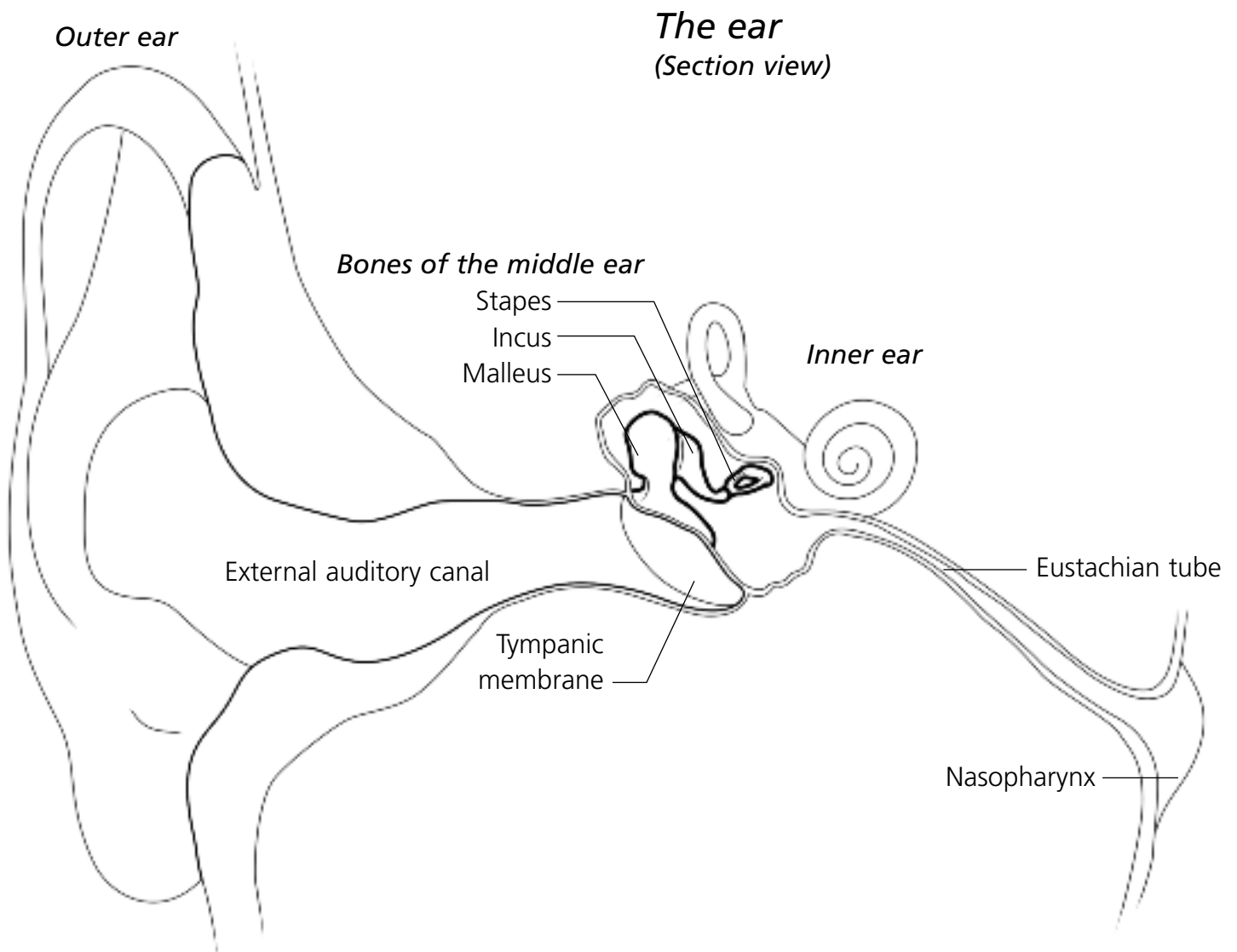


The Skeletal System: Ossicles

Study guide worksheet

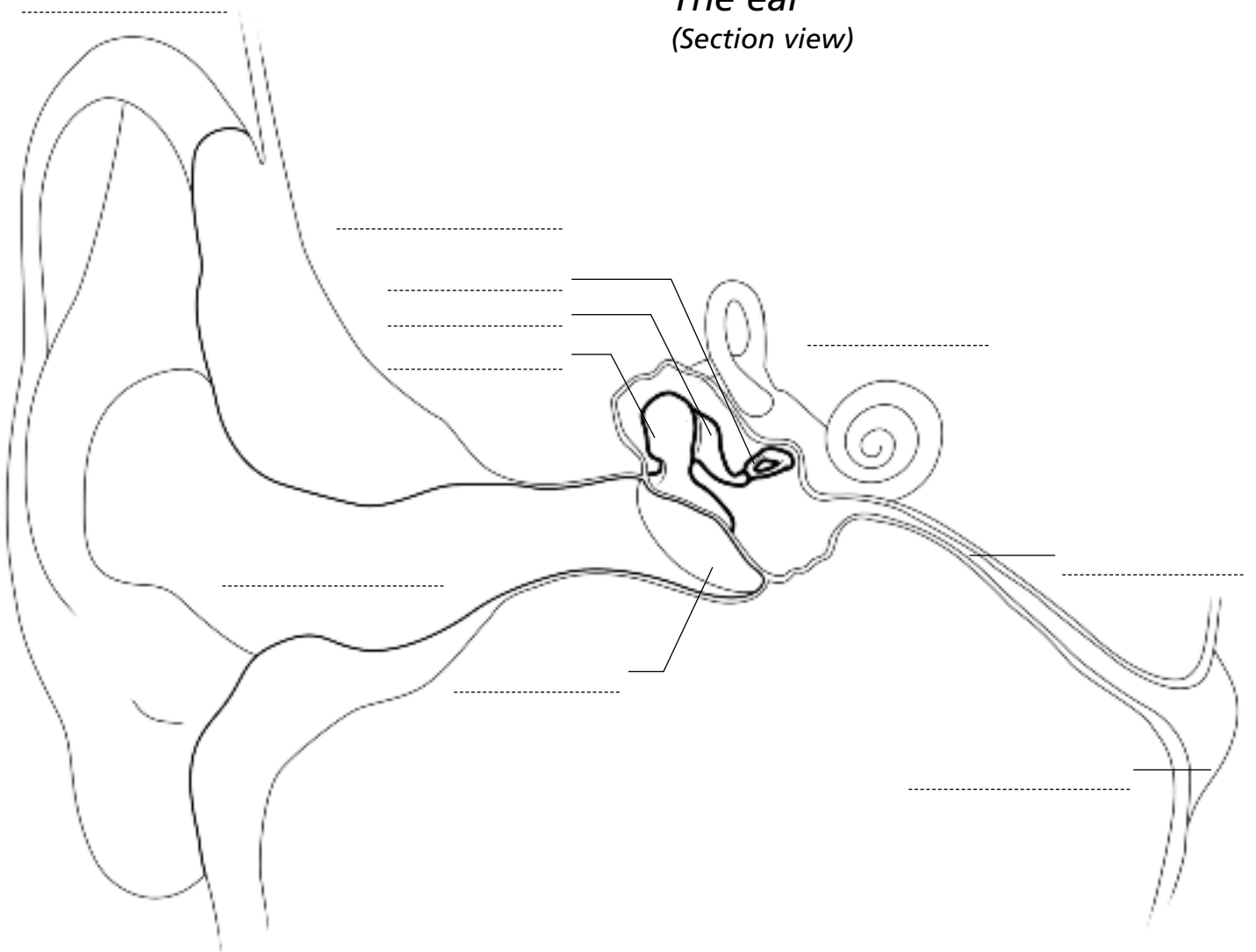
The middle ear is a small air-filled cavity containing the **ossicles**. These tiny linked bones (**stapes**, **incus**, and **malleus**) connect the tympanic membrane to the oval window, an opening into the inner ear. Both the eustachian tube and nasopharynx connect to the middle ear.



The Skeletal System: Ossicles

Study guide worksheet

The ear
(Section view)

