

Digestive system

Worksheet A/B – Teacher's notes

Feeding is controlled by a part of the brain called the hypothalamus. It takes signals from nerves that monitor the body and relay information on things like the level of sugar in the blood and the amount of food in the stomach. If these levels fall below what is normal, the hypothalamus stimulates the sensation of hunger and the desire to eat. These signals are switched off when the stomach is full and nutrients are detected in the bloodstream. We also become conditioned to eat at regular times of the day.

The digestive system is effectively a long tube that runs down the centre of the body. Food molecules need to move from the inside of the digestive system and get absorbed into the blood stream. To achieve this, the large, insoluble, food molecules must first be broken down into molecules small enough to pass through the intestine wall. This is the process of digestion.

Faeces (or poo) contain any parts of the diet, like fibre, that cannot be digested. It is given its dark colour by bile which contains wastes from the breakdown of red blood cells and a large portion (75%) of faeces is living bacteria from the large intestine.

It is estimated that the average time food stays in the digestive system is around 24 hours. This is made up of 3-4 hours in the stomach, 6 hours in the small intestine, 6 hours in the large intestine and then finally 6 hours in the rectum waiting to be egested.

Worksheet B – answers:

1. F
2. A
3. B
4. D
5. E
6. C