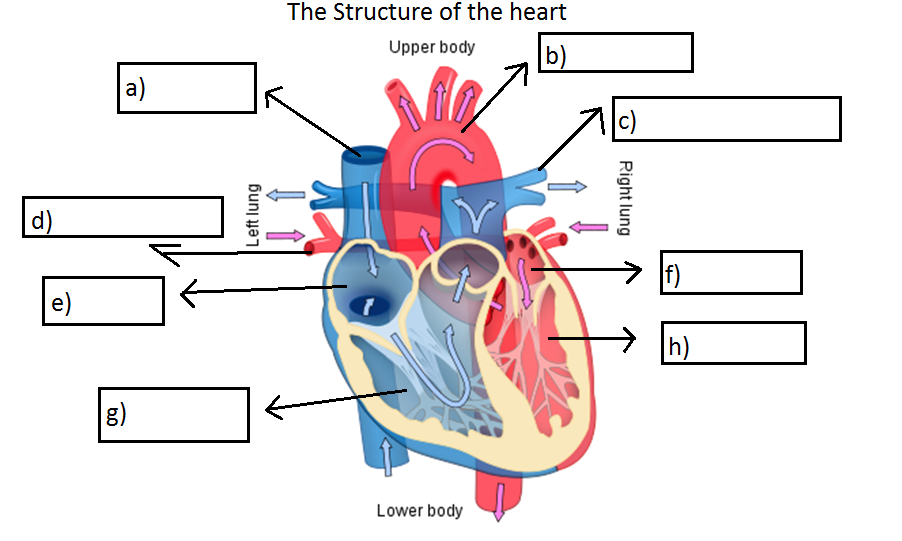
WORKSHEET on Structure of the Heart and blood vessels.

1. Label the diagram of the heart below.



1. Which two blood vessels in the diagram carry oxygenated blood?
2. In which blood vessel is the blood under the greatest pressure?
3. Explain why the walls of the capillaries need to be very thin.
4. What word describes how substances pass into and out of the blood.
5. Complete the table below

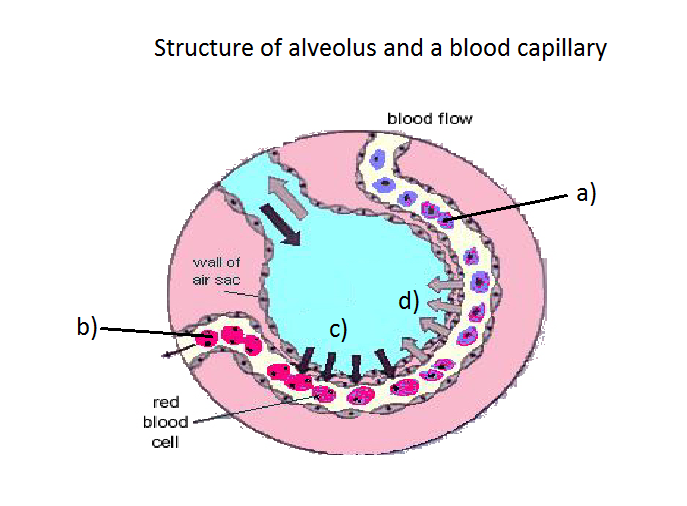
|  |  |  |
| --- | --- | --- |
| Arteries | Capillaries | Veins |
| Carry blood -------from the heart | Connect------and -------- | Carry blood------the heart |
| Have a ------wall | Walls are very ------- | Have a --------wall |
| Blood flows through at--------- pressure | Low pressure allows exchange of materials | Blood flows through at -----pressure |
| No------ | No--------- | Valves stop backflow of blood |

Worksheet on Gas exchange

1. What are the four characteristics the alveoli are designed with for gas exchange?
2. By what process do gases pass into and out of your blood?
3. From the table below,
4. Which gas is produced?
5. Why do we breathe out less oxygen than we take in?
6. What does the above chart tell you about the body’s use of nitrogen?

|  |  |  |
| --- | --- | --- |
| **Gas** | **Air we breathe in** | **Air we breathe out** |
| Oxygen | 21% | 16% |
| Carbon Dioxide | 0.04% | 4% |
| Nitrogen | 79% | 79% |
| Water Vapour | Varies | Saturated |

1. The diagram shows an alveolus (air sac) and a blood capillary in the lung.



Which letter shows

i)blood high in oxygen

ii)blood low in oxygen

iii)the diffusion of oxygen

iv)the diffusion of carbon dioxide?

1. What do you understand by the term *double circulation*?