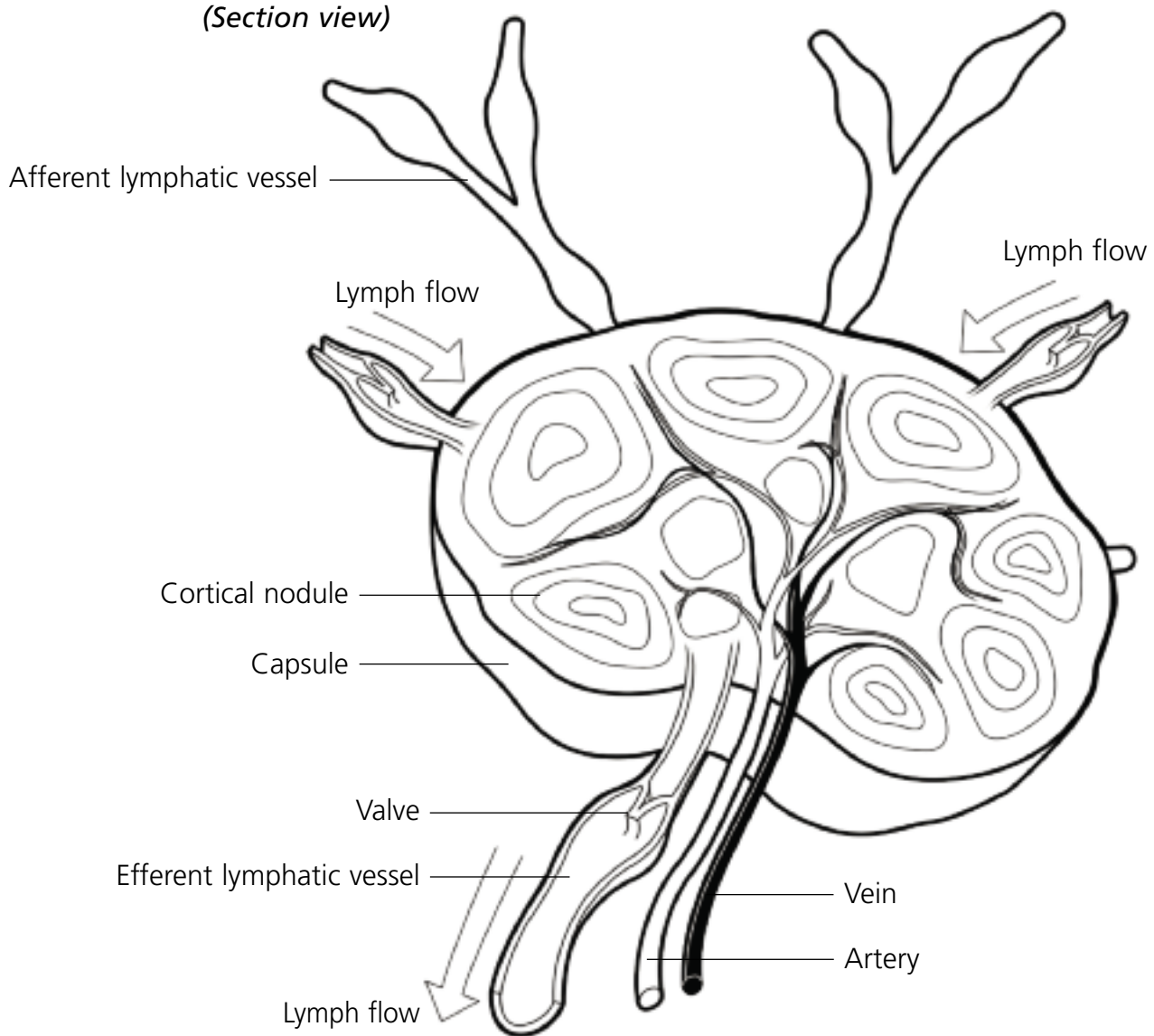


The Lymphatic System: Lymph Node

Study guide worksheet

The lymphatic vessels are lined with hundreds of tiny bean-shaped organs called **lymph nodes**. Although they are scattered throughout the body, large clusters of lymph nodes are concentrated near specific areas such as the mammary glands and groin. Lymph nodes act as a barrier to infection by scavenging bacteria and other foreign materials from the lymph collected from the organs and tissues before it is returned to the bloodstream.

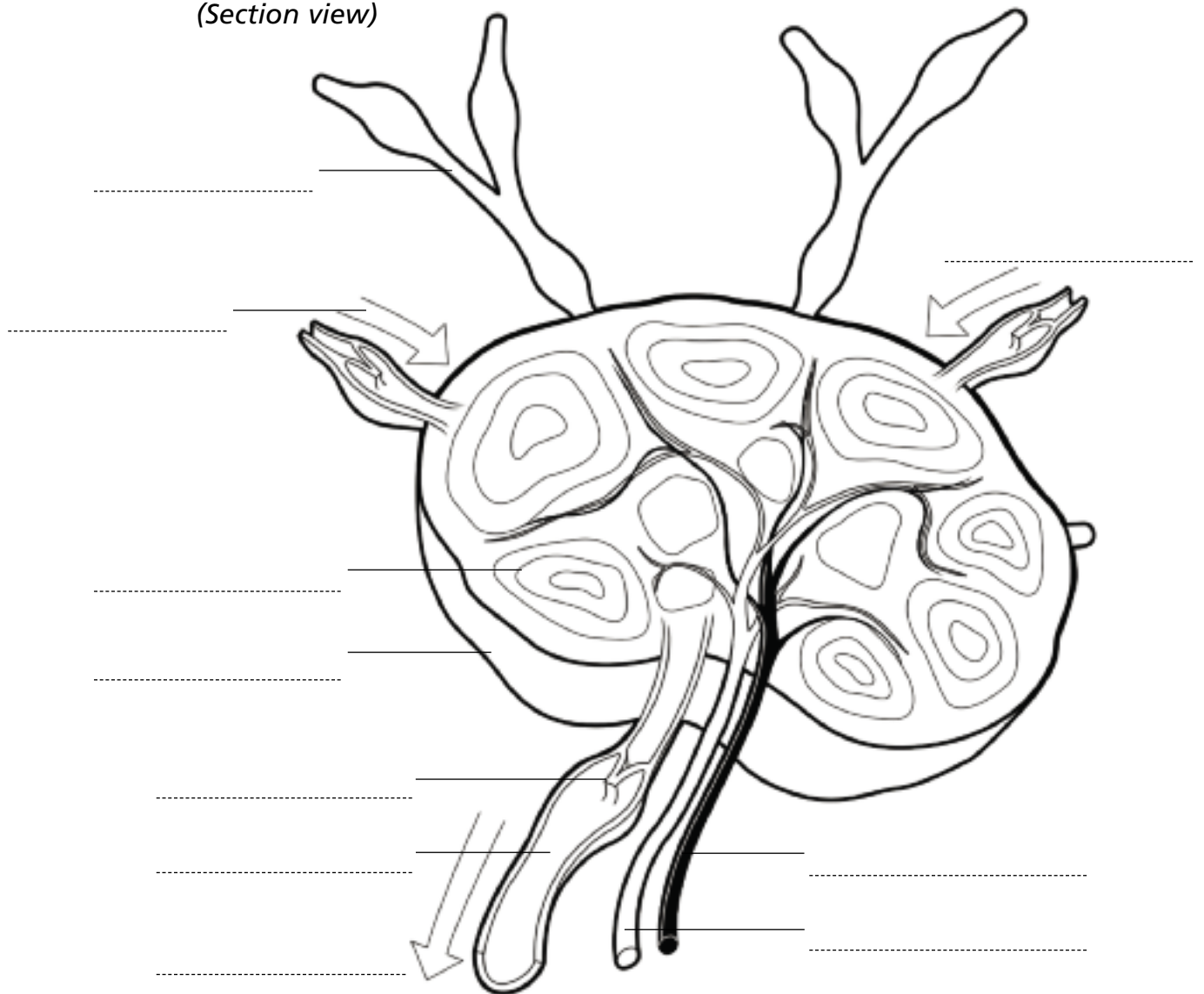
Lymph node (Section view)



