

MONERA, PROTISTS & FUNGI

Task 1. Watch the video on Monera and consider the following questions based on the information provided.

1. What is a common misconception people have about bacteria?
2. What two large groups of organisms were originally included in the term "Monera"?
3. What is a key feature missing inside the cells of Monerans (Archaea and Bacteria)? What is this type of cell called?
4. Approximately how old are the organisms originally classified as Monerans?
5. Why is the term "Kingdom Monera" not commonly used by scientists anymore? What system has largely replaced it, and what are the relevant categories in that system mentioned in the video?
6. What does the name "Archaea" mean or refer to?
7. What are "extremophiles"? Name two examples of extremophile Archaea and the types of environments they live in.
8. List two important roles that Archaea play in the environment.
9. What are the three basic shapes of bacteria mentioned in the video?
10. Which group (Archaea or Bacteria) is generally found in *less* extreme environments?

Task 2. Watch the video on Protists and consider the following questions based on the information provided.

1. Why does the video describe protists as a "strange and diverse group" and sometimes call them "misfits"?
2. What are the three main types or categories that protists are grouped into, based on what they resemble?
3. What is the common name for most plant-like protists?
4. Why are plant-like protists essential at the bottom of most marine and freshwater food chains? What process do they use?
5. What is the general name given to animal-like protists? Are they usually unicellular or multicellular?
6. Name the four different categories of protozoans described in the text.
7. Besides causing disease, give one example of an important positive role that protozoans (like amoebas or ciliates) play in ecosystems.
8. Which of the four groups of protozoans consists entirely of parasitic organisms? Name the disease caused by *Plasmodium*.
9. What is an example of a fungus-like protist mentioned in the video? What important ecological role do they perform?
10. Based on the entire video, list three major reasons why protists are considered crucial for life on Earth.

Task 3. Watch the video on Fungi and consider the questions based on the information provided.

1. What are three key characteristics of fungi? (think about their cells, how they get energy, and their cell walls).
2. What special substance makes the cell walls of fungi rigid?
3. What is a "saprophyte"? How do saprophytic fungi get their nutrients?
4. Besides being saprophytes, what is the other way mentioned that some fungi obtain nutrients?
5. How do many fungi reproduce? Why are these reproductive structures often responsible for contaminating food?
6. What are the three major types of fungus discussed in the video?
7. How are yeasts different from mushrooms and molds in terms of their basic structure (number of cells)?
8. What is a "mycosis"? Give one example of a mycosis.
9. Why can treating fungal infections in humans be difficult?