Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_

**Cell Theory Guided Notes**

1. The **cell** is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of living things.
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are different from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ things…

You are surrounded by life, but how would you define a living thing?

Does it use \_\_\_\_\_\_\_\_\_\_\_\_\_ ?

Does it \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ?

Does it consume \_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_ ?

**Organism:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

1. *Characteristics of Living Things (a review)….*

All living things:

- Are made up of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (organization),

- \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

- Have the ability to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_,

- Made of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_,

- \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_,

- Perform \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ processes.

**Metabolism**:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

1. *Organization…*

An organism’s body must be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in a way that enables it to meet its needs.

Some organisms are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_:

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_,
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_,
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

Some organisms are more \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

* When \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ parts of the organism perform different \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

Examples: humans, dogs, fish, mushrooms, oak trees.

1. *Needs for life…*

Organisms need \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_.

All \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ comes from the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

* Some organisms use to energy \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)
* Others harness this energy by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

Materials needed:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ , \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_ .

1. *All living things are made up of cells…*
* The cell is the smallest \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of a living thing.
* If an organism is \_\_\_\_\_\_\_\_\_\_\_\_\_\_ , all functions of life happen \_\_\_\_\_\_\_\_\_\_\_\_\_\_ that one cell.
* If an organism is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, different cells have different \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and they all work \_\_\_\_\_\_\_\_\_\_\_\_\_\_ .
1. *The microscope led to the discovery of cells.*
* 1660’s - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ discovered the cell

He looked at \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ under the microscope (30X)

He noticed little compartments, which he named after the little rooms that monks live in… “\_\_\_\_\_\_\_\_\_\_.”

* 1670’s - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ described microorganisms in pond water

He looked at \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ under the microscope (300X)

He noticed that the water was full of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

1. Cell Theory…

With the invention of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and the contributions of many scientists, a very important question was answered in the \_\_\_\_\_\_\_\_\_\_\_\_\_ . The question was :

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ?

1. *There are three concepts to the* ***cell theory****…*
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_;
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_;
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .