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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 food  in a test tube |  | |  | Benedict’s | • Add **blue** Benedict’s to some  food in a test tube.  • Place the test tube in boiling  water bath for 5 minutes. |  | |  |  | • Add **brown** iodine to some  food. | **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? |