

AB POSITIVE, What blood type has the most protein antigens in it?
ABSOLUTE, "Carbon-14 dating is a method of finding the age of fossils less than 60,000 years old."
ACHONDROPLASIA, The fancy name for the disorder caused by a dominant gene which results in little people.
ACQUIRED, Lamarck believed that evolution was the result of traits being passed on.
ADAPTED, Darwin said species changed as they adapted to their environments.
ADENINE, Guanine and adenine are both purines.
AGE OF THE WIFE, The odds of having a Down syndrome child goes up as the age of a man goes up.
ALL, Darwin's theory of evolution attributed life on earth to a common ancestor.
ALLELES, All organisms have two alleles for any given gene.
ALLELES, The various forms of a gene are called alleles. Analogous structures look the same but evolved from different organs.
ANAPHASE, During which phase of mitosis do the sister chromatids get pulled apart?
ANCESTOR, Proving that different species have a common ancestor proves evolution.
ANCESTORS, The theory of evolution includes the idea that fossils represent the ancestors of species alive today.
ANSWER, Darwin came up with the theory of evolution as an answer to the many questions raised by his observations.
ARTIFICIAL SELECTION, Humans have been able to mold species to our liking through hundreds of years of artificial selection.
ARTIFICIAL, Darwin noticed that people have been changing species for hundreds of years using artificial selection.
ASEXUAL, "Asexual reproduction is fast, but produces no variation."
AUG, What codon codes for methionine?
AUTOSOMES, A karyotype shows two sex chromosomes and 44 autosomes.
AVERY, Who discovered that genes were made of DNA in 1944?
BACTERIA, The first forms of life on Earth were bacteria.
BODY, Cells in a girl often have a Barr body because the cell deactivates one of the X chromosomes and pushes it to the side.
BASES, In translation a sequence of bases becomes a sequence of amino acids.
BEAGLE, Darwin took a 3-year voyage on a ship named the Beagle.
BEHAVIORAL, "If one type of ant won't mate with another species of ant because it does not smell right, then those two species are using a behavioral isolation technique."
BELL, The graph of the phenotypes of a polygenic trait will usually be a bell-shaped curve.
BILLIONS, Humans have billions of bases in their DNA.
BLUEPRINT, RNA is like a blueprint of the parts of the master plan.
BOOK LUNG, Spiders use a book lung for respiration.
BOOK LUNGS, Scorpions use book lungs for respiration.
BOOK, A chromosome is like a book in the master plan.
BOYS, A recessive gene on the X chromosome will be expressed most often in boys.
CAN, It is a fact that evolution occurs.
CARNIVORES, "Spiders are carnivores, using their silk to make webs and catch prey."
CELLS, According to figure 10-1 all snails have the same size cells.
CELLS, How naturally created organic chemicals could have formed into living cells is still a mystery to science.
CENOZOIC, The Cenozoic era began about 65 million years ago.
CENTIPEDE, A centipede is a carnivorous arthropod with 2 legs per segment.
CENTROMERE, The thing in the middle of a chromosome that holds the chromatids together is called a centromere.
CEPHALIZATION, What is the one thing that all Echinoderms lack?
CEPHALOTHORAX, What part of a crayfish is covered by the carapace.
CHARGAFF, Who discovered that the amount of C and G are always the same in samples of DNA?
CHEMICALS, The Miller and Urey experiments showed how some

