

Welcome to Bio 11

Fall 2007

Introductions

Go over the syllabus

What topics will we cover

What is the grading scheme like

Miss classes and late work.

Learning objectives.

Introduction to the topic of Biology

- What is the scientific method?
- Why should you care?
- Who was Pasteur?



Observations

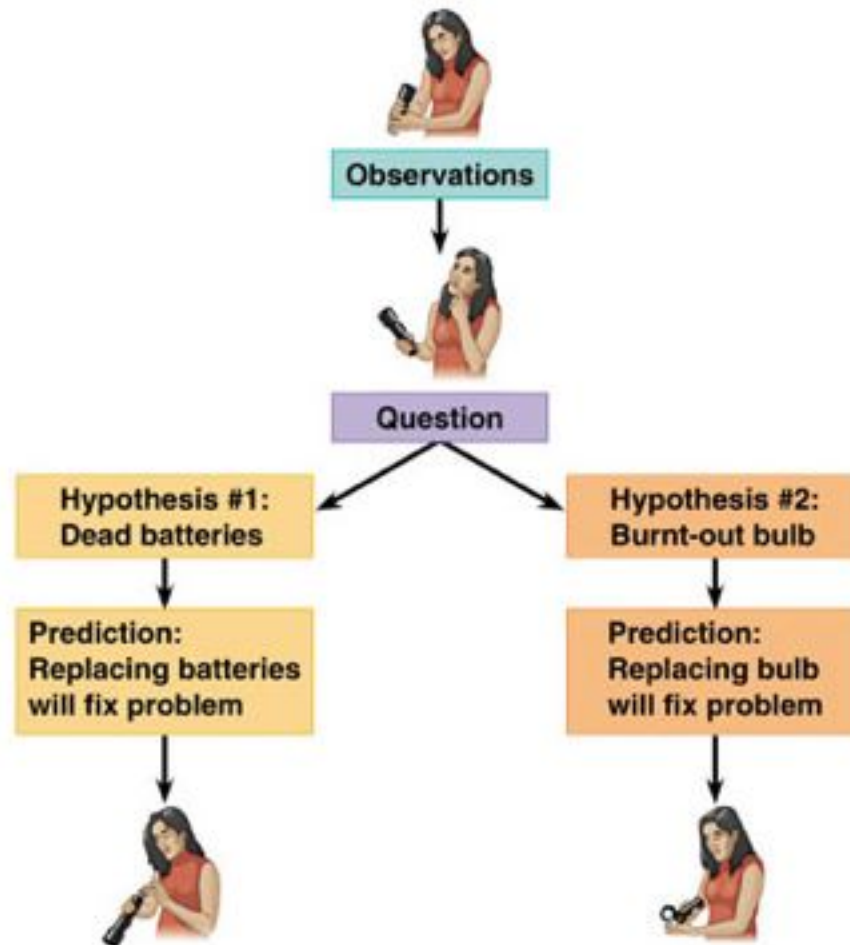


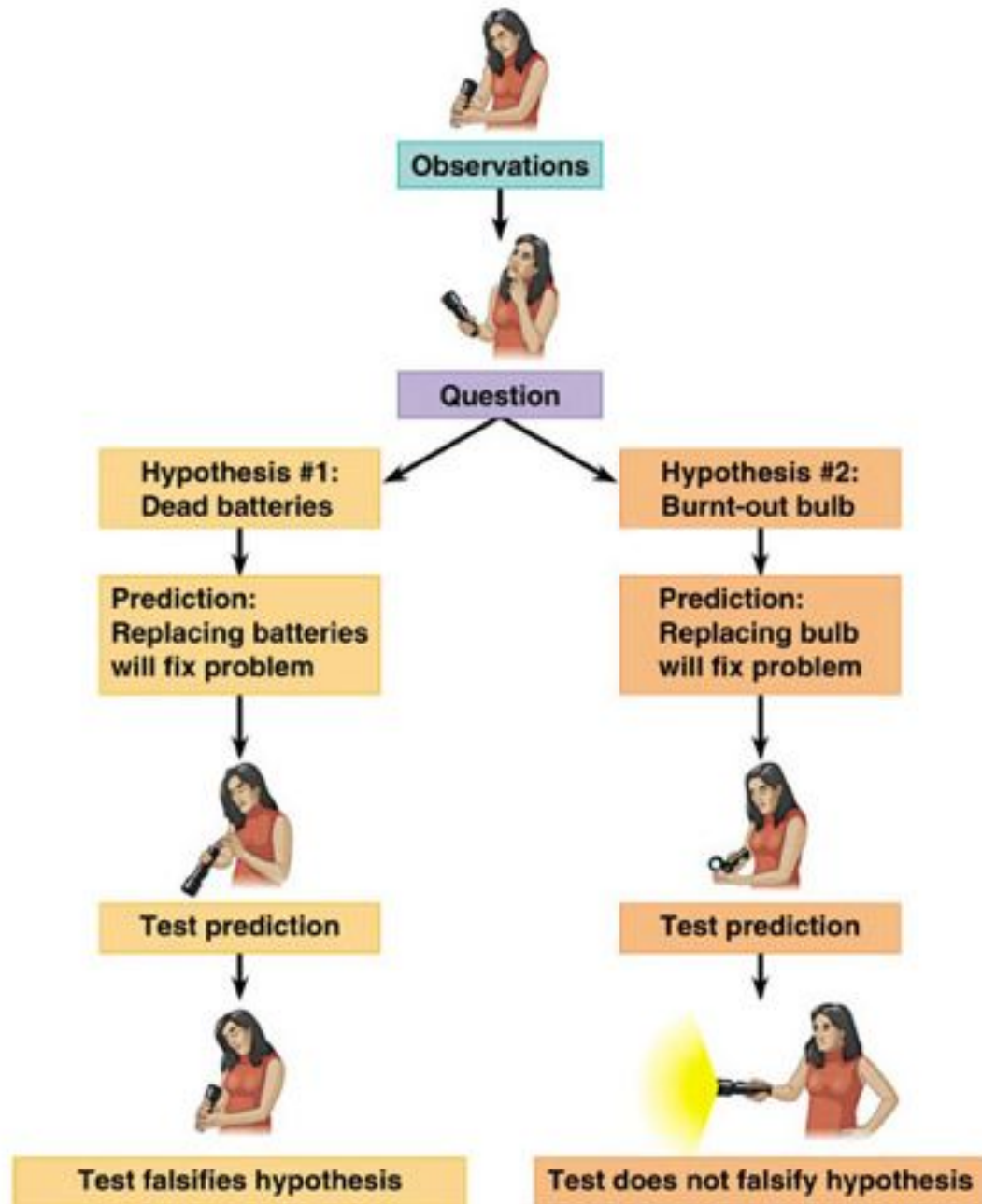
Question

Hypothesis #1:
Dead batteries



Hypothesis #2:
Burnt-out bulb



