

7.3 Physical digestion

Name: _____ Class: _____ Date: _____

Total: 8 marks

Objective

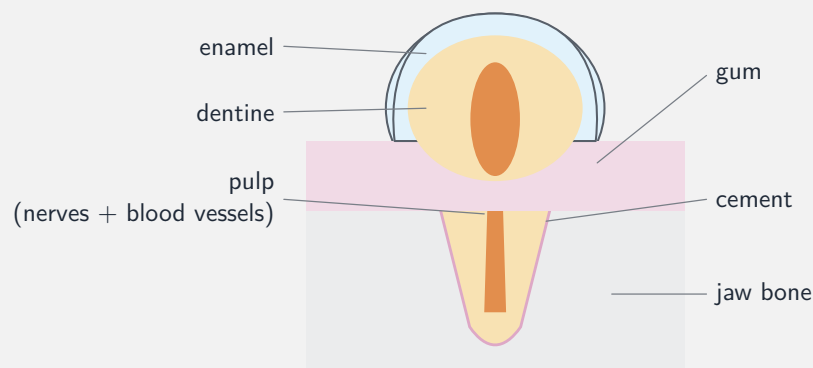
Build the skills to answer exam questions on **physical digestion** 物理消化—the **teeth** 牙齿, the **stomach**, and **bile** 胆汁.

You must be able to:

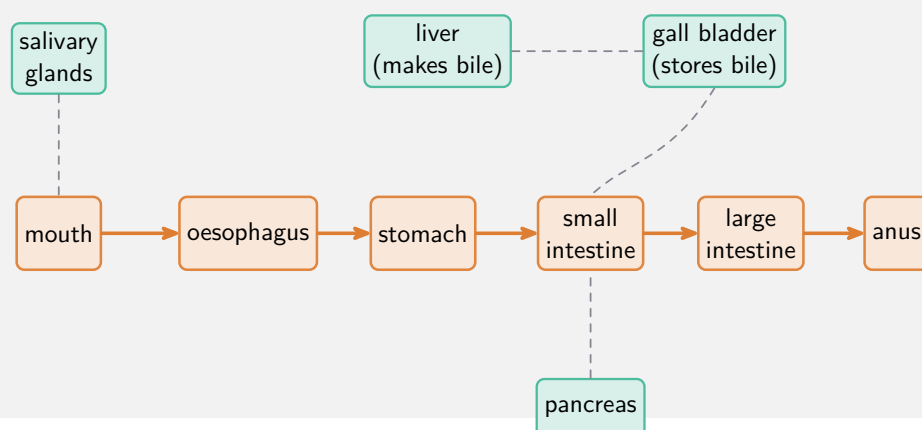
- name the four types of tooth and their jobs
- describe physical digestion (smaller pieces, larger surface area)
- explain how bile emulsifies fats

1 Worked examples

■ Teeth and bile



Physical digestion breaks food into smaller pieces — a larger surface area for enzymes



- **teeth:** incisors (bite), canines (tear), premolars/molars (chew/grind).
- **bile** (from liver, stored in gall bladder) emulsifies fats → larger surface area for lipase. Bile has no enzymes.

2 Practice

2.1 Name the type of tooth used for biting and cutting. [1]

2.2 State why physical digestion is useful for later (enzyme) digestion. [1]

3 Exam-style questions

3.1 Bile emulsifies fats, which means it: [1]

- **A** digests fat into fatty acids
- **B** breaks large fat drops into small droplets
- **C** neutralises acid
- **D** absorbs fat

3.2 Bile is made in the liver.

(a) State where bile is stored. [1]

(b) Explain why emulsifying fat speeds up its digestion. [2]

3.3 State the job of the molars and premolars. [1]

4 Go further

You are now ready for the real exam questions on this subtopic. Open the **7.3 Physical digestion** past-paper sheet in the Library, or try these in **Practice mode**:

- 0610/42 N25 —Q1 (digestion / bile)
- 0610/22 J25 —Q11 (physical digestion)

Solutions

2.1 incisors.

2.2 it makes the pieces smaller, giving a larger surface area for enzymes to act on.

3.1 B. Emulsifying breaks large fat drops into many small droplets.

3.2 (a) the gall bladder.

(b) small droplets give a much larger surface area; so lipase can digest the fat faster.

3.3 chewing and grinding food.