



Respiration and
Breathing Exam
Questions

2012 - Ordinary

Respiration is the release of energy from digested food e.g. glucose.

Complete the word equation given below using words from the list on the right.

Glucose + _____ →
Energy + **Carbon dioxide** +
_____.

Water

Oxygen

2011 - Higher

Describe **two** changes in the composition of blood after it has passed through the capillaries of the lungs

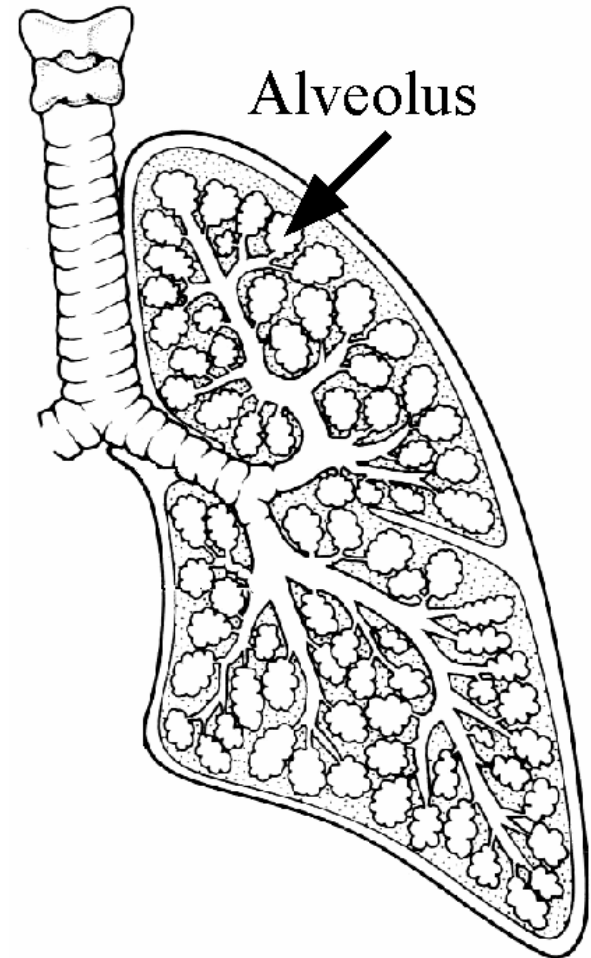
1 _____

2 _____

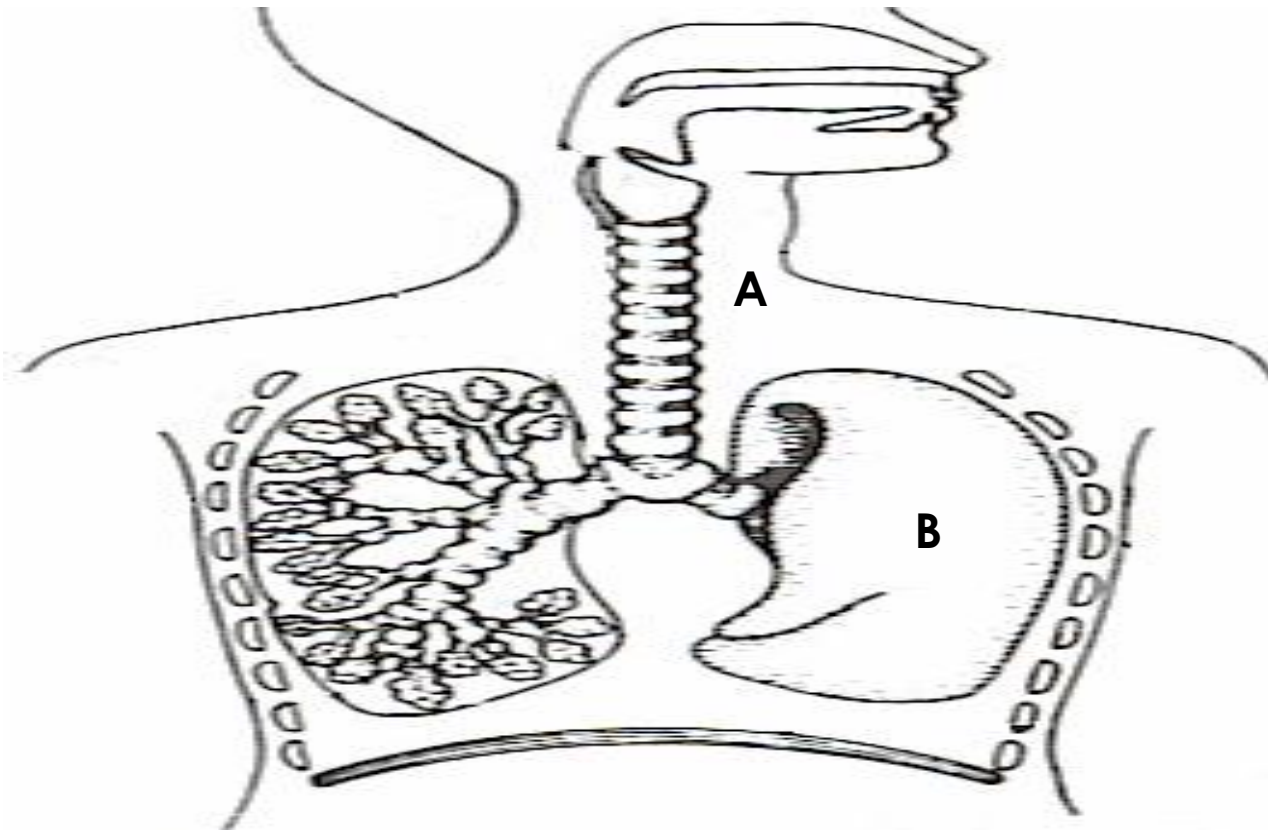
What feature of capillaries allows these changes to happen?

2010 - Higher

Describe clearly the **exchange of gases** that occur between the **air in the alveoli** and the **bloodstream**.



2010 - Ordinary



2010 - Ordinary

Name the parts labelled **A** and **B** in the diagram.