organic chemicals could be made by natural processes.
CHROMATID, Each half of a chromosome is called a chromatid.
CHROMATIN, DNA that is not bundled up is called chromatin.
CHROMOSOME, A chromosome is a highly coiled DNA molecule visible only during cell division.
CHROMOSOME, DNA that is copied and bundled is called a chromosome.
CHROMOSOMES, Humans have 46 chromosomes.
CLOSE TOGETHER, True independent assortment rarely happens because the genes for traits are bundled together on chromosomes.
CLONE, An identical twin born to a different mother at a different time would be a clone.
CLOSE TOGETHER, If the recombination frequency is low (don't recombine much) then the genes must be close together on the chromosome.
CODOMINANT, "Since people who are heterozygous for the sickle cell anemia gene have both round and crescent shaped cells, the normal and the sickle cell gene must be codominant."
CODOMINANT, If a bear looks gray because it has white hairs and black hairs then the black and white genes must be codominant.
COLEOPTERA, What is the name of the insect order with the most species?
COMPETE, Overproduction causes the offspring to compete for the limited resources.
COMPOUND, Insects have compound eyes.
CONTACT, "Cell-cell inhibition cause normal cells to stop growing when they become crowded by neighboring cells."
CONVERGENT, Different species in similar environments will likely undergo convergent evolution.
CORE, The core of a virus is made of DNA.
CROSSING OVER, The process of crossing over allow for novel combinations of genes to be created from a limited pool of chromosomes.
CUA AUGU, What would GATTACA be transcribed into?
CYCLINS, What are the newly discovered chemicals called that have a controlling influence over the cell cycle?
CYSTIC FIBROSIS, Approximately 1 out of 30 people is a carrier for the gene that causes cystic fibrosis.
CYTOKINESIS, The final part of the cell cycle when the cell becomes two cells is called cytokinesis.
CYTOSINE, What is the complimentary base that goes with guanine in a DNA molecule?
DEOXYRIBOSE, What is the name of the sugar in DNA?
DIFFERENTIATION, The specialization of cells into different tissues is known as differentiation.
DIFFERENT, Meiosis produces new cells that are genetically different from each other and the cell they came from.
DINOSAURS, There were a lot of dinosaurs during the Mesozoic era.
DIRECTIONAL, "Directional selection will cause the average of a polygenic trait to shift either higher or lower."
DISASTERS, "Natural disasters can cause evolution, even in the absence of natural selection."
DISRUPTIVE, "Disruptive selection will not change the average of a polygenic trait, but it will reduce the number of individuals that have the average."
DNA FINGERPRINT, A DNA fingerprint is produced by analyzing the junk DNA between the genes.
DNA POLYMERASE, What enzyme reads/copies the DNA molecule during replication?
DNA, Lamarck did not realize that the only thing a parent passes on to its offspring is DNA.
DNA, One reason really big cells cannot exist is that the DNA can only control so much.
DNA, What was transforming the nice bacteria into killer in Griffith's experiments?
DOMINANCE, Mendel believed the F1 generations of hybrids were all the same was due to the dominance of certain traits.
EARTH, "Darwin figured that if the Earth could change as Hutton and Lyell suggested, then maybe life could change."
EIGHT, How many different blood types are there?
ELECTRICITY, In order to get an egg to accept the replacement DNA scientist use electricity to encourage the cell to fuse and begin mitosis.
EMBRYOS, The similarities in embryos of different species can be

explained by the theory of evolution.

EMBRYOS,Where do human stems cells come from? TECHNOLOGY AND SOCIETY

EMBRYO,The only real difference between a clone and any other individual is the way the -?- was made.

ENDOSYMBIOTIC,The -?- theory says that the organelles of the first eukaryotic cells were actually bacteria living symbiotically within other bacteria.

ENVIRONMENTAL,Many traits are the results of an interaction between genetic factors and -?- factors.

ENVIRONMENT,During natural selection it is the -?- that determines which organisms will survive.

ENVIRONMENTS,Species on different continents look similar because they have been evolving in similar -?-.

EQUILIBRIUM,If a population is not evolving then it must be in a state of genetic -?-EVOLUTION,Today -?- is defined as a change in the frequency of the alleles in a population.

EXONS,What do we call the parts of the DNA that actually code for proteins?

EXOSKELETON,Arthropods have an -?- made of chitin.

EXTERNAL,"Echinoderms use -?- reproduction, and the parents never meet each other."

FALSE,In Griffith's experiments a mixture of nice and killer bacteria would probably not harm the mice. truth or false

FANGS,The chelicerae of spiders are basically -?-FAR APART,If the recombination frequency is high then the genes must be -?- on the chromosome.

FERTILIZATION,During -?- the DNA of two cells is joined into one.

FISH,There were a lot of -?- during the Paleozoic era.

FITTEST,Natural selection only lets the -?- survive.

