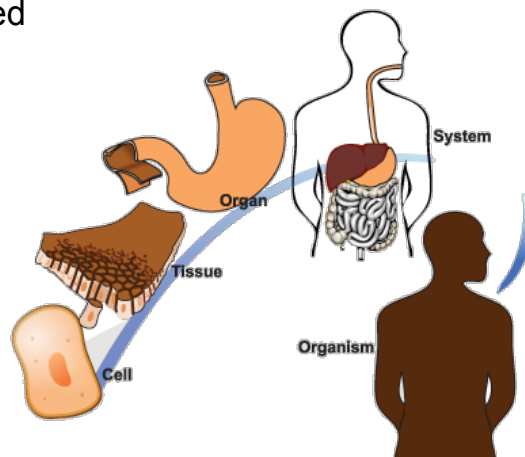


Organization of Cells

Last class we discussed specialized cells in multicellular organisms. As part of the research you did on those cells you were to document where in the organism these cells could be found. The reason we can make generalizations about the location of specialized cells is because these cells are not randomly scattered throughout the organism, they are clustered. A cluster of specialized cells is known as **tissue**. When different types of tissues come together to form a part of an organism with a specific task, we call that part an **organ**. Organs will work together to perform processes for an organism. Organs that work together are referred to as **organ systems**.





Tissues

Today we will look at tissues in both plants and animals. The way we will do this is as follows:

- You will be divided into groups of ~4.
- Each person will get a laptop.
- As a group you are to create and share a document titled "Tissues."
- I will put a question on the SmartBoard.
- Groups race to perform the following tasks:
 1. Type the question into your document
 2. Research the answer to the question
 3. Type out your answer
 4. Call me over to view the completed work
- Groups will receive points based on how quickly they complete their answers.
- I will then reveal the answer.
- Any incorrect answers are to be corrected.
- By the end of class you will have a completed worksheet, with information about tissues.



Tissues

Question #1:

What is the definition of tissue?

Answer #1:

A grouping of specialized cells.

1st - 3 points 2nd - 2 points 3rd - 2 points Other Correct - 1 point



Tissues

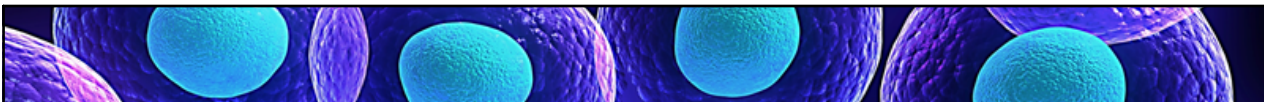
Question #2:

What are the four main types of tissue in animals?

Answer #2:

Connective Tissue, Epithelial Tissue, Muscle Tissue, and Nervous Tissue

1st - 4 points 2nd - 3 points 3rd - 2 points Other Correct - 1 point



Tissues

Question #3:

What are the general functions of each of the four main types of tissue in animals?

Answer #3:

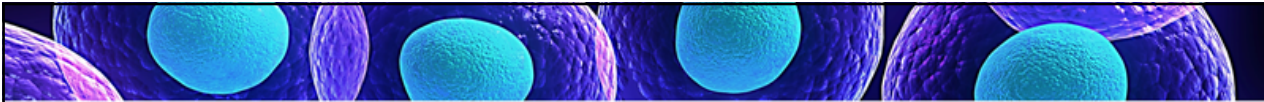
Connective Tissue - Support and connect parts of the body

Epithelial Tissue - Protect and cover parts of the body (outside and inside)

Muscle Tissue - Moves parts of the body

Nervous Tissue - Carries signals between the brain and parts of the body

1st - 5 points 2nd - 4 points 3rd - 3 points Other Correct - 2 points



Tissues

Question #4:

How many types of muscle tissue can be found in a human? Name them.

Answer #4:

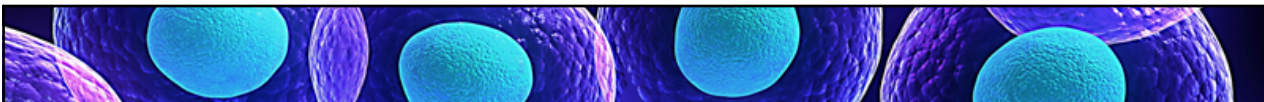
Three.

