**AP Biology Chapter 22 & 23 main points**

* 1. State the 2 major points Darwin made in *Origin of Species* concerning the earth's biota
	2. Comparane and contrast Plato'sphilosophy of idealism and Aristotle's *scala naturae*
	3. Describe C. Linnaeus'contribution to Darwin's theory of evolution
	4. Describe G. Cuvier's contribution to paleontology
	5. Explain how Cuvier and his followers used the concept of catastrophism to oppose evolution
	6. Explain how the principle of gradualism and C. Lyell's theory of uniformitarianism influenced Darwin's ideas about evolution
	7. Describe J. B. Lamarck's model for how adaptations evolve
	8. Decribe ho Darwin used his observations from the voyage of the HMs *Beagle* to formulate and support his theory of evolution
	9. Describe how Alfred Russel Wallace influenced Darwin
	10. Explain what Darwin meant by the principle of common descent and descent with modification
	11. Explain what evidence convinced Darwin that species change over time
	12. State 3 inferences Darwin gmade from his observations which led him to propose natural selection as a mechanism for evolutionary change
	13. Explain why variation is so important to Darwin's theory
	14. Explain how Thomas Malthus' essay influenced Darwin
	15. Distinguish between artificial selection and nataural selection
	16. Explain why the population is the smallest unit that can evolve
	17. Using some contemporary exmaples, explain how natural selection results in evolutionary change
	18. Explain why the emergence of population genetics was an important turning point fo evolutionary theory
	19. Describe the lines of evidence Darwin used to support the principle of common descent
	20. Describe how molecular biology can be used to study evolutionary relationships among organisms.
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