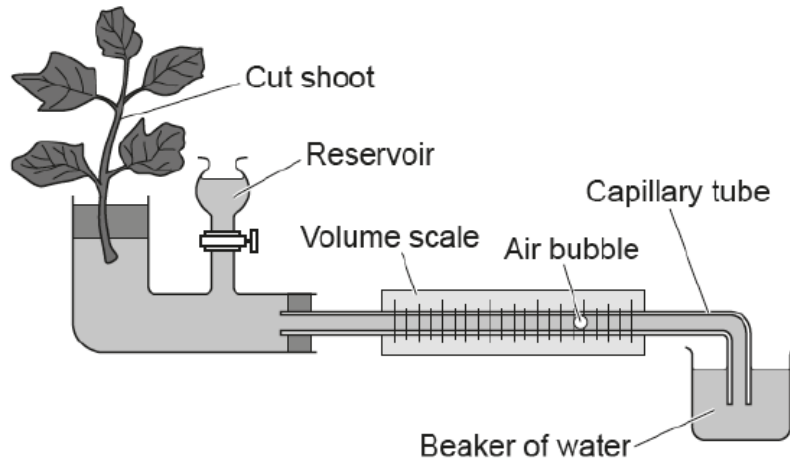


Practical Skills – 2022 GCSE 21st GCSE Biology B**1. May/2022/Paper_J257/03/No.6**

Kai is investigating transpiration in plants. He sets up a potometer, as shown in the diagram.

Kai fills the potometer with water, then inserts a cut shoot and checks that none of the apparatus is leaking.



- (a) Describe how Kai can use the potometer he has set up to investigate the rate of transpiration in a plant.

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..... [2]

- (b) Kai wants to compare the rate of transpiration in cut shoots from **two** species of plant.

He uses the potometer to investigate one of the species, and then repeats the experiment with the other.

State **three** variables that Kai should control with the plant shoots so that he can compare the results from the two species.

Variable 1

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Variable 2

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Variable 3

.....

[3]

(c) Kai finds that the rate of transpiration is different for the two species.

He thinks this could be due to a difference in the number of stomata on the leaves of the two species. He prepares two slides to investigate this.

Describe how Kai can use a microscope to work out the number of stomata per cm^2 on the leaves of the two plant species.

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..... [3]