Edexcel iGCSE Biology Checklist

Section 1: The Nature and Variety of Living Organisms

(b) Variety of Living Organisms – Part 2

|  |  |  |  |
| --- | --- | --- | --- |
| ***I can describe examples and their features of the following:*** | ☺ | 😐 | ☹ |
| Bacteria: These are microscopic single-celled organisms; they have a cell wall, cell membrane, cytoplasm and plasmids; they lack a nucleus but contain a circular chromosome of DNA; some bacteria can carry out photosynthesis but most feed off other living or dead organisms  Examples include *Lactobacillus bulgaricus, a rod-shaped bacterium used in the* production of yoghurt from milk, and *Pneumococcus, a spherical bacterium* that acts as the pathogen causing pneumonia |  |  |  |
| Protoctists: These are microscopic single-celled organisms. Some, like  *Amoeba, that live in pond water, have features like an animal cell, while*  others, like *Chlorella, have chloroplasts and are more like plants. A pathogenic* example is *Plasmodium, responsible for causing malaria* |  |  |  |
| Viruses: These are small particles, smaller than bacteria; they are parasitic  and can reproduce only inside living cells; they infect every type of living  organism. They have a wide variety of shapes and sizes; they have no cellular  structure but have a protein coat and contain one type of nucleic acid, either  DNA or RNA Examples include the tobacco mosaic virus that causes discolouring of the leaves of tobacco plants by preventing the formation of chloroplasts, the influenza virus that causes ‘flu’ and the HIV virus that causes AIDS |  |  |  |
| ***I can:*** |  |  |  |
| 1.3 recall the term ‘pathogen’ and know that pathogens may be fungi, bacteria, protoctists or viruses. |  |  |  |