

## GLOSSARY

### A

**absolute age** the actual age in years of a fossil (281)

**acquired trait** a trait not determined by genes but arising as a result of experience or behavior (283)

**adapt** in populations, to change genetically over generations to become more suited to the environment (288)

**adaptation** an inherited trait that increases an organism's chance of survival in a particular environment (288)

**adaptive advantage** a favorable trait in an organism (288)

**adaptive radiation** an evolutionary pattern in which many species evolve from a single ancestral species (292)

**analogous structure** in evolution, structures in more than one organism that have similar appearance and function but different embryological origin (290)

**artificial selection** breeding of organisms by humans for specific phenotypic characteristics (292)

### B

**biogeography** study of the geographical distribution of fossils and living organisms (281)

### C

**cast** a type of fossil formed when sediments fill in the cavity left by a decomposing organism (279)

**coevolution** the mutual evolution of two different species interacting with each other (291)

**conserve** the act of preserving genes that remain unchanged in DNA (290)

**convergent evolution** the process by which unrelated species become more similar as they adapt to the same kind of environment (292)

### D

**divergent evolution** the process of two or more related species becoming more and more dissimilar (292)

## GLOSSARY

### E

**extinction** the dying out of a species (281)

### F

**fitness** a measurement of the ability of a species to respond to the pressures of natural selection; the ability of individuals to survive to propagate their genes (288)

**fossil** the remains or traces of a once-living organism (279)

### H

**homologous features** similar features that originated in a shared ancestor (289)

### L

**law of superposition** a law that states that successive layers of rock or soil were deposited on top of one another and the lowest level is oldest (280)

### M

**mass extinction** one of the brief periods of time during which large numbers of species disappeared (281)

**mold** a type of fossil formed from an impression of the shape or tracks of an organism; in fungi, a mass of tangled filaments of cells, such as the fungus that grows on bread (279)

### N

**natural selection** the process by which organisms with favorable variations reproduce at higher rates than those without such variations (284)

### P

**population** all the members of a species that live in the same area and make up a breeding group (284)

## GLOSSARY

### R

**relative age** the comparative ages of fossils found within a single stratum (281)

### S

**sediment** dust, sand, or mud deposited over time by wind or water (279)

**stratum** in geology, a layer of soil or rock in a cross section of the Earth (280)

### U

**uniformitarianism** a principle that states that the geological structure of Earth resulted from cycles of observable processes and that these processes operate continuously (284)

### V

**vestigial** referring to a functionless structure that was functional in an ancestral species (290)