

ACTIVITY 2

Break It Down!

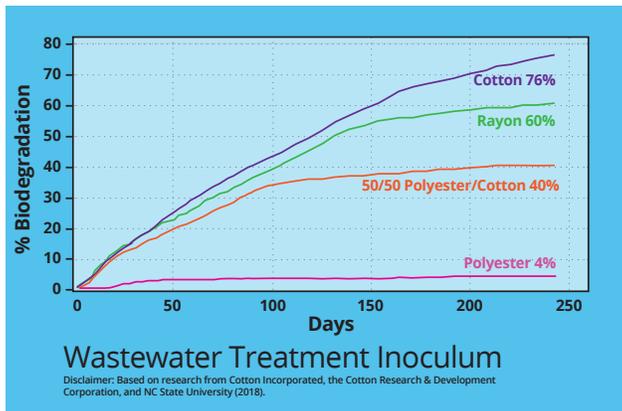


REPRODUCIBLE MASTER: G4-6

Our clothes can shed microfibers when we wear and wash them. These tiny fibers can find their way into our water systems through washing machine drains. If they build up in freshwater and salt-water environments, they could even harm the ecosystem.

The cotton industry and North Carolina State University did a study to examine how textile microfibers break down or degrade in aquatic environments. They compared cotton, rayon (a manufactured fiber made from wood), polyester (a synthetic fiber made from crude oil), and cotton/polyester blends.

Visit cottontoday.cottoninc.com/how-quickly-do-textile-microfibers-degrade-in-aquatic-environments to learn more about the study. Then, use the information you learn and the graphics below to answer these questions.



Part 1: Write T for true or F for false in the boxes beside each statement.

Cotton microfibers degrade faster in fresh water than in salt-water environments.

Polyester microfibers did not degrade in fresh water or salt water over a period of one month.

It took 250 days for polyester microfibers to degrade 4% in a wastewater treatment environment.

Overall, cotton/polyester blends degraded more rapidly than rayon microfibers.

Part 2: Now answer these questions:

1. Why do you think the cotton microfibers degraded more rapidly than the cotton/polyester microfibers?

2. How could an awareness of this degradation process help influence clothing choices?

