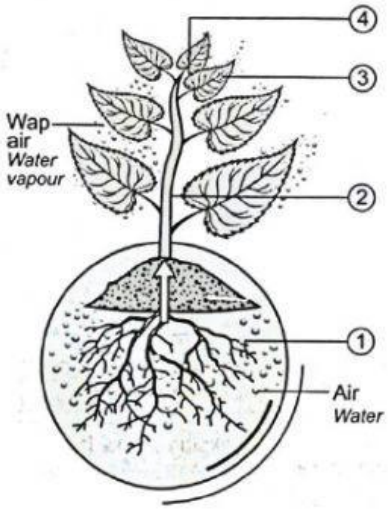
The Necessity of Transpiration in Plants

_____is the loss of water in the form of water vapour by_____ from surface of plants into the atmosphere.



(4) The evaporation of water from the mesophyll cells removes from the leaves. This produces a _____ cooling effect to plants.

(3) Transpiration helps the supply of water for_____and to maintain _____ plant cells.

(2) Transpiration creates _____ pull for the transport of _____and ions in the xylem vessels.

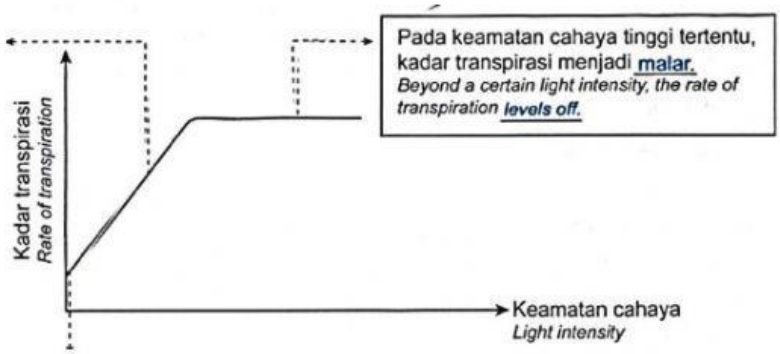
(1) Transpiration pull helps the _____of water by the roots.

The Environmental Factors that Affect Rate of Transpiration

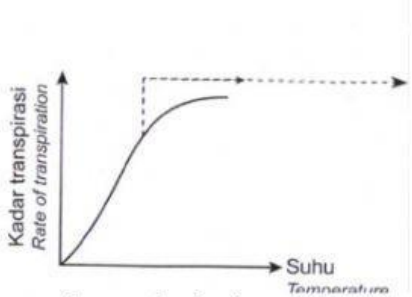
1. The rate of transpiration can be affected by the following environmental factors:

(a) _____ intensity (c) _____movement

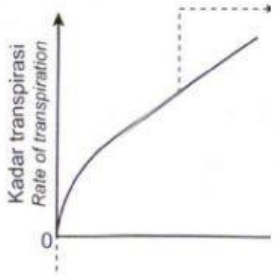
(b) _____ (d) _____



The rate of transpiration _____ with the increase in light intensity.
As light intensity increases, the stomata _____, allowing more water vapour in the air spaces to diffuse _____ .
Beyond a certain light intensity, the rate of transpiration levels_____ .
At low light intensity, the rate of transpiration is _____ .
In darkness, the stomata are _____.Only a small amount of water vapour diffuses .



The rate of transpiration increases when temperature _____ .
As temperature increases, the rate of _____ of water from the surfaces of mesophyll cells increases.
More water vapour diffuses out of the leaf through the_____ .



In still air, the rate of transpiration _____ .
The water vapour that diffuses out of the leaf_____around the stoma.
_____ the concentration gradient of water vapour between the airspaces of the leaf and the_____ .
The _____the wind speed, the _____ the rate of transpiration.
Wind carries away water vapour around the _____ , maintaining a concentration gradient 0f water vapour between the _____and the surrounding air. The rate of diffusion _____ .