

KS3 Biology

Biological Systems and Processes

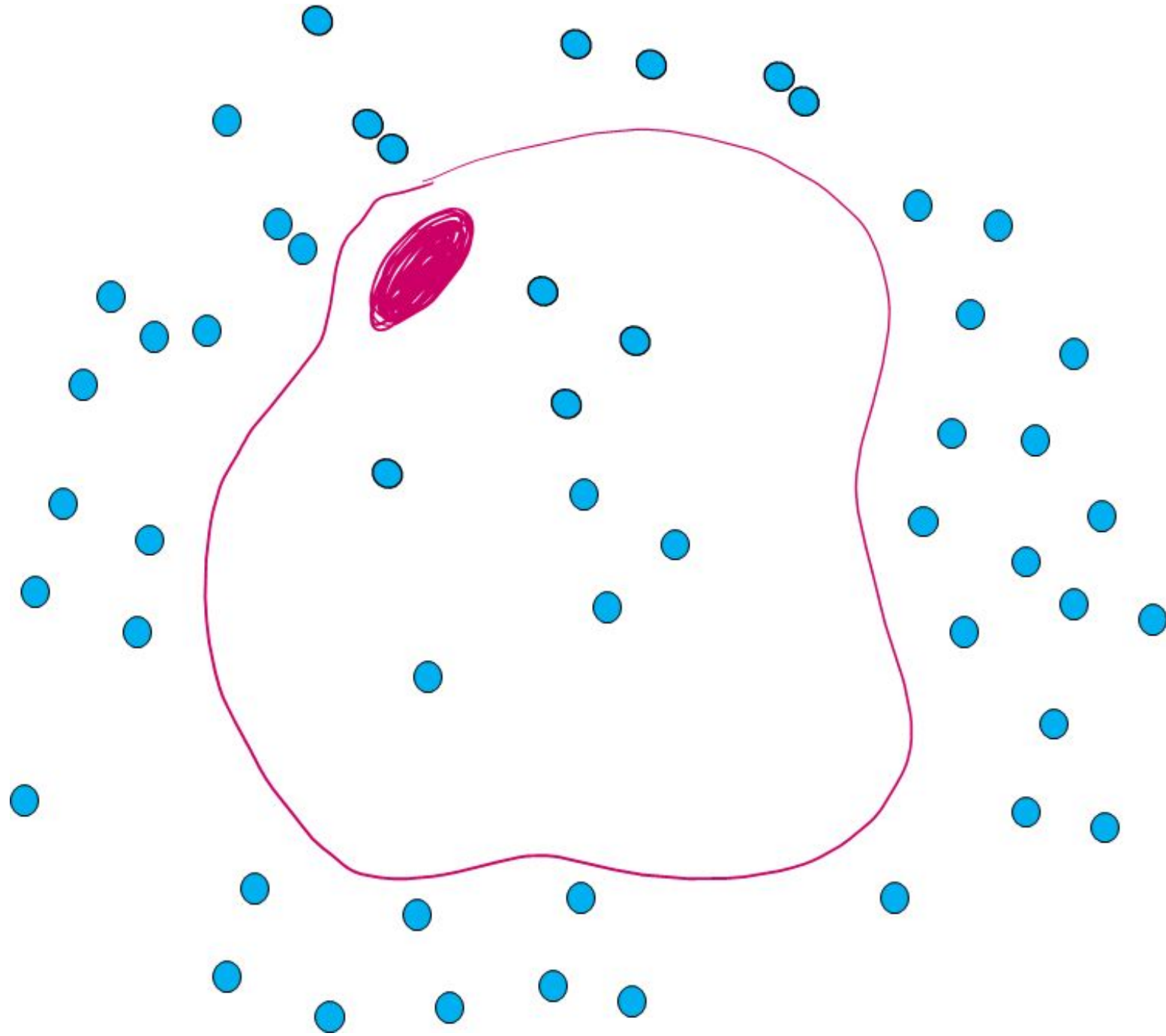
Lesson 3 - The Respiratory System

Miss Hindle



Describe how oxygen will get into this cell

Think of 3 keywords that you might put in your answer

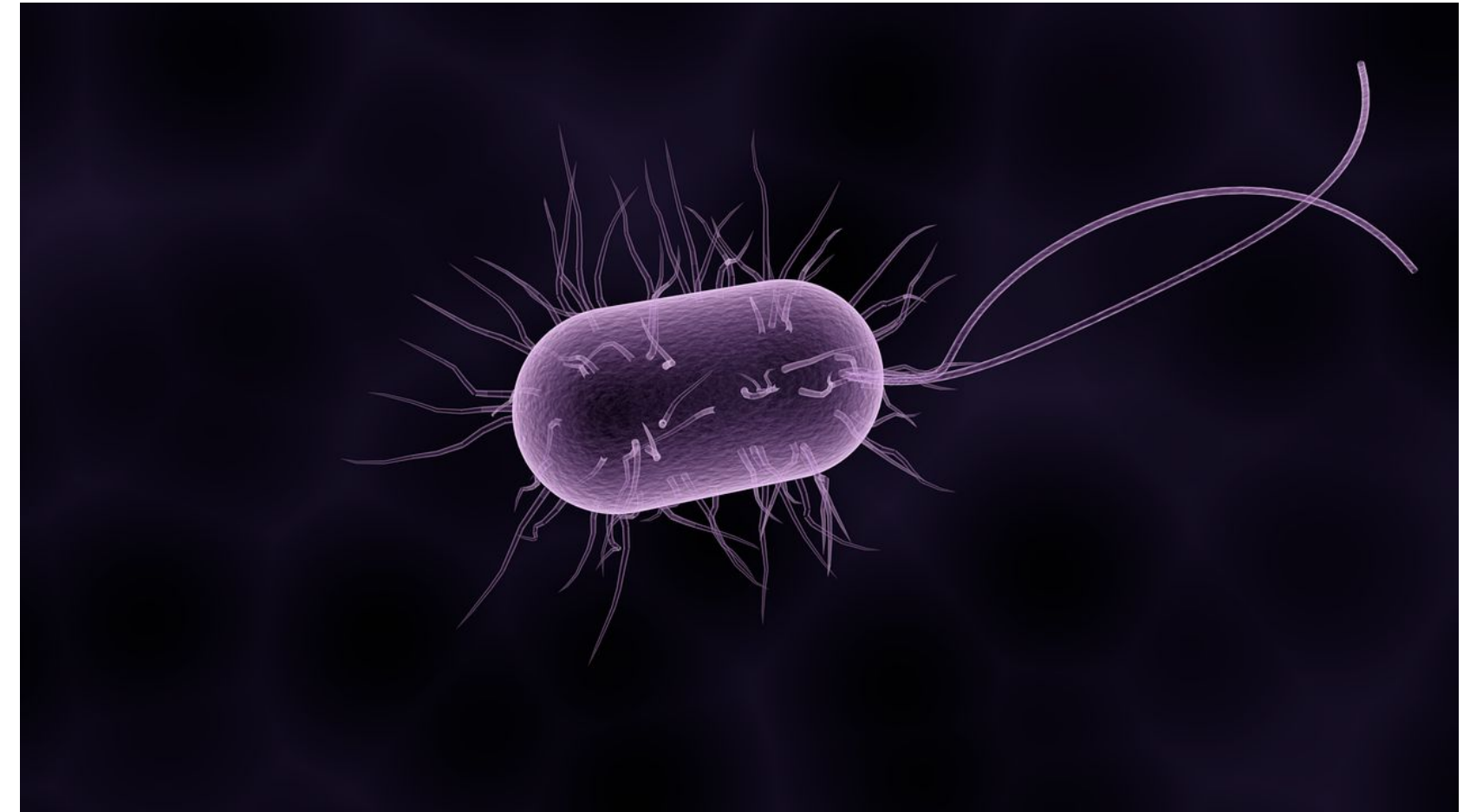


- By **diffusion**
- From high **concentration**
