

Nom.....Prénom.....Section.....Groupe.....

Scientific English MI MA

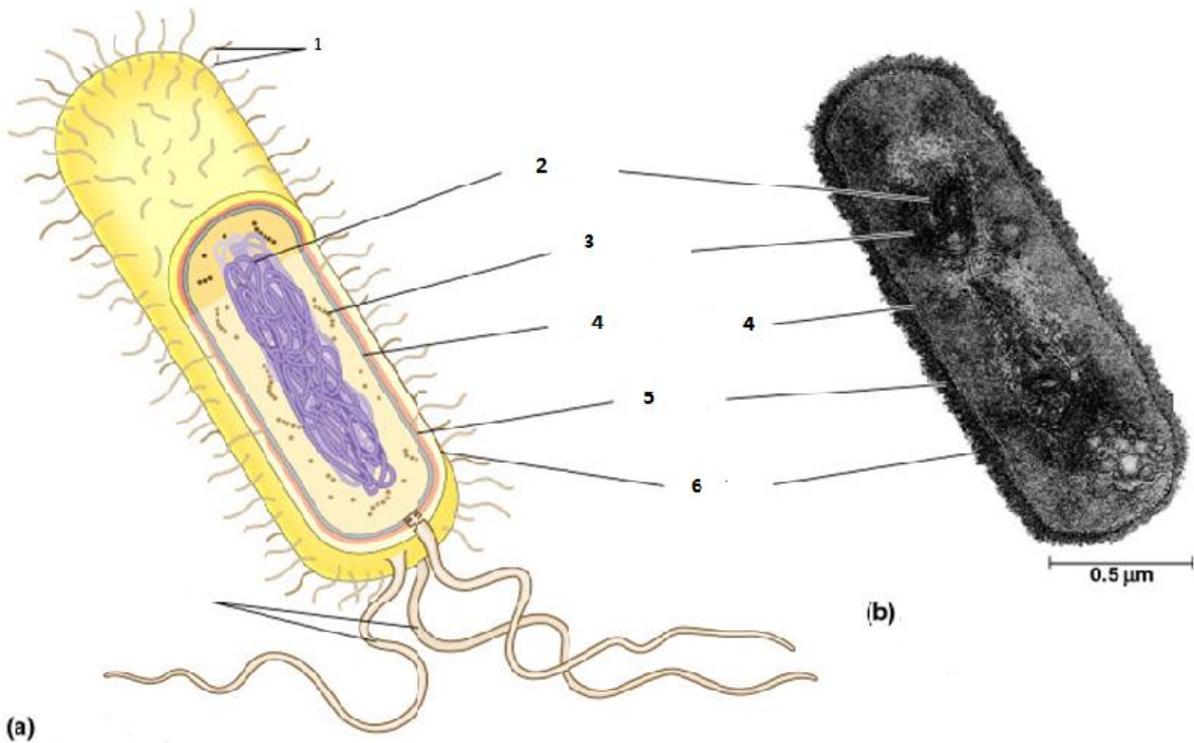
(Duration: 90 minutes)

Exercise 1: Give us below, the correct legend for each element indicated on the figure. (5pts)

- 1.....Pili
- 2.....Nucleoid
- 3.....Ribosomes
- 4.....Plasma membrane
- 5.....Cell wall
- 6.....Capsule
- 7.....flagella

(a) Rod-shaped bacterium

(b) Bacterium under electronic microscope (TEM).



Exercise 2: Fill the dotted spaces with the relevant words. (5Pts)

Occurs, Source, Bacteria, virus, cells, nitrogen, autoclave, Sporulation, depletion, nutrient, growth, massively significant, nutritional, exponential, unfavorable.

The **sporulation** process begins when **nutritional** conditions become **unfavorable**, depletion of the **nitrogen** or **carbon** source (or both) being the most **significant** factor.

Sporulation **occurs massively** in cultures that have terminated **exponential** growth as a result of such **depletion**.

Exercise 3: Answer by true or false ? (10 Pts)

- 1- Prokaryotes can't form filamentous matrices ... True False
- 2- Possess the anaerobic and aerobic photosynthesis..... True False
- 3- A few genera of bacteria produce endospore such as *Clostridium* and *Bacillus*, both of them are Gram - rods..... True False
- 4- The spore wall and cortex, lying between the facing membranes, and the coat and exosporium lying inside the facing membrane..... True False
- 5- In the newly isolated cytoplasm, or core, no vegetative cell enzymes are degraded or replaced True False
- 6- The spore is a dehydrated, multishelled structure that protects and allows the bacteria to exist in "suspended animation" True False
- 7- Endospore production is associated with Gram negative bacteria----- True False
- 8- Gram staining uses an Indian ink..... True False
- 9- Gram negative bacteria are rich in teichoic acids..... True False
- 10- The spore contains a complete copy of the chromosome, the bare minimum concentrations of essential proteins and ribosomes, and a high concentration of calcium bound to dipicolinic acid True False .