

1.1 Characteristics of living organisms

Name: _____ Class: _____ Date: _____ **Total: 10 marks**

KEY WORDS organisms 生物体 • excretion 排泄 • respiration 呼吸作用 • growth 生长
• characteristics 特征

Objective

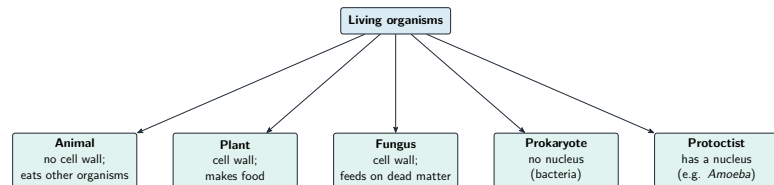
Build the skills to answer exam questions on the **characteristics of living organisms** 生物的特征 — the seven life processes (**MRS GREN**).

You must be able to:

- list the seven characteristics with their exact definitions
- define respiration, excretion, sensitivity and nutrition precisely
- recognise that digestion and breathing are **not** in the list

1 Worked examples

■ MRS GREN



All living organisms carry out the seven life processes

- Movement, **R**espiration, **S**ensitivity, **G**rowth, **R**eproduction, **E**xcretion, **N**utrition.
- **respiration**: chemical reactions in cells that break down nutrients to release energy.
- **excretion**: removal of the toxic waste products of metabolism (and excess substances).

2 Practice

2.1 State what the letters MRS GREN stand for (any four). [4]

2.2 Define growth. [1]

3 Exam-style questions

3.1 A student lists four things a mouse does. Which one is the characteristic **excretion**? [1]

- | | |
|---|---|
| A | B |
| C | D |
- A** it breaks down food in its gut into small soluble molecules
B it removes carbon dioxide made by its own respiration
C it moves away from a bright light
D it takes in oxygen through its lungs

3.2 Give the precise definition of: [2]

- (a) excretion
(b) sensitivity

3.3 Explain the difference between nutrition and digestion. [2]