

“LIVING THINGS. MICROORGANISMS”



THE FIVE KINGDOMS

1. THE MONERA KINGDOM

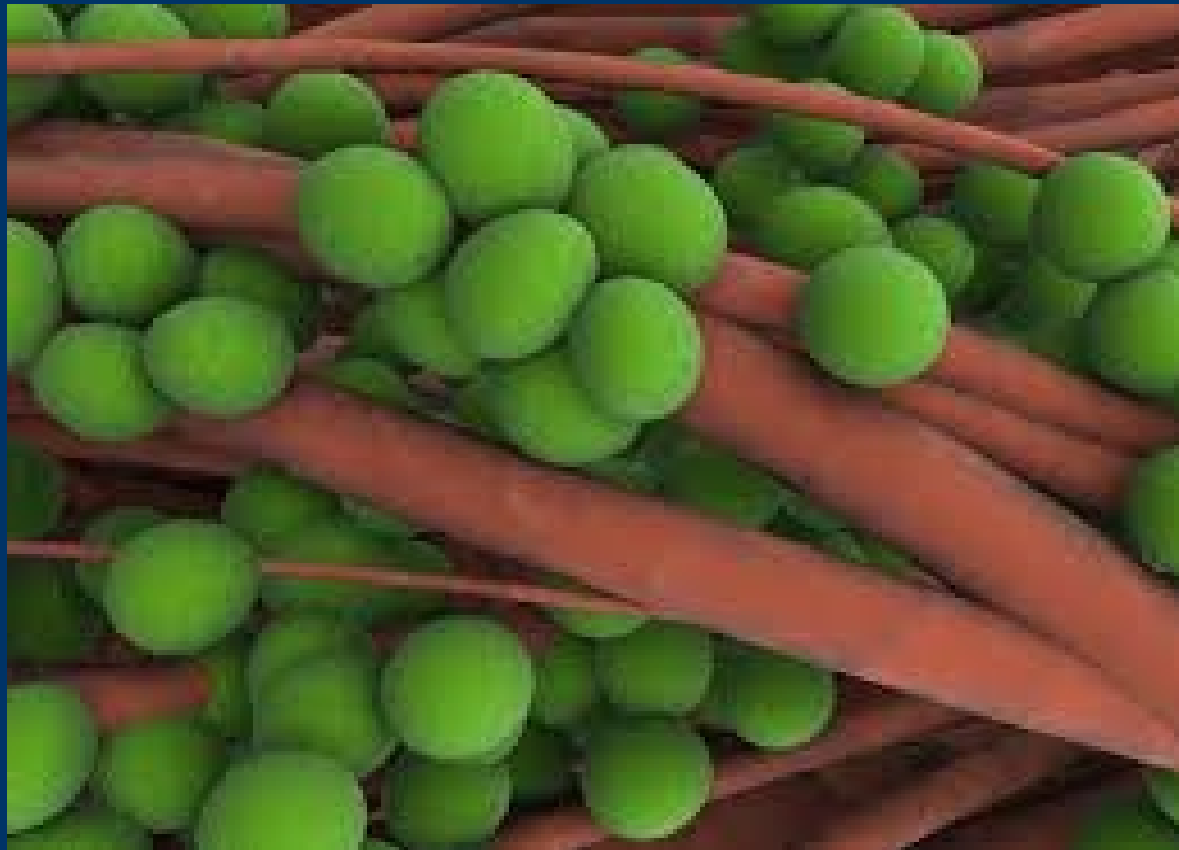
- They are **autotrophic or heterotrophic**.
 - They are a single cell.
 - They are **prokariotic**.
 - Some bacterias are pathogens, cause illness in human beings and other living things.
 - They can live in any environment.
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THE FIVE KINGDOMS

1.THE MONERA KINGDOM

They are classified into four large groups according to the shape of their cells:

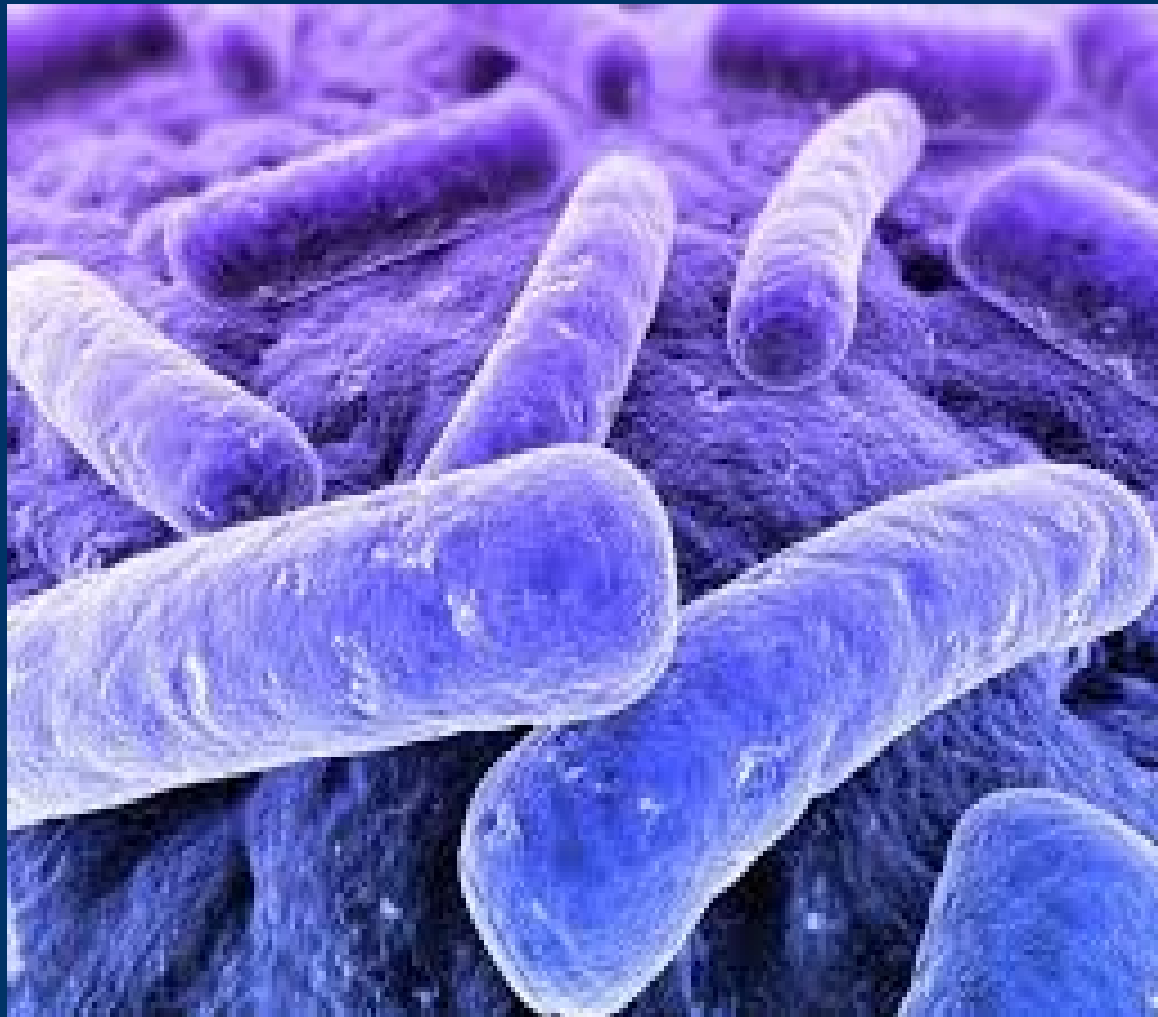
a.Coccus: They are spherical in shape.



THE FIVE KINGDOMS

1. THE MONERA KINGDOM

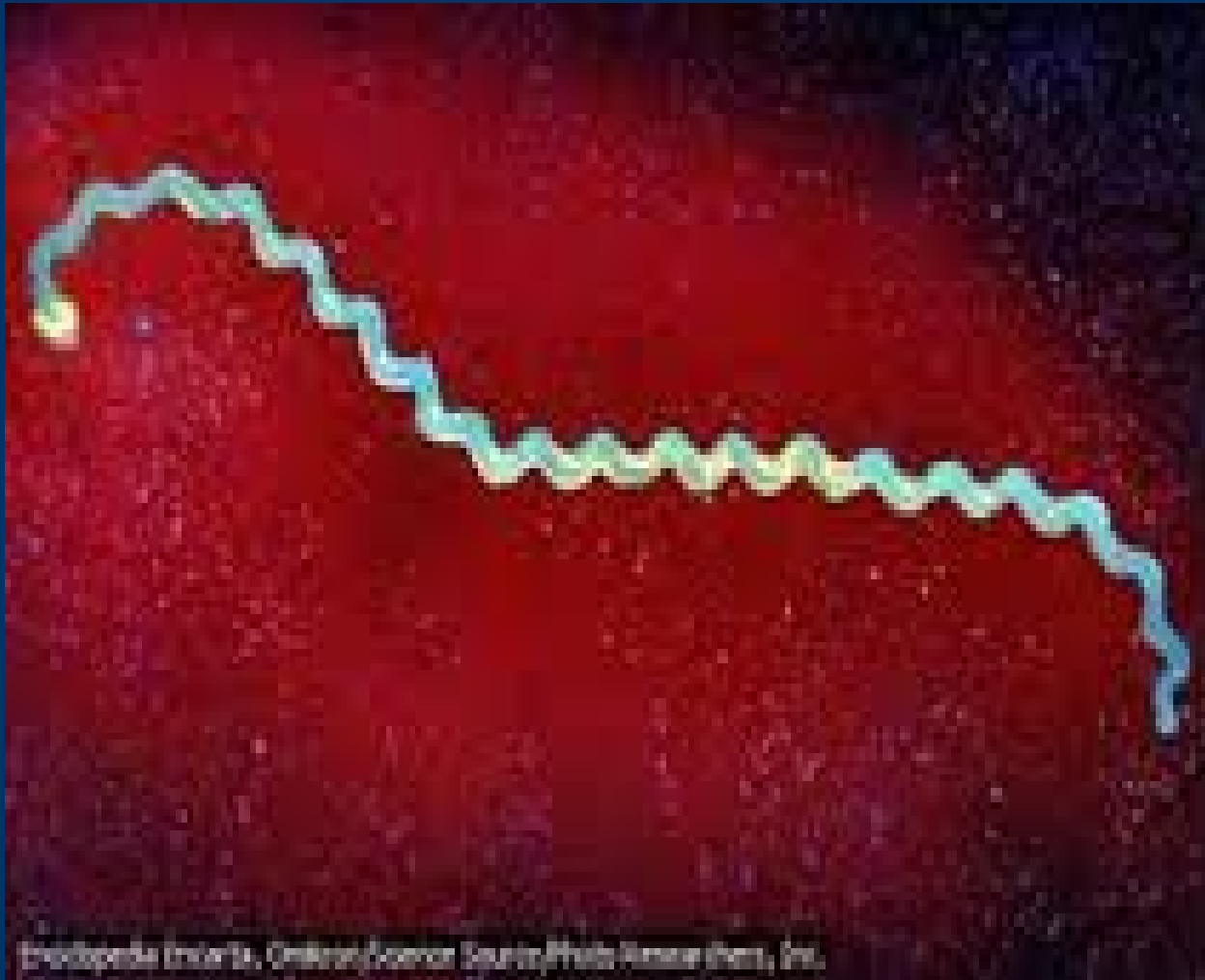
b. Bacillus: They are cylindrical in shape.



THE FIVE KINGDOMS

1. THE MONERA KINGDOM

c. Spirillum: They are spiral in shape.



Encyclopedia Britannica, Online Encyclopaedia Britannica, Inc.

THE FIVE KINGDOMS

1. THE MONERA KINGDOM

d. **Vibrio:** Vibrios are shaped like a comma.



THE FIVE KINGDOMS

2. THE PROTIST KINGDOM

- They are autotrophic or heterotrophic.
- They are single cell or multicellular.
- They are **eukariotik**.
- They do not form tissues.