FLEX,Bugs have muscles that extend and -?- joints.

FOSSILS,Darwin collected -?- and samples of the living species during his voyage.

FOSSIL,The most compelling evidence that evolution has occurred is the -?- record.

FOUR,The crustaceans usually have -?- antennae.

FRAME,A deletion of a base in DNA results in a -?- shift mutation that will affect many amino acids.

FRANKLIN,Who took the x-ray photos of DNA that helped Watson and Crick figure out the structure of DNA?

FREQUENCY,The relative -?- of an allele gives its percentage of the gene pool for that trait.

GALAPAGOS,Darwin noticed that the climate of the different -?- islands varied along with the species that lived on them.

GATTACA,"If one side of a DNA molecule had CTAATGT on it, what would the other side have on it?"

GELELECTROPHORESIS,-?- is used to make DNA fingerprints and to separate DNA pieces based on their sizes.

GENE,"The modern definition of a -?-, is a section of DNA that controls a particular trait."

GENERATIONS,It takes many -?- for evolution to occur.

GENES,Differentiation is accomplished in humans by the control of the expression of -?-GENETIC,DNA stores and transmits -?- information.

GENETICDRIFT,-?- is evolution caused by accident rather than natural selection.

GENE,What do we call a section of DNA that codes for a protein?

GEOGRAPHICAL,"If one species does not mate with another species because a river separates them, then that is a -?- isolation technique."

GEOGRAPHIC,The -?- distribution of species can be explained by the fact that species on different continents descended from different ancestors.

GILLS,Crustaceans use -?- for respiration.

GIRLS,A dominant gene on the X chromosome will be expressed most often in -?-GLUTAMINE,What amino acid would be coded for by

CAG on the RNA molecule?

GRADUALISM,Darwin believed in a slow and steady evolution know

today as -?-GRAY,What color would the feathers be of a heterozygous bird be if they carry a black gene that has incomplete dominance over the white gene it carries?

GREEN GLANDS,What crayfish organ lies in the head near the brain?

HEREDITY,"Genetic scientists study -?-, and try to understand how traits get passed on to offspring."

HETEROZYGOUS,A genotype with two different alleles (such as in most hybrids) is said to be -?-HGP,What government sponsored project was completed in the year 2000. (acronym)

HIMALAYAN,"According to figure 11-12, what color coat is recessive to all other colors except albino?"

HISTIDINE,What amino acid would GTA on the DNA eventually result in after transcription and translation?

HISTONES,What are the protein molecules called that help DNA bundle in Eukaryotic cells?

HOMOLOGOUS,-?- structures look different but evolved from the same organs.

HOMOZYGOUS,A genotype with two identical alleles is said to be -?-HUTTON,What geologist who wrote a book in 1795 about how geological forces have shaped the Earth?

HYBRIDIZATION,-?- can produce new types of plants with traits that represent the best of both worlds.

HYBRIDS,"If the male P-generation and the female P-generations were different, then the offspring would be -?-"

IDENTICAL,Mitosis produces new cells that are genetically -?- to each other and the cell they came from.

ILLEGAL,It is possible but -?- to clone humans today.

INBREEDING,"Although -?- can cause problem, it does maintain the desired characteristics in the offspring."

INCOMPLETE,The fossil record provides an -?- history of life on Earth.

INDIVIDUALS,There are always twice as many alleles as there are -?- in the population.

INSERTIONS,"Substitutions, deletions, and -?- are all examples of point mutations."

INTERPHASE,According to figure 10-4 the cell cycle can be divided up into two main segments: cell division and -?-INTRONS,What do we call the parts of the DNA that don't say anything?

INTRON,Usually a mutation of an -?- will not harm a person.

JOINTED,All arthropods have -?- appendages.

KARYOTYPE,A picture of your chromosomes during mitosis.

KIDNEYS,The malpighian tubules of insects have the same function as human -?-LARGE INTESTINE,If we ANALYZE DATA we find that the cells of the -?- take about 6 days to complete a life cycle.

LARVA,The immature form of an insect that undergoes complete metamorphosis is called a -?-LAVA,A one point the entire Earth was one big ball of -?-LAY EGGS,The job of a queen insect is to

-?-LETHAL,Having an extra chromosome is usually a -?- condition.

