



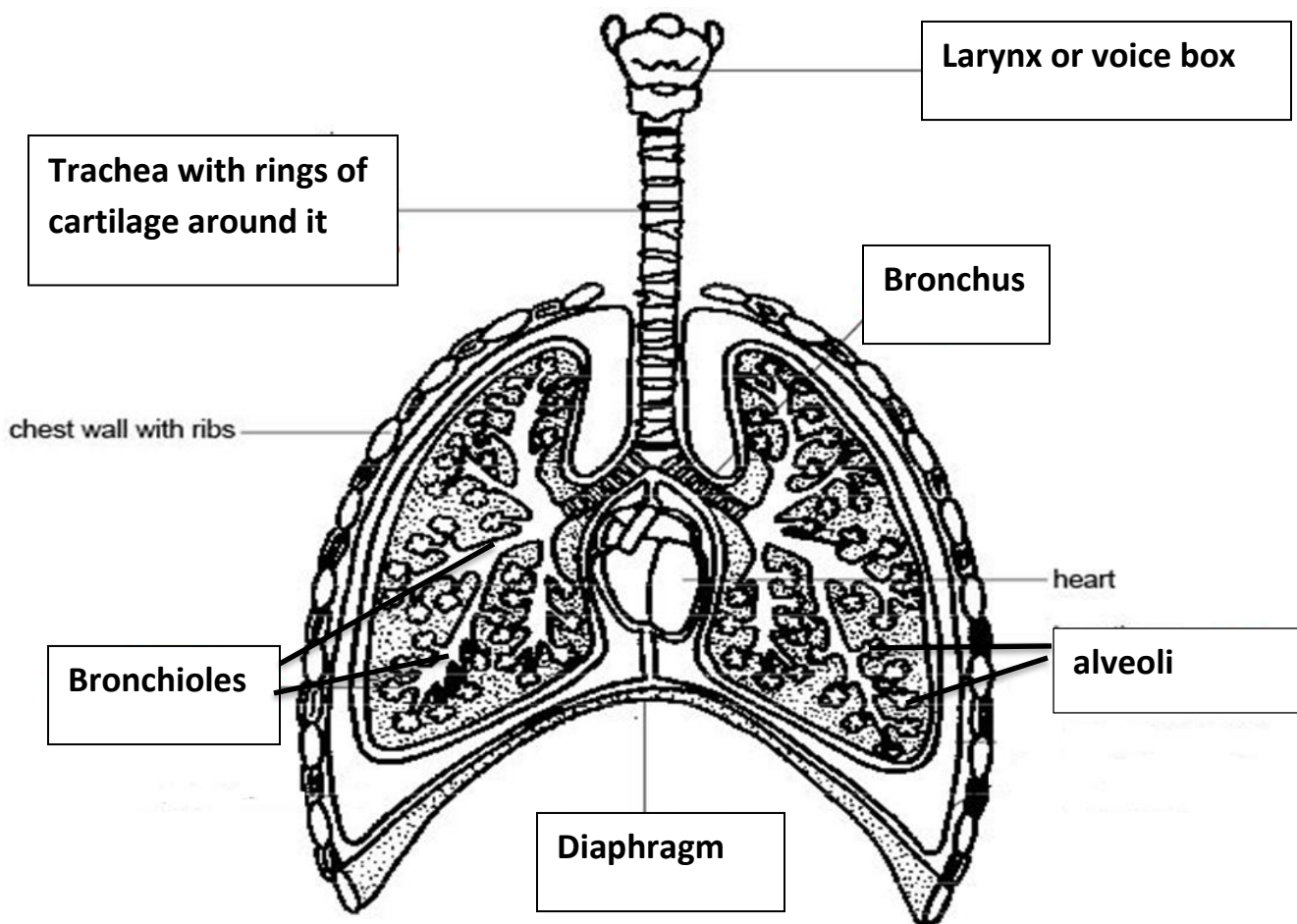
## The National Orthodox School /Shmaisani

**Subject: Science/ Biology**

**Name:** *Study sheet : Parts of the respiratory system*

**Date:** **Grade-Section: 7CS- all sections**

**Objective :** Recognize the main parts of the respiratory system .  
Describe what these organ system do .



Part	Function
Nose	<ol style="list-style-type: none"> <li>1. Hairs in the nose trap some of the dust particles.</li> <li>2. The lining of the nose produces mucus .</li> <li>3. Blood vessels beneath the nasal lining warm the air before it passes into the lungs .</li> </ol>
Trachea	<ol style="list-style-type: none"> <li>1. It is made from rings of cartilage which is a fairly rigid substance , each ring is in the shape of a C.</li> <li>2. The inner lining of trachea has :               <ol style="list-style-type: none"> <li>a. Mucus secreting cells (to trap bacteria and dust)</li> <li>b. Ciliated epithelial cells ( move the mucus to the top of the windpipe ).</li> </ol> </li> </ol>
Bronchi	The trachea is divided into two smaller tubes called bronchi.
Bronchioles	The bronchi divide up into many smaller tubes called bronchioles , they have walls made of muscles but do not have cartilage .
Alveoli	<p>They have thin walls and are supplied with tiny blood vessels called capillaries .</p> <p>This is where gas exchange takes place .</p>

# Gas exchange :

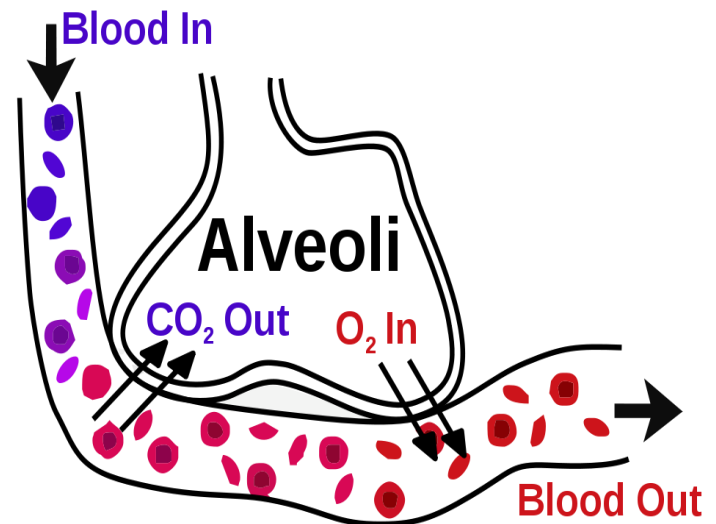
We need to **get oxygen from the air into the blood**, and we need to **remove waste carbon dioxide** from the blood into the air.

***Moving gases like this is called gas exchange.***

The alveoli are adapted for gas exchange in lungs .

Here are some adaptations of the alveoli that allow them to do their function properly :

- ✓ they have large surface area to allow faster exchange of gases .
- ✓ they have thin walls (just one cell thick).
- ✓ they have a lot of tiny blood vessels called capillaries.



The gases move by **diffusion** from an area of high concentration to an area of low concentration .

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