Study Guide for Topic 8

| organ system | made up of a group of organs |
|-----------------|---------------------------------------|
| | that do a particular job |
| organ | body parts that perform |
| | specific functions |
| tissue | groups of cells of the same |
| | kind that have a specific |
| | function |
| lungs | main organ in respiratory |
| | system |
| diaphragm | muscle that causes air to flow |
| | in and out of lungs |
| heart | muscular organ that pumps |
| | blood throughout the body |
| function | job |
| skeletal system | supports body, gives it shape, |
| | and protects internal organs |
| muscle | organ that contracts and |
| | lengthens to move bones |
| skin | largest organ that covers and |
| | protects your internal organs |
| | and protects the body from |
| | disease-causing germs |
| extend | to straighten |
| sensory organ | gather specific kinds of |
| | information to send to the |
| | brain |
| brain | control center of the body |
| | · · · · · · · · · · · · · · · · · · · |

| respond | react |
|---------------------------------|-------------------------------|
| small intestine | most digestion occurs |
| large intestine | absorbs water and gets rid of |
| | waste |
| pancreas | produces chemical that |
| | adjusts sugar levels |
| liver | breaks down fats |
| stomach | digests only certain foods |
| excretory system | system that removes wastes |
| | from the body |
| kidneys | pair of bean-shaped organs |
| | that filter wastes from the |
| | blood |
| bladder | muscular sac that holds urine |
| connect | attach |
| | |
| | |
| | |
| Human cells that work | tissue |
| together to do a particular job | |
| is a | |
| If you were running a cross- | skeletal and muscular |
| country race, the | |
| and systems | |
| would help you finish the | |
| race. | |
| The system | skeletal |
| protects the internal organs. | |

| An experiment was done to | 1. Sound waves travel to |
|--------------------------------|---------------------------|
| test reaction time without | the eardrum. |
| looking. Justin placed his | 2. The eardrum turns the |
| thumb and index finger at the | sound into a nerve |
| bottom of the ruler without | impulse. |
| touching it and closed his | 3. The nerve impulse |
| eyes. On command, the ruler | travels to the brain. |
| dropped, and he caught the | 4. The brain communicates |
| ruler between his finger and | to the muscles to catch |
| thumb. What steps would his | the ruler. |
| nervous system go through to | |
| catch the ruler? | |
| Justin did a second test. A | eyes, brain, and muscles |
| ruler was placed above his | |
| hand. This time Justin looked | |
| at the ruler and on command, | |
| caught it in his hand. What | |
| organs interacted to help | |
| Justin catch the ruler? | |
| Justin completed his tests | |
| several times. Each time he | |
| did the tests, his reaction | |
| because of | improved |
| repeated | practice |
| The system | immune |
| protects humans from viruses | |
| and bacteria. | |
| When you are walking up a | |
| set of stairs, the respiratory | |

| system the | increases |
|-------------------------------|---------------------------|
| breathing | rate |
| The system | respiratory |
| responds when lungs bring in | |
| air. | |
| The system | circulatory |
| responds when the heart | |
| beats faster. | |
| The system responds | circulatory |
| when blood is pumped | |
| through the body. | |
| The system responds | respiratory |
| when gases leave the body. | |
| The respiratory and | |
| circulatory systems support | |
| the body during | exercise |
| because both heart rate and | |
| breathing rate | increase |
| When waste gas exits the | lungs, trachea, and mouth |
| body, it will go through the | |
| ,, and then | |
| The skin acts like a to | wall |
| stop germs, and it covers and | |
| the body's organs. | protects |
| When a runner needs more | |
| energy, the will | brain |
| communicate with the other | |
| organs. | |

| is the first stage of | Adolescence |
|----------------------------|-------------|
| development in which the | |
| human body can reproduce. | |
| The and the | stomach |
| help store food | bladder |
| and urine for a short time | |
| before moving to the next | |
| process. | |