Adult Guidance

Digestive System Functions

Molecules Versus Cells

Everything is made up of molecules. The differences between molecules and cells for the purpose of this unit are that:

Molecules are a group of two or more atoms stuck together.

Cells can be alive or dead whereas molecules exist regardless.

Molecules can contain different elements but only join with other molecules that are the same whereas cells can contain different types of molecules.

Muscles

Although all are located in the same place they all perform separate functions and therefore need to be taught separately. Children may find the idea of saliva distasteful however without them they would not be able to taste food properly, chew or digest food – especially drier foods which would be difficult to break down and swallow.

Pharynx

The pharynx is the part of the throat which receives food from the mouth. It is here that the openings to the windpipe (trachea) and oesophagus reside. While the pharynx does not enable digestion per se (hence it's exclusion from the digestive system part and functions) it is the place where food can go down the 'wrong way' into the trachea. Eating is a complex process as the windpipe needs to be closed so that food enters the oesophagus. Choking occurs most often when food has not been chewed properly, too much food has been eaten at one time or from eating foods that are not easily broken down.

Oesophagus

The oesophagus is a muscular tube that leads to the stomach. The method by which food is moved is called peristalsis. This means that the muscles contract and relax in a wave formation along the tube to move the food down it.

Pancreas, Liver, Gallbladder

Food does not enter these organs, instead they produce and/or release digestive juices that break down the food in the duodenum where they are released. The liver produces bile which is necessary for the absorption of fats. However, the bile is stored in the gallbladder and released via bile ducts into the duodenum. The pancreas is responsible for producing enzymes that break down fats, proteins and carbohydrates.

Stool/Faeces/Poo!

It's the same in the end but I think that it is important to make children aware that there are different words for it. No doubt a mixture of reactions is to be expected from children however it is all part of their learning. Ultimately the digestive system is vital in ensuring that the body breaks down food into nutrients that can be absorbed. This knowledge and understanding will be built on in the Year 6 Animals Including Humans Science Unit.