

1 Characteristics of living things – Part 1

Name: _____ Class: _____ Date: _____

Vocabulary 词汇

Write each word three times. 把每个单词抄写三遍。

English	中文	Write it 3 times (English)
living organism	生物体	_____
life processes	生命过程	_____
characteristics	特征	_____
Movement	运动	_____
Respiration	呼吸作用	_____
energy	能量	_____
Sensitivity	应激性	_____
Growth	生长	_____
Reproduction	生殖	_____
Excretion	排泄	_____
waste	废物	_____
Nutrition	营养	_____
classify	分类	_____
species	物种	_____
fertile offspring	可育后代	_____

English	中文	Write it 3 times (English)
scientific name	学名	_____
binomial system	双名法	_____
genus	属	_____

Recall

A **living organism** 生物体 carries out **life processes** 生命过程 — the activities that keep it alive. Every living thing, from a bacterium to a whale, does all seven of them.

Nothing here is hard; the trick is to learn the names and what each one means.

New ideas

Read these first, then do the Practice.

■ 1 The seven characteristics — MRS GREN

The seven **characteristics** 特征 of life spell **MRS GREN**:

M	Movement
R	Respiration
S	Sensitivity
G	Growth
R	Reproduction
E	Excretion
N	Nutrition

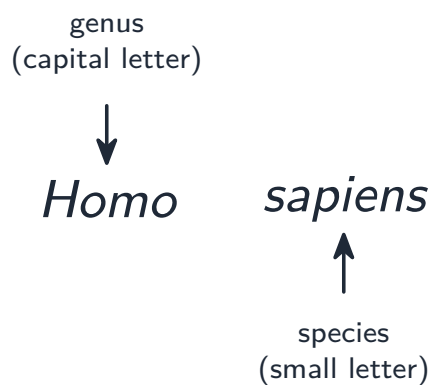
- **Movement** 运动 — changing position or place.
- **Respiration** 呼吸作用 — releasing **energy** 能量 from food inside cells.
- **Sensitivity** 应激性 — detecting and responding to changes.
- **Growth** 生长 — a permanent increase in size.

- **Reproduction** 生殖 — making more of the same kind of organism.
- **Excretion** 排泄 — removing the **waste** 废物 made by the body's reactions.
- **Nutrition** 营养 — taking in materials for energy and growth.

■ 2 Naming living things

Scientists **classify** 分类 living things — they sort them into groups by shared features. The smallest group is the **species** 物种 (organisms that can breed to make **fertile offspring** 可育后代).

Every species has a two-part **scientific name** 学名 (the **binomial system** 双名法), written in italics:



- the **genus** 属 comes first, with a capital letter;
- the species comes second, with a small letter.

Watch out: *excretion* (removing the body's *own* waste, like carbon dioxide or urea) is not the same as *egestion* (removing undigested food) — keep them apart. In a binomial name the genus has a capital and the species a small letter, both in italics.

Practice

Try these in order.

1.1 What seven words do the letters MRS GREN stand for? [4]

1.2 Define *excretion*. [2]

1.3 What is a *species*? [2]

1.4 Write the name *Homo sapiens* correctly, and say which part is the genus. [2]

1.5 Respiration is one of the seven characteristics. What does it release inside cells? [1]

1.6 Challenge. A car can move, “feed” on fuel and give off waste gases. Using two of the seven characteristics, explain why a car is still **not** a living organism. [2]