

# Bacteria

## PRE-READING

### 1. Work in pairs - discuss the questions

- What is a bacterium? Can you make a definition?
- Do you know any bacteria? Make a list.

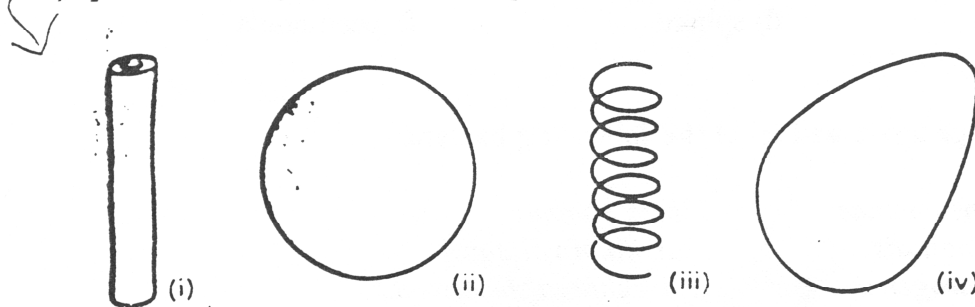
### 2. Match the words and their definitions

- |               |  |
|---------------|--|
| 1 unicellular | - A not straight                       |
| 2 taper       | - B having a sharp end                 |
| 3 blunt       | - C completely stiff, not able to bend |
| 4 pointed     | - D the external form of anything      |
| 5 shape       | - E to become narrow at one end        |
| 6 curved      | - F not sharp                          |
| 7 rigid       | - G single cell                        |

## READING

### 3. Read the text and label the diagrams

- a) sphere   b) ellipsoid   c) rod   d) spiral or helix



### Bacteria

Bacteria are very small, unicellular organisms. Although there are thousands of different species of bacteria, the individual organisms have one of three general forms: ellipsoidal, or spherical; cylindrical or rod-like; and spiral or helicoidal.

The first type are called *cocci* (singular, *coccus*). They are nearly all spherical or ellipsoidal, but there are some exceptions. The gonococcus and meningococcus, for example, are coffee-bean shaped (e.g. *Neisseria meningitidis*), while the pneumococcus is slightly elongated, so that one end tapers a little (e.g. *Diplococcus pneumoniae*, in which the ends of each pair of cells are bluntly pointed).

The cylindrical bacteria are known as *bacilli* (singular, *bacillus*). Some of these are long and slender (e.g. *Clostridium sporogenes*) while others are short and thick (e.g. *Bacillus megaterium*). The sides may be more or less parallel to each other or the cell may be thicker in the centre and taper toward the end.

Spiral forms include rods with just enough curvature to give the organism a curved or comma shape (*Vibrio*), longer rigid rods with several curves or spirals (*Spirillum*) and long flexible organisms with several or many spirals (*spiro-*

4. Read the text and match the nouns and the adjectives

- sphere - \_\_\_\_\_
- ellipsoid - \_\_\_\_\_
- rod - \_\_\_\_\_
- spiral - \_\_\_\_\_
- helix - \_\_\_\_\_
- cylinder - \_\_\_\_\_

5. Irregular plurals. Read the text and complete the singular or plural forms

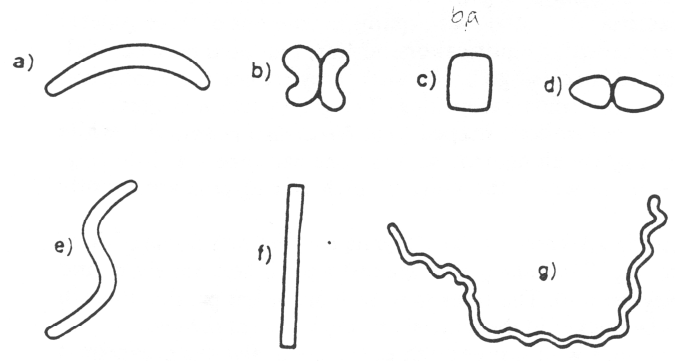
singular	plural
bacterium	
bacillus	
coccus	
	spirilla
species	_____

