

Biology Speed Quizzing Bundle

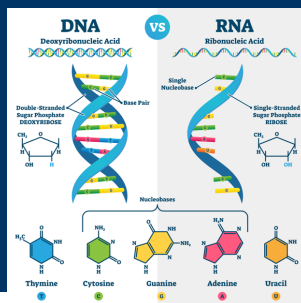
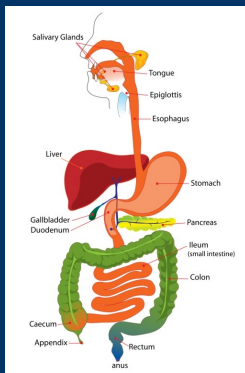
_____ occur between acids and bases to produce salts.

Neutralization reactions



What is the liquid that fills the inside of a cell?

Cytoplasm



A fast-moving review activity where students quiz each other, swap cards, then move on to someone new.

32 Questions in Each Set

Speed Quizzing - Molecular Genetics Unit			
_____ are the polymers of nucleotides. Nucleic acids What is gel electrophoresis? Gel electrophoresis separates nucleic acids and proteins by how fast they move through a gel made of Agarose. _____ would involve copying the DNA molecule "as is", leaving the two original (parent) strands together. Conservative replication _____ enzymes begin the replication process by building a small complementary RNA segment on the strand at the beginning of the replication fork. RNA primase In eukaryotes, DNA is wrapped around special proteins called _____, allowing it to compact. histones To prevent the loss of essential coding regions of DNA, zones of repetitive, non-coding sequences called _____ are found at the ends of eukaryotic chromosomes. telomeres	Genetic blueprint for an organism. DNA Why is PCR so powerful? It allows you to quickly create millions of copies of a DNA target sequence quickly. An enzyme called _____ binds to replication origins and unwinds the two strands of DNA. helicase This forms the phosphodiester bond that joins the two strands of DNA. tRNA This molecule attaches specific amino acids to the protein chain by matching the mRNA codon with the anticodon. trNA _____ is the assembly of amino acids into a polypeptide using the information encoded in the mRNA. Translation Protein synthesis occurs in _____. ribosomes The replacement of one or two base pairs in a DNA sequence is called _____. substitution What is a transgenic organism? An organism that has been changed by scientists to contain one or more genes from another organism. _____ uses knowledge of the genetic causes of disease, along with transduction, to introduce genetic material into human cells, potentially repairing or even replacing defective genes. Genetic therapy	_____ transcribes and translates a piece of human DNA to make the human protein insulin, which is then harvested for human use. E. coli (bacteria) _____ is DNA replication of a specific region of the genome, outside of the nucleus of a cell. Polymerase chain reaction Describe the function of tRNA and how it works. tRNA attaches specific amino acids to a growing protein chain by matching the mRNA codon with the anticodon. _____ uses biochemical and molecular tests to detect mutations associated with specific genetic disorders. Genetic screening	_____ are produced by genetic engineering to have at least one gene completely turned off by a mutation. Knockout mice Which disease causes a buildup of the amino acid phenylalanine in the body? Phenylketonuria (PKU) Describe a nonsense mutation. A nonsense mutation occurs when the change of a single base pair or group of base pairs results in a premature stop code in the gene. This is a prenatal test that detects whether a baby carries chromosomal abnormalities. Amniocentesis _____ helps us understand how many genes can be found on a chromosome. Alternate These are groups of genes that code for different proteins. Code _____ are changes in the DNA sequence, caused by a mutation. Genetic mutation Briefly describe the function of PCR. PCR is DNA replication of a specific region of DNA outside of the nucleus of a cell. _____ is the process of inserting genetic material into a cell or bacterium using a viral vector. Transduction This is a disease caused by the inability to properly use insulin, resulting in elevated blood glucose levels. Diabetes Mellitus

Speed Quizzing

- ✓ Challenge your students!
- ✓ Questions cover material directly from the lessons
- ✓ Get students up and moving around
- ✓ Very little preparation required

How to Implement

- Provide each student with a flash card
- Pair up students using the stand up/hands up/pair up method
- Partner A reads the question to Partner B, who answers. Partner A praises if correct or coaches if incorrect.
- Partners switch roles
- Students thank each other and switch cards.
- Partners raise their hands to find a new partner.
- Repeat for specified amount of time

Why Use Speed Quizzing?

- Prompts meaningful student conversation
- Review prior knowledge
- Review new terms/problems after a unit
- Gather student ideas
- Remediate weak skills
- Practice new skills