Soft Muscle Tissue - found in organs (not heart)

Skeletal Muscle Tissue - attached to bones

Cardiac Muscle Tissue - found in the heart

1st - 4 points 2nd - 3 points 3rd - 2 points Other Correct - 1 point



Tissues

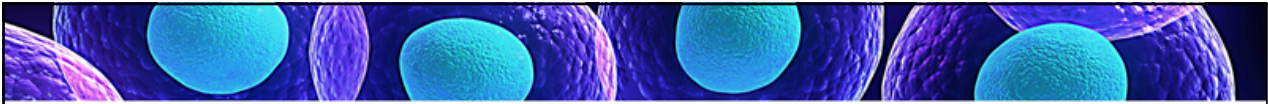
Question #5:

Name two examples of connective tissue that begin with the letter "B".

Answer #5:

Blood and Bone

1st - 5 points 2nd - 4 points 3rd - 3 points Other Correct - 2 points



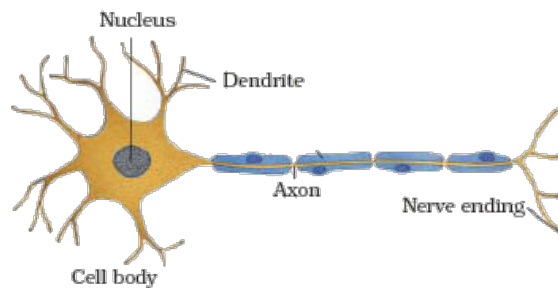
Tissues

Question #6:

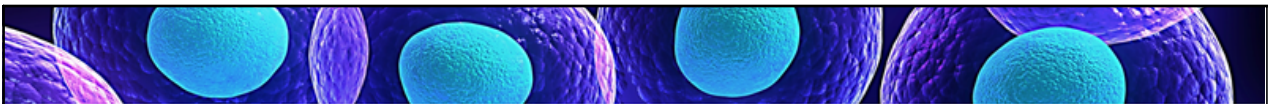
Which type of tissue contains cells with parts named "dendrites" and "axons"? Include a labelled image.

Answer #6:

Nervous Tissue



1st - 4 points 2nd - 3 points 3rd - 2 points Other Correct - 1 point



Tissues

Question #7:

What are the three main types of tissue in plants?

Answer #7:

Dermal Tissue, Ground Tissue, and Vascular Tissue

1st - 4 points 2nd - 3 points 3rd - 2 points Other Correct - 1 point



Tissues

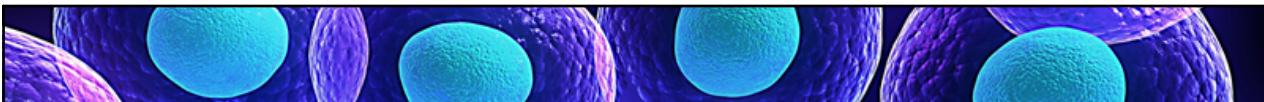
Question #8:

What are the general functions of each of the three main types of tissue in plants?

Answer #8:

Dermal Tissue - Protect the plant and prevent water loss
Ground Tissue - Photosynthesis and nutrient storage
Vascular Tissue - Transportation of materials

1st - 5 points 2nd - 4 points 3rd - 3 points Other Correct - 2 points



Tissues

Question #9:

What are the two main sections of vascular tissue?

Answer #9:

Xylem - Transports water from the roots to the rest of the plant
Phloem - Transports sucrose from the leaves to the rest of the plant

1st - 4 points 2nd - 3 points 3rd - 2 points Other Correct - 1 point



Tissues

Question #10:

In what type of tissue would you find a "stomata"? What is its purpose?

Answer #10:

Dermal Tissue. A stomata is an opening in the outer layer of a plant, it allows for gas exchange and the release of waste.

1st - 5 points 2nd - 4 points 3rd - 3 points Other Correct - 2 points



Tissues

Please make sure that you have all of the information in your note and that it is shared with everyone in your group.

To finish off today, please come join me at the back of the room.



You may use any remaining class time to finish up other work.