

*This is the **Foundation Separate** version — Higher Tier content has been removed.*

Efficient gas exchange surfaces share key adaptations: large surface area, thin walls, good blood supply, moist surface.

- Alveoli in lungs: millions of tiny sacs → large total SA, one cell thick, dense capillary network, moist lining
- Leaves: stomata in lower epidermis, air spaces in spongy mesophyll — CO₂ diffuses to photosynthesising cells

Key Terms

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| Alveolus | Tiny air sac in lung — site of gas exchange |
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■ **Exam Tip:** For any gas exchange surface: always state LARGE surface area AND thin walls (short diffusion distance) AND good blood supply. All three together give maximum marks.