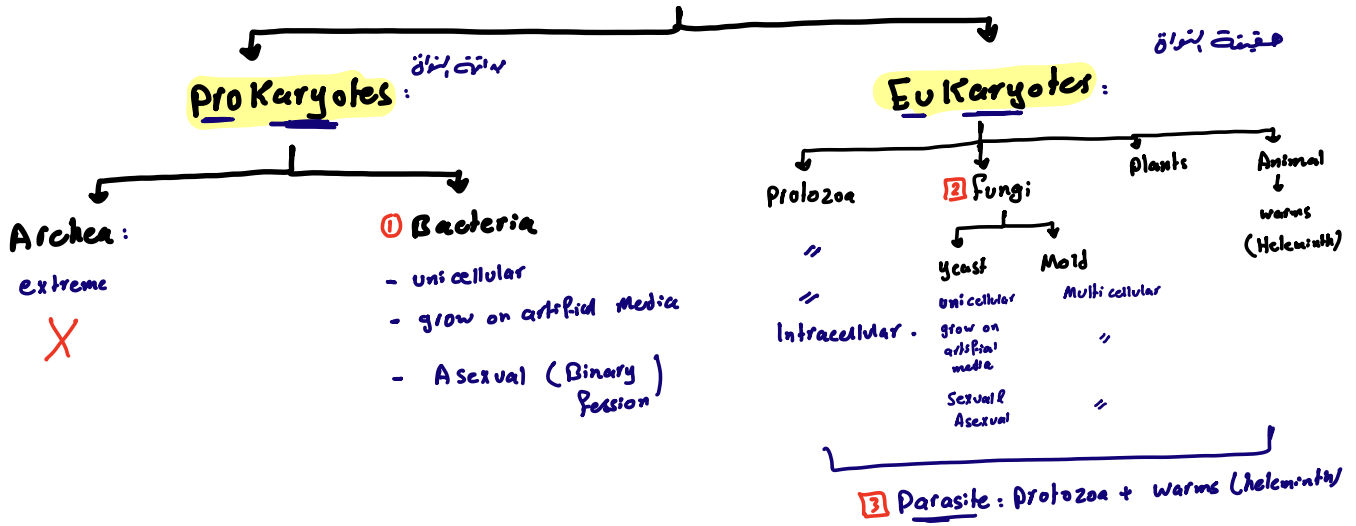
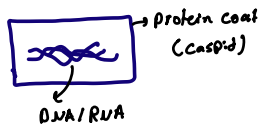


Medical **Microbiology**
 ↓ Tiny ↓ Life ↓ Science



4) * **Viruses:** Not living things

Smallest.



obligate intracellular / parasite.

Needs EM.

Can affect: H. A. D. + microorganism

Microbiology:

- 1) Bacteriology
- 2) Mycology
- 3) parasitology
- 4) virology

Distribution of Microorganisms: Omni present

why?

- 1) In all environments
- 2) Beneficial
- 3) ONLY a minority are pathogenic.

* History

Discovery period

Antony van Leeuwenhoek:

Microscope X50-300.
"Animalcules"

Robert Hooke:

→ Compound Microscope
→ Cell theory.

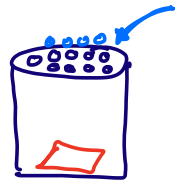
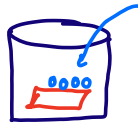
Ignaz Semmelweis:

puerperal sepsis can be transmitted by contaminated
Hand & prevented by washing.

Transition period:

Spontaneous theory

Francisco Redi:



Golden period:

Louis Pasteur:

Father of Microbiology

- ① Anaerobic Fermentation for both Bacteria & Fungi
- ② Pasteurization: (heat kills Bacteria)
- ③ Sterilization techniques
- ④ Study Anthrax & Cholera
- ⑤ Introduce Live Attenuated Vaccines:



Dimitri Ivanowski:
virology

Robert Koch:

- ① Develop media & staining techniques for culture
- ② Discover Anthrax & cholera
- ③ Koch's postulates.



Alexander Fleming
Penicillin



Penicillium