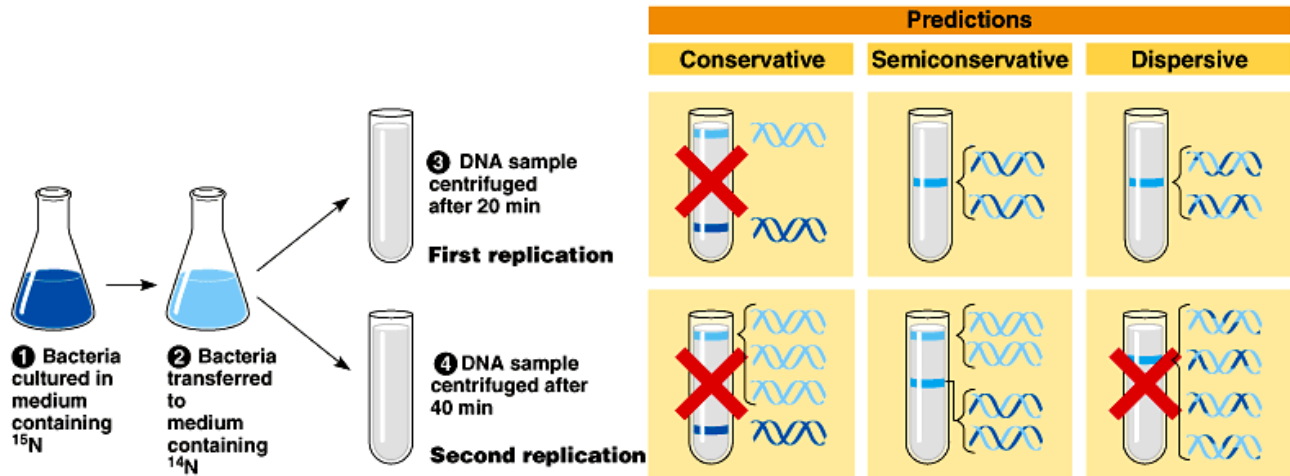


26. Use this figure to summarize the experiment in which Meselson and Stahl confirmed the semiconservative mechanism of DNA replication.



Purpose: To determine if DNA replication is conservative, semiconservative or dispersive.

Hypothesis: **IF** DNA replication is semiconservative (one strand is conserved and acts as template to build the other strand), **THEN** E.coli bacteria grown first in “heavy” nitrogen –  $^{15}\text{N}$  and then grown in “light” nitrogen –  $^{14}\text{N}$  will consist of one band of intermediate density ( $^{15}\text{N}/^{14}\text{N}$ ) and one band of light density ( $^{14}\text{N}/^{14}\text{N}$ ) after centrifugation.

Independent Variable: Bacteria      Dependent Variable: DNA Band location

Conclusion: DNA replication is semiconservative