

- (iii) Suggest why a cell with a coloured pigment in the vacuole is suitable for the students' investigation.

So that the change in size of the vacuoles can be easily seen, in which they either shrink as they are plasmolysed

[1]

- (iv) Describe a method the students could use to find the percentage of cells that are plasmolysed at each of the different concentrations of sucrose solution.

Your method should be set out in a logical order and be detailed enough to let another person follow it.

You should **not** include how to make the different concentrations of sucrose solution already described in (b)(ii).

① Firstly, peel a small strip of the inside layer of the onion tissue with forceps. ② Secondly, place the small strip on a clean dry slide before adding a drop of water. ③ Thirdly, hold a cover slip at 45°C above the specimen, before gently letting it fall down to cover the specimen. Fourthly, start a timer. Then check the specimen before using the microscope, the approximate size of the vacuoles of the cells. ④ Wait 5 minutes, before once again observing the percentage field of view and calculate the amount of cells plasmolysed by looking at the size of the vacuoles before and after the 5 minutes.

⑤ Repeat the experiment from step 1 but using different sucrose concentration such as 0.4, 0.6, 0.8 and 1.0 mol dm⁻³. Write down the observation in a neat and appropriate table with suitable headings in which includes the percentage of cells plasmolysed at each of the different concentrations of sucrose solution.

Rich assessment ->

Glove - to prevent allergic reaction

Use field of view then count

Preview from Notesale.co.uk
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Very good description
⑥

⑦