6. How do you pronounce ?

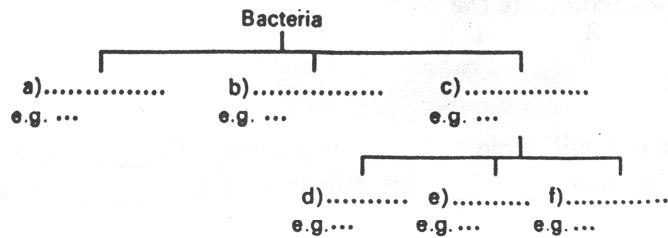
- a) cocci
- b) bacilli
- c) spiral
- d) sphere
- e) spherical
- f) pneumonia

7. Read the passage again and label the following bacteria

- Diplococcus pneumoniae*
- Neisseria meningitidis*
- Clostridium sporogenes*
- Bacillus megaterium*
- Vibrio comma*
- Spirillum volutans*
- Spirochaeta stenostrepta*

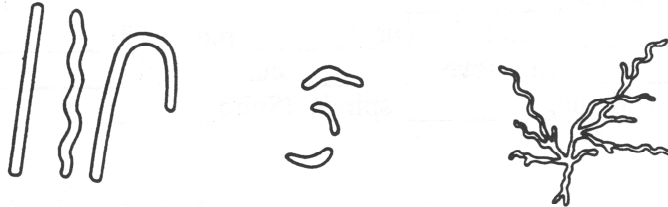


8. Summarise the types of bacteria mentioned in the passage by completing this classification diagram. Give an example of each type:



9. Look at these bacteria which have irregular shapes. Describe them.

- a) *Saprospira* sp.      b) *Caulobacter* sp.      c) *Streptomyces* sp.



10. Grammar - irregular plural of Latin and Greek words

Latin and Greek words often form the plural by the same endings as in their original languages. Look at the examples and put the words into an appropriate column. Pronounce them correctly.

*species, formula, synthesis, coccus, datum, phenomenon, alga, bacterium, bacillus, thesis, vertebra, fungus, spirillum, crisis*

Sg. a [ ə ]	Pl. ae [ i: ]	Sg. us [ əs ]	Pl. i [ ai ]	Sg. um [ əm ]	Pl. a [ ə ]
larva	larvae	nucleus	nuclei	medium	media

Sg. ies [ i: z ]	Pl. ies [ i: z ]	Sg. on [ ən ]	Pl. a [ ə ]	Sg. is [ is ]	Pl. es [ i: z ]
series	series	criterion	criteria	analysis	analyses

Milada Paulouova 1995

TEST YOURSELF ON BACTERIA

- 1) Study the worksheet on bacteria
- 2) Read the text and complete the words

Bacteria are very small, unic\_\_\_\_\_ organisms. Th\_\_\_\_\_ are sha\_\_\_\_\_ like a sph\_\_\_\_\_, an ellipsoid, a ro\_\_\_\_\_ or a spi\_\_\_\_\_.

The sphe\_\_\_\_\_ bacteria a\_\_\_\_\_ called coc\_\_\_\_\_. Some of th\_\_\_\_\_, however, a\_\_\_\_\_ coffee-be\_\_\_\_\_ shaped or elong\_\_\_\_\_ and tap\_\_\_\_\_ toward on\_\_\_\_\_ end..

The cylin\_\_\_\_\_ bacteria a\_\_\_\_\_ known a\_\_\_\_\_ bacilli. So\_\_\_\_\_ of th\_\_\_\_\_ are sle\_\_\_\_\_ and lo\_\_\_\_\_, others a\_\_\_\_\_ thin and sh\_\_\_\_\_.

Spiral for\_\_\_\_\_ include cur\_\_\_\_\_ rods (Vib\_\_\_\_\_), longer ro\_\_\_\_\_ with seve\_\_\_\_\_ curves (Spir\_\_\_\_\_ ) and orga\_\_\_\_\_ with ma\_\_\_\_\_ spirals (Spiro\_\_\_\_\_).

*Milada Paulouova 1999*