

# AQA Cell Biology Dice Challenge

	1	2	3	4	5	6
1	Name the type of cell in animals that fertilises an egg cell.	Name the part of the cell where DNA is found.	Write down the number of chromosomes found in a human body cell.	Name a substance that is transported by xylem vessels in plants.	Write 5400 $\mu\text{m}$ in millimetres (mm).	Describe how to prepare a slide to look at onion cells under a microscope.
2	Name the part of the cell where aerobic respiration takes place.	Name the organ in which palisade cells are usually found.	Choose the most suitable unit for measuring the length of a cell. m      cm $\mu\text{m}$	A scientist counted 120 000 000 microorganisms on an agar plate. Write the number in standard form.	What is the function of a ribosome?	Explain why muscle cells contain lots of mitochondria.
3	Write down the formula used to calculate the magnification of an object.	Name two places where human stem cells are found.	What is the function of the cell membrane?	What is a zygote?	Describe the function of the villi in the small intestine.	Calculate the magnification of the microscope if the eyepiece has a magnification of $\times 10$ and the objective lens has a magnification of $\times 40$ ?
4	Name the type of tissue in plants that can differentiate into any type of plant cell.	The diameter of a cell is 0.000007m. Write the number in standard form.	What is a gene?	Define osmosis.	Describe the stages of the cell cycle.	A student placed a piece of potato with a mass of 5.0g in a salt solution. After 24 hours, the mass had increased to 6.4g.  Calculate the percentage change in mass.
5	Write 86cm in micrometres ( $\mu\text{m}$ ).	What is the function of a chloroplast?	Describe the difference between eukaryotic and prokaryotic cells.	Describe the function of guard cells in plants.	Explain why root hair cells do not contain chloroplasts.	Compare the structure of animal and plant cells.
6	Describe three factors that would increase the rate of diffusion of oxygen between the alveoli and the blood.	Explain how a sperm cell is adapted to its function.	Calculate, in its simplest form, the surface area to volume ratio of a cube with sides of length 2cm.	In a book, the image of a cell measured 4.8cm in length. The real cell is only 120 $\mu\text{m}$ in length.  Calculate the magnification.	Compare the processes of diffusion and active transport.	Compare the use of light microscopes and electron microscopes to view cells.