Science

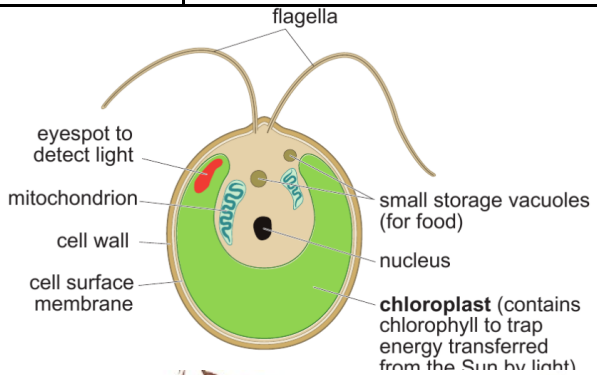
8D Unicellular Organisms

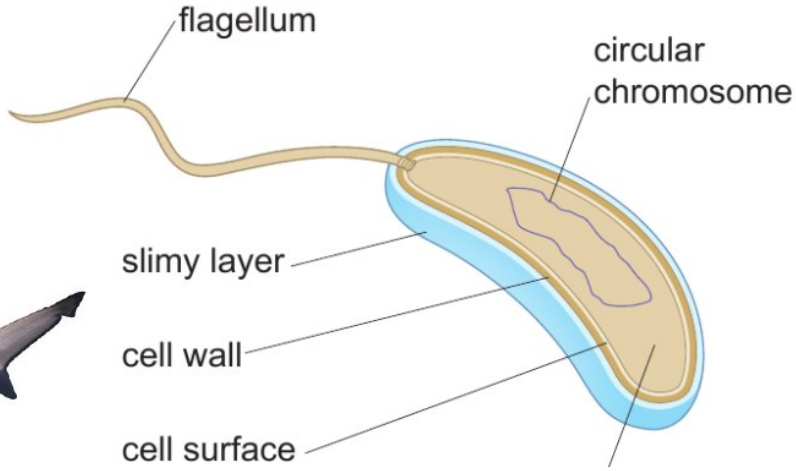
DEMANd EVIDENCE

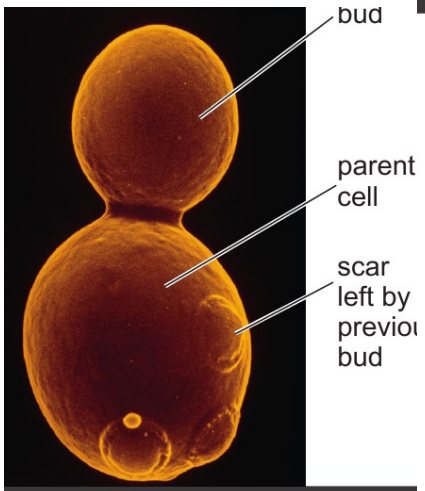
AsK QUESTIONS

THINK CrITICALLY

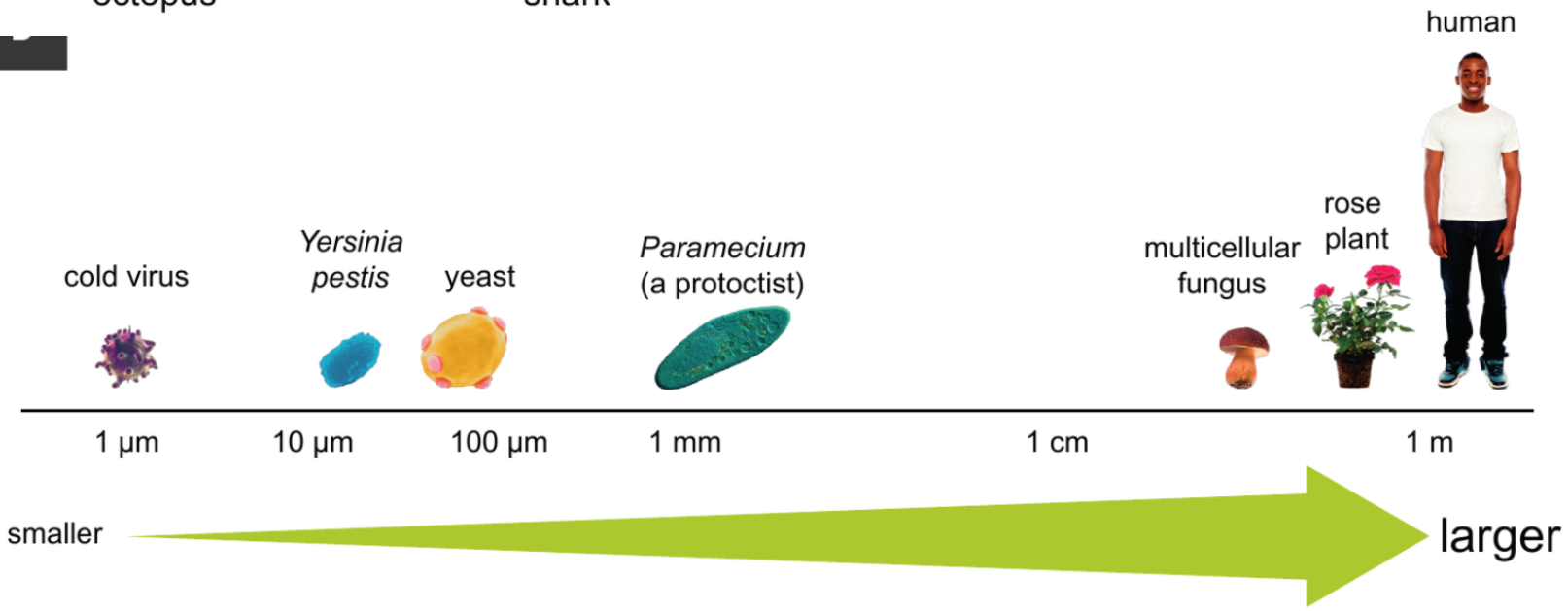
Lesson
1. Unicellular or Multi-cellular
2. Microscopic Fungi
3. Bacteria
4. Protoctists
5. Decomposers & Carbon