The Lymphatic System: Lymph Node

Study guide worksheet

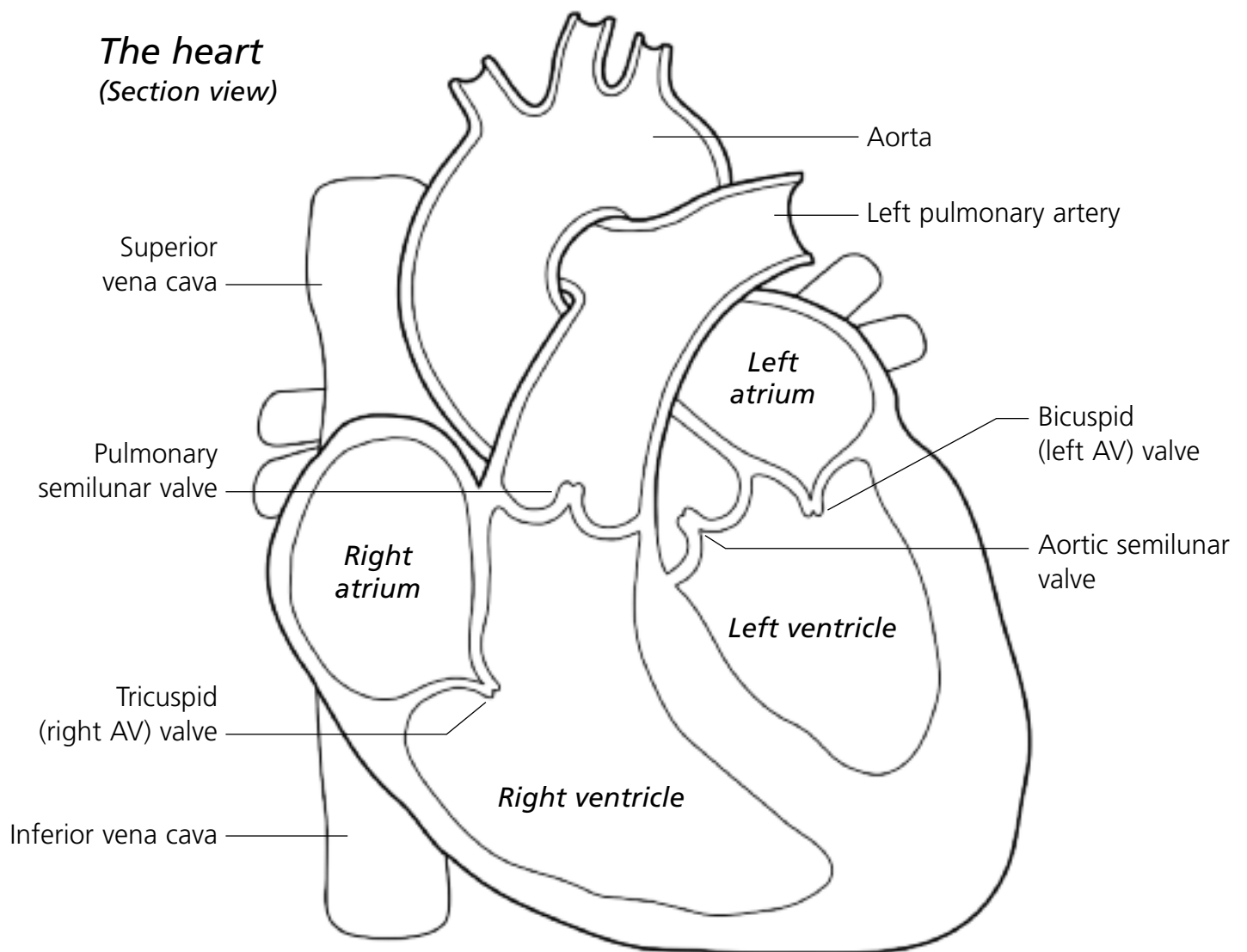
*Lymph node
(Section view)*



The Vascular System: Heart

Study guide worksheet

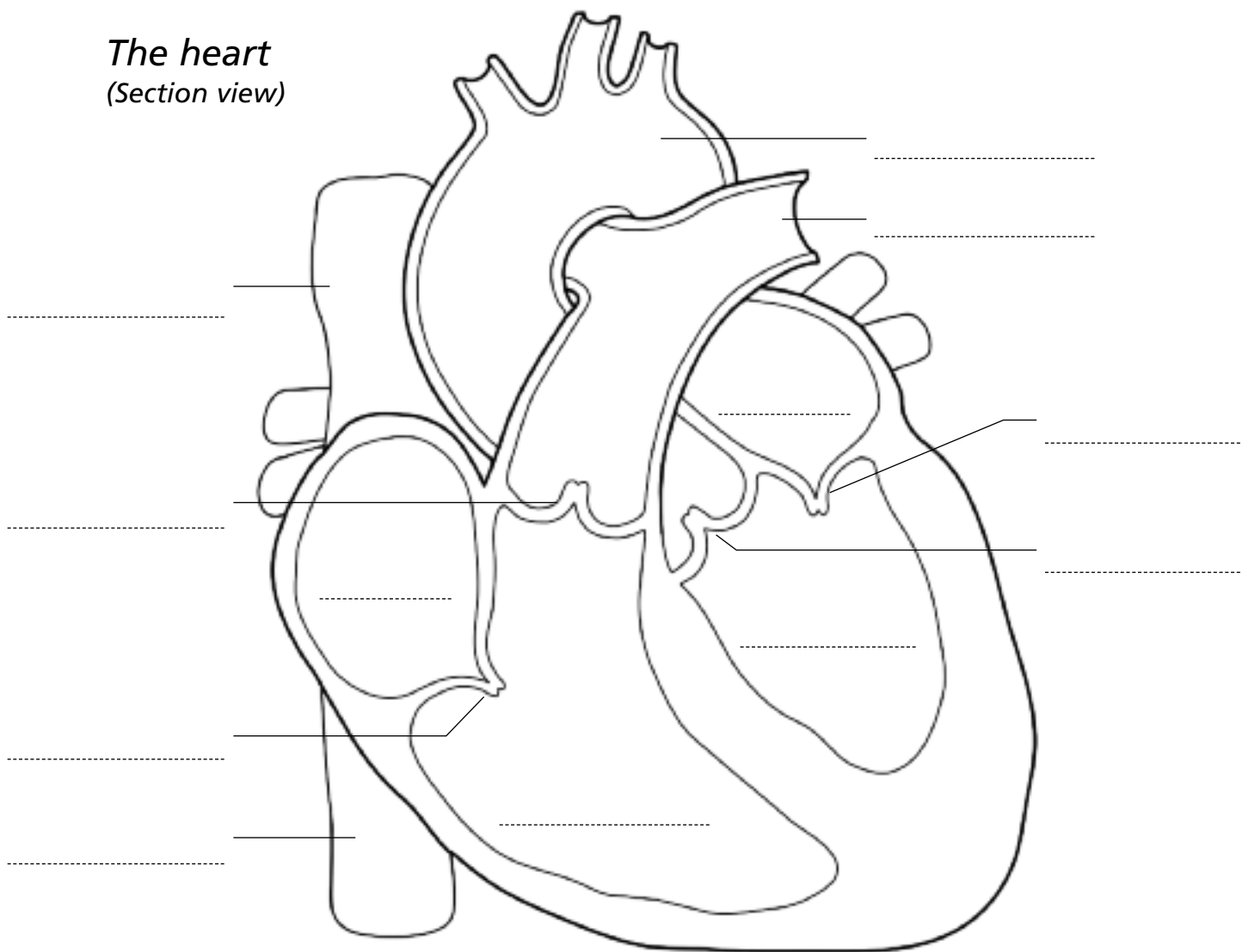
The **heart** is a four-chambered, muscular organ that functions as a powerful pump. About the size of a fist, the heart is located in the chest between the lungs, just to the left of center. The heart continuously pumps blood through the body's extensive network of arteries and veins. **Arteries** transport blood away from the heart, and **veins** transport blood back to the heart. This circulation of blood delivers oxygen and nutrients to the body while removing waste products.



