

1 Exploring Redi's Experiment



1 One jar was left uncovered. The second jar was covered.



2 Maggots appeared on the meat in the open jar.



3 Redi concluded that meat did not produce maggots.

1924- Alexander Oparin- Hypthesized that Energy from Sun, lightning, & Earth's Energy triggered a Chemical Reaction- to create new molecules that washed into the early Ocean's- Primordial Soup

The Early Elements present when Earth formed

C
H
O
N



Primordial Soup
New Molecules
formed after
Chemical Reaction

Methane
Ammonia
Water Vapor
Hydrogen

1953 Stanley Miller & Harold Urey- Tested Oparin's hypothesis in a laboratory- concluded that the new molecules (Organic Compounds) produced are found in living things- could not prove that is how life began

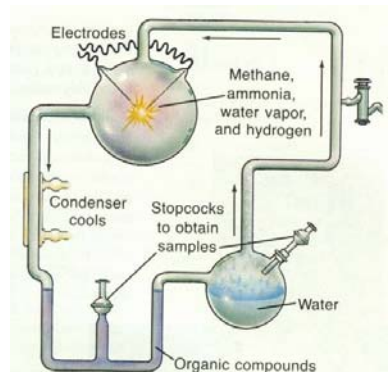


Figure 12-15 At about the same time that Miller discovered that the red goo at the bottom of his flask was rich in amino acids, it was also learned that DNA carries the code for amino acids.

Origin of Life - Scientific Timeline-

1668- Francesco Redi- Meat in Jars- Maggots came from flies laying eggs not the Meat

1745- John Needham- Made a mistake during his experiment with broth being contaminated with microorganisms- said they developed Spontaneously from broth ●

1768- Lazzarro Spallanzani- boiled broth in sealed containers- only ones he opened became contaminated

1859- Louis Pasteur- Disproved Spontaneous Generation- boiled broth- with S-necked flasks- only ones he opened became contaminated

2 Exploring Pasteur's Experiment



1 Pasteur boiled the broth in one flask only.



2 Bacteria grew in the unboiled broth but not in the boiled broth.



3 When the boiled broth was exposed to air, bacteria grew. Pasteur concluded that bacteria do not spontaneously arise from broth.