A _____

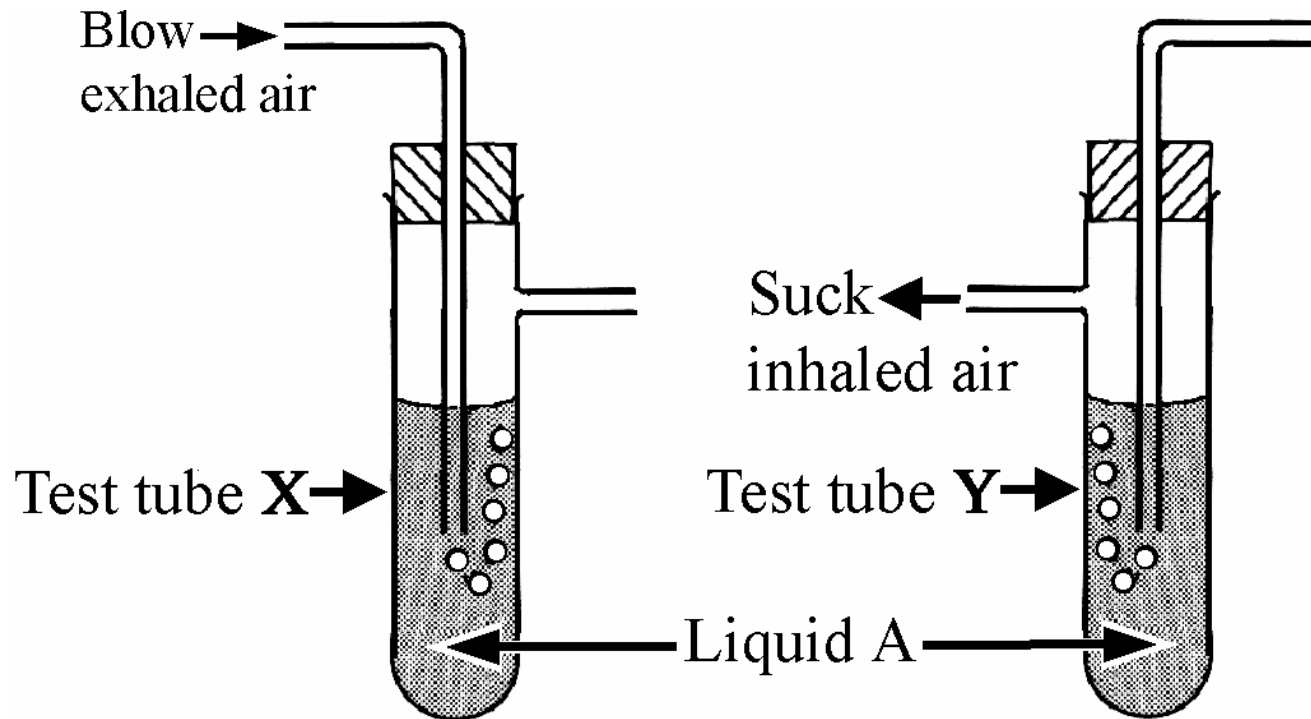
B _____

Part **A** has rings of cartilage. What do the rings of cartilage do?

In which part of the breathing system does the gas exchange take place? _____

Why does exhaled air turn limewater milky?

2009 - Higher



2009 - Higher

The diagram shows the apparatus used by a pupil when performing an experiment in a school laboratory. The pupil blew (exhaled) air into test tube **X**. The pupil sucked (inhaled) air from test tube **Y**.

The pupil continued, alternately, blowing and sucking air, as above, until **liquid A** in **one** of the test tubes **turned milky**.

Name **liquid A**.

In **which test tube**, **X** or **Y**, did the **liquid turn milky**?

Why did **liquid A turn milky** in **one** of the test tubes? _____

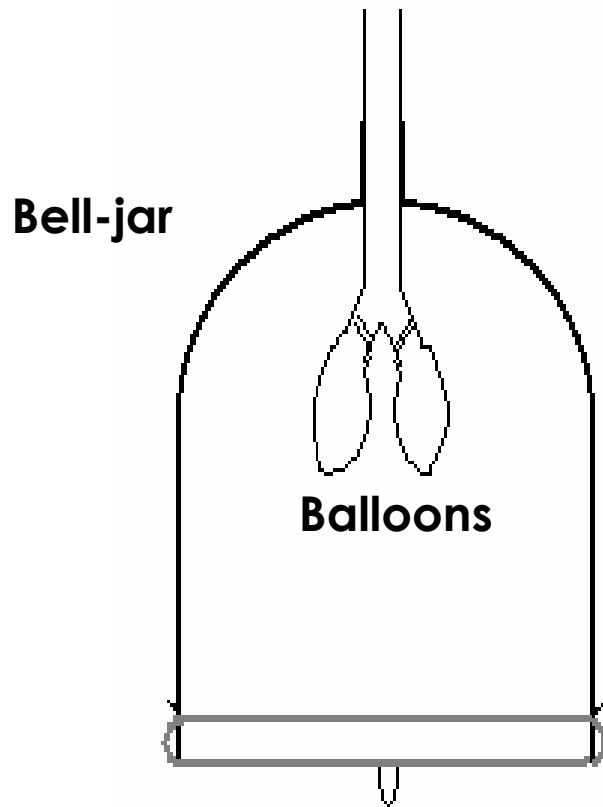
2009 - Higher

What **conclusion** can be made from the **result of this experiment** regarding the **difference in composition between exhaled and inhaled air**?

Complete the **word equation**, below, for **aerobic respiration**.

Food + _____ → _____ +
energy + water

2009 - Ordinary



The diagram shows a model of the human breathing system.

