Chapter 1 Notes

The principles of Biology:

Levels of organization

Unity:

* All life has
* United by

Diversity:

* Life has a

Evolutionary History:

* Life began on Earth
* Occurs by two mechanisms:
  + Vertical descent –
  + Horizontal gene transfer –

Classification:

Taxonomy –

3 Domains include:

1. Bacteria –
2. Archaea –
3. Eukarya –

Going from broad to narrow groups, a species is placed into a:

Genome –

* Provides
* Transmitted
* Acts as

Proteome –

Analysis of genomes and proteomes helps us understand \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Biology as a Scientific Discipline:

* Biological science is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Hypothesis –
  + Discovery-based science –
  + Scientific Method
  + Often involves a comparison between

Biology is a social discipline where scientists

To be published, a scientific paper is subjected to a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in which other scientists \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ regarding its quality.

Advances in science often occur when