This kingdom includes two groups:

- PROTOZOA
 - ALGAE
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THE FIVE KINGDOMS

2. THE PROTIST KINGDOM

PROTOZOA: They are single cell heterotrophs. Some live freely in water and others are parasites.

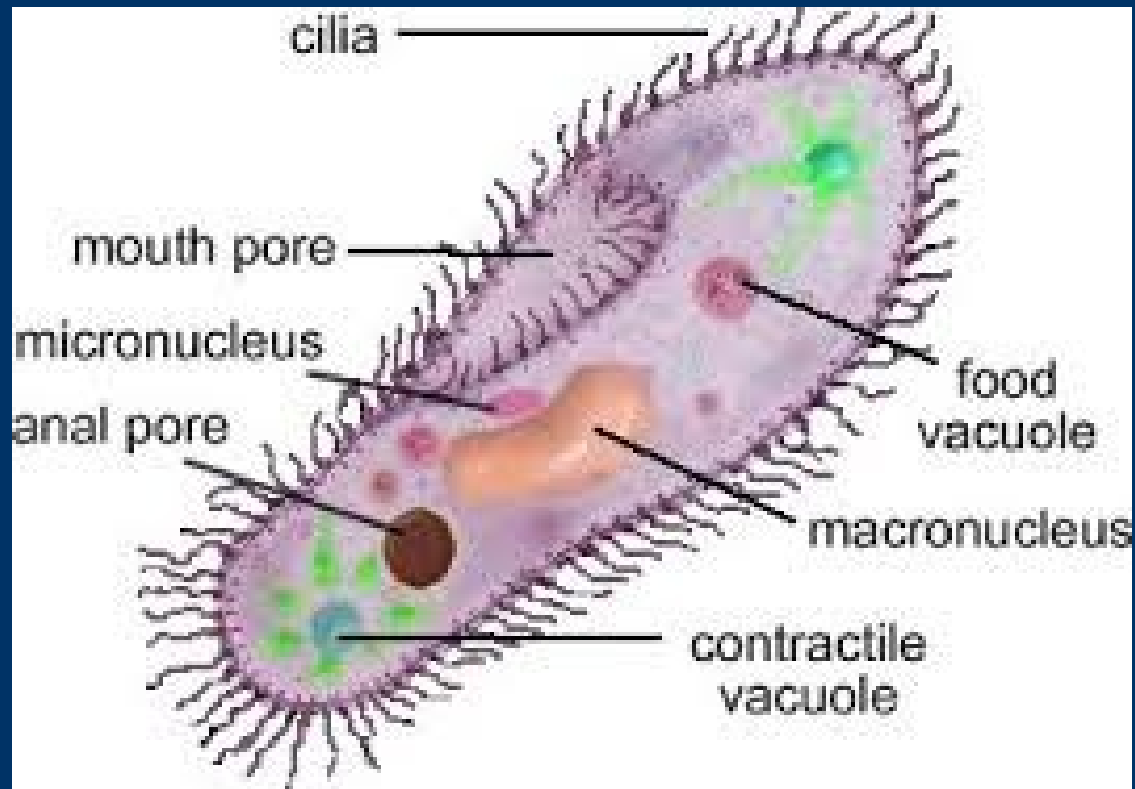
They are divided into four classes dependig on how they move:

THE FIVE KINGDOMS

2. THE PROTIST KINGDOM

PROTOZOA

a. **Ciliates:** They have many **cilia** that they use to move with.

