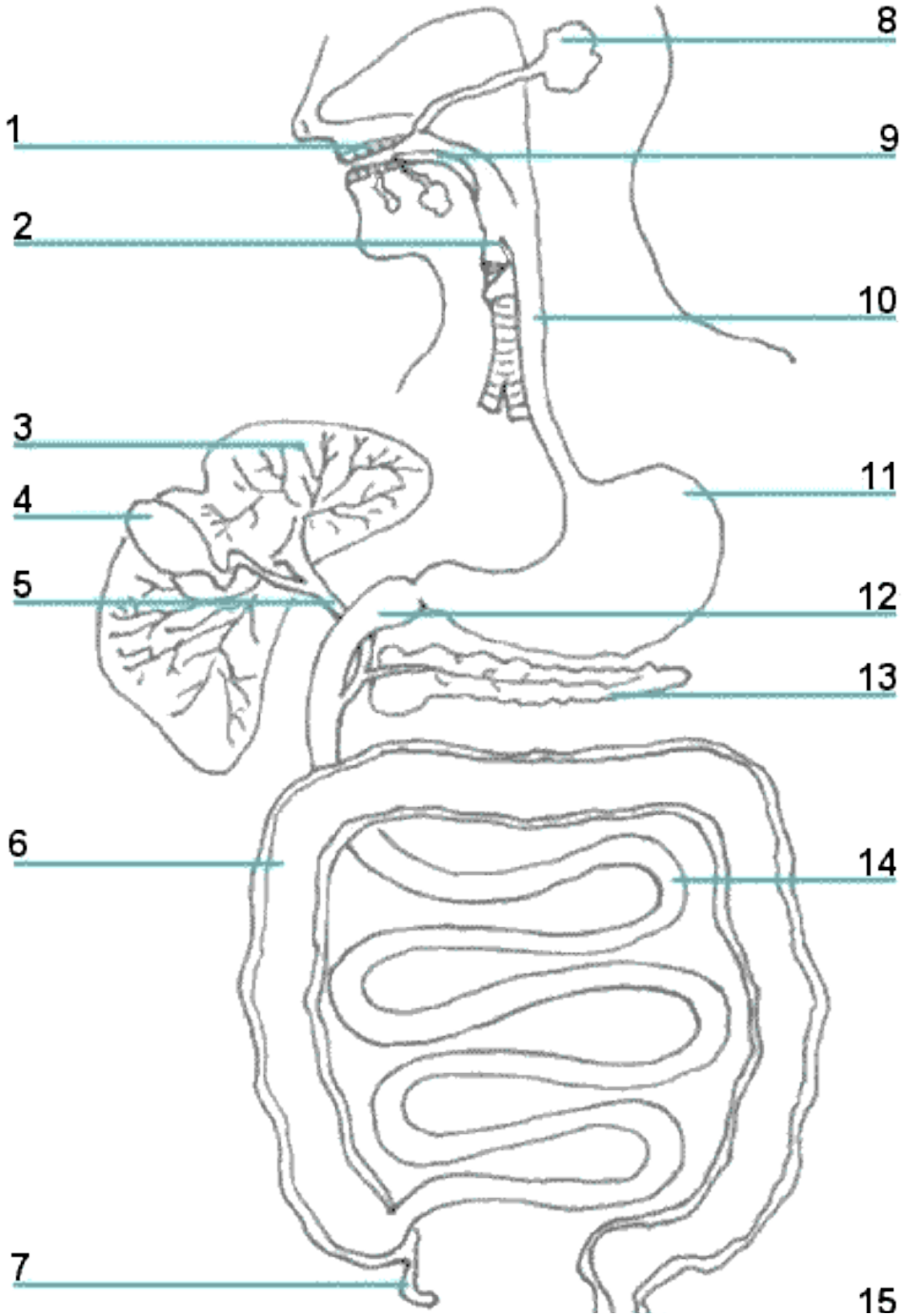
Digestive System



Digestive System

	Name	Description and Function
1	teeth	The strongest stuff in the body! Their purpose is to rip, grind, mash and generally pulverize all that food we put into our mouths. Why? So that it fits down our throats.