Name the part of the breathing system represented by the balloons.

2009 - Ordinary

Choose from the list on the right the correct word to complete the sentence below.

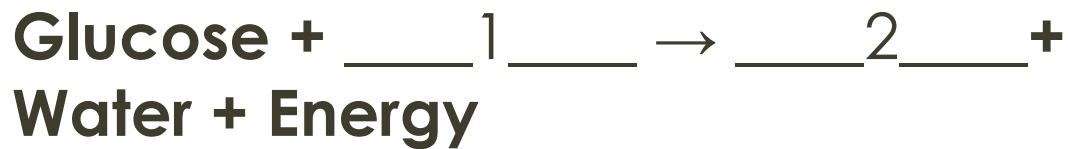
The part of the breathing system represented by the bell-jar is the

Rib Cage

Diaphragm

2008 - Ordinary

From the list on the right identify the correct word(s) needed to replace each of the numbers 1 and 2 in the equation below so that the equation describes respiration.



1 _____

2 _____

Oxygen

Carbon
Dioxide

2007 - Higher

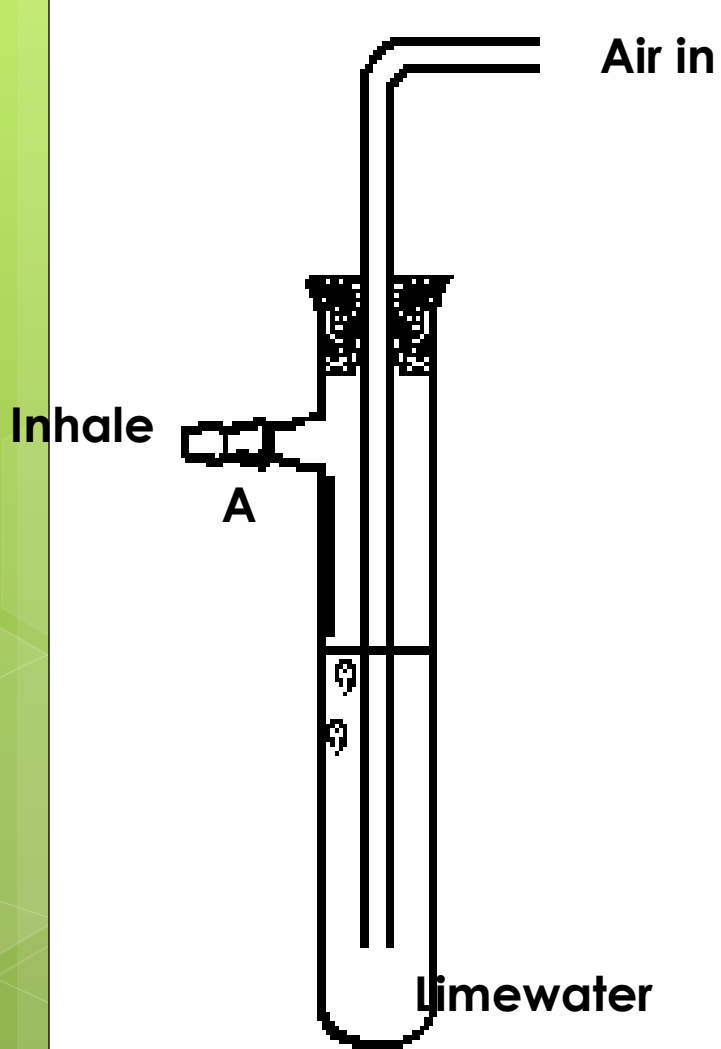
Complete the following **word equation** for aerobic respiration.

