5 min <u>Purpose:</u> • Introduce the topic.	• Ask the students following questions a. What are fibres? b. Name the process through which yarn is prepared from fibres? c. Name any two natural fibres. • Collate all the answers on the board.
Lesson Middle <u>Time:</u> 25 min. <u>Purpose:</u> • Develop conceptual understanding	• Ask the students to share the uses of the wool. • Discuss that the wool is the hair of the sheep. • Introduce the topic fleece and explain it. • Ask students to guess the use of hair to the animals like sheep. • Discuss the importance of hair for the animals and how different hair are used to form fibres. • Define ‘selective breeding’ with an example. You can use any fictitious example to make them understand the concept. • Discuss how the animals other than sheep also yield wool.

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Lesson End <u>Time:</u> 5 min <u>Purpose:</u> Recap their learning	Wrap up the class reading/showing the questions on the board given in the reference sheet 1.
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Reference Sheet 1

Q1. Name any 4 wool yielding animals.

Q2. Why do animals have fur on them?

Q3. Name the regions where we can find the following animals

a. Alpaca

b. Yak

c. Angora goats

d. Llama

Q4. What do you understand by selective breeding?

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Period 2 and 3

Lesson Objectives

At the end of this lesson students will be able to:

- Understand and explain the process of processing of wool from fibres.
- Define and explain different processes involved in making of wool.

Teaching Learning Materials required

- Board and markers
- Reference sheet 2

Details of Teaching Learning Experience

Seating Arrangement: - In groups of 4 or 5

Lesson Beginning <u>Time:</u> 5 min <u>Purpose:</u> • Introduce the topic.	• Ask the students to recall the animals which yield wool. • Ask them to recall the processes involved in the processing of cotton. • Display/ Distribute the images given in reference sheet 2.
Lesson Middle <u>Time:</u> 25 min. <u>Purpose:</u> • Develop conceptual understanding	• Let the groups arrange the pictures in the correct order. • Let the groups discuss their sequence with the larger group. • Explain the correct order of the images on the board. • Ask the students to explain the pictures in their own words. • After the discussion, explain each step involved in the process of making yarn of from fibres. (Refer to Page 28 and 29 of NCERT book)

Lesson EndTime: 5 minPurpose:

- Recap their learning

- Wrap up the class by clearing their doubts, if any.

Reference Sheet 2

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Period 4

Lesson Objectives

At the end of this lesson students will be able to:

- Describe the life cycle of silk moth.

Teaching Learning Materials required

- Board and markers
- Reference sheet 3
- Worksheet 1

Details of Teaching Learning Experience

Seating Arrangement: In groups of 4-5 each

Lesson Beginning <u>Time:</u> 5 min <u>Purpose:</u> • Recapitulate the processes involved in wool processing.	• Divide the class in different groups. • Ask the students to define the terms shearing, scouring, sorting etc. • Collate the responses of the students on the board.
Lesson Middle <u>Time:</u> 20min. <u>Purpose:</u> • Develop conceptual understanding	• Display/Distribute the image given in reference sheet 3. • Let the students discuss and write their understanding about the picture. • Discuss the life cycle of silk moth in detail. • Discuss how the cocoon is formed and its importance in detail.
Lesson End <u>Time:</u> 5 min <u>Purpose:</u> • Finish Up	<u>Finish Up</u> • Wrap up the discussion by clearing doubts if the students have. Home Assignment- Distribute Worksheet 1 for home assignment.

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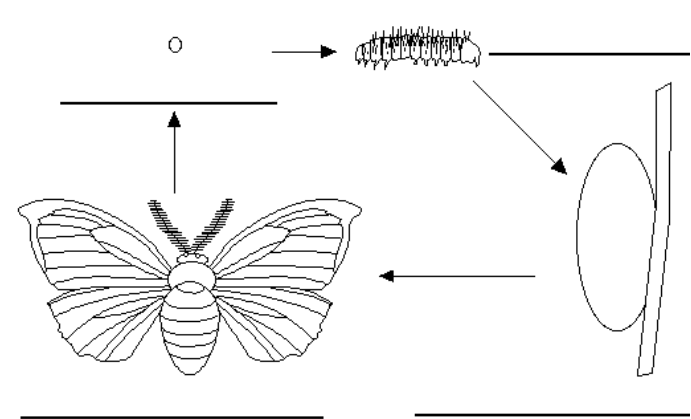
Reference Sheet 3



Worksheet 1

Skill: Comprehension

Q1. Complete the following figure



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Q2. Define the following terms

a. Pupa _____

b. Sericulture _____

c. Cocoon _____

Q3. How is silk processed?

Q4. Find out about the cocoon of the following silks

a. Tassar silk _____

b. Mulberry silk _____

c. Mooga silk _____

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Period 5

Lesson Objectives

At the end of this lesson students will be able to:

- Explain the process of the making of silk from cocoon

Teaching Learning Materials required

- Board and Markers
- Reference Sheet 4

Details of Teaching Learning Experience

Seating Arrangement: Normal

Lesson Beginning <u>Time:</u> 5 min <u>Purpose:</u> • Revisit the concept of lifecycle of silkworm	• Ask the students to name the different stages of the life cycle of silk moth. • Write the sequence of the life cycle of silk moth on the board. • Ask them to guess the stage of silk moth's lifecycle which is used to get the silk fibres.
Lesson Middle <u>Time:</u> 20min. <u>Purpose:</u> • Develop conceptual understanding • Discussion of NCERT exercise	• Display the reference sheet 4. • Ask the students to state their understanding on the basis of the sheet. • Discuss the rearing process of silkworms in detail with reference to NCERT book page 30. • Discuss the processing of silk with reference to NCERT book page 31. • Discuss NCERT exercise with the students.
Lesson End <u>Time:</u> 5 min	<u>Finish Up</u> • Wrap up the discussion by clearing doubts, if any

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Purpose: Finish Up	Ask the students to find out about occupational hazards.
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Reference Sheet 4

