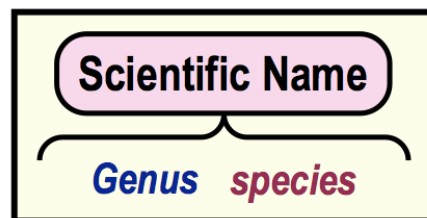


## CONCEPT: SCIENTIFIC NAMING OF ORGANISMS

- In the 1700's, the scientist *Carl Linnaeus* developed a binomial (\_\_\_\_\_-part) naming system for microorganisms.
  - **First part** of the Latin-based naming system indicates the \_\_\_\_\_ (first letter capitalized).
  - **Second part** of the Latin-based naming system indicates the \_\_\_\_\_ (first letter NOT capitalized).
  - Both the first & second parts of the name are \_\_\_\_\_ or underlined.
- Members of the same species may vary from one another in minor ways to form \_\_\_\_\_.
  - **Strains**: genetic variants within a species (may be indicated with a strain designation).

**EXAMPLE:** Scientific Naming of Organisms.



<i>Borrelia burgdorferi</i> (Bacterium)	<i>Saccharomyces cerevisiae</i> (Fungi)	<i>Streptococcus pyogenes</i> (Bacterium)	<i>Staphylococcus aureus</i> (Bacterium)	<i>Escherichia coli</i> (Bacterium)	<div>Strains of <i>E. coli</i></div> <div><i>Escherichia coli</i> K-12 <i>Escherichia coli</i> B Enteropathogenic <i>Escherichia coli</i> Enterotoxigenic <i>Escherichia coli</i> Enterohemorrhagic <i>Escherichia coli</i> Enteroinvasive <i>Escherichia coli</i></div> <div>And many more!</div>

**PRACTICE:** Which of the following represents the correct way to format the scientific name of an organism?

- a) *staphylococcus aureus*.
- b) *escherichia Coli*.
- c) *Staphylococcus epidermidis*.
- d) *bacillus Anthracis*.
- e) *Clostridium Botulinum*.

**PRACTICE:** In biology, what are strains of a species?

- a) Organisms of the same species that live in different environments.
- b) Organisms of different species which live in the same environment.
- c) Organisms of the same species with genetic variation.
- d) Organisms of different species with extremely similar characteristics.
- e) None of the above are correct.