

What are the main categories of carbohydrates?	What are the three main categories of monosaccharides?	What are the substances of maltose?
polysaccharides, disaccharides and monosaccharides	triozes, pentozes, exozes	glucose and glucose
State two well-known polysaccharides.	What are the substances of sucrose?	What are the substances of lactose?
cellulose and starch	glucose and fructose	glucose and galactose
What is the purpose of pentozes?	How many carbons has a trioze got?	How many carbons has a pentoze got?
They are the substances of nucleotides.	three	five

<p>How many carbons has an exoze got?</p> <p>six</p>	<p>What are the two main categories of pentoze?</p> <p>ribose and deoxyribose</p>	<p>How many glucoses does cellulose consist of?</p> <p>10.000</p>
<p>Enzymes are living organisms'...</p> <p>catalyst</p>	<p>In which part of the enzyme does the orientation of the molecule and substrate occur?</p> <p>active center</p>	<p>What do we call the energy needed by the reactants in order for the chemical reaction to take place?</p> <p>activation energy</p>
<p>In what percentage are the enzymes constituted by proteins?</p> <p>90%</p>	<p>Which is the common suffix of the enzyme's name?</p> <p>-ase</p>	<p>From what structure of the protein molecule do the enzymes determine their catalytic activity?</p> <p>the tertiary structure</p>

<p>How are the reactants called in a reaction involving enzymes?</p> <p>substrate</p>	<p>The enzymes have a great level of</p> <p>specialization</p>	<p>Some particular proteins have to be attached to a non-protein part in order to act as enzymes. How is this part called?</p> <p>co-factor</p>
<p>How many types of different reactions can an enzyme catalyze?</p> <p>one type</p>	<p>What affects the enzymic activity?</p> <p>temperature and pH</p>	<p>During the reaction enzymes remain ...</p> <p>unchanged</p>
<p>How are the temporary bond inhibitors called?</p> <p>reversible inhibitors</p>	<p>As a result of the fact that enzymes are proteins, their action is determined by their ... form.</p> <p>three-dimensional</p>	<p>For which approximate pH value does the pepsin enzyme have excellent activity?</p> <p>2</p>

<p>What is the enzyme secreted in pancreas called?</p> <p>pancreatic lipase</p>	<p>Which enzyme is missing when someone is lactose intolerant?</p> <p>lactase</p>	<p>What is the RNA with enzymic activities called?</p> <p>ribozyme</p>
<p>At which approximate temperature does the change in the enzymic activity become permanent?</p> <p>50 degrees Celsius</p>	<p>How many different kinds of amino acids have been found in nature?</p> <p>170</p>	<p>How many amino acids constitute proteins?</p> <p>20</p>
<p>How is the changeable part of an amino acid called?</p> <p>sidepart</p>	<p>With which reaction do amino acids connect?</p> <p>reaction of condensation (or condensation)</p>	<p>Which is the minimum number of amino acids in order for them to be called polypeptides?</p> <p>50</p>

<p>Which kind of bond is formed between two amino acids?</p> <p>covalent</p>	<p>How many organisation levels have all proteins got?</p> <p>3</p>	<p>What can destroy the three-dimensional structure of a protein?</p> <p>pH, T</p>
<p>How is the destruction of the three-dimensional structure of a protein called?</p> <p>denaturation</p>	<p>What determines the function of a protein?</p> <p>Its levels of organisation (or structure)</p>	<p>What kind of bonds get involved in the second organization level of a protein?</p> <p>hydrogenbonds</p>
<p>How many molecules of water come as a result of the join of two amino acids?</p> <p>1</p>	<p>What is the minimum number of the polypeptide chains of a protein so that it has a quaternary structure</p> <p>2</p>	<p>What are the structural parts of a protein?</p> <p>aminoacids</p>

<p>Which structure determines the molecule of a protein locally?</p> <p>The secondary.</p>	<p>Can a functional protein exist in a temperature of 40°C?</p> <p>No</p>	<p>Which kind of bond stabilizes the protein molecule locally?</p> <p>hydrogenbond</p>
<p>In which cellular organelle are the amino acids located?</p> <p>In the cytoplasm.</p>	<p>How many amino acids does insulin consist of?</p> <p>51</p>	<p>How is the molecule which consists of two amino acids called?</p> <p>dipeptide</p>
<p>Which are the monomers of the nucleic acids?</p> <p>nucleotides</p>	<p>Which nucleic acid do the deoxyribonucleotides have as a structural part?</p> <p>DNA</p>	<p>Which are the structural parts of RNA?</p> <p>ribonucleotides</p>

