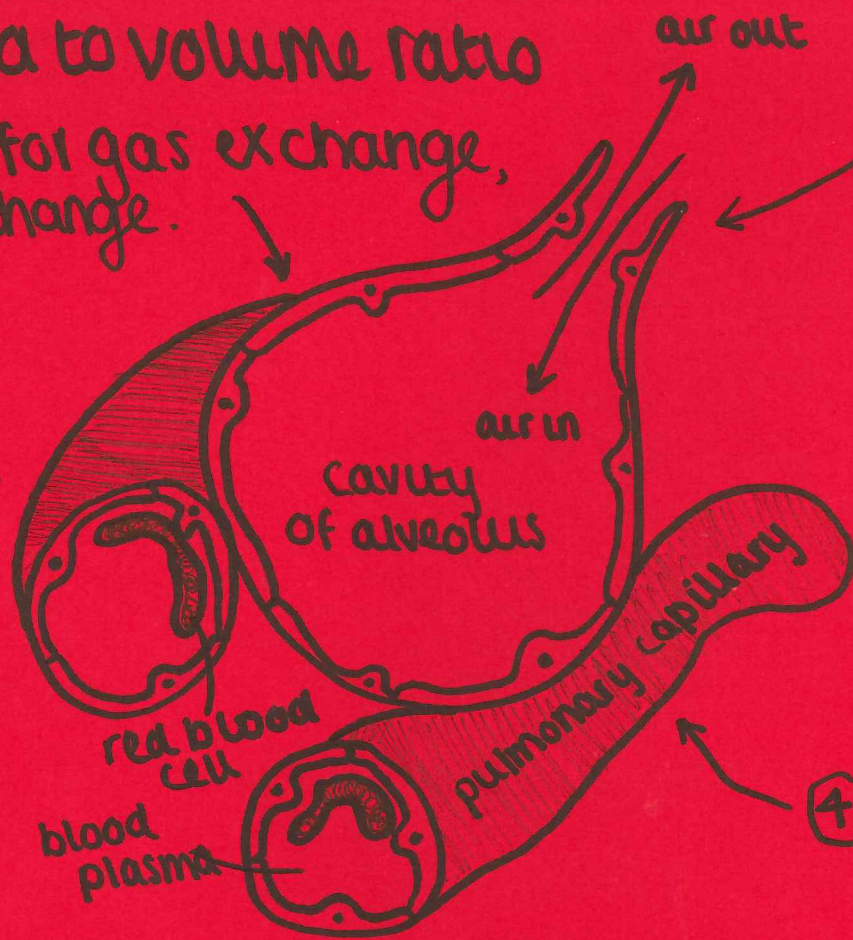


alveoli

- ① Large surface area to volume ratio
- provides more space for gas exchange, speeds up gas exchange.

- ③ Narrow capillaries
- slows blood down allows time for blood to pick up oxygen
 - more efficient gas exchange.



- ② Short diffusion pathway
- endothelial + epithelial cells are only 1 cell thick
 - gas exchange can take place quicker.

- ④ Ventilation provides fresh supply of oxygen.
- maintains steep concentration gradient
 - quicker diffusion = faster gas exchange.