Section 2, Module 3: Teacher Copy

Are characters that are similar but do not share Convergent evolution common ancestry, such as the wings in bats and birds. Is a process where organisms that are not closely related (meaning they are not part of a monophyletic group) independently evolve Monophyletic groups similar traits (analogous) as a consequence of living in similar environmental conditions. Is an approach that helps choose the most likely Homologous traits phylogenetic tree by identifying the one with the shortest evolutionary pathway. Are one kind of molecular data that can be used in phylogenetic studies. Although not as reliable as DNA or protein sequencing, this kind of data Analogous traits can give interesting insights on the adaptation of metabolic pathways according to the environmental pressures suffered by the organism. The most recent species from which two or more Parsimony different species evolved. Are sets of organisms that derived from the same DNA sequences ancestral group or organism and are, therefore, more closely related. Are one kind of molecular data that can be used in phylogenetic studies. They provide very Chemical properties detailed and unambiguous data that can be easily converted to numerical form, which makes it suitable for mathematical and statistical analysis. A diagram that represents one hypothesis for the evolutionary history of determined organisms or groups, separating them in clades. It is a useful Common ancestor tool to organise biological diversity on Earth, providing an insight on most relevant evolutionary events. Are characters that are similar because they were originated from a common ancestor, such as the Phylogenetic tree presence of four limbs in all tetrapods (birds,

mammals, reptiles, etc).