<p>With what kind of bonds do nucleotides connect?</p> <p>covalent bonds</p>	<p>How many carbons does the sugar of the nucleotide have?</p> <p>5</p>	<p>Except for the sugar and the n-bases, nucleotides also have a fluoride group. T or F?</p> <p>F</p>
<p>If pentose has –OH in the 2nd C, it is called ...</p> <p>ribose</p>	<p>The n-bases of DNA are adenine, cytosine, guanine and uracil. T or F?</p> <p>F</p>	<p>N-bases are paired. T or F?</p> <p>T</p>
<p>With what kind of bonds are n-bases connected?</p> <p>hydrogen bonds</p>	<p>Adenine and thymine are connected with double bonds while adenine and uracil are connected with triple bonds. T or F?</p> <p>F</p>	<p>Which pair of n-bases is connected with a triple bond?</p> <p>cytosine and guanine</p>

<p>DNA can be found in the nucleus, in mitochondria, lysosomes and chloroplasts. T or F?</p> <p>F</p>	<p>With what structures does RNA fold?</p> <p>hairpin structures</p>	<p>Which kind of RNA transfers the information from the nucleus to the ribosomes?</p> <p>m-RNA</p>
<p>t-RNA transfers amino-acids to mitochondria for the protein-synthesis. T or F?</p> <p>F</p>	<p>The s-RNA helps in the organization of DNA inside the nucleus. T or F?</p> <p>T</p>	<p>What is the analogy of the complementary n-bases in DNA?</p> <p>1/1</p>
<p>An important difference between DNA and RNA is that RNA is always monoclonal. T or F?</p> <p>F</p>	<p>RNA can also be found in the chloroplasts while DNA can also be found in the cytoplasm. T or F?</p> <p>F</p>	<p>Which is the longest part of the cell division?</p> <p>prophase</p>

How many stages has the nucleus division got?	Which is the role of fuselage?	Another name for cytoplasm division.
4	separation of sister chromatids	cytokinesis
In which stage of cell division do chromosomes have the maximum concentration degree?	How is the placement of similar chromosomes next to each other called?	How is it called when chromatids which belong to different chromosomes mix?
metaphase	synapsis	genetic crossover
Which cells do meiosis?	In anaphase 1, are sister chromatids separated?	Does meiosis 2 follow exactly the same progress as mitosis?
immature germ cells	No	Yes

<p>Is the result of meiosis 1 the creation of two simple cells with doubled chromosomes?</p> <p>Yes</p>	<p>Which is the use of genetic crossover?</p> <p>The creation of a variety of organisms.</p>	<p>After the end of meiosis, how many cells have been created?</p> <p>4</p>
<p>Where does the alignment of chromosomes, in meiosis 1, take place?</p> <p>In equator.</p>	<p>In which stage of meiosis 1 are the nuclei formed?</p> <p>In telophase 1.</p>	<p>Where does DNA duplication take place?</p> <p>In the cell nucleus.</p>
<p>Which enzyme takes part in the DNA transcription?</p> <p>RNA polymerase</p>	<p>Where does the final protein modification take place?</p> <p>In the Golgi Complex.</p>	<p>In which way does the DNA duplicate itself?</p> <p>Semi-conservative</p>

How is a triad of nucleotides called?	How many nucleotide triplets are there in the genetic code?	Which is the first amino acid to be translated?
codicone	64	methionine
Which characteristic of the genetic code proves that all species evolved from a common ancestor?	How is the part of DNA that can be transcribed called?	Which is the second stage of translation?
universal	gene	extension
What is the bond between methionine and the second amino acid called?	What is the area where information-specific genes are located called?	Who discovered the DNA form?
peptide	genetic field	Rosalind Franklin

<p>How is it called the genetic code characteristic with which an amino acid can be coded from one or more codicones?</p> <p>degenerate</p>	<p>In which bacterium was research on DNA auto-duplication firstly conducted?</p> <p>E. Coli</p>	<p>Energy molecule that takes part in proteinosynthesis.</p> <p>ATP</p>
<p>What is formed in the micro tubes of an animal cell?</p> <p>centrosome</p>	<p>What constitutes the cell structure?</p> <p>fibril complex</p>	<p>What surrounds the nucleus?</p> <p>nuclear envelope</p>
<p>What is the shape of the nucleus?</p> <p>round/avoid</p>	<p>In what kind of cells are lysosomes found?</p> <p>plant cells</p>	<p>If the enzymes of the lysosomes were floating free in the cytoplasm, then they would gradually destroy the whole cell. True or false?</p> <p>True</p>

<p>Which is the main component of the cellular wall in plants?</p> <p>cellulose</p>	<p>Are all cells surrounded by a cellular wall?</p> <p>No</p>	<p>Except for the plant, fungi and bacteria cells, whose other group of organisms are cells surrounded by a cellular wall?</p> <p>algae</p>
<p>To which wide category do chloroplasts belong?</p> <p>plastids</p>	<p>How are flattened cystoids called?</p> <p>thylakoids</p>	

Colour categorization

Pink: Nucleotides

Light blue: Cellular Organelles

Yellow: Mitosis – Meiosis

Orange: Molecular Genetics

Light Green: Proteins

Light purple: Enzymes

Light grey: Carbohydrates & Lipids