

Student: Jack Taylor
ID: 23115

01.1 Organ

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

01.3 Transpiration

01.4 Lignin

01.5 So light can get through to the palisade mesophyll 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 3/10

02.3 pH1 killed: $210 - 23 = 187$. pH5 killed: $216 - 185 = 31$. More killed: $187 - 31 = 154$.

02.4 He found the middle value between pH1 and pH3. $(23 + 63) / 2 = 43$.

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

03.2 1968

03.3 It goes up from 1945, then it stays flat, then it goes down.

03.4 It decreased.

03.5 Parents were worried their children would get condition X.

03.6 Have the research peer reviewed.

03.7 The author was paid to find a link.

04.1 Starch test: add iodine, it goes blue/black if positive. Negative is it stays yellow/brown. Sugar test: add Benedict's and heat, it goes red if positive. Negative is it stays blue.

04.2 amylase, sugar

04.3 The type of bread

04.4 White bread takes the least time. Wholemeal takes the most time.

04.5 He did repeats and worked out an average.

04.6 58

04.7 Each person's sense of taste is different.

05.1 Monoclonal antibodies, 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 $800 / 50 = 16$ mm. $16 \times 1000 = 16000$ um.

05.8 cells, people

05.9 placebo

06.1 1. Same size potato pieces. 2. Same amount of time in the solution.

06.2 Dry them.

06.3 a digital balance

06.4 1.0 g

06.5 D

06.6 $(1.1/6.0) \times 100 = 18.333$. To 1dp = 18.3

06.7 Line graph

06.8 water, osmosis, permeable

06.9 0.2

07.1 Arteries

07.2 It forces blood out of the heart and around the body, carrying oxygen.

07.3 gives them oxygen

07.4 Statins

07.5 a stent widens the blood vessel. this lets more blood and oxygen get to the heart.

07.6 1. Smoking increases the risk of all of them. 2. Disease H has the biggest risk.

07.7 [Graph drawn perfectly, but the bars for F, G, H are not labelled]

07.8 A diet high in saturated fat.

08.1 nucleus

08.2 A, D and E

08.3 CF means they have less digestive enzymes like lipase and amylase. So fats and carbs are not broken down properly. They can't be absorbed. So the person doesn't get the nutrients they need to build mass. They also have less glucose for respiration so they have less energy.

08.4 1. big surface area. 2. moist surface. 3. thin walls.

08.5 Less oxygen means less aerobic respiration so less energy is released. But it also means you get more anaerobic respiration so you get more energy from that.