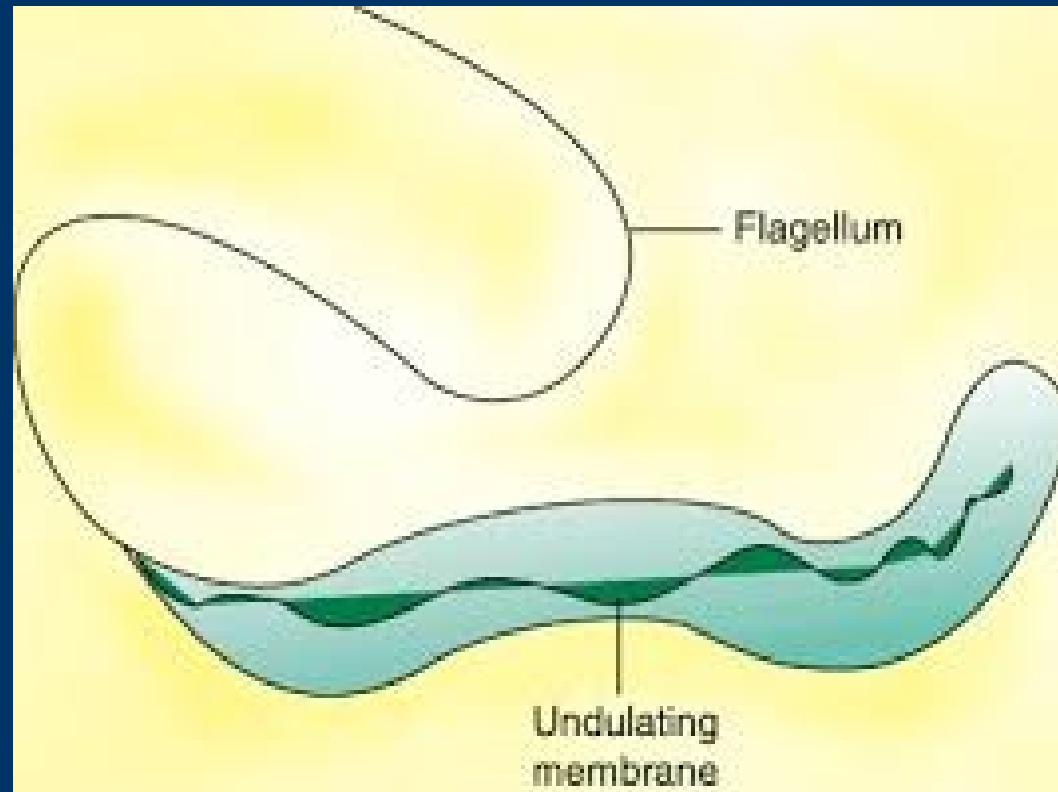


THE FIVE KINGDOMS

2. THE PROTIST KINGDOM

PROTOZOA

b. Flagellates: They use one or two **flagella** to move around.