Glucose (Food) + _____ → **Energy** +
_____ + **Water**

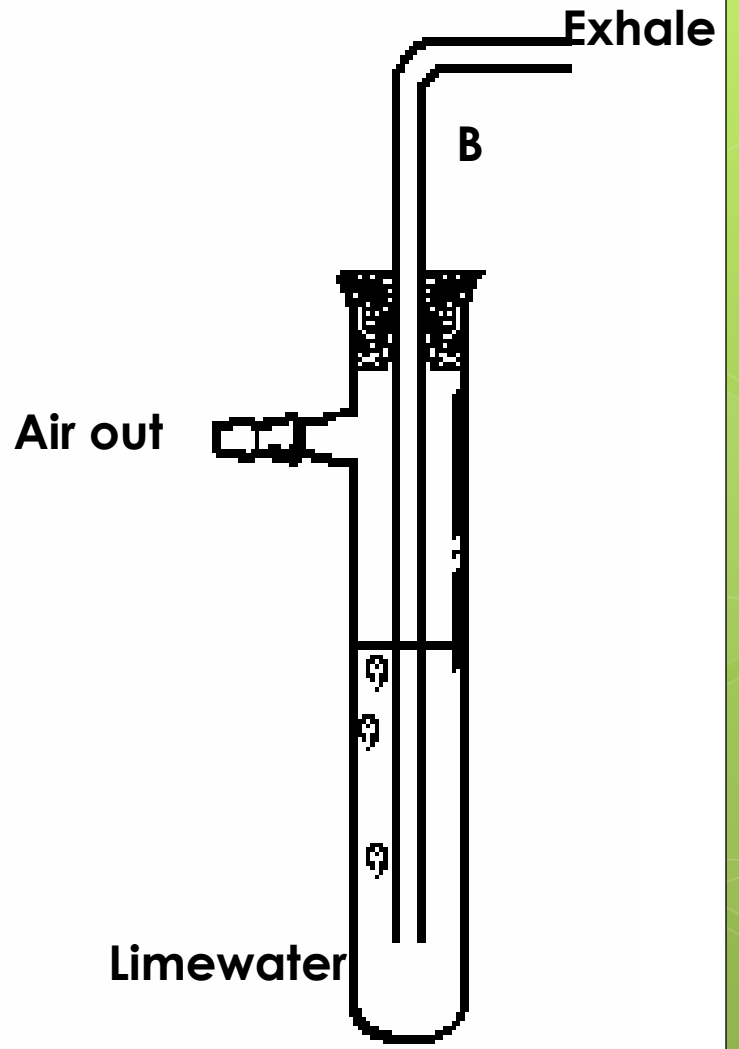
State how you would show the presence of **one** of the **products** of aerobic respiration by means of a **chemical test**.

2007 - Ordinary

- In an investigation to **compare the amount of carbon dioxide in inhaled and exhaled air** a student set up the apparatus drawn below.
- **Limewater** was placed in **test tube A** and in **test tube B**.
- The student **inhaled** (breathed in) air **through part A of test tube A** so that the air was passed through the limewater.
- The student then **exhaled** (breathed out) through **part B of test tube B** so that the exhaled air was passed through limewater.



Test tube A



Test tube B

2007 - Ordinary

What effect has carbon dioxide on limewater?

The student **inhaled through test tube A** and **exhaled through test tube B** twenty times. The student saw **no change** in the appearance of the limewater **in test tube A**. The appearance of the limewater in **test tube B had changed**.

What **change** would you expect the student to have seen **in the limewater in test tube B**?

What **conclusion** should the student have drawn from **what he/she saw**?

