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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 atomsMade from different types of atomsCan 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. |
|  |  |
| **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. |
|  |  |
| **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. |
|  |  |
| **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
 |
|  |  |
|  | * 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 |
|  |  |
| **What are carbohydrate,** | Macromolecule breaks down in digestion into:Carbohydrates SugarsProteins Amino AcidsLipids Fatty Acids |
| **proteins and lipids** |  |
| **Broken down into?** |  |
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| **Summary (4-5 complete sentences):** |
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