

# Natural and Man-made Fibers

**Grade Levels:**

7-9

**Question:**

Are natural fibers more durable than man-made fibers?

**Possible Hypotheses:**

Natural fibers are more/less durable than man-made fibers.

**Materials:**

Old 100% cotton t-shirt

Old nylon stocking or tights

Old wool sock or yarn

Old acrylic or polyester sweater

Plot of soil

Citrus juice

Glass jar with lid

**Procedure:**

1. Cut three four-inch squares from each material.
2. Bury one square of each material, making sure you mark the spot where they are buried. Put squares of each material in a jar, fill it with juice, and put a lid on it. Place the jar inside in a sunny place. Place the third squares in a dark place where they will not be disturbed.
3. After one month, remove the samples from the ground and the jar. Examine the squares and record your observations.

**Analysis and Conclusion:**

Which fibers deteriorated? Which environment made the materials deteriorate more quickly? Research and find out why.

