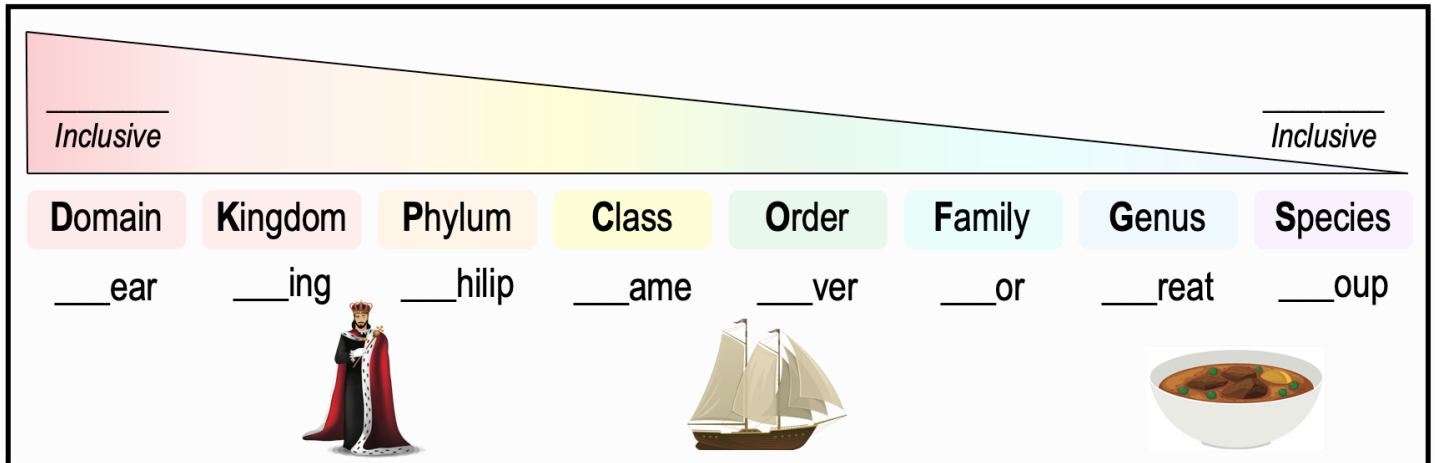


## CONCEPT: INTRODUCTION TO TAXONOMY

- \_\_\_\_\_: the branch of science that *classifies, identifies & names* organisms.
  - \_\_\_\_\_ categories are used to classify *all* life.



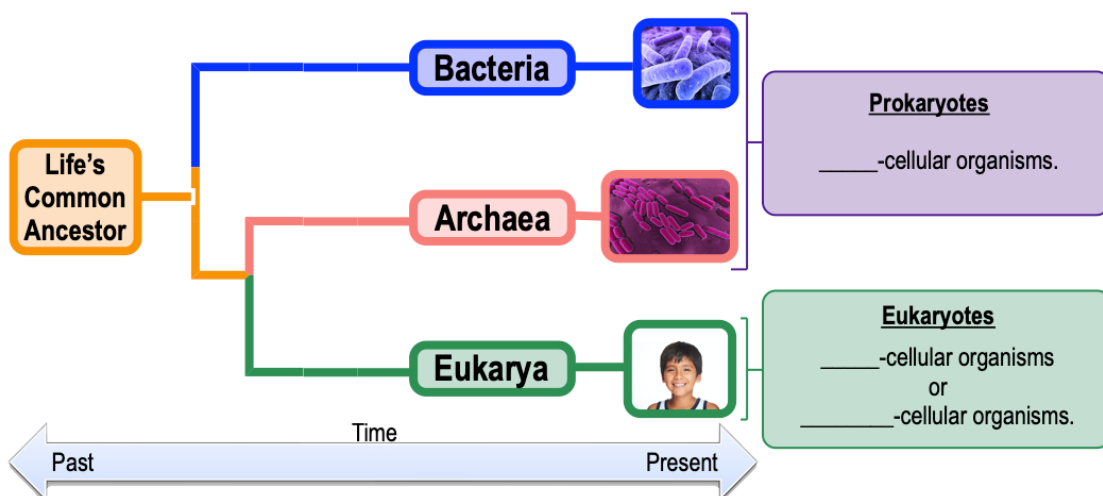
**PRACTICE:** Which branch of biology is concerned with the naming and classifying of organisms?

- a) Bioinformatics.      b) Taxonomy.      c) Genomics.      d) Evolution.      e) Biology.

## 3 Domains of Life

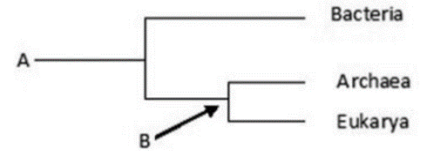
- The *broadest & most inclusive* categories of life are the *three domains*:

- 1) \_\_\_\_\_ } Consist of \_\_\_\_\_ cells (\_\_\_\_\_ a nucleus).
- 2) \_\_\_\_\_ }
- 3) \_\_\_\_\_ } Consist of \_\_\_\_\_ cells (*contain* a nucleus).