B | a yeast cell budding (magnification × 10 000)



1. Unicellular or Multicellular	
Cells	The basic unit of life. All organisms are made up of cells.
Unicellular	An organism made up of one cell.
Microorganisms	Organisms that are so small they can only be seen with a microscope.
Multicellular	An organisms made of many cells.
Diffusion	When particles spread to fill the area that they are in.
Kingdoms	All living organisms can be grouped into one of the five kingdoms.
Prokaryotes	Unicellular organisms that do not have a nucleus.
Protoctists	Mainly unicellular organisms. All have a nucleus.
Fungi	Mainly multicellular organisms that do not make their own food and have a nucleus.
Plants	Multicellular organisms that have a nucleus and make their own food.
Animals	Multicellular organisms that have a nucleus, do not make their own food and do not have a cell wall.
Bacteria	A type of microorganisms in the prokaryote kingdom.
Viruses	Not classed as living organisms because they cannot live without being inside a host.

2. Microscopic Fungi	
Asexual Reproduction	Producing new organisms from one parent only.
Budding	Type of asexual reproduction used by fungi in which a small new cell grows out from a parent cell.
Aerobic Respiration	Glucose + oxygen → carbon dioxide + water
Anaerobic Respiration	A type of respiration which does not require oxygen.
Fermentation	The anaerobic respiration of microorganisms. Glucose → carbon dioxide + water
Population	The number of a certain organism found in a certain area.
Limiting Factor	Something that stops a population growing.

3. Bacteria	
Lactic Acid	Produced by the anaerobic respiration of bacteria. Glucose → lactic acid
Enzymes	A substance that can speed up some processes in living organisms.
Binary Fission	Type of asexual reproduction used by bacteria in which a cell splits into two.
Chromosome	A long molecule that contains instructions for organisms and their cells.
Flagella	A tail-like structure that rotates, allowing a unicellular organism to move.
Statement Key	A series of descriptive statements used to work out what something is.

4. Protoctists	
Algae	A type of protoctist that uses photosynthesis.
Photosynthesis	Carbon dioxide + water → glucose + oxygen
Chloroplast	Found in plant and some protoctist cells- the site of food production through photosynthesis.
Chlorophyll	The green substance inside chloroplasts that absorbs light.
Producers	Organisms that are able to make their own food- always the start of a food chain.
Food Chains	A way of showing what eats what in an ecosystem.
Energy Transfer	Represented by an arrow on a food chain diagram.
Pyramids of Numbers	A way of showing the numbers of different organisms in a food chain.
Poison	Can build up and become more concentrated as you move along a food chain.

5. Decomposers & Carbon	
Ecosystem	All the physical environmental factors and all the organisms that are found in a habitat.
Decomposers	Organisms that feed on dead organisms or animal waste which allows substances to be recycled.
Decay	The breakdown of dead organisms or animal waste.
Soluble	A substance that can dissolved in a liquid.
Carbon Cycle	Shows how carbon compounds are recycled in an ecosystem.
Combustion	Burning fuels and releasing carbon dioxide into the air.
Feeding	Transfers carbon compounds stored in plants to the animals eating them.
Carbohydrates	A nutrient used as the main source of energy.
Proteins	A nutrient used for growth and repair.
Fats	A nutrient used for storing energy and as a thermal insulator.