

Chapter 27 and 28: The Hidden World of Microbes, CYCLES 18-20, 2000

Microbes

- Too small to be seen clearly without a microscope
- Prokaryotes range in size .2-1.0 microns meter
- Unicellular eukaryotes range in size 10-100 microns meters
- How big is a micron meter?
 - o 1/1,000,000 of a meter
 - o the period at end of sentence is app 1000 micrometer

other biological entities

- much smaller than bacteria
- viruses aren't living so not entities
 - o aren't organisms because they don't have all of the characteristics of living organisms
 - o can't reproduce
 - o small (.05- .2 microns meters) and come in many different shapes
 - o RNA reproduced first
 - o Parts:
 - 1. Genome
 - o genetic info
 - o can be either single-stranded or double stranded (DNA or RNA)
 - 2. Capsid
 - o protein coat which surrounds and protects genome
 - 3. Envelope
 - o membrane (phospholipid bilayer) which surrounds the capsid
 - hydrophilic outside, hydrophobic inside
 - o Attack cells
 - attach, disintegrate and become food for virus
 - viruses must have new host to reproduce, otherwise they can't last very long
 - highly specific for organisms it infects
 - o example flu

viruses

- not organisms