**November Notes: Day 3** Name: Date:

**AIM: What are Unicellular & Multicellular Organisms**

**DO NOW:** What body parts or body system matches these organelles? Explain your choice.

Nucleus:

Cytoplasm:

Cell Membrane:

**What is the smallest unit of life?**

* The smallest unit of is the cell.
* An is made up of at least one .

**Types of Organisms**

Organisms can be separated into 2 categories:

* A) Single Celled ( )
* B)

**Single Celled Organisms**

* Single cell organisms exist as cell.
* These organisms are .
* They have parts called that help them carry out all of the

**The Amoeba**

* The ameba is a very single celled organism
* The ameba is classified as an therefore it cannot make its own food.
* Amoeba do not have a or .
* An amoeba has no defined .
* Amoebas move by extending their to form (means: false feet)
* Pseudopods performs two functions:
	+ it aids the amoeba in (movement)
	+ it aids the amoeba in capturing

**The Paramecium**

* The paramecium is a organism
* It’ s more complex than an ameba
* The Paramecium is classified as an animal therefore it make its own food.
* Paramecium do not have a or
* Plus a few parts
* The paramecium has a shape ( -like).
* Paramecium move with the use of cilia
* are tiny structures on the cell membrane that move in a unified direction the organism along

**The Algae**

* The Algae is a simple celled organism
* The has plant characteristic.
* It has therefore it make its own food.
* Algae have many of the parts (organelles) that a plant cell has.

**Euglena**

There are many different types of algae.

Some exist as a single cell

Some “loosely” together and form .

Some algae, such as euglena, have a single hair-like structure called a , which help the euglena to “ ”.

**What is the difference between transport and locomotion?**

* In biology, means to material .

Example: The (heart, veins and arteries) moves , and throughout the body.

* In biology, means the ability for an to move from to another.

Example: I use my legs to move from to .

**Multicellular Organisms**

* organisms are organisms that contain than cell.
* They can be either or
* They are more than organisms
* In most multicellular organisms, an individual or group of cells become in a function, therefore different groups of cells must work together to keep the organism healthy ( ).

**The Hydra**

* The hydra is a organism.
* It has group of that perform specific functions.
* All the cells work together for the benefit of the whole .
* They have tentacles with called nematocysts (stinging cells)
* Hydras can move ( ) by using its tentacles and “foot” in an inch worm motion.
* Hydras have a nerve net that allows it to react to its environment

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Ameba | Paramecium | Algae | Hydra |
| Classified:Unicellular or multi cellular |  |  |  |  |
| Type of Locomotion |  |  |  |  |
| Specialized Cells or organelles |  |  |  |  |
| Autotroph or Heterotroph |  |  |  |  |

**Why are these organisms important in biology?**

 organisms can do all of the same as organisms can.

These organisms show a on how unicellular organisms may have evolved into groups (colonies) that performed specialize jobs to benefit the entire group as a whole.

These colonies may have continued to evolve to into an individual who have parts that have become .

**Levels of Organizations of an Organism - Organelles**

The smallest part of organism organization is the

The organelle performs specialized for the cell.

Different organelles work together for the benefit of the cell.

Because they are parts of a cell, they are also smaller than a cell.

**Levels of Organizations – The Cell (Continued)**

When a bunch of organelles work together they form a

In single celled organisms, the cell is the organization.

In organisms, the cell is only they second level.

**Levels of Organizations - Tissue (continued)**

* In multicellular organisms, the next level of organization is the .
* Tissue is a group of the same types of cells that work to perform a

**Levels of Organizations - Organ (continued)**

The next level of organization is the

Organs are a group of that work together to perform a

**Levels of Organizations - Organ System (continued)**

* The next level of organization is the .
* An Organ system is a group of that work together to perform a specialized function

**Levels of Organizations - Organism (continued)**

The next level of organization is the .

An organism is a group of organ systems working together to maintain for an individual.

**Lets review the order of organization.**

**How many Organ systems are there?**