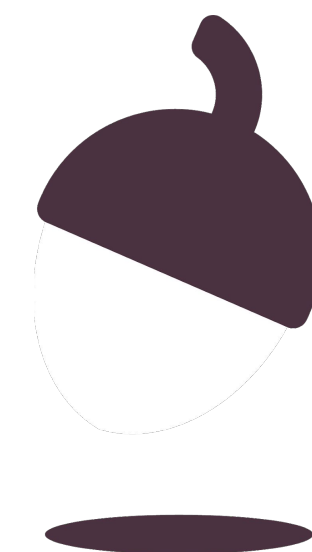


Combined Science - Biology - KS4
Organisation

Investigating Transpiration

(Downloadable student document)

Mr Humphries



OAK
NATIONAL
ACADEMY

Independent Task

Complete the table.

Factor	Effect on transpiration rate	Explanation
Temperature	Increases	Increases rate of evaporation.
Wind Speed		
		Stomata open wider to allow CO ₂ to enter leaf in photosynthesis
Humidity		Moist air surrounds stomata so decreases rate of evaporation



Independent Task

Explain why leaf 2 only lost a small amount of water (2)

- Most of the stomata are located on the the lower surface
- So more water is lost via evaporation at the stomata

Leaf	Water loss / g
1 (upper surface covered)	0.89
2 (lower surface covered)	0.02
3 (no covering)	1.02



Independent Task

Explain why the bubble moves a large distance when the conditions are windy. (3)

- **Increasing wind speed increases the rate of transpiration**
- **Because there is more evaporation of water at the stomata**
- **So the bubble moves further**