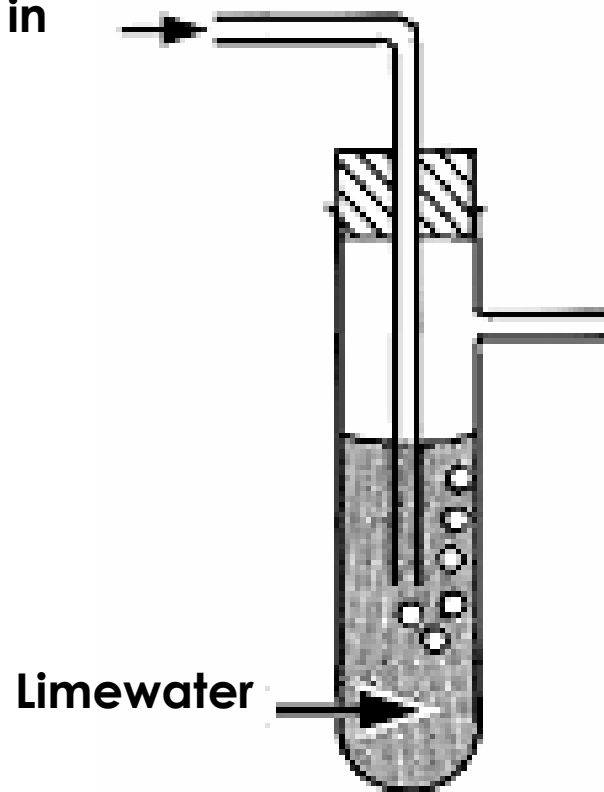
2006 - Higher

The diagram is of an apparatus used to show that **exhaled air contains carbon dioxide**.

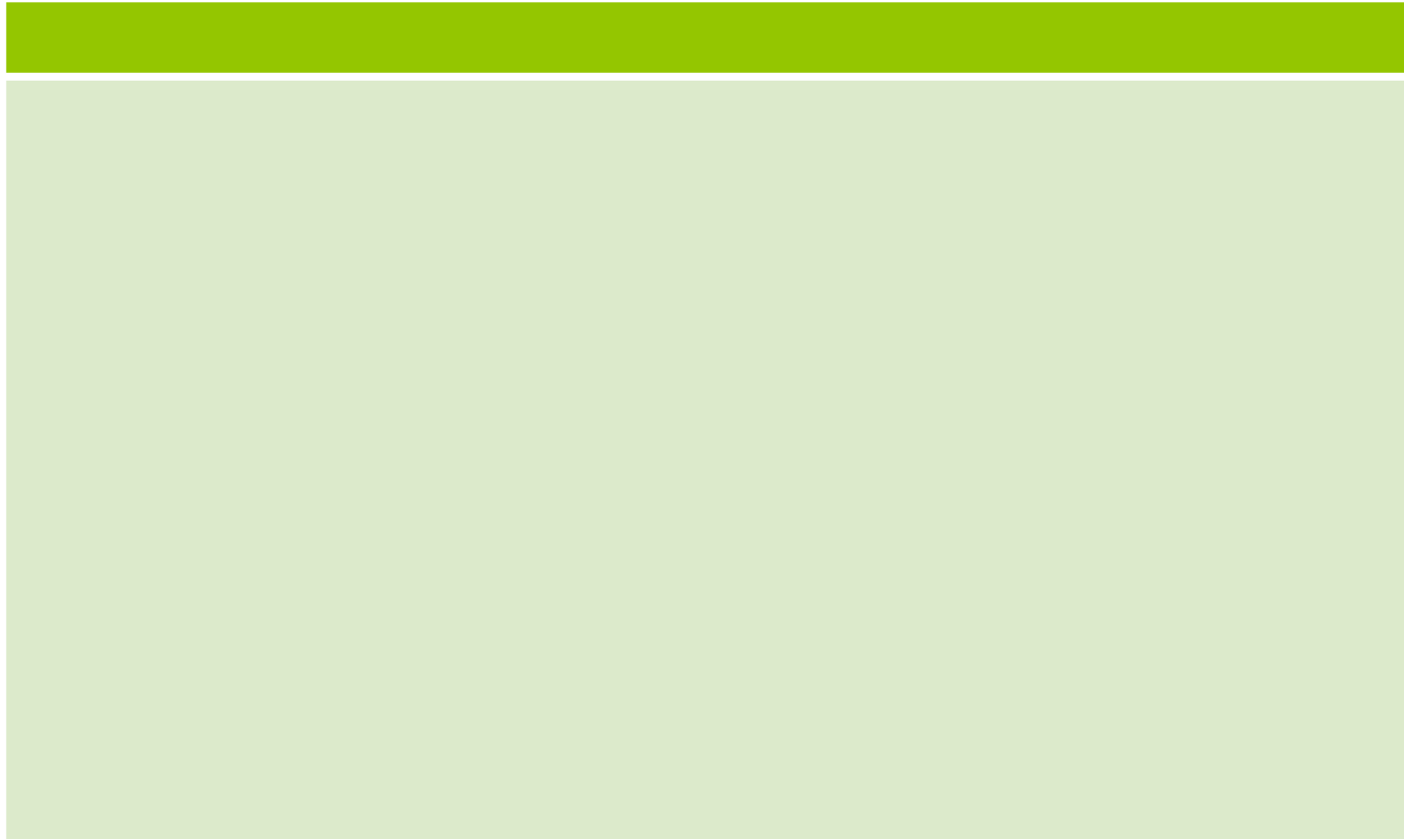
When performing this experiment **a control is required** to show that inhaled air contains **less** carbon dioxide than exhaled air.

