

## **Science 9 – Connection Questions Chapter 7 p. 148-149**

*1. Explain the role of each of the following substances in digestion:*

- a) mucus-provides lubrication for movement of food in the esophagus and intestines.  
- coats and protects the stomach wall from digestive enzymes and hydrochloric acid**
- b) hydrochloric acid – works along with the enzyme pepsin to break down proteins into amino acids in the stomach**
- c) bile – breaks down large fat droplets into smaller ones (with larger surface area)**
- d) digestive enzymes-break down large molecules eg. Proteins, complex carbohydrates into smaller molecules which can be absorbed into the walls of the small intestine**
- e) saliva-liquid in the mouth-helps break down starch into simple sugar and provides lubrication for swallowing.**

**C2. a) *What is peristalsis?* A series of muscular contractions which force food down the esophagus, small and large intestine. Also helps kneed the food in the stomach**

**b) *Name 3 parts of the digestive system where peristalsis takes place.* Esophagus, small intestine, large intestine**

**c) *What does peristalsis do to each of these body parts?* It causes the muscles of the walls to contract and the contractions move downward and squeeze the food down the tubes.**

**C3. *Describe two problems that can upset the normal functioning of the digestive system.***

**1. Constipation – Feces builds up in the large intestine and rectum for longer than usual. The intestine becomes swollen. Causes include lack of fibre or water. Can also be caused by pain killers.**

**2. Diarrhea- Feces are watery and need to be eliminated frequently. Can be caused by bacterial infection and stress.**

*C4. Explain the role of the large intestine and the rectum in digestion.*

**The large intestine converts indigestible materials into feces. A large amount of water is absorbed into the body by the l. intestine. Bacteria in the l. intestine extract minerals and produce vitamin K. The rectum expands to hold and store feces until they are eliminated.**

*C5. a) What parts of your digestive system produce mucus?*

**Esophagus, stomach, small intestine, large intestine walls.**

*b) What is the function of mucus in each of these parts?*

**Lubrication in all parts. Protection for walls of stomach and small intestine**

*C7 Matching:*

<b>Chewing</b>	<b>Teeth, tongue, lips</b>
<b>Swallowing</b>	<b>tongue</b>
<b>Contracting muscle</b>	<b>Large intestine, stomach, small intestine, esophagus</b>
<b>Releasing nutrients from large molecules</b>	<b>Salivary glands, stomach, small intestine, pancreas</b>
<b>Using nutrients</b>	<b>Body cells</b>
<b>Elimination</b>	<b>Large intestine</b>
<b>Digestion</b>	<b>All but body cells</b>
<b>Absorption</b>	<b>Small intestine (stomach)</b>