The Vascular System: Heart

Study guide worksheet

The heart
(Section view)

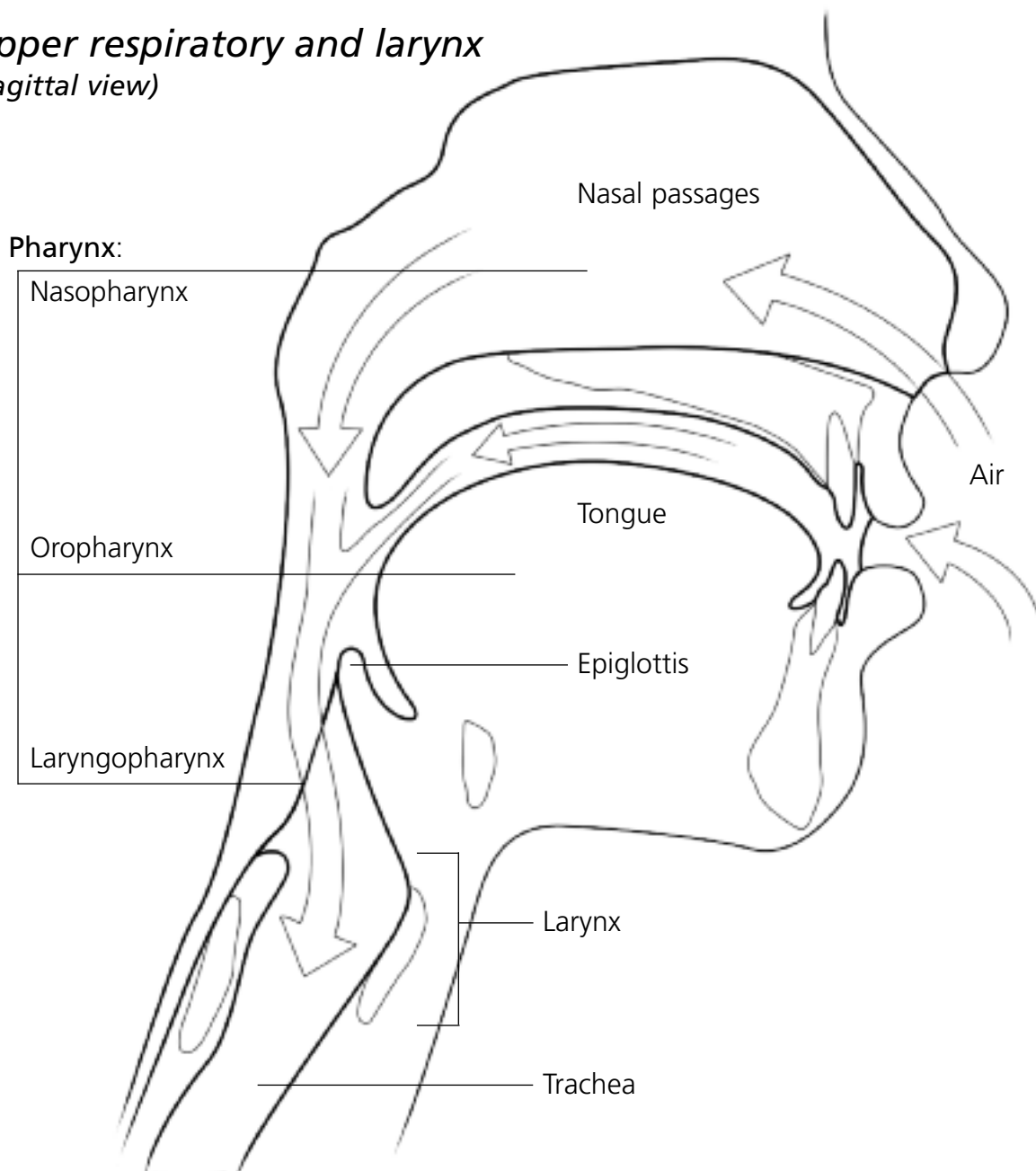


The Respiratory System: Breathing

Study guide worksheet

Through breathing, our respiratory system provides needed oxygen and expels the carbon dioxide we need to eliminate. A complete breath includes taking air into the lungs (**inspiration**) and then expelling it (**expiration**). The upper respiratory system consists of the nose, nasal passages, paranasal sinuses, and pharynx. The **paranasal sinuses** are hollow cavities within the bones of the face behind the eyes and around the nose. There are four pairs of sinuses: frontal, maxillary, ethmoid, and sphenoid. They are joined by a continuous mucous membrane that produces **mucus**, a slippery secretion that moistens the nasal passages and traps dirt particles from incoming air.

