

Levels of Organisation

KS3 Biology · Follows the national curriculum

Name _____ Class _____ Date _____

1. Worked example

Put in order, smallest first: organ, cell, organism, tissue, organ system.

Step 1 · Start with the building block

Cell — the smallest unit of life.

Step 2 · Group similar cells

Tissue → organ → organ system.

Step 3 · Finish with the whole living thing

Organism.

Answer: cell → tissue → organ → organ system → organism

Check: Each level is made of several of the level before it.

2. Now try one with the steps

Is blood a cell, a tissue or an organ?

Step 1 · What is it made of?

Step 2 · Apply the definition

Answer:

3. Practice

Show your working. The marks tell you how much is expected.

1. What is the smallest level of organisation in a living thing? [1]

2. What is a tissue? [1]

3. What is an organ? [1]

4. Name the organ system that the lungs belong to. [1]

5. Name the organ system that the heart belongs to. [1]

6. Name ONE organ in the digestive system. [1]

7. Name the organ system made of bones. [1]

8. Name TWO plant organs. [2]

9. Put in order, largest first: tissue, organism, cell, organ. [1]

10. Muscle tissue in the heart contracts. What is the job of this tissue? [1]

11. Explain why xylem in a plant stem is a tissue. [2]

12. A heart muscle cell is 0.1 mm long. How many would fit end to end along 1 cm? [2]

13. Explain how two organ systems work together to get oxygen to a muscle cell. [3]

14. Is a unicellular organism made of tissues? Explain. [2]

4. Before you hand it in

Putting tissue before cell, or organ before tissue.

Remember 'Clever Tigers Often Sing Opera': Cell, Tissue, Organ, System, Organism.

"Blood is an organ."

Blood is a tissue. The heart is the organ that pumps it.

"Plants do not have organs."

Leaves, stems, roots and flowers are plant organs, each made of several tissues.