

CLASS ACTIVITY – MERISTIMATIC TISSUES

1. Name two types of plant and animal tissues
2. Where is the apical meristem found?
3. What is the function of the apical meristem?
4. What is the place where we find the lateral meristem called?
5. How does the structure of the lateral meristem differ from the apical meristem?

ANSWERS

1. Permanent tissue and meristematic tissues
2. Near the tips of roots and stems
3. Growth in length (primary growth)
4. Cambium
5. Cells are flatter and more elongated, cells have thicker walls

CLASS ACTIVITY – PERMANENT PLANT TISSUE

1. What do we call the waxy layer covering the epidermal cells?
2. Why is the waxy layer absent on the root hairs? Describe why, by referring to the function of the root hairs
3. What do we call tissue that performs a specific function?
4. Name two functions of the guard cells of the stoma.

ANSWERS

1. Cuticle

2. Because the root hair needs to absorb water and mineral salts and therefore the wax layer cannot cover it.

Also it is under the ground therefore the cuticle preventing water loss isn't needed

3. Differentiated tissue

4. Control the opening and closing of stomatal pore, and is in control of gaseous exchange

CLASS ACTIVITY - PARENCHYMA- COLLENCHYMA

1. What function does the three structures have in common?
2. Draw a table of the differences in the basic structure of these three structures.
3. What do we call parenchyma that contains chloroplasts.

ANSWERS

1. Provides support to the plant

2.

Parenchyma	Sclerenchyma	Collenchyma
Large cells with thin cell walls	Evenly thickened cell walls	Cell walls unevenly thickened
Large intercellular spaces	Small intercellular spaces	No intercellular spaces

3. Chlorenchyma

CLASS ACTIVITY – XYLEM

1. Where is xylem found?
2. What are vessel elements?
3. What are the cell walls of xylem thickened with?

ANSWERS

1. In the roots stems and leaves
2. Individual cells composing the xylem vessels
3. lignin

CLASS ACTIVITY - PHLOEM

1. What do phloem consist of?
2. What are the difference between the function of phloem and the function of xylem.
3. List all the permanent tissue that plant tissues consist of

ANSWERS

1. Sieve tubes and companion cells
2. Phloem transports from the leaves downwards,
Xylem transports from the roots upwards
3. Epidermis, parenchyma, collenchyma,
sclerenchyma, vascular tissue