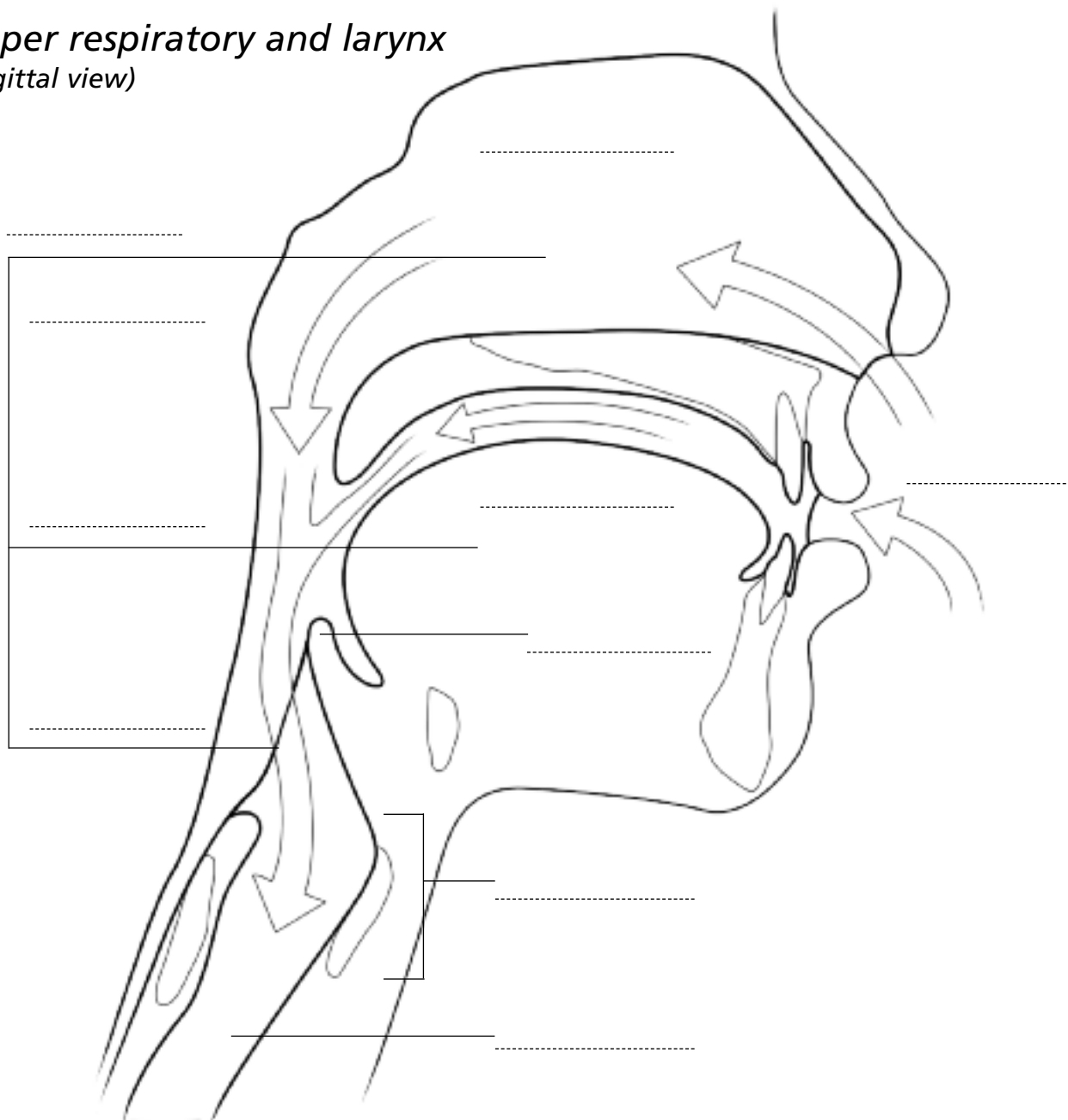
Upper respiratory and larynx (Sagittal view)



The Respiratory System: Breathing

Study guide worksheet

Upper respiratory and larynx (Sagittal view)