Describe, using a labelled diagram, a suitable control procedure.

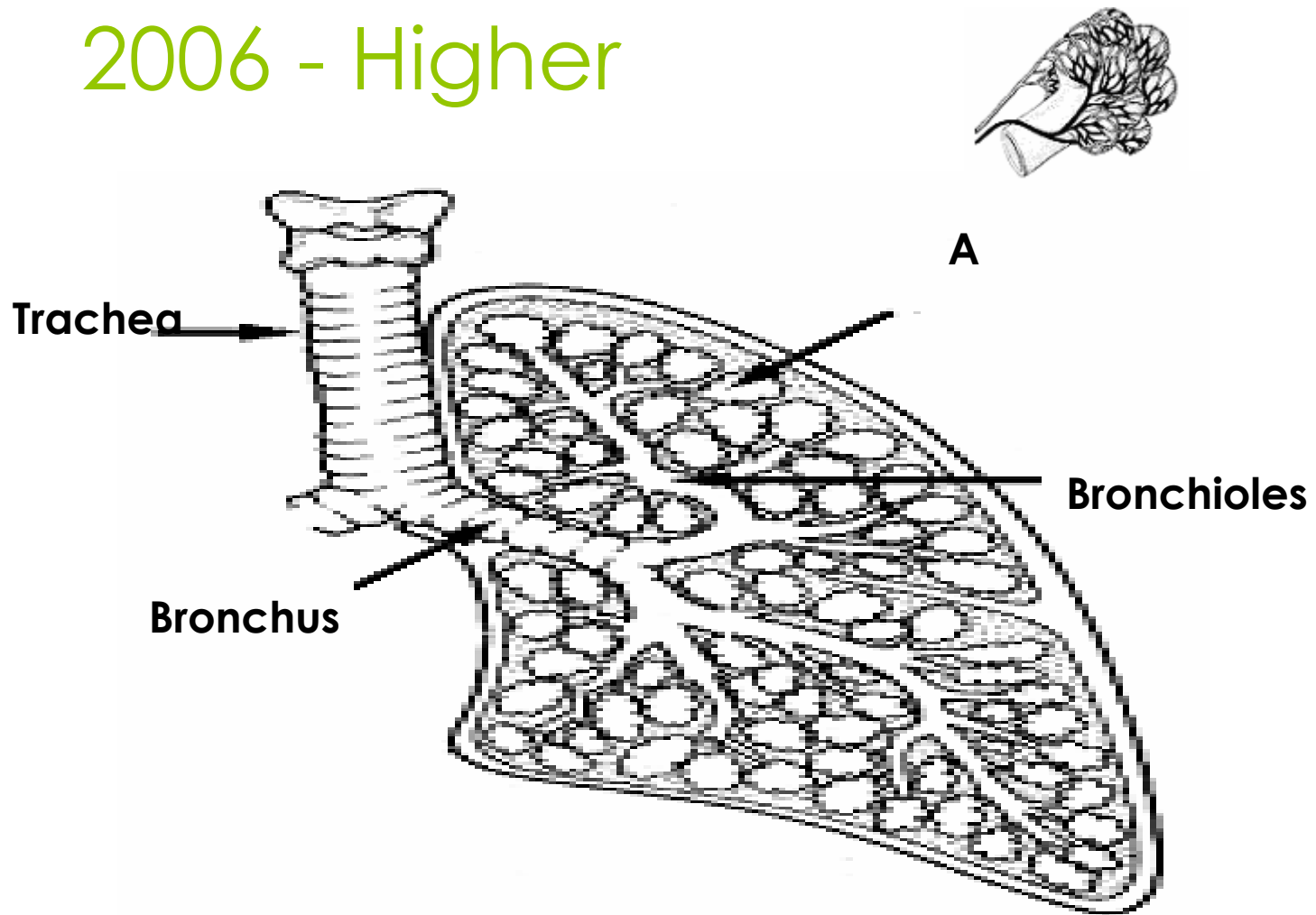
Blow exhaled
air in



2006 - Higher



2006 - Higher

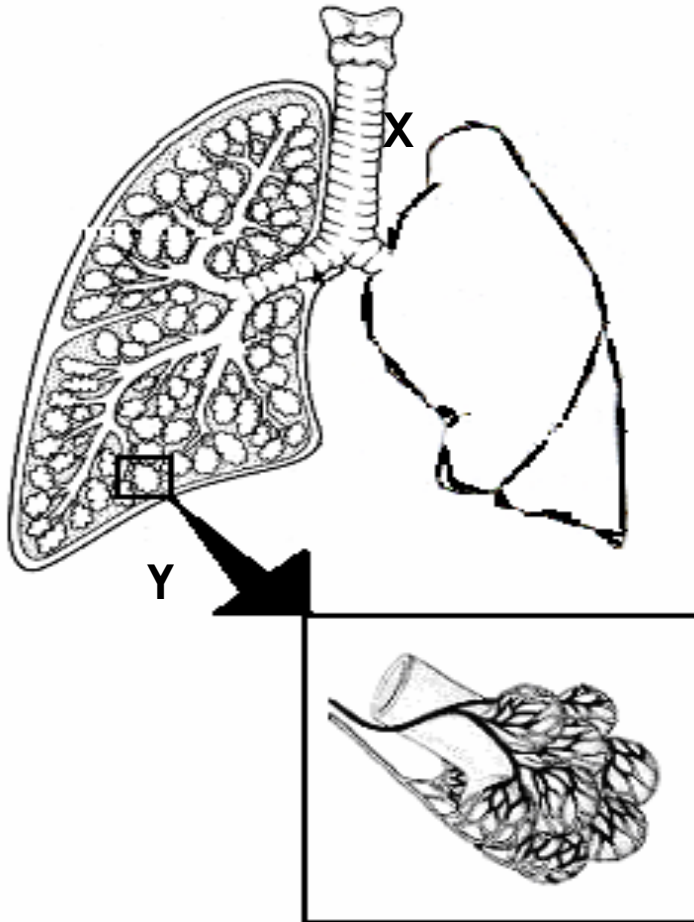


2006 - Higher

Name **structure A.** _____

How does **gaseous exchange** take place in the structures labelled **A**?

2006 - Ordinary



Name the parts of the breathing system labelled **X** and **Y** in the diagram.

Name of X

Name of Y

2006 - Ordinary

Complete the sentence below using a word from the list.

There is **more** _____ in exhaled air than in inhaled air.

Oxygen

Carbon Dioxide

Hydrogen

2006 - Ordinary

A balance of exercise and rest promotes good health.

Name one activity which has a **harmful effect** on the breathing system.
