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| Functions of Digestive System**Topic 3 – Digestive system**1. -2. -3. -4. -  |

|  |  |  |  |
| --- | --- | --- | --- |
| Food Type | Enzyme  | Product/s | Used for |
| Starch |  |  |  |
| Proteins |  |  |  |
| Fats |  |  |  |

 | gut to label |
| The movement of food through the guts is called?Explain how it happens……. |

|  |  |
| --- | --- |
| Mouth | Produces bile which collects in the gall bladder then goes into the small intestine |
| Stomach | Produces lipase, carbohydrase and protease enzymes which go into the small intestine and mix with the food. |
| Pancreas | Food is churned up. Protease (pepsin) begins to break down proteins. Hydrochloric acid is added to help the enzyme work. |
| Liver | Food is chewed by the teeth and cut into bits. Saliva is added which contains a carbohydrase enzyme called amylase.  |

Link the terms to the definition: |  Fill in the blanks:

|  |  |
| --- | --- |
| Small intestine |  **Bile** is added to neutralise stomach acid and to emulsify fats. **Lipase** breaks down fats into fatty acids and glycerol.**Carbohydrases** complete the breakdown of starch into sugars.**Proteases**  finish breaking down proteins into amino acids.Finally the small food molecules are **absorbe** into the blood stream through the gut wall. |
| Large intestine | Much of the remaining water is absorbed. The faeces, consisting of fibre, some water, bacteria and wastes, are **egested** from the anus. |

 |
| The function of Bile is:Draw what happens during **Emulsification**:Where is bile made?Where is bile stored? | Label:How can we model the gut in the lab? |

|  |  |  |  |
| --- | --- | --- | --- |
| **Food** | **Reagent** | **Method**  | **Positive Result** |
| Protein |  | • Add **blue** Biuret to some foodin a test tube |  |
|  | Benedict’s | • Add **blue** Benedict’s to somefood in a test tube.• Place the test tube in boilingwater bath for 5 minutes. |  |
|  |  | • Add **brown** iodine to somefood. | **Blue-­black** colour. |

Fill in the shaded areas: |
| What is a balanced diet?What is GDA?What are the seven main food groups:* \*
* \*
* \*
 | Investigation of the Energy content in food?\*\*\*\*\*\*\*Equation:  |
| Excess sugar in the diet? | Excess fat in the diet? | Excess salt in the diet? |