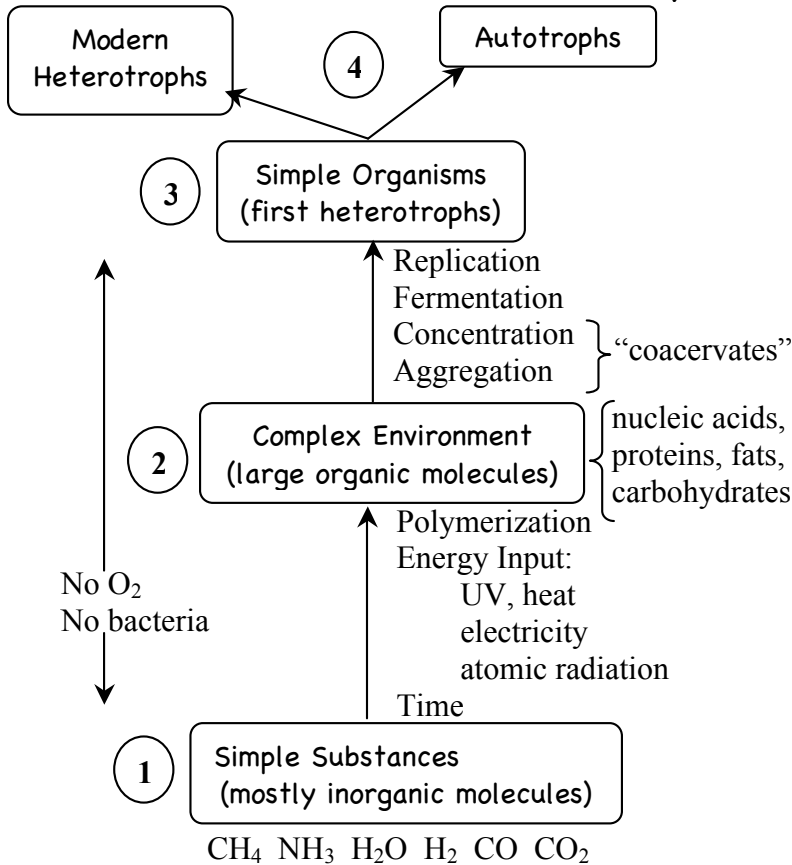


INTRODUCTION TO MOLECULAR BIOLOGY: TERMS AND CONCEPTS

A Working Definition of Life: For purposes of testing and identification, life can be defined as...
 “An organized series of chemical processes, involving transfer and transformation of energy, all contained within a limiting structure (a cell), and which tends to not only maintain itself (survive), but also expand itself (grow and reproduce), all at the continuous expense of energy and materials from its environment.” All of the major life processes, if viewed objectively, ultimately contribute to this particular series of chemical processes.

B. HETEROTROPH HYPOTHESIS (Summary):

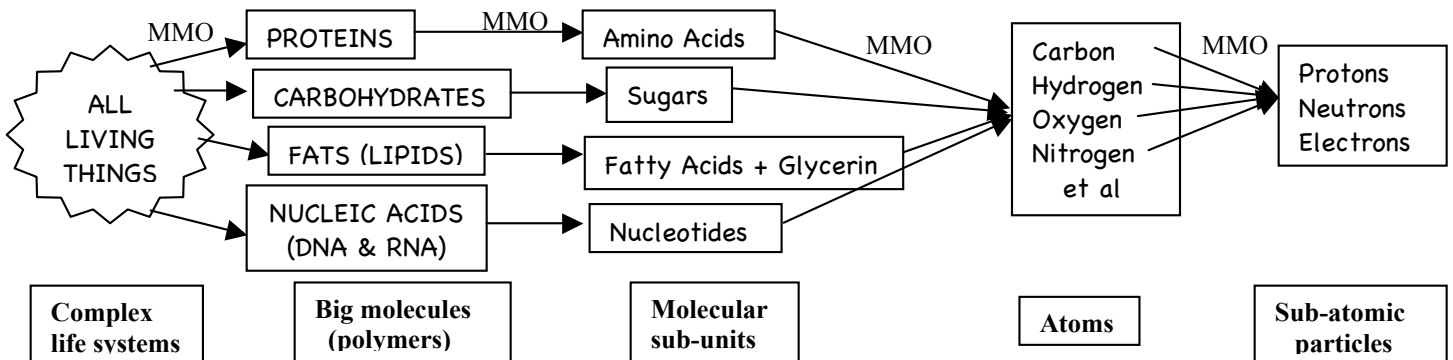


Organic = any compound with C & H

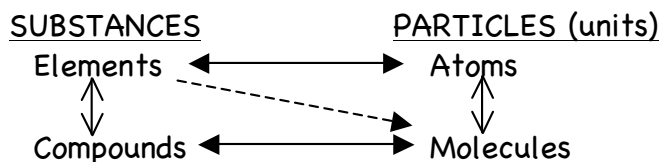
C. CHEMICAL SUBSTANCES:

COMPOUNDS:	FORMULAS	
	MOLECULAR	STRUCTURAL
Water	H ₂ O	
Methane (organic)	CH ₄	
Ammonia	NH ₃	
Carbon dioxide	CO ₂	
ELEMENTS:		
Hydrogen gas	H ₂	
Oxygen gas	O ₂	
Nitrogen gas	N ₂	

D. STRUCTURE of LIFE: (MMO = Made Mostly Of...)



E. TERMINOLOGY:



F. BONDING CAPACITIES:

- H - 1
- O - 2
- N - 3
- C - 4