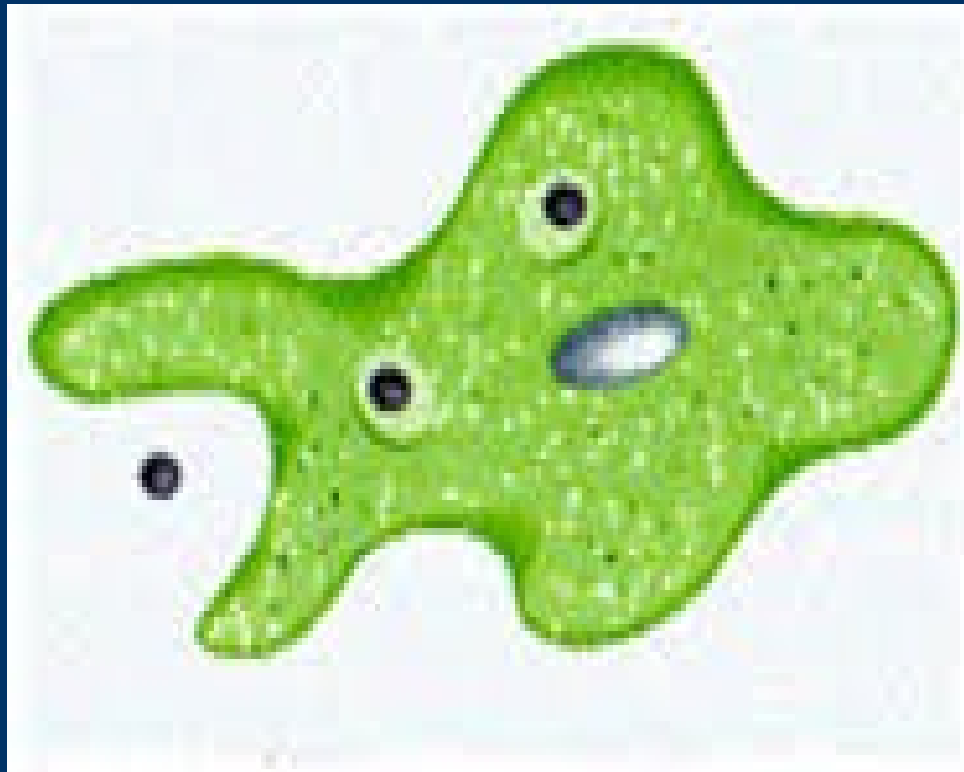


THE FIVE KINGDOMS

2. THE PROTIST KINGDOM

PROTOZOA

c. **Rhizopoda:** They have cytoplasm extensions (**pseudopods**) that use to move and catch food.



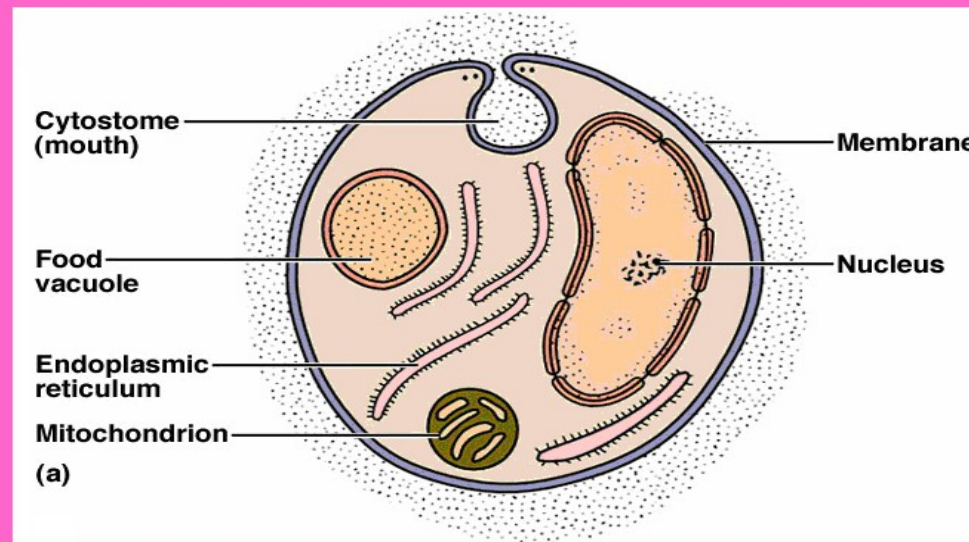
THE FIVE KINGDOMS

2. THE PROTIST KINGDOM

PROTOZOA

d. Sporozoa: They can not move.

ESPOROZOARIOS



THE FIVE KINGDOMS

3. THE FUNGUS KINGDOM

- This kingdom includes many different types of organisms, such as, **mushrooms, yeasts or moulds.**
 - They are heterotrophic.
 - They are single cell or multicellular.
 - They are eukaryotic.
 - They can reproduce both sexually and asexually.
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THE FIVE KINGDOMS

3. THE FUNGUS KINGDOM

- Single cell fungi: Yeast are very important for human beings because they cause fermentation, and we can make some products, like bread, wine or beer.



THE FIVE KINGDOMS

3. THE FUNGUS KINGDOM

- Multicellular fungi: Their cells are grouped into filaments called **hyphae**, so they do not have real tissues.



THE FIVE KINGDOMS

- SUMMARY

Kingdom	Type of Nutrition	Cellular organization	Type of cell	Has tissues?
MONERA	Autotrophic or heterotrophic	Single cell	prokaryotic	no
PROTIST	Autotrophic or heterotrophic	Single cell or multicellular cell	eukaryotic	no
FUNGUS	heterotrophic	Single cell or multicellular cell	eukaryotic	no
PLANT	autotrophic	Multicellular	eukaryotic	yes
ANIMAL	heterotrophic	Multicellular	eukaryotic	yes