



YEAR 7

Cells and Organisation

Answer in full sentences where the question asks you to explain. In Science an explanation needs a reason, not just a fact.

Section A · Parts of a cell

- 1 Name the part of a cell that controls its activities. **The nucleus**
- 2 Name the jelly-like substance where most chemical reactions happen. **The cytoplasm**
- 3 Name the thin layer that controls what enters and leaves a cell. **The cell membrane**
- 4 Name the part of a plant cell that gives it a fixed shape. **The cell wall**
- 5 Name the green part of a plant cell where photosynthesis happens. **The chloroplast**
- 6 Name the part of a plant cell that stores cell sap. **The vacuole**

Section B · Comparing and adapting cells

- 7 Give **three** parts found in a plant cell but not in an animal cell. **Cell wall, chloroplasts and a permanent vacuole**
- 8 Give **three** parts found in both plant and animal cells. **Nucleus, cytoplasm and cell membrane**
- 9 Why do root hair cells have no chloroplasts? **They are underground, so there is no light for photosynthesis**
- 10 A red blood cell has no nucleus. Explain how this helps it do its job. **It leaves more room for haemoglobin, so it can carry more oxygen**
- 11 A nerve cell is very long. Explain how this helps it do its job. **It can carry electrical impulses over long distances in the body**
- 12 A sperm cell has a tail. Explain how this helps it do its job. **The tail lets it swim towards the egg cell**

Section C · Levels of organisation

- 13 Put these in order, smallest first: organ, cell, organism, tissue, organ system.
Cell, tissue, organ, organ system, organism
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- 14 Define the word **tissue**. **A group of similar cells working together to do one job**
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- 15 Define the word **organ**. **A group of different tissues working together to do a job**
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- 16 Name the organ system that moves blood around the body. **The circulatory system**
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- 17 Name the organ system that takes oxygen into the body. **The respiratory system**
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- 18 Name **two** organs in the digestive system. **Any two of: stomach, small intestine, large intestine, liver, pancreas**
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