

## UNIT: FIRST AID

# WHAT'S IT MADE OF? – SYNTHETIC VS. NATURAL

Gather and make sense of information to describe that synthetic materials come from natural resources and impact society.

### INVESTIGATION GOAL:

Learn to identify whether materials are natural or synthetic, and explore why synthetic materials are useful in medical care.

### BACKGROUND INFO:

- **Natural materials** come directly from nature (plants, animals, minerals).
- **Synthetic materials** are **man-made** from natural resources using **chemical processes** (like plastic or petroleum jelly).
- Many first aid materials are chosen based on their strength, flexibility, absorbency, or ability to protect wounds.

### MATERIALS:

- ✓ Cotton bandage
- ✓ Adhesive bandage (Band-Aid)
- ✓ Gauze pad
- ✓ Petroleum jelly or antibiotic ointment
- ✓ Magnifying glass
- ✓ Optional: "What's It Made From?" info sheet or product label

### STUDENT DIRECTIONS:

1. **Use the magnifying glass** to look closely at each material.
  - What's its texture like?
  - Is it stretchy? Soft? Sticky?
  - Does it remind you of something natural or plastic-like?

2. **Use your sense of touch and observation** to make an educated guess:
  - Was this material made directly from plants or animals (**natural**)?
  - Or was it made in a factory from processed chemicals (**synthetic**)?
3. **Look at product labels or the info sheet** (if provided) to check your guess. If no label is available, write your best guess based on texture, look, and feel.
4. **Complete the table below** with your group.

### Record Your Observations:

Item	Natural or Synthetic?	What's it made from (or your best guess)?
Cotton Bandage	<input type="checkbox"/> Natural <input type="checkbox"/> Synthetic	
Adhesive Bandage	<input type="checkbox"/> Natural <input type="checkbox"/> Synthetic	
Gauze Pad	<input type="checkbox"/> Natural <input type="checkbox"/> Synthetic	
Ointment	<input type="checkbox"/> Natural <input type="checkbox"/> Synthetic	

### Reflect & Explain:

1. Why do we use synthetic materials in first aid instead of only natural ones?  
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\_\_\_\_\_
2. Which material surprised you the most? Why?  
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3. Think like an engineer! What would be one natural material you could use to replace something synthetic? Would it work just as well?  
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### STANDARDS ALIGNMENT

**NGSS:** MS-PS1-3 **STEL:** STEL 1F, STEL 2E, STEL 3F, STEL 4E, STEL 7E, STEL 11F **CCSS:** CCSS.MATH.CONTENT.6.SP.B.5, CCSS.MATH.PRACTICE.MP2, CCSS.MATH.PRACTICE.MP5, CCSS.MATH.PRACTICE.MP6