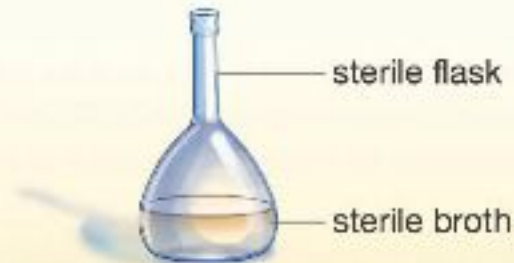


Introduction to the topic of Biology

- What is the scientific method?
- Why should you care?
- Who was Pasteur?

Scientific method at work: Pasteur tests "spontaneous generation"

Observation:



When you start with a sterile flask of sterile meat broth. . .



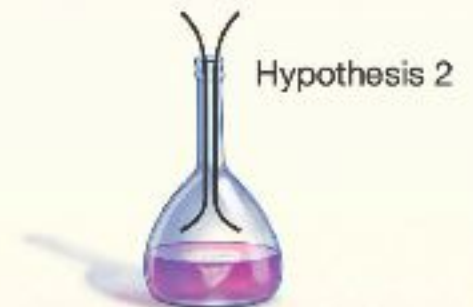
. . . a growth of new living material generally appears in the broth.

Question: What is the source of the living material?

Hypothesis:

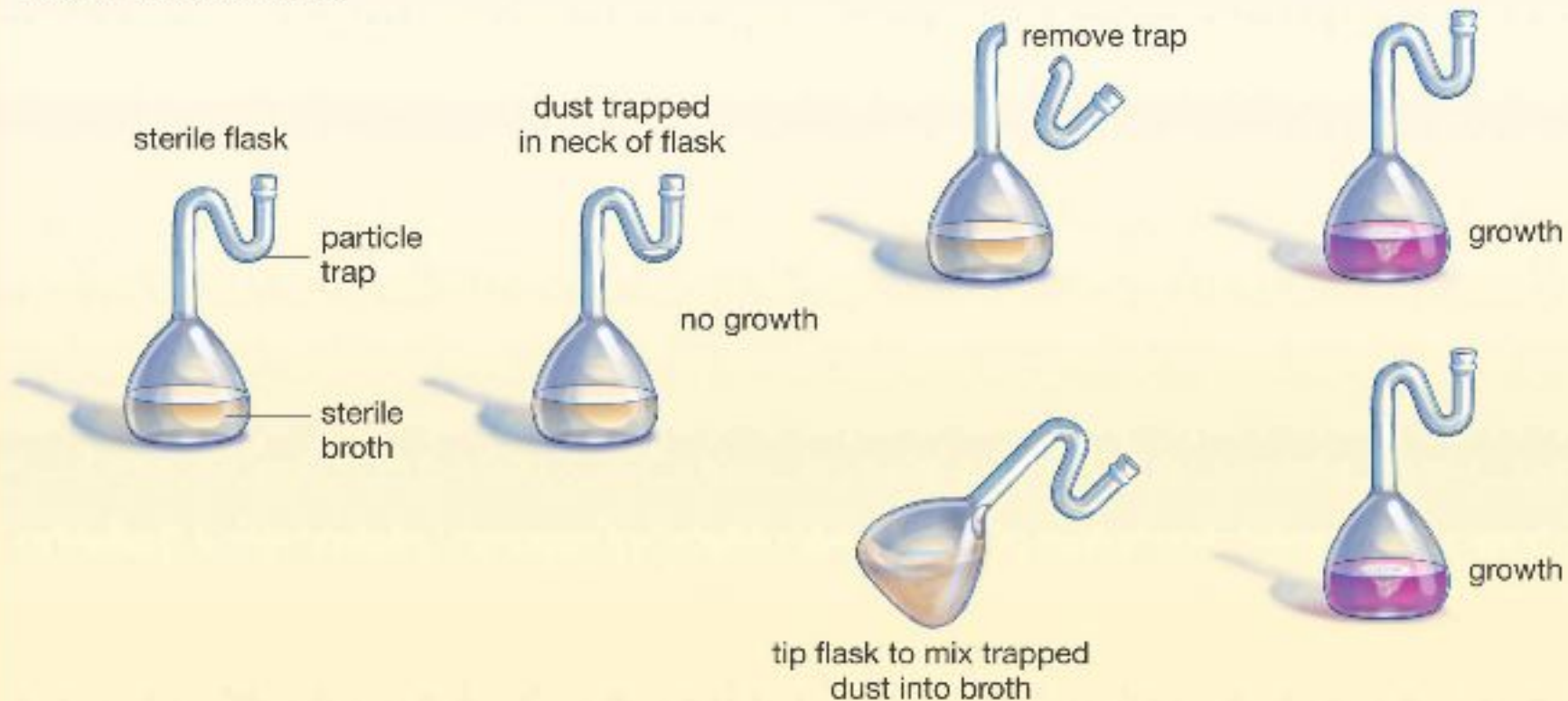


The living material is derived from nonliving material "spontaneous generation".



The living material is derived from living material outside of the flask.

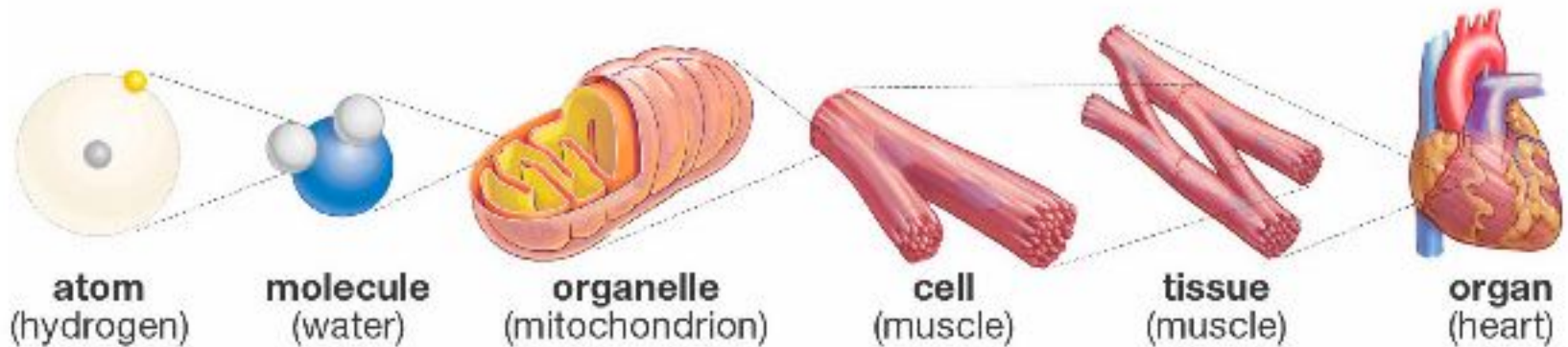
Pasteur's experiments:



Conclusion: No growth appears in the broth unless dust is admitted from outside.
Reject "spontaneous generation" hypothesis.

Laboratory Safety

Why study biology?



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