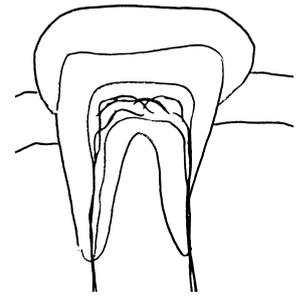


Tooth type and job

Enamel
Dentine
Pulp cavity
nerves & blood vessels
Gums & Bone
Crown & root



Be able to sketch & label this



Tooth type and job

why do humans have more than one type of tooth?

Omnivores
Eat a mixed diet
Different teeth do different jobs
Incisors cut, canines tear, pm & m crush/grind



Tooth type and job

Salivary amylase
where....
what does it do?

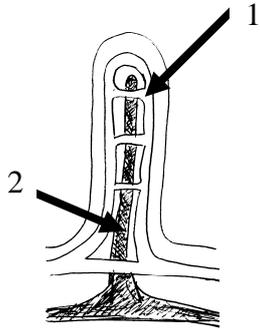
In the mouth, from salivary glands
Digests starch to maltose

incisors
canines
premolars
molars

i = 2/2 c = 1/1
pm = 2/2 m = 3/3

Mechanical digestion
what is it?
where does it occur?

| | | | |
|---|--------------------------|--|--|
| <p>Epiglottis</p> <p>what is it? where is it? what is its function?</p> | | <p>Purpose of digestive system is....</p> | <p>To break large insoluble molecules into smaller soluble ones that can be absorbed into the blood – for nutrients and for energy</p> |
| <p>Oesophagus</p> <p>what is it? How is food moved along it?</p> | | <p>Liver</p> <p>what is it? How does it help in digestion?</p> | <p>NO ENZYMES</p> <p>pH</p> |
| <p>Small intestine</p> <p>what is it? How does it help in digestion?</p> | | <p>Stomach</p> <p>what is it? How does it help in digestion?</p> | |
| <p>Pancreas</p> <p>what is it? How does it help in digestion?</p> | <p>ENZYMES</p> <p>pH</p> | <p>Large intestine (colon)</p> <p>what is it? what is its major job?</p> | |

| | | | |
|--|---|--|--|
| <p>Rectum</p> <p>Where is it? What does it do.</p> | <p>Between large intestine and anus. Stores faeces prior to EGESTION.</p> | <p>villi</p> <p>What are they? Where are they? What is their job?</p> | |
| <p>Lipases</p> <p>enzymes that digest ... to ...</p> | | <p>villus</p>  <p>villi line the small intestine increasing SA for absorption of digested food</p> <ol style="list-style-type: none"> 1. Capillaries – sugars and amino acids 2. Lacteal – fatty acids & glycerol | |
| <p>Proteases</p> <p>enzymes that digest ... to ...</p> | | <p>Carbohydrases</p> <p>enzymes that digest ... to ...</p> | |
| <p>Bile</p> <p>Where is it produced? Stored? What are 2 functions?</p> | | <p>Hydrochloric acid, HCl</p> <p>Where is it produced? What are 2 functions?</p> | |

| | | | |
|--|--|---|--|
| <p>Enzymes what are 2 functions of enzymes in digestion?</p> | | <p>Proteins are digested to ... and then to ...</p> | |
| <p>why does the pH of the chyme have to be different in different parts of the digestive system?</p> | | <p>what happens to enzymes above certain temperatures? Is this permanent?</p> | |
| <p>what job is done by sphincters in the digestive system?</p> | | <p>why doesn't chemical digestion of ALL food types start in the mouth?</p> | |
| <p>what healthy diet & lifestyle could help prevent CONSTIPATION?</p> | | <p>what is peristalsis? Or why could you eat standing on your head!</p> | |

what is now known to be the main causes of stomach and duodenal ulcers?

what healthy diet & lifestyle could help prevent ULCERS?

why can diarrhoea sometimes be fatal?

Describe some symptoms and causes of bowel cancer

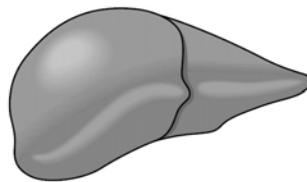
Name the 3 organs



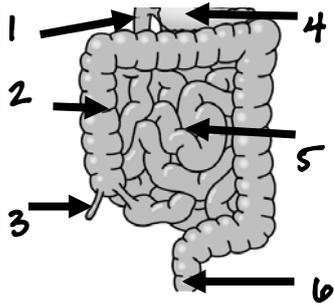
what is happening in large intestine to result in diarrhoea or constipation?

what is constipation?
And diarrhoea?

what is it?



what's its role in digestion?



1. duodenum
- 2.
- 3.
- 4.
- 5.
- 6.

Enzymes are specific – what does this mean?

How is normal stomach functioning affected by ulcers?

Gastric wall damaged by acid & enzymes – pain
Mucus membrane damaged and ulcer can get bigger & bleed/burst.
Muscular contractions become slower so digestion is less efficient.

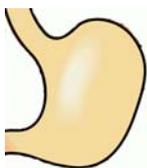
Mouth

Foodstuffs are broken down mechanically by chewing which makes it easier to swallow and increases SA for enzymes. Saliva is added which contains amylase, an enzyme that digests starch to maltose.

Esophagus

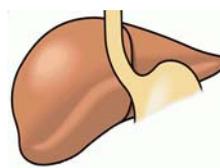
Tube between the mouth and stomach. Food is moved along it by peristalsis, waves of muscular contractions.

Stomach



Muscular bag churns & mixes – mechanical digestion
Enzymatic digestion of proteins occurs by PEPsin and foodstuffs are reduced to liquid form
Contains HCl
walls coated in mucus.

Liver



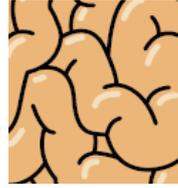
Its major role in the digestive process is to provide bile to the small intestine, to aid the digestion of fats.
Bile emulsifies fats to increase their SA.
Bile is also alkaline – neutralises acid stomach contents.

Pancreas



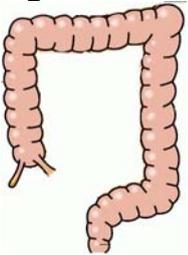
Provides a potent mixture of digestive enzymes to the small intestine which are needed for digestion of fats, carbohydrates and protein. Produces alkaline NaHCO_3 to neutralise the acid stomach contents.

Small intestine



This is where the final stages of chemical enzymatic digestion occur and where almost all nutrients are absorbed. Lined with villi to increase its SA for absorption.

Large intestine



Water is absorbed, bacterial fermentation takes place and compaction of wastes forms the faeces.