- To low **concentration**
- Requires no **energy**



Quick Quiz...

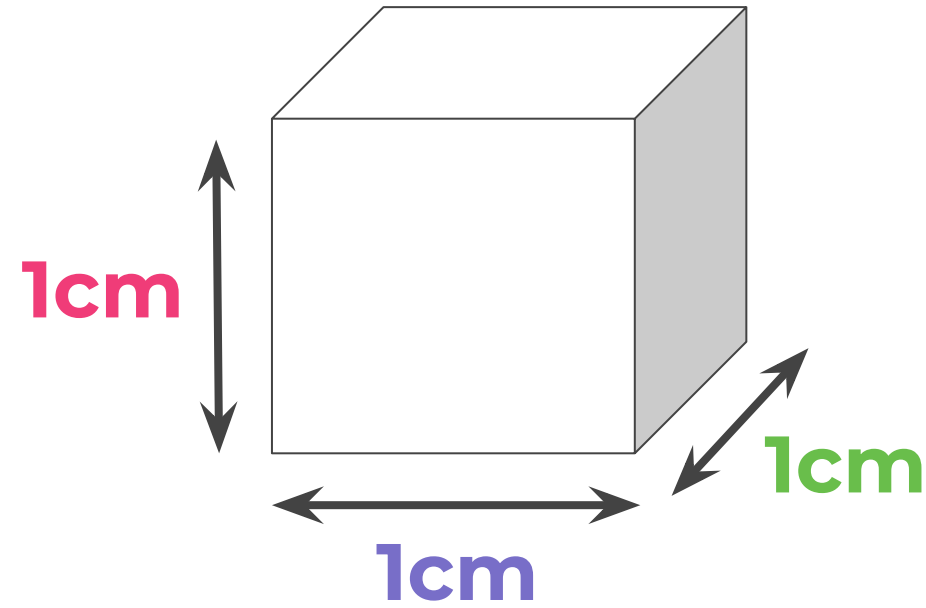
1. How does a bacterium get oxygen into its 'body'?
2. How do we get oxygen into our bodies?
3. Where does the oxygen then go?
4. Why do humans need a different method rather than just diffusion to get oxygen into the body?



