Teacher Answer Key

Case Study

1. Cotton is highly absorbent, so sweat soaks into the fiber itself and stays there, which makes the shirt heavy and keeps wet fabric against the skin as it cools. Polyester repels water instead of absorbing it, so the moisture sits on the surface and evaporates quickly, leaving the shirt light and dry.

2. The reading explains that because polyester repels water, sweat sits on the skin while body oils cling to the fiber, which is what produces the permanent odor cotton shirts do not develop. It means the shirts need a detergent that lifts oil rather than just more washing, because plain water is not attracted to the fiber in the first place.

Multiple Choice

1. A

2. D

3. D

Matching

1-D, 2-A, 3-B, 4-E, 5-C

Fill-in-the-Blank

1) flax, 2) silk, 3) scales

Short Answer (Sample Responses)

Q1: The price tells a shopper what the garment costs one time, but the fiber content predicts how the garment will behave every time it is worn, washed, ironed, or stained. Decisions made at the fiber stage travel all the way up to the finished shirt, so the tag is the best available forecast of performance.

Q2: Rayon starts from a natural raw material like wood pulp or bamboo, which makes it sound natural in marketing, but it is dissolved and chemically reformed through a spinneret exactly like a synthetic fiber. That is why it behaves unlike cotton, losing significant strength when wet, so its origin story does not predict its care.

Q3: Spandex can stretch five to seven times its length and recover, so a small percentage lets the denim move with the body and return to shape rather than bagging out at the knee. The reading notes that jeans with two percent spandex behave completely differently from the same jeans without it.