LIVE,"A person can -?- without a Y chromosome, but not without an X chromosome."

MALARIA,The good thing about having half your blood cells sickle shaped is that you are less likely to get -?-MALE,The anterior pair of swimmerets are enlarged in the -?- crayfish.

MAMMALS,There were a few small -?- alive during the Mesozoic era.

MAN,"During artificial selection, it is -?- that decides who will live and die."

MANDIBLES,Crustaceans usually have mouth parts called -?-.

MARKERS,It is important to place -?- on the DNA of transformed organism so that we can tell them apart from the natural species.

MATES,Most non-social insects communicate in order to find -?-MEIOSIS,What process turns one normal diploid body cell into 4 haploid sex cells.

MENDEL,Who was the 'father' of genetics?

MESOZOIC,The -?- era had a mass extinctions before and after it.

METAPHASE, During which stage of mitosis do the chromosomes line up along the middle of the cell?

METEORITE, The evidence suggest that it was a -?- that caused the mass extinctions.

MILLIONS, Hutton said that it took -?- of years for the Earth's features to form.

MILLIPEDE, "A -?- is a detritivore, with 4 legs per segment."

MISSING LINKS, -?- are used by creationists as proof that the fossil record does not show evolution.

MITOSIS, What process creates new skin cells to replace old ones?

MOLTING, During -?- an insects sheds its old exoskeleton.

MRNA, What nucleic acid tells the ribosome which amino acid comes next?

MUTATIONS, -?- are a source of variation in an asexually reproducing population.

MUTATIONS, Though out history it has been the introduction of random -?- that has provided the source of useful and novel characteristics along with genetic disorders.

MUTATION, What do we call a change in the base sequence in the DNA?

NATURAL, "-?- selection can be stabilizing, disruptive, or directional."

NERVES, Knowing how to control the cell cycle could lead to a cure to cancer and treatments to repair damaged -?-
NICE, In Griffith's experiments the bacteria that formed into rough colonies were the -?- bacteria.

NONDISJUNCTION, Down syndrome is most often the result of -?- that occurs during the formation of an egg cell.

NONE, What animals did Mendel do genetic experiments on?

NUCLEOTIDES, What are the monomers used to make DNA?

NUCLEUS, Prokaryotic cells do not have a -?- to hold their single strand of DNA

NYPH, The immature form of an insect that undergoes incomplete metamorphosis is called a -?-

O NEGATIVE, What blood type can give to all other types?

ONE HUNDRED, "If big toes is dominant, and little toes is recessive, what is the probability of getting a heterozygous kid when a homozygous big toed person is crossed with a homozygous little toed person?"

OPEN, Arthropods have an -?- circulatory system.

OPERATOR, In bacteria gene expression can be controlled when repressor proteins knot the DNA by attaching to the -?- site on the DNA strand.

OPERONS, "Humans do not have -?-, so our cells can access each gene individually."

ORGAN, Someday soon we may have transgenic pigs that can act as -?- donors for humans.

OVER PRODUCTION, Malthus helped Darwin realize that all species have the capacity for -?-.

OXYGEN, There was no -?- in the early Earth's atmosphere.

PAGE, A gene is like a -?- in the master plan.

PAIRS, Humans have 23 -?- of chromosomes in each cell.

PAIRS, Humans have 23 chromosome -?-
PALEONTOLOGISTS, -?- are scientists that collect and study fossils.

PALEOZOIC, The -?- era did not follow a mass extinction.

PEDIGREE CHARTS, Today the use of DNA analysis has largely replaced the use of -?- to determine an individuals genotype.

PERIODS, The Eras of the Geologic time scale are divided up into -?-

PHENOTYPE, The colors in a pedigree chart represent the -?- of the individuals.

PHENYLALANINE, What amino acid would AAA on the DNA eventually result in after transcription and translation?

PHOSPHATE, What molecular group sits between the sugars in a DNA molecule?

PKU, What is a recessive autosomal disease that all babies are checked for immediately after birth?