Pixabay



Surface Area : Volume (SA:V) Calculation...

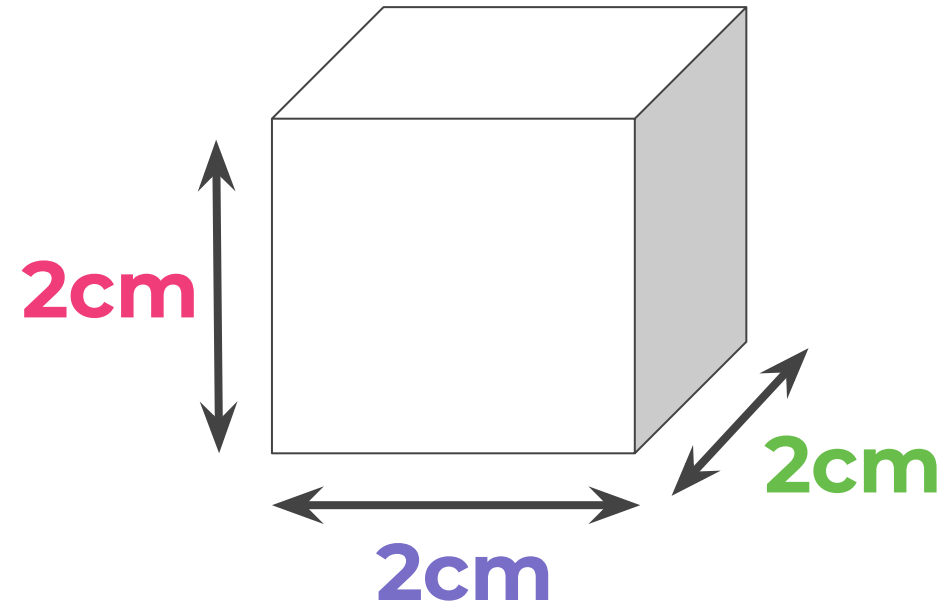


$$\underline{SA:V =}$$

1. Surface area of one side =
2. Total surface area =
3. Volume =



Surface Area : Volume (SA:V) Calculation...

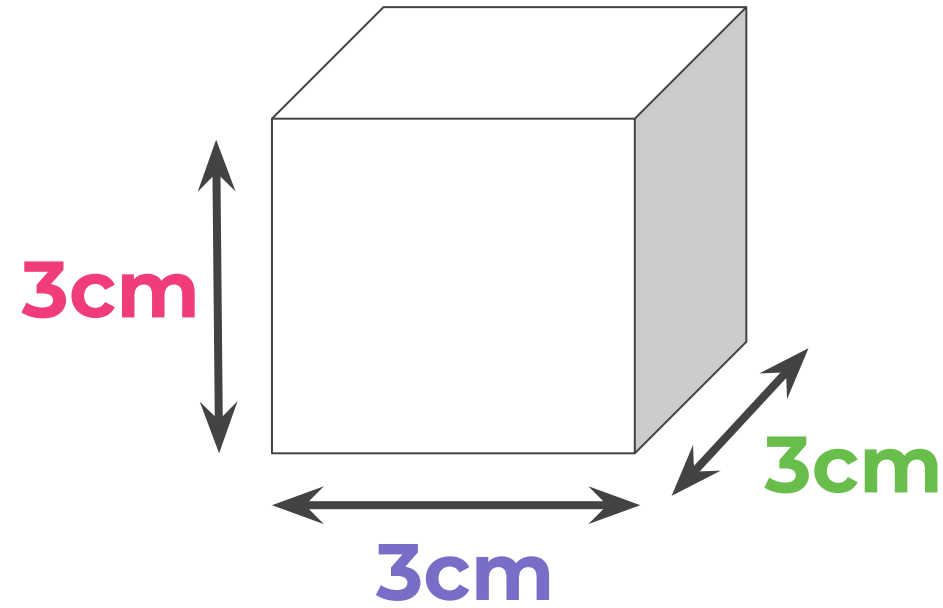


$$\underline{SA:V =}$$

1. Surface area of one side =
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Surface Area : Volume (SA:V) Calculation...