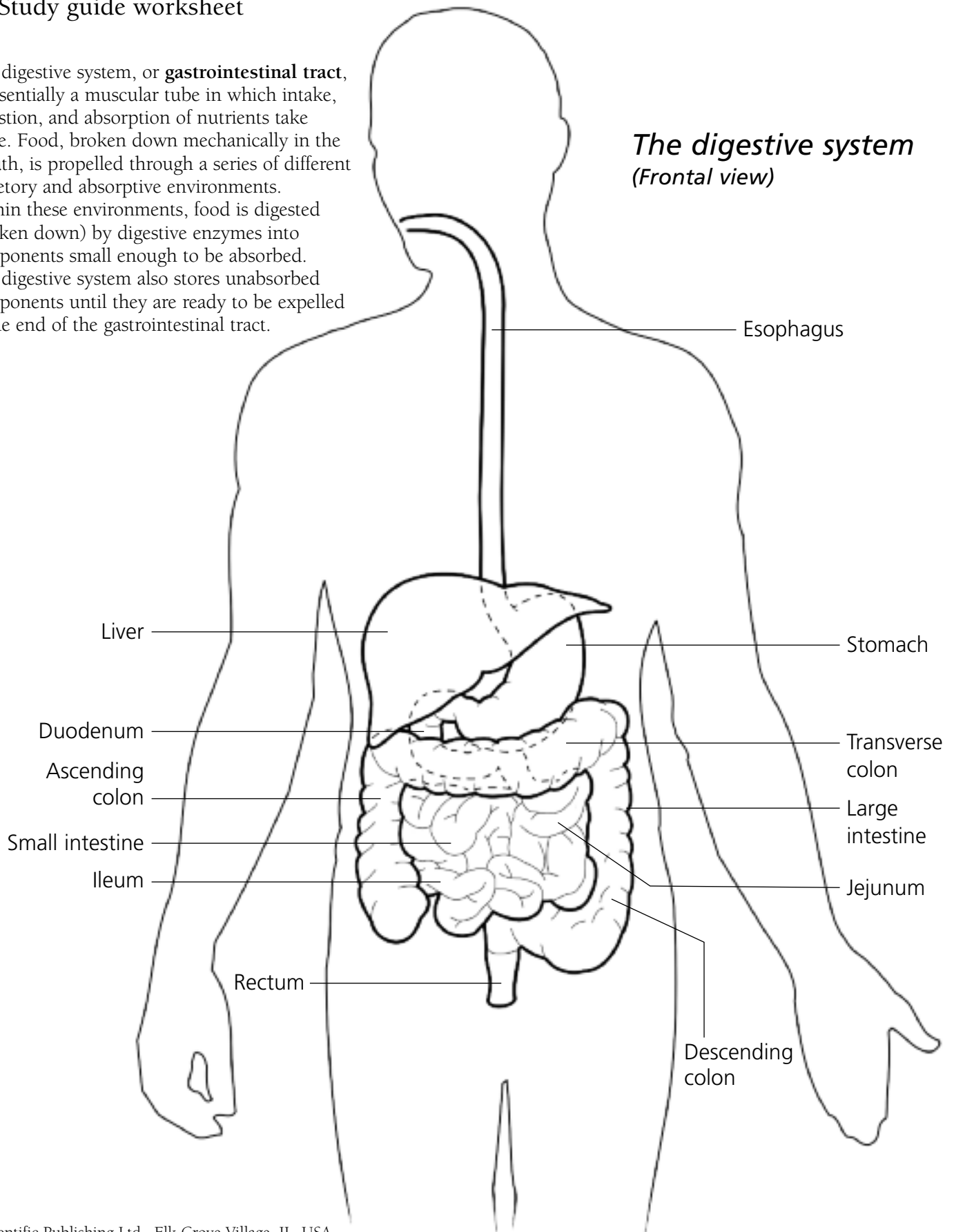


The Digestive System: Overview

Study guide worksheet

The digestive system, or **gastrointestinal tract**, is essentially a muscular tube in which intake, digestion, and absorption of nutrients take place. Food, broken down mechanically in the mouth, is propelled through a series of different secretory and absorptive environments. Within these environments, food is digested (broken down) by digestive enzymes into components small enough to be absorbed. The digestive system also stores unabsorbed components until they are ready to be expelled at the end of the gastrointestinal tract.

