The need for specialised exchange surfaces
To include surface area to volume ratio (SA:V), metabolic activity, single-celled and multicellular organisms.
Large and active (multicellular) organisms have higher metabolic demands and a smaller surface area to volume ratio (SA:V). The distance is too large and diffusion takes too long to supply needs.

Single celled organisms have low metabolic demands for oxygen and carbon dioxide and a large surface area to volume ration (SA:V) so diffusion is enough to supply the needs of the organism.

The features of an efficient exchange surface
To include root hair cells, alveoli and gills/alveolus
The root hair cells increase surface area thus providing the area needed for exchange and overcomes the limitations of the SA:V ratio of large organisms.

The alveoli have thin layers so diffusion distances are short, making the process fast and efficient. There are many alveoli which increases the surface area across which oxygen and carbon dioxide can diffuse. There are capillaries running over the surface of the alveoli which provides a short diffusion distance to deliver carbon dioxide to be removed from the blood and carry oxygen away from the alveoli giving a high concentration gradient and rate of gas exchange. Steep gradient can also be maintained in lungs by the continuous blood flow in the capillaries which brings in more carbon dioxide and takes away more oxygen.

The gills in fish and alveolus in mammals provide a good blood supply maintaining a steep concentration gradient for faster diffusion to take place. They also give ventilation to maintain diffusion gradients which makes the process more efficient.

The structures and functions of the components of the mammalian gaseous exchange system
To include the distribution and functions of cartilage, ciliated epithelium, goblet cells, smooth muscle and elastic fibres in the trachea, bronchi, bronchioles and alveoli.
The trachea carries clean, warm and moist air from the nose into the chest; it is supported by incomplete rings of strong, inflexible cartilage which stops the trachea from collapsing and holds the airway open. The rings are incomplete so that food can move down the oesophagus behind the trachea. It's lined with ciliated epithelium and goblet cells. The goblet cells secrete mucus onto the lining to trap dust and microorganisms that have escaped the nose lining. The cilia waft the mucus away from the lungs to the back of the mouth. Smoking stops the cilia beating.

The bronchi have a similar structure to that trachea but are smaller. The smooth muscle fibres on the wall help to constrict the bronchus.

The bronchioles have no cartilage rings. The walls contain smooth muscle which contract when the bronchioles constrict and relaxes when the bronchioles dilate. This changes the amount of air reaching the lungs. It's lined with a thin layer of flattened epithelium making some gaseous exchange possible.

Alveoli consist of a layer of thin, flattened squamous epithelial cells, along with some collagen and elastic fibres. The thin squamous epithelium provides a short diffusion distance. The elastic fibres allow the alveoli to stretch as air is drawn in preventing bursting. When they return to their resting size, they help expel air by squeezing it out. This is elastic recoil.

A steep diffusion gradient can be maintained by ventilating the lungs. This refreshes the air in the air sacs by increasing the partial pressure of oxygen in the air sacs so the concentration of oxygen is higher than the concentration in the blood. The partial pressure of carbon dioxide decreases in the air sacs so the concentration of carbon dioxide in the air sac is lower than in the blood.

The mechanism of ventilation in mammals
To include the function of the rib cage, intercostal muscles (internal and external) and diaphragm.
The diaphragm and the intercostal muscles provide ventilation by maintaining diffusion.

Inspiration is an energy-using process. During inspiration, the diaphragm contracts, flattens and moves downwards. The external intercostal muscles contract to move the ribs up and out. The volume of the thorax increases so the pressure in the thorax is reduced. The pressure is lower than the atmospheric air, so air is drawn in through the nasal passages, the trachea, the bronchi and bronchioles into the lungs. This equalises the pressure inside and outside the chest.

Expiration is a passive process. During expiration, the diaphragm relaxes, moving up into its resting shape. The external intercostal muscles relax so the ribs move down and inwards under gravity. The elastic fibres in the alveoli return to their normal length which increases the pressure of the thorax so that it is greater than the atmospheric pressure. Air moves out of the lungs until the pressure inside and out is equal.

You can exhale forcibly using energy. The internal intercostal muscles contract, pulling the ribs down hard and fast. The abdominal muscles contract forcing the diaphragm up to increase the pressure in the lungs rapidly.

You can't completely expel air from the lungs because the lungs cannot be completely compressed. The trachea and bronchi are held open by cartilage and the bronchioles and alveoli are held open by elastic fibres.