$$\underline{SA:V =}$$

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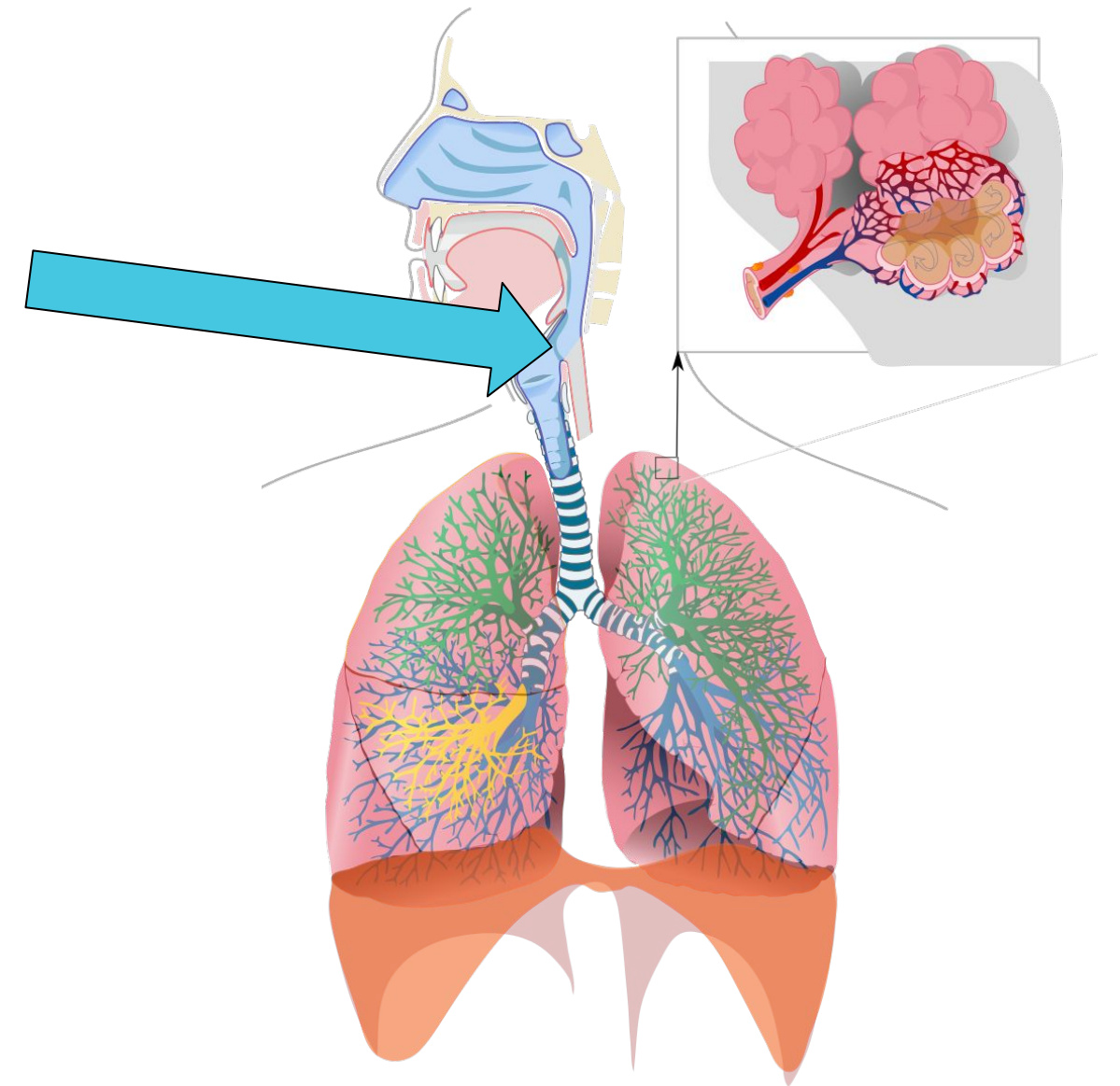
Quick Check...

Structure	Description
trachea	Connects each lung to the trachea
bronchi	Where oxygen diffuses into the blood
bronchioles	The smallest branches of the airways
alveoli	Contains cartilage, lined with mucus and cilia



Quick Check....

1. Where does gas exchange happen? A_____
2. What is this part of respiratory system called?
3. How are the alveoli specialised for their job?
 - a.
 - b.
 - c.
 - d.



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Final Task...

Explain how the alveoli help maximise the amount of gas exchange in the lungs.

WAGOLL

The lungs have lots of alveoli, which increase the surface area for diffusion.



Stated the
adaptation



Explained how the adaptation
supports gas exchange

