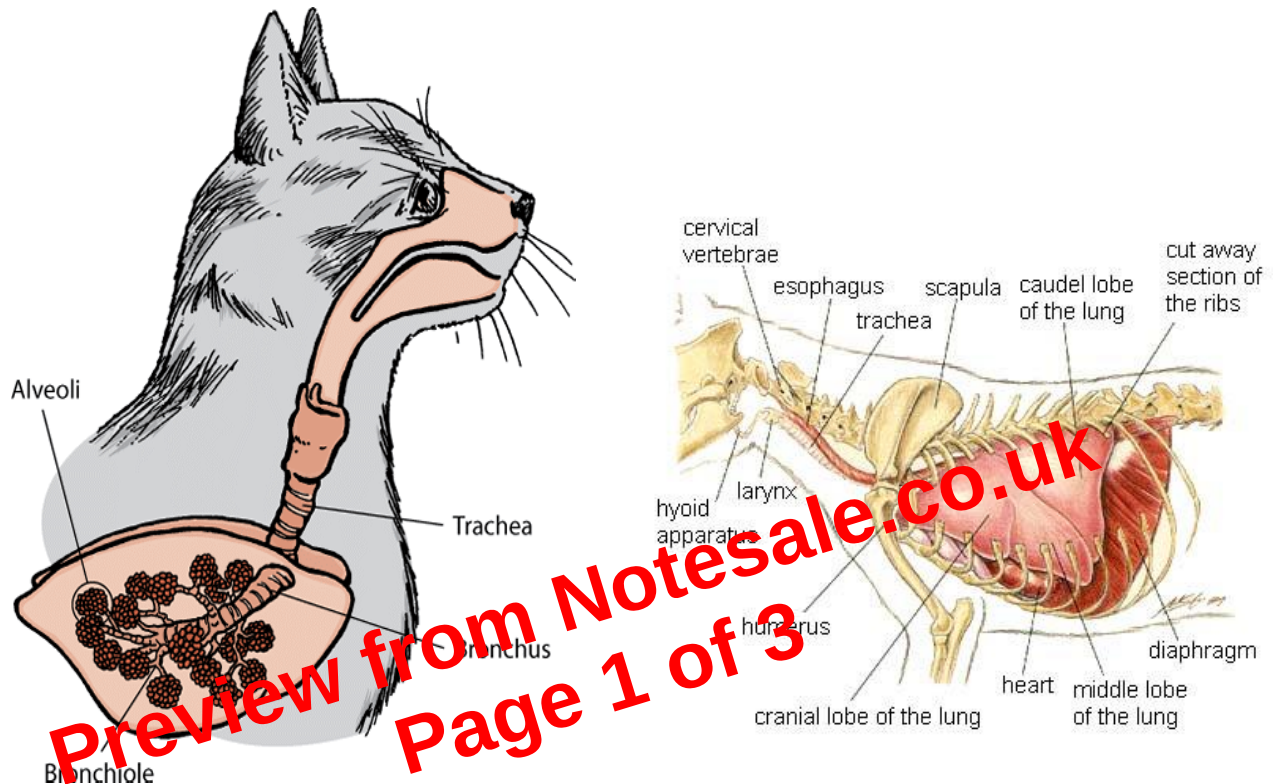


\*3 pages explaining the feline respiratory system including the structure and functions of the: Nares, Pharynx, Larynx, Trachea, Bronchi, Lungs, Nasal Cavity and the sinuses. There is also a description on how the breathing process within a feline specifically works. Assignment includes labelling diagrams.

### Feline Respiratory System

The feline respiratory system comprises of the Nares (Nostrils), nasal cavity, sinuses within the skull, the pharynx (back of the mouth), Larynx (Voice box), Trachea (windpipe) Bronchi (the branches of the trachea going into the lungs) and the lungs.



Felines have a right lung and left lung which are further divided into lobes. Within the lungs the bronchi divides into many small tubes named 'Bronchioles' which then divide into much more smaller branches. Bronchioles eventually end in small structures called 'alveoli'; these are microscopic. The Alveoli is supplied with microscopic blood vessels called 'Capillaries'. Blood makes contact within individual cells within the 'Alveoli' which is based in the lungs; and an exchange of oxygen for carbon dioxide happens.

The respiratory systems main functions are to exchange the body's carbon dioxide for oxygen and to provide a cooling system. Felines are unable to sweat as they do not have many sweat glands (the only sweat glands they have are on their feet) which means they cannot sweat to lower their body's temperature so to cool themselves down they breathe much harder also known as panting; this quickens the exchange of warm air from the body for the cooler outside air. The evaporation of moisture from within the respiratory system further cools inside surfaces.

The specific breathing process of a feline starts with the feline inhaling fresh air via the nose or mouth, which then travels through the pharynx and the larynx to the trachea. Air is then carried from the trachea to the bronchi which the supply the lungs with air. The exchanging of air occurs within the alveoli and the used air travels on an opposite path going through the bronchi, trachea, larynx and pharynx and leaving through the nose or mouth.

The actions of the rib muscles known as Intercostals and the diaphragm (an internal muscle) makes breathing easy to achieve. Separating the chest (containing the heart and lungs) and the abdomen (containing the intestines, stomach, liver, bladder etc.) is the diaphragm muscle. For the feline to inhale, the diaphragm