

8Ca – Superbugs/A hidden world

Word	Pronunciation	Meaning
bacterium		A type of microbe bigger than viruses. Plural = bacteria.
data		The observations from an experiment.
fungus		A type of organism that is different from animals, plants and bacteria. Examples include mushrooms and yeasts. Plural = fungi.
microbe		A very small living thing. Another name for a micro-organism.
micro-organism		A very small living thing. Another name for a microbe.
organism		A living thing.
virus		The smallest type of microbe. Most scientists do not think that viruses are living because they do not carry out the seven life processes for themselves.
yeast		A type of fungus with only one cell. It is therefore a microbe. Yeasts are bigger than bacteria.

8Ca – Focus on: Microbe structure

Word	Pronunciation	Meaning
chromosome	<i>crow-mow-sowm</i>	A long piece of material on which genes are found.
classified		Placing things in their groups according to their characteristics.
flagellum	<i>flaj-jell-um</i>	A tail that some microbes use to move about. Plural = flagellae.
gene	<i>jean</i>	Genes contain instructions for making things that a cell needs.
protein coat		The outside of a virus that is made of proteins.
replication		When a virus reproduces inside a living cell.
strand of genes		Genes contain instructions for making things that a cell needs. Viruses only have a small number of genes, arranged on a strand. Animals have many thousands of genes carried on chromosomes.

8Cb – Microbes in action

Word	Pronunciation	Meaning
aerobic respiration	<i>air-ro-bick</i>	Process that releases energy from glucose. Needs oxygen from the air. Carbon dioxide and water are produced as wastes.
anaerobic respiration	<i>an-air-ro-bick</i>	A type of respiration that does not need oxygen.
budding		The way yeast cells divide. A new small cell (a bud) starts to grow out from another cell.

8Cb – Microbes in action (continued)

Word	Pronunciation	Meaning
ethanol		Often just called 'alcohol'. Produced when yeasts ferment sugar.
fermentation		The type of anaerobic respiration carried out by yeast. It produces carbon dioxide and ethanol.
limiting factor		Something that stops a population growing.
population		The numbers of a certain organism found in a certain area.
starter culture		Small amount of actively growing microbe that is added to a mixture to grow large amounts of microbes.

8Cc – Under attack/Cholera: the evidence

Word	Pronunciation	Meaning
diagnosis	<i>die-agg-nO-sis</i>	What a doctor thinks is causing a person's symptoms.
disease		When some processes that happen in your body do not work in the way they should.
fever	<i>fee-ver</i>	A high body temperature.
infect		When a microbe gets into your body you are 'infected' by it.
infectious	<i>in-feck-shus</i>	A disease that can be spread from person to person or from animal to person is infectious.
learning		A type of behaviour that changes based on the experiences of the animal.
symptoms		The effects that a disease has on your body.
theory	<i>theer-ree</i>	A scientific idea that can be tested.

8Cd – Stopping the spread/Self-defence

Word	Pronunciation	Meaning
antibody		Small chemical made by some white blood cells. Antibodies attach to microbes and help to destroy them.
antiseptic		Weak disinfectant safe to use on human skin.
ciliated epithelial cell	<i>sil-lee-ay-ted ep-pee-theel-ee-al sell</i>	Cells in the trachea that have microscopic hairs (cilia) growing from them that wave to move mucus up to the gullet to be swallowed.
clot		When blood becomes solid. Makes a 'scab' when it is on the surface of the skin.
disinfectant		Strong chemical used to kill microbes.
engulf		When a white blood cell completely surrounds a microbe and digests it, it is said to engulf the microbe.

8Cd – Stopping the spread/Self-defence (continued)

Word	Pronunciation	Meaning
mucus	<i>mew-cus</i>	Sticky substance used to trap microbes and dust. Found in nose and trachea.
natural defences		Your body's way of trying to keep microbes out (e.g. skin) or killing them if they get inside you (e.g. stomach acid).
pasteurisation	<i>pas-ter-eyes-ay-shun</i>	Process in which milk is heated up to 70°C for about 15 seconds, which is enough to kill the most harmful bacteria in it.
scab		A dry blood clot on the surface of the skin.
trachea	<i>track-ee-a</i>	Another name for the windpipe.
white blood cell		A type of blood cell that helps to destroy microbes. They either engulf microbes or make antibodies.

8Cd – Focus on: HIV and AIDS

Word	Pronunciation	Meaning
AIDS		Disease caused by HIV. Stands for: Acquired Immune Deficiency Syndrome.
HIV		Human Immunodeficiency Virus. It causes AIDS.
HIV positive		Someone who is infected with HIV.
replicate		Viruses cannot reproduced on their own. They use the new cell that they have infected to help them make new copies of the virus. We say that the virus particles replicate.
T4 lymphocyte		A type of white blood cell needed to destroy microbes.

8Ce – Beating infections/Medicine men/Medical problems

Word	Pronunciation	Meaning
antibiotic	<i>ant-ee-by-ot-tick</i>	Medicine that can kill bacteria but not viruses.
immune	<i>imm-you'n</i>	If you cannot get a disease you are said to be 'immune' to it.
immunisation	<i>imm-you'n-eyes-ay-shun</i>	Making people or animals immune to diseases.
infect		When a microbe gets into your body you are 'infected' by it.
medicine		A drug that helps the body to ease the symptoms of a disease or cure the disease.
resistant		Bacteria that are not affected by an antibiotic are said to be resistant to it.
vaccine	<i>vack-seen</i>	A mixture containing microbes that normally cause disease, but which have been treated so that they don't. Often injected into people to make them immune.
variation		The differences between things.