Year 7 Science: Cells: the building blocks of life

Name: _____ Date: _____

Try these without your notes first, then check the answer key.

Practice

1. Which organelle controls the cell and holds its instructions?

2. Name two parts found in plant cells but not animal cells.

3. A microscope has a 10× eyepiece and a 10× objective. What is the total magnification?

4. Is the lung a cell, a tissue, an organ or an organ system?

5. A cell has a long tail and many mitochondria. What is it specialised for?

Fix the mistake

6. Correct this statement: "Plant cells have a cell wall instead of a cell membrane."

7. Correct this statement: "Every plant cell has chloroplasts."

8. Correct this statement: "An organ is made of just one kind of cell."

9. Correct this statement: "Magnification is eyepiece plus objective, so 10× and 40× gives 50×."

Answer key (for parents and tutors)

1. Which organelle controls the cell and holds its instructions?
   The nucleus.
2. Name two parts found in plant cells but not animal cells.
   Any two of: cell wall, chloroplasts, large vacuole.
3. A microscope has a 10× eyepiece and a 10× objective. What is the total magnification?
   10 × 10 = 100×.
4. Is the lung a cell, a tissue, an organ or an organ system?
   An organ, because it is made of several tissues working together.
5. A cell has a long tail and many mitochondria. What is it specialised for?
   Movement: the tail swims and the mitochondria release the energy it needs, as in a sperm cell.
6. Correct this statement: "Plant cells have a cell wall instead of a cell membrane."
   Plant cells have both: the membrane sits just inside the cell wall.
7. Correct this statement: "Every plant cell has chloroplasts."
   Only cells in the green parts have chloroplasts; root cells, for example, have none.
8. Correct this statement: "An organ is made of just one kind of cell."
   An organ is made of several tissues, such as the muscle, nerve and lining tissues in the heart.
9. Correct this statement: "Magnification is eyepiece plus objective, so 10× and 40× gives 50×."
   Multiply the two: 10 × 40 = 400×.