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01.1 Organ

01.2 Palisade mesophyll → Contains the most chloroplasts. Spongy mesophyll → Contains many air spaces

01.3 Transpiration

01.4 Lignin

01.5 To allow sunlight to reach the palisade cells for photosynthesis.

01.6 stomata, guard cells

01.7 Vacuole

01.8 Active transport

01.9 Mitochondria

02.1 It's a barrier.

02.2 $63/210 = 3/10$

02.3 187, 31, 156

02.4 He found the midpoint between the number of bacteria at pH1 and pH3.

03.1 Platelets → Help clot the blood where the vaccine was injected. White blood cells → Produce antibodies to the measles virus.

03.2 1970

03.3 It rose, then it peaked and stayed the same, then it fell.

03.4 It decreased then increased a bit.

03.5 Parents were worried their children would get condition X.

03.6 Have the research peer reviewed.

03.7 The author was biased and paid.

04.1 Starch test: add iodine solution, it turns blue-black if starch is present. Sugar test: add Benedict's reagent, heat it, and it will turn red if sugar is present.

04.2 protease, sugar

04.3 The type of bread

04.4 White bread is fastest. Wholemeal is slowest.

04.5 She repeated the test three times. She calculated the mean.

04.6 58

04.7 Each person's sense of taste is different.

05.1 Ionising radiation, Viruses

05.2 Mitosis

05.3 grow, replicate

05.4 40%

05.5 Chromosomes are pulled to each end of the cell.

05.6 cell membrane

05.7 $50/800 = 0.0625\text{mm}$. $0.0625 \times 1000 = 62.5\mu\text{m}$.

05.8 cells, plants

05.9 placebo

06.1 1. Size of the potato pieces. 2. Time they were in the solution.

06.2 Pat them dry with a tissue.

06.3 a weighing scale.

06.4 0.1g

06.5 D

06.6 $(1.1/6.0) \times 100 = 18.3$

06.7 Line graph

06.8 water, osmosis, permeable

06.9 0.2

07.1 Arteries

07.2 It pumps their blood for them, carrying oxygen around the body.

07.3 To give them oxygen.

07.4 Statins.

07.5 A stent is a wire mesh that holds the artery open. This allows more blood to flow through it.

07.6 Smoking makes you more likely to get all these diseases. Disease H has the highest risk increase.

07.7 [Graph drawn correctly with all labels, but the bars are touching, making it look like a histogram]

07.8 A stressful lifestyle.

08.1 In the nucleus

08.2 A, D and E

08.3 People with CF can't digest food well as the enzymes get stuck in the pancreas. This means things like fat aren't digested by lipase. So the body can't absorb the digested food molecules. This means they have less glucose for respiration so less energy is released for building up body mass.

08.4 1. Large surface area. 2. Good blood supply. 3. Thin walls.

08.5 Less oxygen means less aerobic respiration and less energy released. It makes them feel tired.
