

Student worksheet

7.5 The respiratory system exchanges gases

Pages 124–125 and 206

The respiratory system

1 What is the function of the respiratory system?

2 What is cellular respiration and why is it important?

3 Describe the path that oxygen takes through the mouth and into the blood.

4 What is the structure and function of alveoli?

5 Why do capillaries cover each alveolus?

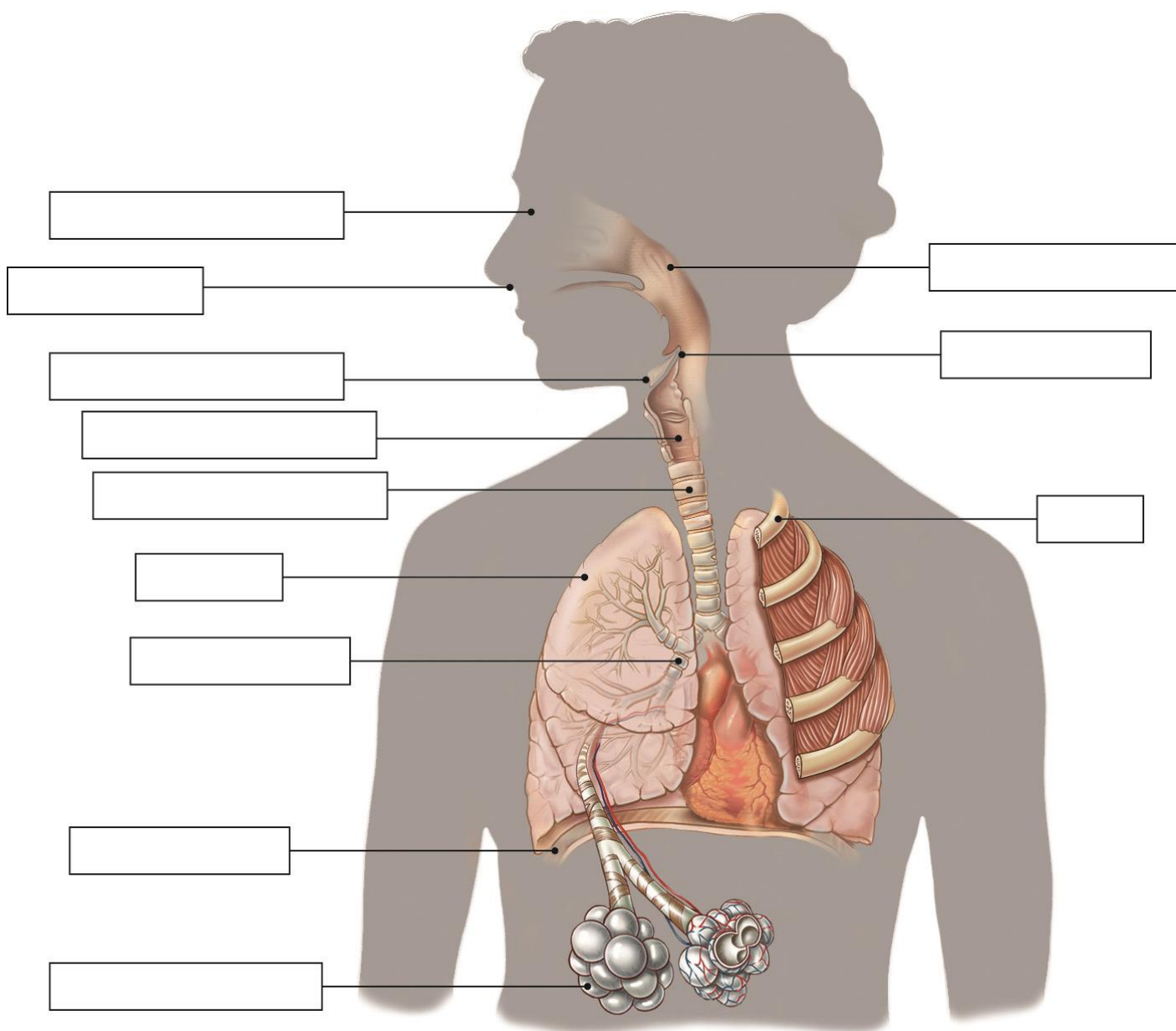
6 Why do some capillaries appear to be red and others appear to be blue?

7 What is the structure and function of the diaphragm?

8 Explain the movement of the diaphragm when inhaling and exhaling.

9 What is the function of the ring of cartilage that surrounds the trachea (windpipe)?

10 Label the following diagram of the respiratory system.



Extend your understanding

Plants have an alternative system of exchanging gases.

11 Why is the plant exchange of gases called respiration rather than breathing?

12 What is the name of the process that plants use to convert carbon dioxide into sugars? Write an equation for this process.

13 Which gas do plants use in this reaction, and which gas is released as waste?

14 What is the name of the organ within a leaf where this process occurs?

15 What is the name of the pigment that is necessary for this process and what colour is it?

16 Why are plants green?