## CONCEPT: INTRODUCTION TO TAXONOMY

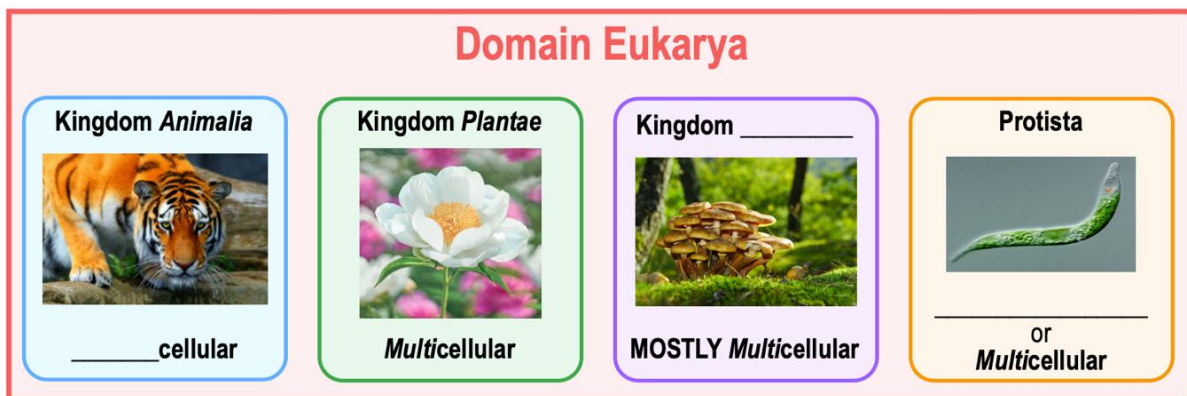
**EXAMPLE:** According to the diagram, "A" is \_\_\_\_\_; "B" is \_\_\_\_\_.



- a) The most recent species to evolve on Earth; an ancestor of group "A".
- b) The most recent species to evolve on Earth; the last common ancestor of Archaea and Eukarya.
- c) The common ancestor of all life; the common ancestor of Bacteria and Archaea.
- d) The common ancestor of all life; the last common ancestor of Archaea and Eukarya.

## Kingdoms of the Eukarya Domain

- Recall: organisms in each domain are further subdivided into \_\_\_\_\_.
- Domain Eukarya has \_\_\_\_\_ kingdoms:



**EXAMPLE:** Which of the following kingdoms is NOT part of the Eukaryotic Domain?

- a) Kingdom Plantae.
- b) Kingdom Protista.
- c) Kingdom Fungi.
- d) Kingdom Eubacteria.

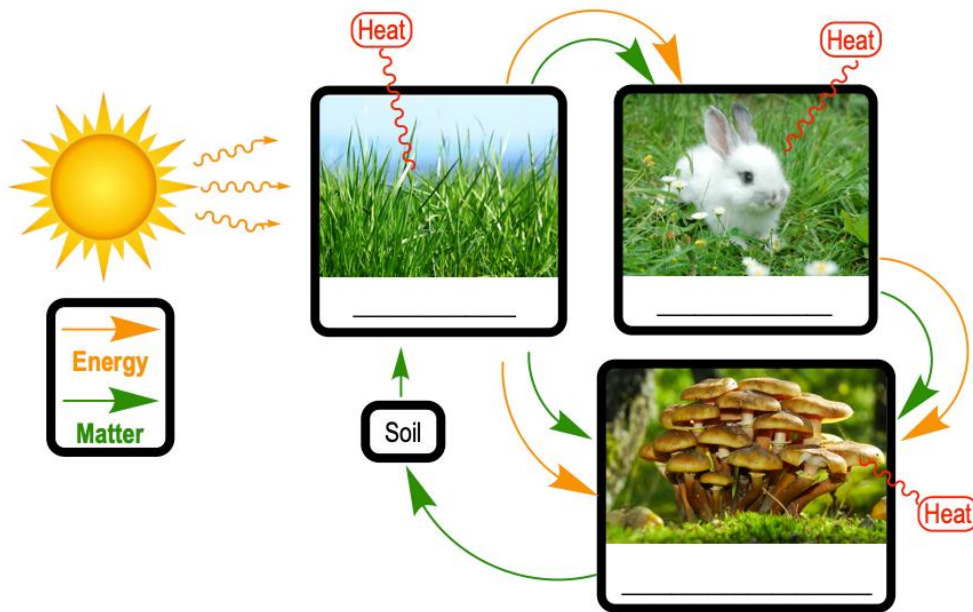
**PRACTICE:** The proposal that one type of organism can change into another type over a long period of time is known as:

- a) Creativity.
- b) Evolution.
- c) Natural history.
- d) Preconception.
- e) Preservation.

## CONCEPT: INTRODUCTION TO TAXONOMY

### Categorizing Life Based on Energy Acquisition

- Scientists can categorize living organisms into \_\_\_\_\_ classes based on how they acquire their *energy*:
  - 1) \_\_\_\_\_ (\_\_\_\_\_ trophs): acquire energy by *making their own food*.
  - 2) \_\_\_\_\_ (\_\_\_\_\_ trophs): acquire energy by eating other living organisms.
  - 3) \_\_\_\_\_: acquire energy from wastes & dead organisms.
- Most energy utilized by life originates from the \_\_\_\_\_.
  - With every transfer of energy, some energy is lost as \_\_\_\_\_.



**EXAMPLE:** Autotrophs are also called:

- a) Consumers.
- b) Synthesizers.
- c) Producers.
- d) Carnivores.

**PRACTICE:** Biologists can divide living organisms into two groups: autotrophs and heterotrophs, which differ in \_\_\_\_\_.

- a) Their method of obtaining energy.
- b) The characteristics of life.
- c) Their mode of inheritance.
- d) The way that they generate ATP.