

Taxonomy and Classification Notes

History of classification

- Aristotle

1. What major role did he play in the classification of organisms?
2. What did he use in his classification system?
3. What were the shortcomings of his classification system?

- Linnaeus

1. What major role did he play in the classification of organisms?
2. What type of naming system did he use?

Binomical nomenclature

1. What is it?
2. What 2 levels of classification are used in naming organisms using it?
3. How are the names written? (What are the guidelines for writing scientific names using binomial nomenclature?)
4. What language is used and why?

Taxonomy

1. Define taxonomy –

Eight levels of classification

1. What are the levels of classification in order from most general to most specific?

2. A saying for remembering this order.....

3. How are the relationships between organisms determined in order to classify them? (What things are used when determining how similar / different organisms are?)

4. Can the way things are classified change? Why / Why not? (Hint: Have the way we classify things changed over time up until now? Why / why not?)

Classification and evolution

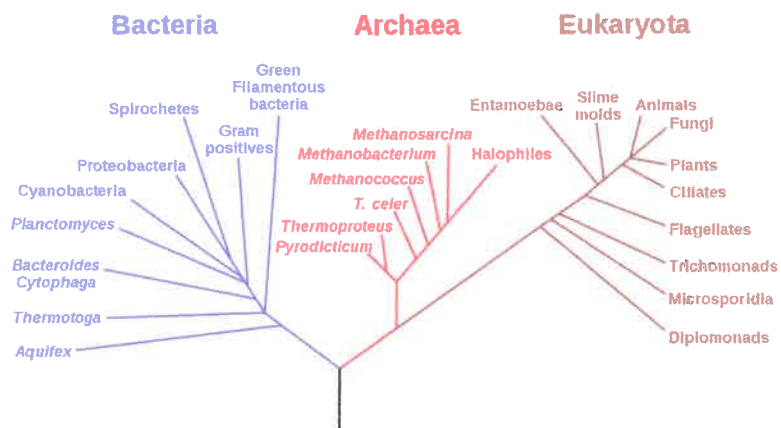
1. How do classification systems provides evidence of evolution?

Biological species

1. Define what it means to be a biological species? (What determines if two organisms are the same species?)

Phylogeny

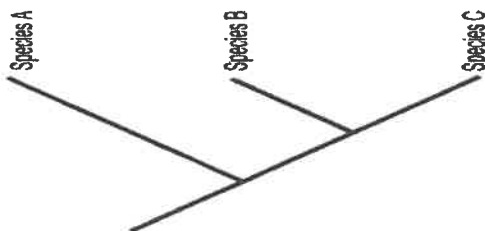
1. Define phylogeny-

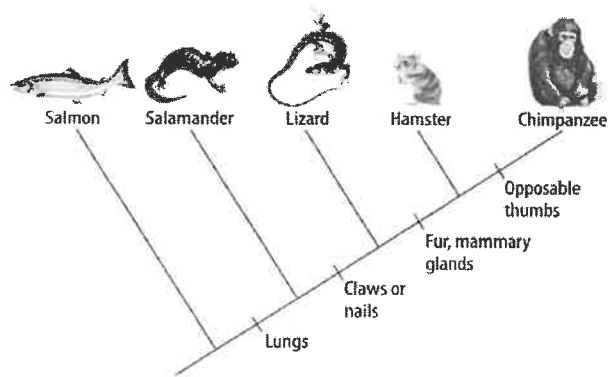


Cladograms

1. What is a cladogram, and what is it used for?

2. How are organisms placed on a cladogram? (Are closely related organisms placed close together or far apart?)





3. What evidence for shared ancestry can be used to make a cladogram? (What things can you use to make a cladogram?)

Dichotomous Key

1. What is a dichotomous key / what is it used for?

2. How are dichotomous keys used to identify organisms?

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