



Levels of Organization Microscope Lab

Teacher Page

Objective

Student will

- identify the levels of organization of an organism.
- use a microscope to conduct scientific inquiry.

Materials

microscope

prepared slides of different human body tissues

Procedure

1. Instruct the students in the proper use of a microscope. The textbook has great review pages on 672 and 673. Set up microscopes and prepared slides of different cells, tissues ...
2. Go through the levels of organization as a review. Students will fill out their worksheet page
question 1: organism – organ systems – organs – tissues – cells
question 2: **cells**
question 3: No, all cells have many of the same basic structures. They both have a cell membrane, a nucleus, and cytoplasm. But plant cells also have cell walls for support and chloroplasts to carry out photosynthesis. Plant and animal cells both have mitochondria to provide the energy needed for cell activities.
question 4: No, These two cells just give us an idea of the basic structure of cells. Plant and animal cells actually have many different shapes and sizes, depending on their function.
3. Have students look at four prepared slides of different tissues and accurately draw what they see in their field of view.
4. Students should fill in the name of the tissue observed and the magnification used.
Question 1: cells; The cells in each sample look different because they have different functions and need different structure in order to perform their job.
Question 2: organs; Organs look different because they have different structures that allow them to perform different functions.