Ch 1

* 1. The Study of Life

How have we benefited from the differences/advances between biology in the 21st century and the early 20th century?

Biosphere = all \_\_\_\_\_\_\_\_\_\_\_\_ things and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ they’re found.

Biodiversity is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of life.

Biodiversity generally \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from the poles to the equator.

Biodiversity is greater in areas with consistently \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ temperatures.

A species is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of living thing.

Members of a species can \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Biology is the scientific study of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

An organism is any \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ living thing.

* + All are made of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* All need \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

\* All \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to their \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

* All have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that they pass on to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1.2 Unifying Themes in Biology

A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is an organized group of interacting parts.

* + A cell is a system of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
  + A body \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ includes organs that interact.
  + An ecosystem includes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that interact.

Structure \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ function.

* + Proteins with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ perform different functions.

Homeostasis is the maintenance of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

maintained through \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ feedback, which returns a condition to

its \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (\_\_\_\_\_\_\_) point.

Define thermoregulation:

Two that can help maintain homeostasis? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Unity & diversity of life is explained by? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, which occurs over \_\_\_\_\_\_.

What changes? The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ makeup of a \_\_\_\_\_\_\_\_\_\_\_\_\_\_ of a \_\_\_\_\_\_\_\_\_\_\_\_.

It occurs through \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of adaptations, which

are beneficial \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that are passed to future generations.

What are the four unifying themes of biology? Give an example of each.

* 1. Scientific Thinking & processes

Science is all about \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. It is a process of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Scientists make careful and systematic \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. And record

observations as \_\_\_\_\_\_\_\_\_\_\_\_\_\_. And form \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ as possible

answers questions. Then \_\_\_\_\_\_\_\_\_\_ their hypotheses & \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the data.

And test hypothesesusing \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

* + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ variables are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ variables are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ explain observations & experimental results, & are supported by

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, & can \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ based on new evidence.

4 Types of microscopes and what they do: