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SUB - SCIENCE

CLASS - 7th

Chapter 3 - Cloth Materials - Fibre to Fabric

New Words -

- 1) Rearing
- 2) Breeding
- 3) shearing
- 4) ¹⁵ sorting
- 5) Carding
- 6) Dyeing
- 7) ~~spinning~~ spinning
- 8) ²⁰ Weaving
- 9) Cocoon
- 10) looms.

Lets Drill our skill - (Text book Pg 33)

(A) MCQ'S -

1) ⁵ During winter, people prefer to wear clothes made up of -

Ans - wool.

2) ¹⁰ People working in wool industry are at risk of

Ans - Sorter's diseases

3) ¹⁵ To obtain fleece by shaving sheep's body is called -

Ans - shearing

4) ²⁰ which of the following fibres is soft and light -

Ans Silk.

5) ²⁵ This is the strongest fibre of natural fibres -

Ans. - silk

B.

Fill in the blanks -

1. The silk and wool are fibres of animal origin.
2. wool is natural fibre, whereas nylon is man made fibre.
3. Alpaca and llama are bred in sheep for obtaining wool.
4. The process of unwinding silk filaments from the cocoon is called reeling the filament.
5. cocoon are immersed in hot water which loosens the silk filament.

C.

Define these terms -

1. Shearing - The process of removal of hair from the body of sheep.
2. Scouring - washing of fleece in tanks to remove dust and grease.

3. Sericulture — Rearing of silk moth

D Very short answer type Questions —

1. ⁵ How are synthetic fibres made?

Ans. — Petrochemical

2. Name the process of washing fleece.

Ans. ¹⁰ — scouring

3. What is the larva of silk moth called?

Ans. — cocoons

4. Is polyester a synthetic or a natural fibre?

Ans. — It is a synthetic fibre.

5. ²⁰ Which breed of sheep gives the best quality of wool?

Ans. — Merino

6. Who discovered silk?

Ans. ²⁵ — The Bride of Chinese emperor Xi - Chung shih.

E. Short answer type question -

1) Mention two difference between natural and artificial fiber.

<u>Ans.</u>	<u>Natural fibre</u>	<u>Artificial fibre</u>
1.	It is obtained from natural source.	1) These fibre are man made fibre.
2.	Ex: - cotton, wool, jute, silk	2) Ex. rayon, nylon, polyester & acrylic.

2) Describing the spinning and weaving process of getting wool?

Ans. - Spinning - It is the twisting technique where the fibre is drawn out, twisted and rolled into yarn.

Weaving - Weaving turns the yarn into clothes which is made of two sets of thread, interlocked at right angles to one another.

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3. what is sorter's disease?

Ans. - people working in the sorting department of wool are at risk because they may get infected by anthrax bacteria. It is a fatal blood disease.

4. why are sheep with thick coat selected for wool yielding?

Ans. - for obtaining good quality of wool fibre, sheep with thick coat of soft underhair are selected.

5. what are the source of silk?

Ans. - The best quality of silk is obtained from the cocoons of silk moth, *Bombyx mori*.

6. why is cocoon of silk moth immersed into hot water?

Ans. - The cocoons are put into the hot water to kill the worms inside the cocoons and also loosen the hold the gum sericin of the filament.

Q. what are the softening of sericin & reeling the filament of silk?

Ans. - The process of cocoons dipped through a series of hot and cold immersion, its called softening of sericin and process of unwinding silk filaments from the cocoons, known as reeling the filament.

F. Long Answer Type questions -

1. Explain the steps involved in the production of wool.

Ans. - There are following steps production of wool -

- 1) Shearing - The process of removal of hair from the body of sheep.
- 2) Scouring - washing of fleece in tanks to remove dust and grease.
- 3) Sorting - The dried hair are sent to the sorting department where hair of different textures are sorted out.

4. Carding

4. Carding - The clean selected wool fibres are passed through rollers where unwanted material removes from fibers.

5. Dyeing - Colouring of dried fibers.

6. Spinning - Twisting techniques where the fibre is drawn out, twisted and rolled into yarn.

7. Weaving - Process where yarn turns into cloth.

2. Describe life cycle of silk moth.

Ans. - Silk is a natural fibre which comes from the cocoons of silkworm.

Life cycle →

17. A female moth lays 300-500 tiny eggs and after around 10 days, the larvae hatch.

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- 2) The silkworm feed ~~sole~~ solely on large amount of leaves from the mulberry tree around 30-40 days.
- 3) The silkworms shed their skin up to four times, or molt as they continue to eat and grow.
- 4) After their final molt, the silkworm build a cocoons around itself. The cocoons is protective causing spun from silk.
- 5) Inside the cocoons, the silkworm changes into a pupa the stage between larvae and ~~ad~~ adult moths.
- 6) After around two weeks, the pupa emerges from the ~~pupae~~ cocoons as an adult moth.
- 7) The adult moth looks for a mate so that the female can lay more eggs & begin the cycle again.

Diagram - Life cycle of silk worm.
(photo attach)

3. Explain the steps involved in the production of silk.

Ans - (photo attach)

4. Describe the occupational hazards of silk industry.

- Ans -
- 1) Workers of sericulture industry are affected by respiratory diseases such as asthma & bronchitis because of inhalation of vapours arising from cocoons when being steamed, boiled & reeled.
 - 2) They suffer from various skin infections.
 - 3) Severe headache, fever and pain in neck.
 - 4) Leg deformity and bow leggedness are also found in some workers.

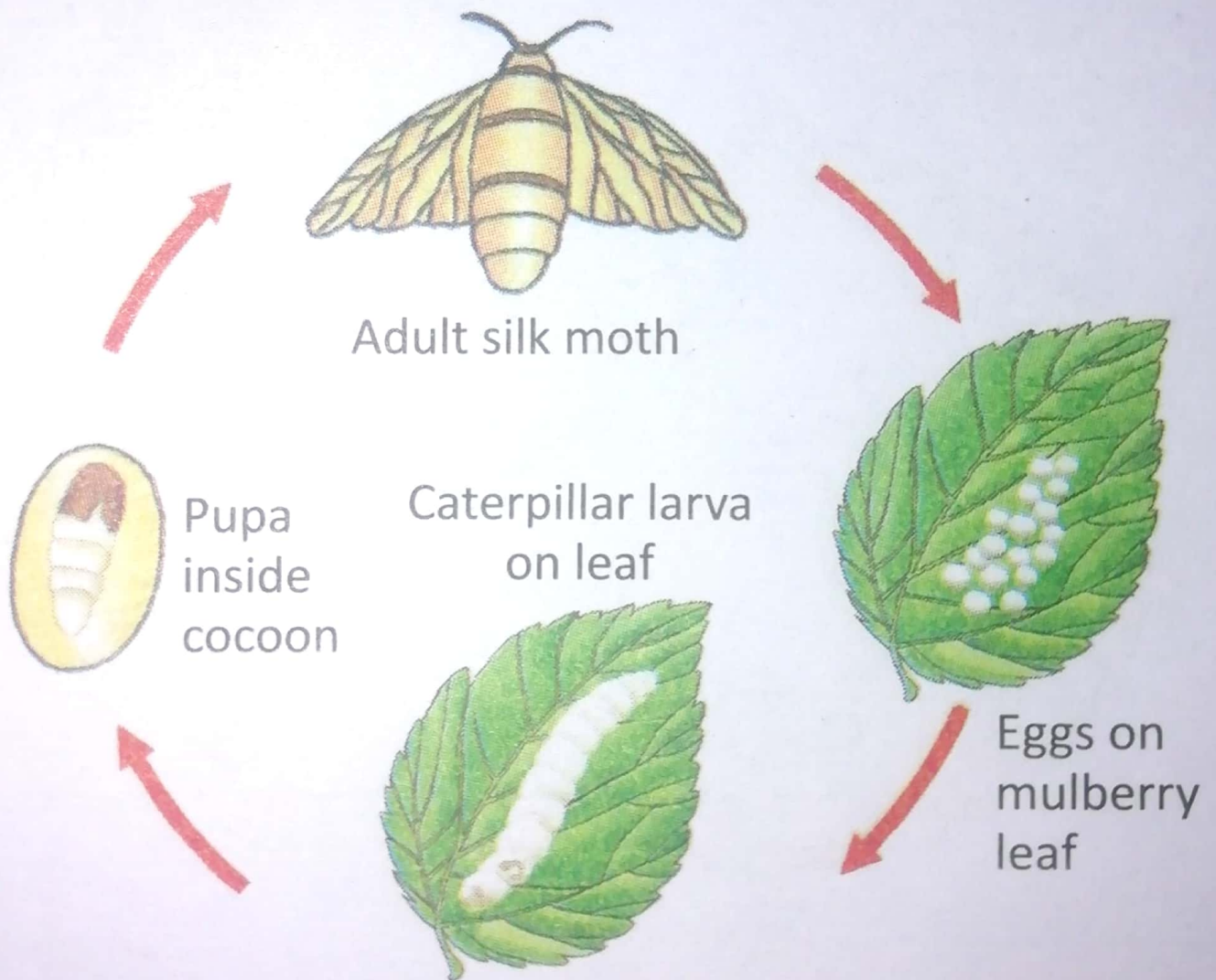


Fig. 3.3 Life cycle of silk moth

the larvae come out.

Hatching of eggs

Baby silkworms hatch from the eggs and feed on mulberry leaves.



Warming of silkworms

Silkworms are moved into bamboo trays kept warm by a low flame. Here, they become comfortable and secrete fast-drying liquid silk to spin cocoons.



Collection of eggs

Each female moth lays 200-300 eggs.



Cocoon collection

Silkworms form cocoons in just two days.



Reeling the filament

Cocoons are boiled to soften the sericin. Now, silk fibre is unwound from the cocoon to get 1-1.5 kilometres long continuous fibre. About 10-15 fibres are spun into a silk thread.



Weaving

After dyeing, silk threads are woven to make silk cloth.



Fig. 3.4 Process of obtaining silk