PLATE, In plants cells cytokinesis is performed by the construction of a

cell -?- across the middle of the cell.

PNEUMONIA, What disease did Griffith inject into mice?

POINT, A mutation that affects just one base is called a -?- mutation.

POLAR BODIES, Meiosis in females results in one egg and 3

-?-
POLLINATION, Many foods we eat depend on -?- by insects.

POLYGENIC, -?- traits cannot by crossed using a Punnett square.

POLYGENIC, "I.Q. is determined by the interaction of many genes working together, in other words I.Q. is a -?- trait."

POLYPEPTIDE, "According to figure 12-18, what is another name for a protein, or chain of amino acids."

POLYPLOIDY, A condition where a plant has an entire extra set of chromosomes.

POOL, The gene -?- consists of all the alleles in a population.

POPULATION, A -?- is a group of the same species that interbreed.

POPULATIONS, "-?- evolve, not individuals."

PRECAMBRIAN, -?- was the first and longest period of time in the geologic time scale.

PROBABILITY, Punnett squares are used to predict the -?- of genotypes and phenotypes in the offspring of a cross.

PROLINE, What amino acid would GGG on the DNA eventually result in after transcription and translation?

PROPHASE, What is the first step of mitosis?

PROTEINS, Bad DNA creates bad -?- that create bad traits.

PROTEIN, What is the outside of a virus made of?

PUNCTUATED, The fossil record matches better with a -?- equilibrium pattern of evolution.

RADIATION, "Chemicals, viruses, and -?- can all cause mutation."

RANDOM, "Since all naturally occurring mutations are -?-, it is very rare for it to be beneficial."

RANDOM, If evolution is to be stopped then the matings must be -?-
READ, "After completing the HGP people were heard to say, now that we have the book we need to how to -?- it."

RECESSIVE, -?- genes will usually not affect the phenotype unless they are present in a double dose in the individual.

RECESSIVE, "Lethal genetic disorders are usually -?-, otherwise they would never get passed on to the next generation."

RECOMBINANT, -?- DNA technology has allowed us to create glowing mice.

RECOMBINATION, "Crossing over is also know as -?-, the frequency of which can be measured as an indication of how close genes are on a chromosome."

REFLEXES, Since Echinoderms do not have a brain it is assumed that there responses to stimuli are guided by -?-
RELATED, DNA is now being used to prove that species are -?-
RELATIVE, "-?- dating of fossils tells us which came first and which came last, but not how old they are."

REPRODUCE, "By definition, the most fit organisms are the ones that -?- most."

REPRODUCTIVELY, "In order for speciation to occur, a population must be split into two -?- isolated groups."

REPRODUCTIVE, Meiosis occurs only in the -?- organs of a birds body.

RESTRICTION, -?- enzymes are able to cut DNA at specific base sequences.

RIBOSE, What is the name of the sugar in RNA?

RIBOSOME, Where is the mRNA translated?

RNA POLYMERASE, What enzyme transcribes DNA into RNA.

RNA, "What solves the problem of having the instructions for proteins being in one spot, and the construction site in another."

RNABASES, Transcription changes a sequence of DNA bases into a sequence of -?-.

RRNA, What type of nucleic acid is a ribosome made of?

SALT, A 'spiky' looking red blood cell was probably placed in -?- water. salt or pure

SCORPION, A -?- is a carnivorous arachnid with pincers and a poison barb at the end of its abdomen.

SEDIMENTARY, Most fossils are found in -?- rocks.

SEGMENTED, Arthropods have a -?- body.

SEGREGATION, During -?- a 'coin' is flipped to see which allele a person is carrying will be given to the gamete they are producing.

SEVEN, "The time-line on pg 292 is misleading because 1960 to 1977 (17 years) is 3 cm, but 1951 to 1953 (2 years) is about -?- cm."

SEXLINKED, "-?- genes are usually on the X chromosome, and cause disorders that are expressed much more often in males."

SEXUAL, Most variation in a population is the result of -?- reproduction.

SIMILARITIES, Much of the evidence for evolution comes from the fact that the many -?- among the different species suggest a common ancestry.

