

5 Cells and the simplest organisms

1. Cells have different shapes. Muscle cells are elongated, neurons are star-shaped and skin cells can be flat or cubic. Why do cells have different shapes?
2. Some unicellular organisms, such as the green algae, live in colonies. Do you think that each cell in the colony loses its individuality and stops carrying out the three vital functions?
3. These drawings represent a neuron (A) and a muscle cell (B). Is there a connection between the shape of each cell and its function?



4. It is said that DNA contains all the genetic information of an individual. In which part of the cell it is located?
5. Are the cells of the root of a plant autotrophic or heterotrophic? Why?
6. Could a plant cell move using amoeboid movements? Explain your answer.
7. What characteristics do cancer cells have with respect to cell division?
8. Every year in Spain there are red tides in which a large number of fish and bivalves die or are contaminated. This phenomenon, which causes the water to turn red, is the cause of serious economic losses. Look for information and answer the questions:
 - a) What type of microorganism is responsible?
 - b) How are the marine animals contaminated?
 - c) Is it harmful to human beings?

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9. How are algae distributed below the sea? Do they all grow in the same area?

10. What is the effect of high temperatures on bacteria?

11. How can we eliminate microbes in water in order to make it healthier?

12. Why is sterilisation used in hospitals and in the food industry? What does it involve?

13. A process called composting is carried out in many Spanish municipalities. What does it involve?

14. Fresh yogurt and other types of fermented milk, regarded as functional and probiotic products, have a large number of live bacteria. How is their consumption beneficial to the organism?

15. What are antibiotics? Can we use them to cure an illness caused by a virus?

16. What type of microorganism causes aids? How does it affect the infected organism? How is it transmitted?