

2 Plant and animal cells – 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)
cells	细胞	_____
animal	动物	_____
plant	植物	_____
cell membrane	细胞膜	_____
cytoplasm	细胞质	_____
nucleus	细胞核	_____
genetic material	遗传物质	_____
mitochondria	线粒体	_____
respiration	呼吸作用	_____
ribosomes	核糖体	_____
proteins	蛋白质	_____
cell wall	细胞壁	_____
cellulose	纤维素	_____
vacuole	液泡	_____
cell sap	细胞液	_____

English	中文	Write it 3 times (English)
chloroplasts	叶绿体	_____
chlorophyll	叶绿素	_____
photosynthesis	光合作用	_____

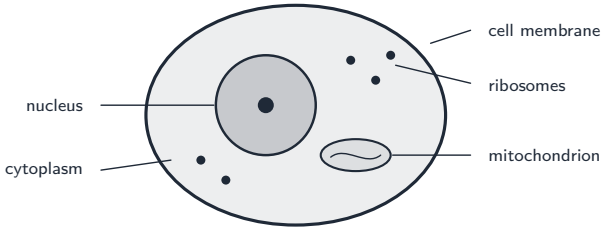
Recall

Every living thing is made of **cells** 细胞 — the smallest parts that can carry out the life processes. Here you compare an **animal** 动物 cell with a **plant** 植物 cell.

New ideas

Read these first, then do the Practice.

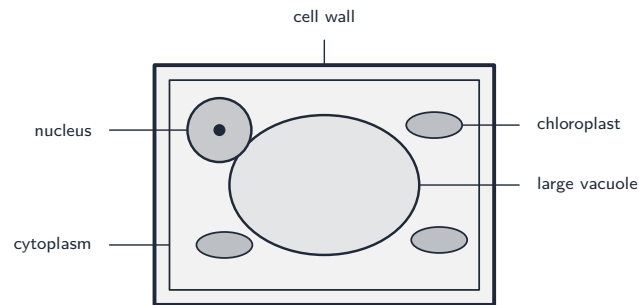
■ 1 The animal cell



- **cell membrane** 细胞膜 — controls what enters and leaves the cell.
- **cytoplasm** 细胞质 — jelly where many reactions happen.
- **nucleus** 细胞核 — controls the cell; holds the **genetic material** 遗传物质.
- **mitochondria** 线粒体 — where **respiration** 呼吸作用 releases energy.
- **ribosomes** 核糖体 — where **proteins** 蛋白质 are made.

■ 2 The plant cell

A plant cell has everything an animal cell has, **plus** three extra parts:



- **cell wall** 细胞壁 — made of **cellulose** 纤维素; gives strength and a fixed shape.
- a large **vacuole** 液泡 — filled with **cell sap** 细胞液; keeps the cell firm.
- **chloroplasts** 叶绿体 — hold **chlorophyll** 叶绿素 for **photosynthesis** 光合作用.

Watch out: a plant cell has **everything** an animal cell has **plus** a cell wall, a large vacuole and chloroplasts — so “has a nucleus” does not tell the two apart. Only those *extra three* are plant-only.

Practice

Try these in order.

2.1 Name three parts found in **both** a plant cell and an animal cell. [3]

2.2 Name the three parts found **only** in a plant cell. [3]

2.3 What is the job of the cell membrane? [1]

2.4 In which part of a cell does respiration take place? [1]

2.5 What substance is the plant cell wall made of? [1]

2.6 Challenge. A cell seen under a microscope has a nucleus, a cell wall and chloroplasts. Is it a plant or an animal cell? Give the feature that decides it. [2]