

5.4 Cladistics

Cladograms

Define clade and cladogram

Clade:

Cladogram:

Explain how biochemical evidence can be used to demonstrate evolutionary relationships

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With the aid of the diagram, explain the advantages of mitochondrial DNA as a phylogenetic tool

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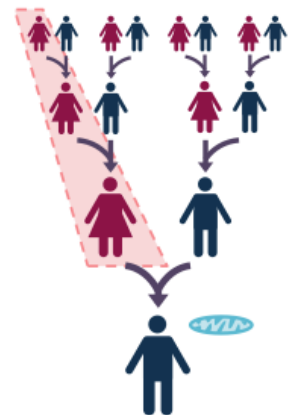
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Explain the concept of the 'molecular clock' as a means of dating evolutionary relationships

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Give two examples of when molecular evidence was used to reclassify existing schemes

1.

2.

Compare homologous and analogous structures

Homologous Structures	Analogous Structures
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Construct a simple cladogram from the following information

Taxa	Characteristics
Bat	Fur, jaws, lungs, mammary glands
Eagle	Jaws, lungs
Kangaroo	Fur, jaws, lungs
Shark	Jaws
Chimpanzee	Fur, jaws, lungs, mammary glands, opposable thumbs