

13. Describe the process/mechanics of how we inhale and exhale. **The diaphragm contracts and moves downward in the abdomen. This increases the chest cavity space and creates negative pressure in the chest. The negative pressure in the chest causes the lungs to expand, which creates negative pressure inside the lungs and a vacuum-like effect, causing air outside of the body to be drawn into the respiratory tract. This fills the lungs with air. Exhalation occurs because the diaphragm relaxes, and the elastic recoil of the lungs pulls them into a smaller size, forcing air out of the respiratory track/lungs.**
14. What do teeth do? **They mechanically break food into smaller pieces.**
15. What is peristalsis? **Waves of muscular contractions that propel food through the GI tract.**
16. What is chyme? **It is the acidic paste mixture of food after it is churned and broken down by the stomach.**
17. What do the pancreas and liver empty into the duodenum, and how do these chemical contribute to digestion? **The pancreas releases many enzymes into the duodenum to further break down fats, proteins, and carbohydrates. The liver makes bile and stores it in the gall bladder. The bile is released into the duodenum and helps the enzymes of the pancreas break down fats better.**
18. What are villi and microvilli and why are they important? **Villi are foldings of the inside of the small intestine and microvilli are foldings of the villi. They are important because the foldings greatly increase the absorptive ability of the small intestines. All the nutrients, vitamins, and minerals needed are absorbed by the villi and microvilli.**
19. What is the function of ligaments and tendons? **Ligaments hold bones together (connect bone to bone) and tendons hold muscles to bones.**
20. What is the periosteum? **It is the membrane covering all bones.**
21. What are Haversian canals? **They are canals in the compact bone that allow blood vessels and nerves to pass.**
22. What is a ball-and-socket joint? Give an example? **It is a joint that allows movement in all planes. Examples are the hip and shoulder joints.**
23. What are the differences between smooth and skeletal muscle? **There are several answers for this question. Smooth muscle is not under voluntary control; skeletal muscle is. Smooth muscle does not have striations; skeletal muscle does. Smooth muscle cells contain one nucleus per cell; skeletal muscle cells contain multiple nuclei per cell.**
24. What is acetylcholine, and what happens when it is released at the neuromuscular junction? **Acetylcholine is the neuromuscular transmitter. When the nerve releases it, it causes the muscle to contract.**
25. What are the cells called that make up the skin? **Epithelial cells.**
26. What is the lower layer of the skin called? **The dermis.**
27. What are the organs or structures that mechanically break food down? **Teeth and stomach.**
28. What are the organs or structures that chemically break food down? **Salivary glands, stomach, pancreas, and liver/gall bladder.**
29. True or False? Pepsinogen is an inactive form of the enzyme pepsin. **True.**
30. True or False? Lacteals are responsible for absorbing proteins. **False. Lacteals absorb fats.**
31. True or False? Compact bone is found surrounding spongy bone. **True**
32. True or False? Most bones form through the process of chondrification. **False. They form through ossification.**
33. True or False? Hinge joints allow for greater movement than ball-and-socket joints. **False. Ball and socket joints provide the greatest movement.**
34. True or False? A sarcomere is the functional unit of a muscle cell. **True.**