

# Classification

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# Button Sort

- Sort the buttons into 5 piles
- Write down why you separated the groups that way. What makes each group different from each other?

- Look at the picture, write down how you would sort the buttons. Why did you divide them that way?



# What is classification?

- The arrangement of organisms into orderly groups based on similarities

# What gets classified? Why?

- Both living and extinct organisms
- Makes it easier for biologists to find answers to important questions:
  - How many known species are there?
  - What are the characteristics of each?
  - What are the relationships between these species?

# How are organisms classified?

- Based on shared characteristics and their relationship to one another

# What are the levels of classification?

- Domain (created recently, largest group)
- Kingdom
- Phylum (plural Phyla)
- Class
- Order
- Family
- Genus (plural Genera)
- Species

# What can help you remember this?

- Dude! King Phillip Came Over For  
Grape Soda
- (or great steak, or good soup  
depending on your dining  
preferences) 😊



# What is taxonomy?

- The science of identifying, classifying, and naming living things

# Who was the founder of taxonomy?

- Swedish physician and botanist – Carolus Linnaeus

# What is a branching diagram?

- Shows the evolutionary relationships between organisms
- Figure 4 page 204

# What is a scientific name? Why is it important?

- It's always the same for a specific species
- Two-part scientific name
  - First part – genus (first letter capitalized)
  - Second part – species (all lowercase)
- Always Latin or Greek
- Often *italicized* or underlined
- Example: *Canis rufus*
- Example: *Canis lupus*

# What is a dichotomous key?

- Helps identify unknown creatures
- Has several pairs of descriptive statements

# What are the 6 kingdoms?

- 2 kingdoms of bacteria: Eubacteria and Archaeobacteria
- Protista: Protists (single celled or simple multicellular organisms)
- Plantae: Plants
- Fungi: fungus, mushrooms, mold
- Animalia: Animals

# What are the 3 domains?

- Domain Archaea – contains only kingdom archaeobacteria
- Domain Bacteria – contains kingdom eubacteria
- Domain Eukarya – contains everything that isn't bacteria (all the other kingdoms)