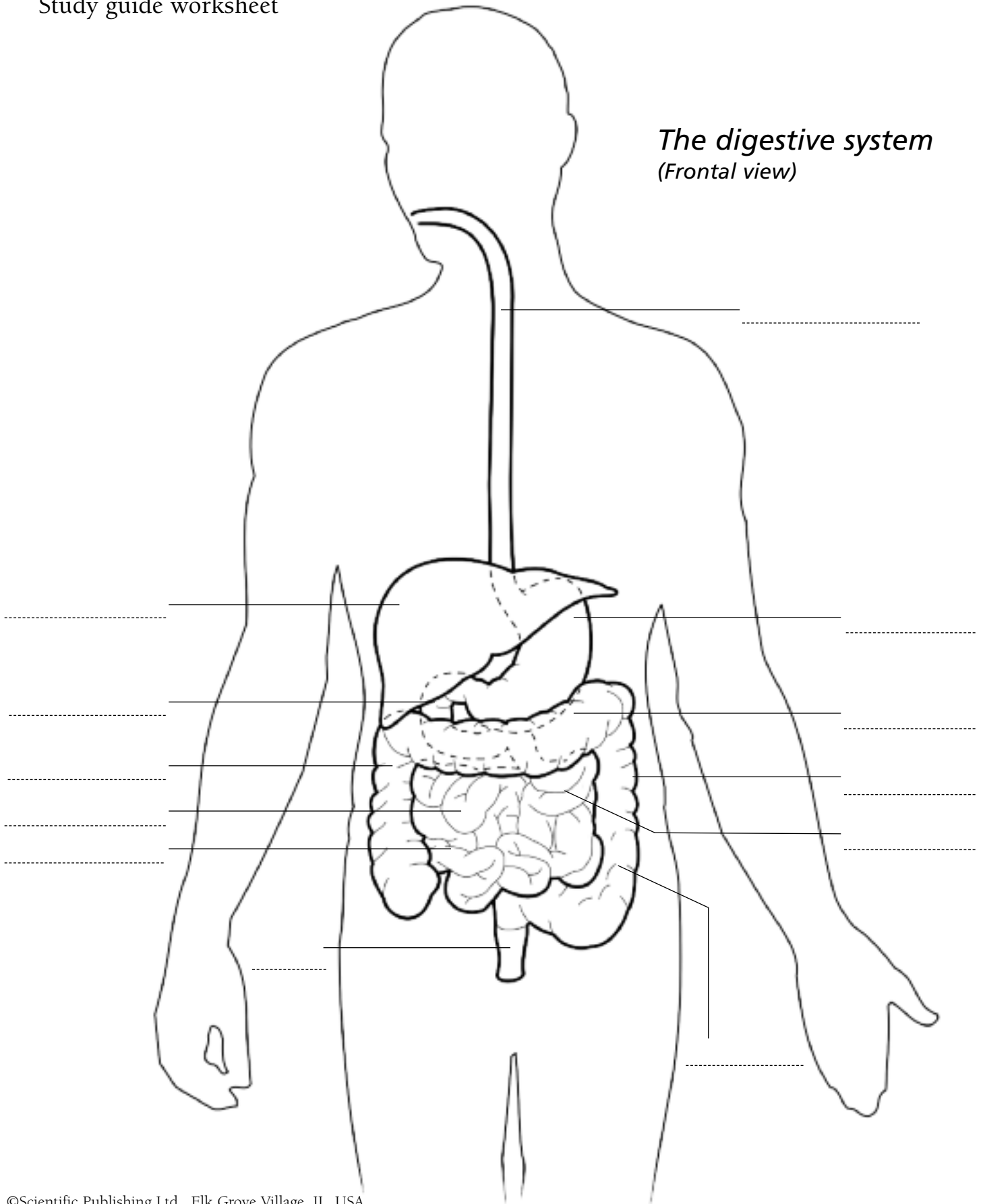
*The digestive system
(Frontal view)*



The Digestive System: Overview

Study guide worksheet

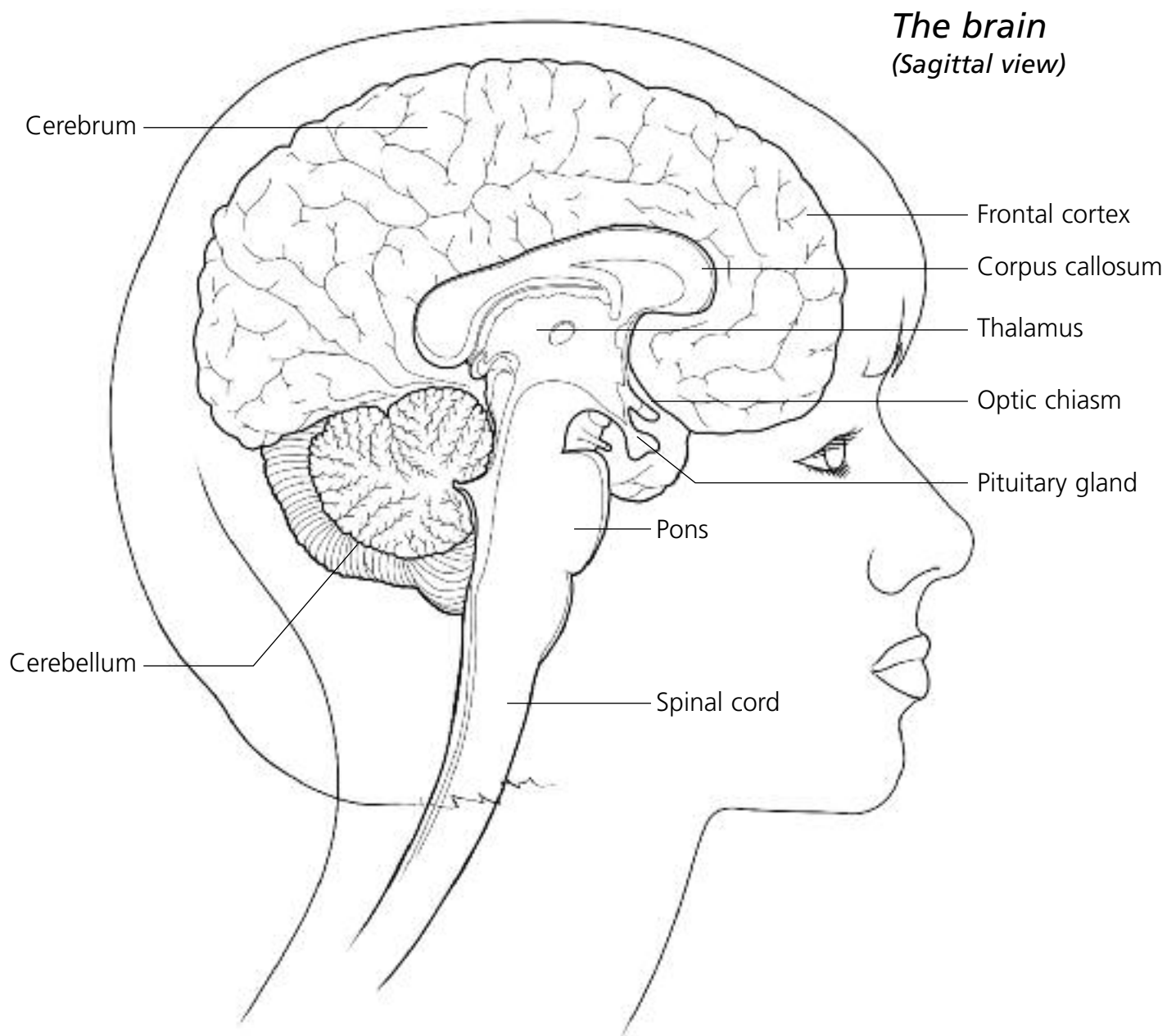
*The digestive system
(Frontal view)*



The Nervous System: Brain

Study guide worksheet

An average brain weighs between 3 and 3.5 pounds and is composed of over 100 billion neurons. A brain is divided into two structures, the largest being the **cerebrum** (80% of brain mass) and the smaller called the **cerebellum** (20% of brain mass). The cerebrum consists of two hemispheres with five lobes in each hemisphere. The cerebral hemispheres control the higher brain functions such as memory, speech, and vision, while the cerebellum controls balance and coordination. The brain accounts for about 2% of a person's body weight, yet it receives about 20% of the body's total cardiac output.



The Nervous System: Brain

Study guide worksheet

The brain
(Sagittal view)