SINGLE, "Unlike DNA, RNA is a -?- strand."

SMALL, It is impossible to stop a very -?- population from evolving.

SMOOTH, In Griffith's experiments the colonies of killer bacteria looked -?-

SPECIALIZATION, It is -?- and division of labor that allows insect societies to do so much.

SPECIATION, -?- occurs during adaptive radiation.

SPECIES, Darwin wondered so many different -?- existed.

SPERM, The gender of the offspring is determined by which sex chromosome the -?- was carrying.

SPINY, The echinoderms are characterized by their -?- skin.

SPIRACLES, The air exits an insect's tracheal tubes through holes called -?-.

SPREAD DISEASE, The insects that cause the most harm to humans are the ones that -?-

SQUARE, In a pedigree chart a male is represented by a -?-

STABILIZING, -?- selection will make the bell shaped curve of phenotypes taller with steeper sides.

STOP, Natural selection will -?- evolution when the species is perfect.

SUBSTITUTION, What type of mutation will only affect one amino acid in the resultant protein?

SURFACE, One reason really big cells cannot exist is that as the cell gets the bigger the -?- to volume ratio goes down.

TELOPHASE, What is the last step of mitosis?

TEMPORAL, -?- isolation keeps plants that bloom in the spring from mating with plants that bloom in the fall.

TERRESTRIAL, "-?- arthropods must use a form of internal fertilization, or else the gametes would dehydrate and die."

TETRAADS, During meiosis -?- form as 2 homologous chromosomes (4 chromatids) line up together in the middle of the cell.

THEORY, It is a -?- that evolution has created all the different species that exist on Earth today.

THERAPY, Gene -?- attempts to cure genetic disorders by inserting good DNA into cells of the patient.

THORAX, The legs of an insect are attached to the -?-

THOUSAND, "Prior to the books by Lyell and Hutton, everyone assumed the Earth was just a few -?- years old."

THOUSANDS, Humans have -?- of genes.

THOUSANDS, There are -?- of genes on your DNA.

THREE, How many bases make a codon?

THREE, Insects have -?- body segments.

TICK, A -?- is basically a parasitic arachnid.

TIME, Darwin used the evidence provided by Hutton and Lyell to show that there was lots of -?- for evolution to occur.

TODAY, Lyell wrote a book about geology where he suggested that the past must be explained by what we see happening -?-

TRACERS, What are the radioactive atoms called that scientists can detect with instruments.

TRAITS, Many of your -?- caused by your genes can not be seen.

TRANSFER RNA, The anticodons are on the -?-.

TRANSFORMATION, Bacteria cells suck up DNA from their surroundings in a process known as -?-

TRANSGENIC, Most of the cloned organisms have been rare -?- organisms made with recombinant DNA technology.

TRILOBITES, Arthropods have evolved from -?-.

TRNA, What type of nucleic acid brings amino acids to the ribosomes?

TRUTH, The bacteria became radioactive after the virus with tracers on its DNA infected it. truth or false

TUBEFEET, "Star fish respire, urinate, and locomate with their -?-."

TWENTY THREE, A normal human egg has -?- chromosomes.

TWO, Spiders have -?- body sections.

UNBRANCHED, The appendages of the uniramians are -?-.

UNZIP, The first step in replication of DNA is to -?- the DNA molecule.

URACIL, "Unlike DNA, RNA has a -?- base."

VARIATION, Artificial selection works due to the natural -?- that exists in all species.

VENTRAL, Bugs have a brain connected to a -?- nerve cord.

VESTIGIAL, Evolution can explain the presence of -?- organs such as the human appendix and wisdom teeth.

VIRUS, A bacteriophage is a -?-

WALLACE, "It was an article by -?- which contained many ideas identical to Darwin's, that finally forced Darwin to publish 'On the Origin of Species'."

WAX, "Humans get such useful items as silk, -?- and honey from insects."

WEATHER, The different Galapagos islands had a variety of -?- patterns.

ZERO, "If big toes is dominant, and little toes is recessive, what is the probability of getting a little toed kid when a homozygous big toed person is crossed with a homozygous little toed person?"

ZERO, Spiders have -?- antenna.