

# Abiogenesis or Spontaneous Generation

Abiogenesis was one of the \_\_\_\_\_ ideas about how life originated.

People used to think that life would spontaneously appear out of non living things.



In an experiment to see if spontaneous generation theory was correct, meat was put into 3 flasks, one was covered with cork, another was covered with gauze and the last was left open. The only flask that contained maggots after a few weeks was \_\_\_\_\_. This experiment proved that living things \_\_\_\_\_

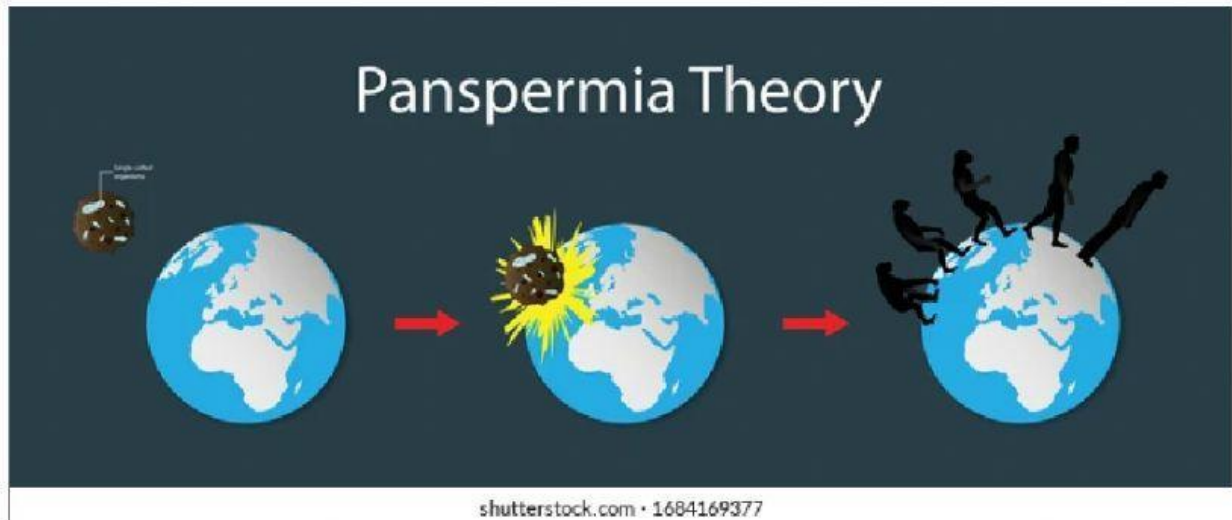
## Place evidence in the correct column:

Supports Spontaneous Generation

Does not support Spontaneous Generation

- If you seal the top of a container of raw meat  
maggots do not appear
- When you put raw meat out maggots appear
- Mold will not grow on broth in a closed system
- When bread is left out it grows mold
- Plants “randomly” appear out of the ground
- Frogs appear on muddy banks
- Muddy banks make a good habitat for frogs

# Panspermia



Panspermia is a \_\_\_\_\_ idea that proposes that life originated on other planets and that it was transported here on meteorites when earth was still forming

## Place evidence in the correct column:

Supports Panspermia

Does not support panspermia

Interstellar dust is largely organic

Sugar molecules including ribose  
detected in meteorites

Meteorites can be contaminated with organic  
molecules as it enters earth's atmosphere

Space has extreme temperatures, and pressures  
that are unforgiving to most life forms

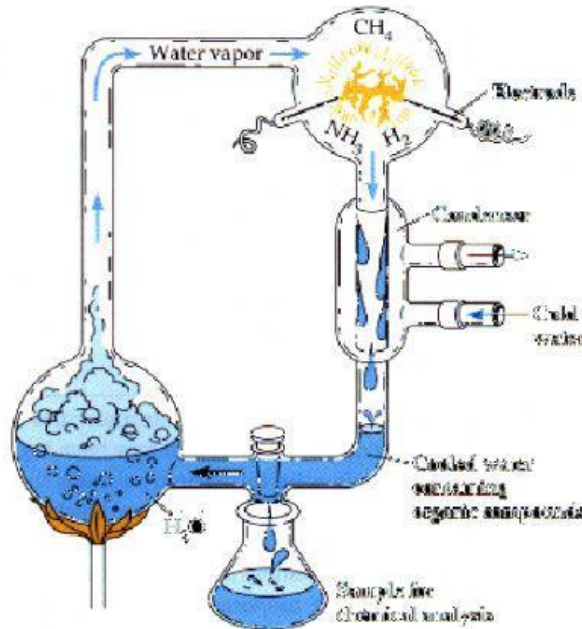
There is no known life on other planets

Some microorganisms can survive in lab created  
simulations of space

# Biochemical Evolution and the Urey Miller Experiment

In 1953 two scientists did an experiment to try and replicate early conditions on the earth; they were able to show how organic molecules could have formed in prehistoric conditions.

**Drag and drop the conditions that scientists were trying to replicate in each part of this experiment.**



Ancient oceans      Ancient atmosphere      Lightning storms

**Place evidence in the correct column:**

Supports Biochemical Evolution

Does not support Biochemical Evolution

Primitive earth's atmosphere was extremely hot and electrically charged by lightning  
Geological evidence suggests that the earth's atmosphere was not the same as the Miller-Urey Experiment  
Miller and Urey created a simulation of earth's atmosphere and found that biomolecules had formed within just one week