

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 So light can get through the transparent epidermis to the palisade cells below for photosynthesis.

01.6 stomata, guard cells

01.7 Vacuole

01.8 Active transport

01.9 Mitochondria

02.1 The skin is a barrier stopping germs.

02.2 63/210. I don't know the simplest form.

02.3 pH1 killed = $210 - 23 = 187$. pH5 killed = $216 - 185 = 31$. More killed = $187 - 31 = 156$.

02.4 It is the midpoint value between the pH1 result (23) and the pH3 result (63).

03.1 Platelets → Help clot the blood. White blood cells → Produce antibodies.

03.2 1968

03.3 The number of people with measles increases up to about 1956, then it stays level until 1968, then it drops quickly.

03.4 The percentage of vaccinated children went down.

03.5 Parents were worried their children would get condition X.

03.6 Have the research peer reviewed.

03.7 The author was biased.

04.1

Starch test - use iodine, it goes blue/black if starch is there.

Sugar test - use Benedicts, heat it up, it goes red if sugar is there.

If they aren't there the colour stays the same (yellow/blue).

04.2 amylase, sugar

04.3 The type of bread

04.4 1. White bread tastes sweet the fastest. 2. Wholemeal bread takes the longest.

04.5 They did the test more than once. They calculated a mean.

04.6 $(58 + 55 + 61) / 3 = 58$

04.7 Each person's sense of taste is different.

05.1 Ionising radiation, Viruses. (Ticks both)

05.2 Mitosis

05.3 grow, replicate

05.4 20%

05.5 Chromosomes are pulled to each end of the cell.

05.6 cell membrane

05.7 $50 / 800 = 0.0625$ mm. Then you times by 100 = 6.25um.

05.8 cells, people

05.9 placebo

06.1 same potato size, same time in solution.

06.2 dry them.

06.3 a balance

06.4 0.1 g

06.5 D

06.6 $1.1 / 6.0 \times 100 = 18.3\%$

06.7 Line graph

06.8 water, osmosis, membrane

06.9 0.2 mol/dm³

07.1 Arteries

07.2 It pushes blood around their body. It carries oxygen.

07.3 To get O₂ into their blood for respiration.

07.4 Statins

07.5 It props the artery open so blood can get through.

07.6 Smoking increases your risk of getting all the diseases. Disease H has the biggest increase in risk.

07.7 (Draws graph perfectly with all labels, scale etc).

07.8 Having a stressful job.

08.1 Nucleus

08.2 A, D and E

08.3

Digesting food is hard because the enzymes can't get to the intestine. So food like fat isn't broken down.

Gaining mass is hard because the food isn't absorbed. So you don't get energy from it.

This means you can't build muscle.

08.4 big surface area, thin walls, good blood supply.

08.5 less oxygen means less aerobic respiration so less energy. The body will do anaerobic respiration instead which makes lactic acid and hurts your muscles.
