Definitions of **Divergent evolution** on the Web:

- The naturally selected changes in related species that once shared a characteristic in common (as a result of having inherited it from a common ancestor) but have come to be different.  
  [www.missouri.edu/~anthmark/courses/mah/concepts.htm](http://www.missouri.edu/~anthmark/courses/mah/concepts.htm)
- Selection pressure may also result in divergent evolution, where related lineages evolve different traits in response to different selection pressures.  
  [www.oakenstaff.org/Crayfish/terms.html](http://www.oakenstaff.org/Crayfish/terms.html)
- Increasing dissimilarity between two or more populations that were initially one.  
  [www.uleth.ca/bio/bio1020/taxonomy.html](http://www.uleth.ca/bio/bio1020/taxonomy.html)
- Divergent evolution is the process by which initially similar gene copies diverge to perform different functions as they lose the selective pressure initially present on them. New selective pressures then take over to evolve the genes towards totally different functions. Note that these genes may have common structural aspects and may involve the same step mechanistically. However, the reaction involved will be widely different.  

Definitions of **Convergent evolution** on the Web:

- The independent evolution of similarity between molecules or species.  
  [xray.bmc.uu.se/~kenth/bioinfo/glossary.html](http://xray.bmc.uu.se/~kenth/bioinfo/glossary.html)
- The independent development of similar (analogous) structures in different groups; convergent evolution is thought to be the result of similar environmental selection pressures on different groups  
- The occurrence of similar characteristics evolved separately in unrelated groups (eg sabertooth condition)  
  [www.uoquelph.ca/~mammals/Mammalogy_2005_glossary.htm](http://www.uoquelph.ca/~mammals/Mammalogy_2005_glossary.htm)
- The evolution of similar looking or similar functioning structures in unrelated animals  
  [www.ultimateungulate.com/glossary.html](http://www.ultimateungulate.com/glossary.html)
- The evolution of similar characteristics in unrelated species due to similar environmental stresses; example: thorns on a rose and spines on a cactus  
  [www.fairchildgarden.org/EduProfDev/Adaptations_vocabulary.html](http://www.fairchildgarden.org/EduProfDev/Adaptations_vocabulary.html)
- The evolution of similar characteristics, in response to similar conditions, in species that are not related  
  [library.thinkquest.org/17456/glossary.html](http://library.thinkquest.org/17456/glossary.html)
- The independent acquisition over time through natural selection of similar characteristics in two or more unrelated species.  
  [www.missouri.edu/~anthmark/courses/mah/concepts.htm](http://www.missouri.edu/~anthmark/courses/mah/concepts.htm)
- The evolutions of two different groups of organisms so that they come to closely resemble one another. Also known as convergence.  
  [www.abheritage.ca/abnature/glossary.htm](http://www.abheritage.ca/abnature/glossary.htm)
Definitions of *Adaptation* on the Web:

- A biological adaptation is an anatomical structure, physiological process or behavioral trait of an organism that has evolved over a period of time by the process of natural selection such that it increases the expected long-term reproductive success of the organism. [en.wikipedia.org/wiki/Adaptation_(biology)]
- Changes in an organism's structure or habits that allow it to adjust to its surroundings. [www.streamnet.org/pub-ed/ff/Glossary/glossaryfish.html]
- The process of change to better conform with environmental conditions or other external stimuli. [www.smu.edu/anthro/collections/glossary2.html]
- Adjustments made by animals in respect of their environments. The adjustments may occur by natural selection, as individuals with favorable genetically acquired traits breed more prolifically than those lacking these traits (genotypic adaptation), or they may involve non-genetic changes in individuals, such as physiological modification (eg acclimatization) or behavioral changes (phenotypic adaptation). [www.epa.gov/waterscience/biocriteria/glossary.html]
- The structures or behaviors of an organism that are suited to a particular environment. [www.thetech.org/exhibits/online/robotzoo/guide/glossary.html]
- A characteristic body part, shape or behavior that helps a plant or animal survive in its environment. [www.reefed.edu.au/glossary/a.html]
- Tendency of an organism to suit its environment; one of the major points of Charles Darwin's theory of evolution by natural selection: organisms adapt to their environment. Those organisms best adapted will have a greater chance of surviving and passing their genes on to the next generation. [www.emc.maricopa.edu/faculty/farabee/BIOBK/BiobookglossA.html]
- An adaptation is a response of an organism to changes in its environment (like the selective survival of plants with better water conservation during extensive dry times).
- **ADAPTIVE RADIATION** Adaptive radiation is the diversification of a species as it adapts to different ecological niches. If successful, the species become specialized for the new environments (the mechanism being natural selection), and they eventually evolve into different species. [www.zoomwhales.com/subjects/dinosaurs/glossary/]
- Modification of an organism or its parts that makes it more fit for existence under the conditions of its environment. [www.doe.mass.edu/frameworks/scitech/2001/resources/glossary.html]
- A change over time in an organism's structure or function that helps it better survive in its environment [www.huntington.org/Education/lessons/BG-RP-vocab1.htm]
- From an evolutionary stand-point, it is a characteristic of a living organism that improves its chances for survival in the environment of its habitat; change brought about in a population or an organism as a result of exposure to a particular set of environmental conditions, the change enabling the organism to adjust to the
environmental conditions.  
www.pestmanagement.co.uk/lib/glossary/glossary_a.shtml

- The adjustment of an organism or population to a new or altered environment through genetic changes brought about by natural selection.  
cdiac.esd.ornl.gov/pns/glossary.html

- In the evolutionary sense, some heritable feature of an individual's phenotype that improves its chances of survival and reproduction in the existing environment.  
helios.bto.ed.ac.uk/bto/glossary/ab.htm

- A genetically-based body feature or behavior  
www.estuaries.gov/glossary.html

- [ad-dapp-tay-shun]- the process of changes in a living organism or in cultural systems that aid in adjustment to the conditions of the environment, facilitating the ability to inhabit and exploit a particular environment.  
www.mnh.si.edu/arctic/html/resources_glossary.html

- biological characteristic that improves the chance of survival of an animal and its descendants  
www.fi.edu/fellows/fellow6/feb99/terms1.html

- In evolutionary biology, any physical structure, physiological process, or behavioral pattern that makes an organism more fit to survive and reproduce in its environment. The somewhat-stiffened tail and long curved toenails of Purple Martins are structural adaptations enabling them to cling vertically to the trunks of trees, just as woodpeckers do.  
www.purplemartin.org/main/Terminology.html

- Features of organisms that arise over time and enable the organisms to survive in a given environment  
whyfiles.larc.nasa.gov/text/kids/Problem_Board/problems/habitat/glossary.html

- The change or evolution of characteristics or features to enable an organism to survive better in its environment  
www.pub.ac.za/resources/glossary.html

- To adjust to new conditions.  
www.methodfitness.com/fitness_glossary.shtml

Evolution Glossary  

Collection of Evolution Articles  
http://www.answers.com/topic/evolution