

The Human Machine

Digestion, teeth, circulation & life stages

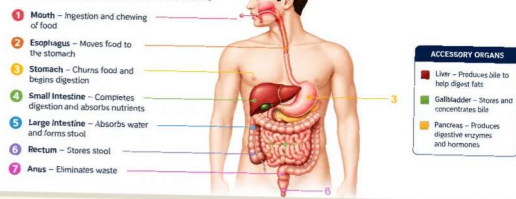


1. What is the digestive system, and what does each part do?

The **digestive system** breaks down food into nutrients the body can use.

- Mouth → oesophagus → stomach → intestines, in that order.
- The stomach mixes food with acid; the intestines absorb nutrients.

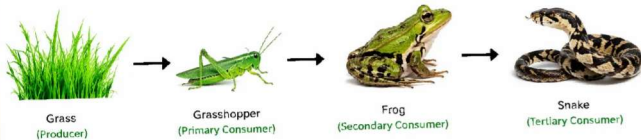
HUMAN DIGESTIVE SYSTEM



3. What is a food chain, and how does energy pass through it?

A **food chain** shows how energy passes from producer to consumers.

- Arrows point in the direction energy flows: e.g. grass → rabbit → fox.
- Predators and prey depend on each other within a food chain.



2. What are the different types of human teeth, and what does each do?

Humans have **incisors**, **canines** and **molars**, each shaped for a different job.

- Incisors cut, canines tear, molars grind food.
- Different animals' teeth suit their diet – carnivores have sharper teeth than herbivores.

4. How does the heart and circulatory system work?

The **heart** pumps blood through **blood vessels** around the whole body.

- Blood carries oxygen and nutrients to every part of the body.
- Exercise makes the heart beat faster to deliver more oxygen to muscles.

5. What are the main stages of human growth from birth to old age?

Humans grow through the stages: **baby**, **childhood**, **adolescence**, **adulthood**, **old age**.

- Adolescence (including puberty) is the life stage between childhood and adulthood.
- Every stage brings physical changes as the body continues to develop.



6. Greater Depth: how do teeth shape reveal an animal's diet?

Comparing skulls, we can predict what an animal eats from its teeth alone.

- Sharp, pointed teeth suggest a carnivore; flat, wide teeth suggest a herbivore.
- Humans have a mix of tooth types, matching our omnivorous diet.

Animal Tooth Shapes and Their Diets



7. TAPS: How do we write up our pulse rate investigation?

FAIR TEST

Our TAPS test: **does the type of exercise change how much our pulse rate rises?** It's a **fair test** – we change only the exercise and keep the timing and measuring method the same.

- Question → **prediction** → variables (independent / control / dependent).
- Materials → **method** → carry out the test → **results** → **conclusion**.

Pulse Rate Investigation – Results

Activity	Time (min)	Pulse Count (15 seconds)	Pulse Rate (beats per minute)	Observation
Resting (sitting)	0	18	72	Normal resting pulse

KEY VOCABULARY

digestive system oesophagus incisor canine molar food chain producer consumer
 heart circulatory system pulse life stage adolescence

SKILLS I'LL USE

- Label a diagram accurately
- Construct & interpret food chains
- Take pulse measurements
- Plan & carry out a fair test
- **GD**: compare data using scientific vocabulary