Year 9 Science: Cell structure: organelles, plant and animal cells, bacteria

Name: _____ Date: _____

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

Practice

1. A student says plant cells have chloroplasts instead of mitochondria. Explain what is wrong.

2. A cell has DNA, a membrane, cytoplasm and a cell wall, but no nucleus. Is it prokaryotic or eukaryotic, and what kind of organism is it likely to be?

3. An onion cell is 300 µm long. How long will it look in an image at ×100, in mm?

4. Why does a lettuce left without water go floppy? Use the words vacuole and cell wall.

5. Why did scientists need the electron microscope to understand how mitochondria work?

Fix the mistake

6. Correct this statement: "Animal cells have a cell wall too, just a thinner one."

7. Correct this statement: "Bacteria have no nucleus, so they have no DNA."

8. Correct this statement: "Actual size = image size × magnification."

9. Correct this statement: "24 mm ÷ 400 = 0.06, so the cell is 0.06 µm across."