2	epiglottis	This **trap door** belongs to both the respiratory system and the digestive systems. Swallowing triggers its closing over the trachea to prevent food and fluids from draining into our lungs.
3	liver	One of the '**accessory**' organs of digestion. Food doesn't actually pass through this organ. Instead, this organ secretes **bile** that is passed along to the gall bladder for concentration and storage.
4	gall bladder	Another accessory organ. Food doesn't touch this one, either. It is a pear-shaped sac about 4 inches long and is the reservoir, or **storage tank**, for **bile**. Concentrated bile is released into the duodenum as needed to break down fats into an absorbable form.
5	common bile duct	As close to a transport highway as we've visited so far. This duct collects donations from the liver and the gall bladder (bile) as it passes along to the duodenum of the small bowel. To see an xray view - click on the picture on this page.
6	large bowel	Is it poop yet? (We'll call it 'feces' [sounds like 'fee-cees'] or 'stool' from now on rather than 'poop' or other 's' words) Getting close. There are many sections to the large bowel - the appendix, caecum, ascending (rising) colon, transverse (across) colon, descending (going down) colon, sigmoid colon, the rectum and the anus. The main purposes of the large intestine is to pass remaining essential nutrients into the bloodstream and the storage and elimination of waste left-overs. As the nutritional fluids are absorbed and transfered out to the bloodstream, the contents get more solid and compact.
7	appendix	Little is understood about this little worm-like **accessory** structure that extends from the first section of the large bowel. Sometimes a piece of food gets stuck in here (like bubblegum) causing an infection.
8	salivary gland	3 main salivary glands deliver their juices, **saliva**, into the mouth. Have you ever noticed yourself drooling when someone's baking your favourite cookies? This fluid enzyme helps to soften up the food, the first chemical action along the digestive trail.
9	tongue	One very strong **muscle** made for rolling food around your mouth so your teeth can work best. It also houses **taste buds**; sensors of sweet, sour, salty and bitter tastes. If it doesn't taste good, are you going to swallow it? Probably not. The tongue can also act as a **drawbridge** - blocking the passage of food from entering further down the digestive tract and pushing it back out the mouth. (The tongue is also important for **pronunciation**, but how often do you eat your words?)
10	esophagus. (a.k.a. oesophagus)	A muscular canal running from the pharynx to the stomach. The tongue pushes a 'bolus' of food into the esophagus to start it on its way to the stomach. **Peristalsis** is the name used to describe the rhythmic contract and release actions of this muscle and most all others along the digestive tract.
11	stomach	Most food that we eat becomes unrecognizable here in the stomach. **Gastric acids** are triggered by the presence of food that 'melt' the food into a thick soup.
12	duodenum	The duodenum is the first section of the twenty two foot long small intestine. It starts at the pyloric sphincter of the stomach and runs about 10 inches. The duodenum is largely responsible for the continuing food breaking-down process (fats are bombarded with bile), with the jejunum and ileum mainly responsible for the transfer of nutrients into the bloodstream.
13	pancreas	The body's sugar control board. If your blood sugar gets too high, **insulin** is released to counteract it. If your sugars are low, **glucagon** is released into the blood stream. Both insulin and glucagon are produced by the pancreas.
14	small intestine	The small bowel has 3 main sections: the duodenum, jejunum and ileum. The duodenum is responsible for continuing to break down of food into liquid form and the jejunum and ileum mainly responsible for absorption of nutrients into the bloodstream.The mostly digested contents continue to be transformed into feces as it is moved along by **peristalsis** - a rhythmic contraction and relaxation of the muscles of the intestines. Let the whole class do 'The Wave' to cheer on the digestive process.
15	rectum	The last portion of the large intestine used for **storage** of stool ready for disposal. When the rectum becomes full, it triggers nerves that carry that message to the brain. The reply says 'Time to look for a W.C.'