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| **Cornell Notes** | **Topic/Objective: Molecules** | | **Name:** |
|  | | **Class/Period:** |
|  | | **Date:** |
| **Essential Question: Identify that larger molecules are broken down into smaller molecules.** | | | |
|  | | | |
| **Questions:** | | **Notes:**  A group of two or more atoms  Made from different types of atoms  Can be made or different types or atoms or of the same type of atom | |
| **Molecule VS.** | | **Molecule**  **Compound** | |
| **Compounds** | |  | |
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|  | | * Molecules can be very large, complex and made of many atoms. | |
| **What kind of molecules** | | * Molecules are foods are made of : Carbohydrates, Proteins, and Lipids | |
| **are found in foods?** | | * + These large molecules must be broken down into smaller molecules to pass | |
|  | | from the digestive tract and into the bloodstream to get to the cells all over | |
|  | | your body | |
|  | |  | |
| **What are enzymes?** | | * Odors from foods and chewing can simulate the production of saliva | |
|  | | * + Saliva comes from salivary glands that surround your mouth | |
|  | | DEFINITION: biological chemicals that help speed up chemical reactions in the body. | |
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| **What is a carbohydrate?** | | * Large molecules (used for quick energy) that are broken down into simple sugars. | |
|  | | * + Types of carbohydrates: starches, sugars, and cellulose | |
| **Digestion of** | | * Digested in the mouth, stomach and small intestine | |
| **carbohydrates** | | * + Requires certain enzymes and water to be present | |
|  | | * Starches that can’t be broken down in mouth to intestine for other enzymes | |
|  | | to break it down. | |
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| **What is a protein?** | | * Large molecules (used to build body parts, organelles and body defense) that are | |
|  | | broken down into simple sugars. | |
|  | | * Protein parts of cell are constantly being destroyed so the body is continuously. | |
|  | | working to replace them | |
| **Questions:** | | **Notes:** | |
| **Digestion of proteins** | | * Enzymes are used, but also the acid found in the stomach are need to break down | |
|  | | Proteins into amino acids | |
|  | | * In the upper part off the small intestine, the amino acids are absorbed by capillaries, | |
|  | | carried through the liver and into the bloodstream. | |
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| **What is a lipid (fat)?** | | * Large molecules (used and stored as a long term energy source) that are | |
|  | | broken down into fatty acids. | |
|  | | * Highly concentrated source of energy in our daily diets | |
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|  | | * Fats are not easily broken down by enzymes, because they do not dissolve in water. | |
| **Digestion of lipids** | | * Almost no real break down of fats occurs until the small intestine. | |
|  | | * + They enter the small intestine stuck together in a mass – enzymes cannot | |
|  | | attack to break down | |
|  | | * Bile (made by the liver, but stored in the gallbladder) is used to separate the fat | |
|  | | molecules into tiny droplets. | |
|  | | * + The separation make it easier for enzymes to begin breaking down the fats | |
|  | | * Now fats are broken down into fatty acids, absorbed into bloodstream and taken to | |
|  | | muscles to be used or stored for energy | |
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| **What are carbohydrate,** | | Macromolecule breaks down in digestion into:  Carbohydrates Sugars  Proteins Amino Acids  Lipids Fatty Acids | |
| **proteins and lipids** | |  | |
| **Broken down into?** | |  | |
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| **Summary (4-5 complete sentences):** | | | |
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