

MINISTRY OF EDUCATION
SECONDARY ENGAGEMENT PROGRAMME
GRADE 8
INTEGRATED SCIENCE

Week 2

Lesson 1

Topic: Plant and animal tissues

Objectives

Given handout and worksheets, students will:

- Correctly match the different types of plant tissues to their functions.
- Accurately explain the functions of animal tissues.
- Correctly match the types of tissue to where they are found within the organism.

Content

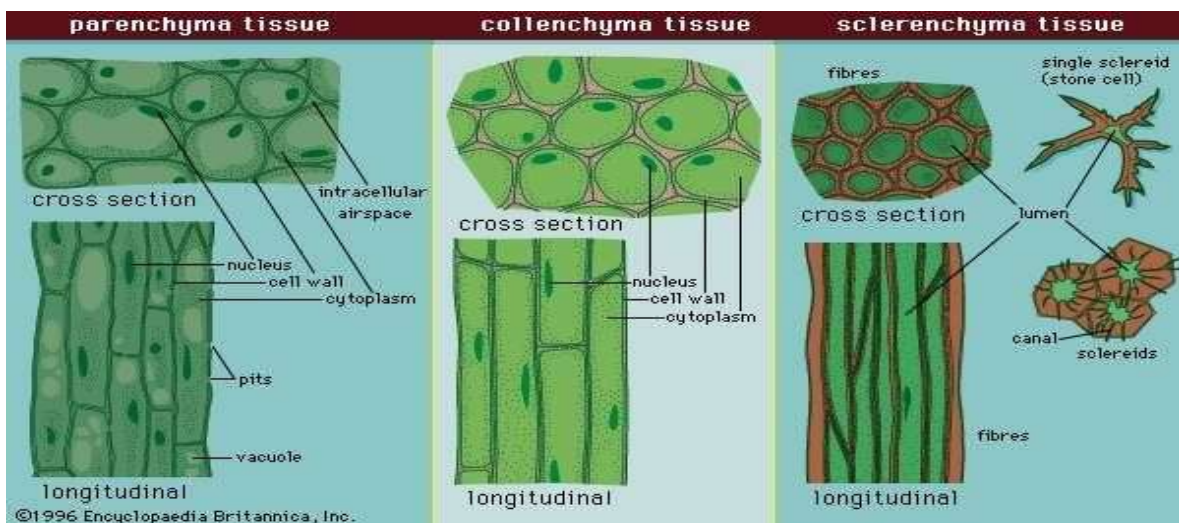
There are many different types of cells in our bodies and they differentiate and specialize so that they can perform specific tasks. When cells that are alike group together to perform the same function, they form **tissue**. Plants and animals contain many different types of tissues.

The table below summarises the different types of tissues found in plants

| Type of tissue | Where it is found | What it does |
|-----------------------------------|--|---|
| Epidermal tissue | Found in the outer covering layers of plants. | The waxy cuticle protects the plant from damage and prevents it from dying as a result of, excess water loss. |
| Photosynthetic tissue | Mainly inside green leaves | Contains chloroplasts that allow photosynthesis to take place. |
| Packing tissue (parenchyma cells) | All over the plant between more specialized parts, cortex of roots | Provides support and is useful for food storage. |

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|---|---|--|
| Transport or vascular tissue (xylem and phloem) | In the stems and leaves- forms the veins of the plant | Forms tubes that allow food, mineral salts, and water to move through the plant. |
| Supportive or strengthening tissue (collenchyma and sclerenchyma) | Below the surface of stems and leaves | Thick walls allow them to support the plant and also allow it to be flexible |

The following picture shows three examples of plant tissues



source: (Encyclopedia Britannica, 1996)

Animal tissue

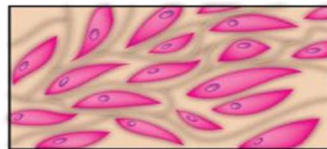
The table below summarizes the different types of tissues found in animals

| Type of tissue | Where it is found | What it does |
|-------------------|--|---|
| Epithelial tissue | On the surface of the skin, lining mucous membranes such as nose and throat. | Cover the outside of the body and the lining of many internal passages such as the mouth and esophagus. |
| Muscle tissue | Skeletal, heart, and other internal organs. | Contracts and relaxes; helps in movement |

| | | |
|-------------------|---|---|
| Connective tissue | Bones, cartilage, tendons, and ligaments. | They serve to support the body and to bind various structures together. |
| Nerve tissue | The brain and spinal cord, which contains specialized cells called neurons. | Specialize to transmit electrical impulses (messages) around the body. |

The picture below shows the different types of animal tissues

Four Types of Tissues



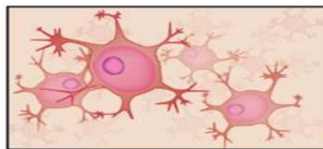
Connective tissue



Epithelial tissue



Muscle tissue



Nervous tissue

source: (CK12 Foundation, 2020)

Remember that:



References

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