

Key Terms

Artery
Capillary
Cell
Digestion

Hemoglobin
Hormone
Immunity
Menstruation

Metabolism
Organ
Peristalsis
Respiration

System
Tissue
Vein

Fill in the Blanks: Key Terms

- 1 The substance in red blood cells that carries oxygen and gives blood its color is _____
 - 2 _____ is protection against a disease or condition.
 - 3 The process of supplying the cells with oxygen and removing carbon dioxide from them is _____
 - 4 The process of physically and chemically breaking down food so that it can be absorbed for use by the cells is _____
 - 5 _____ is the burning of food for heat and energy by the cells.
 - 6 A blood vessel that carries blood away from the heart is an _____
 - 7 _____ is the involuntary muscle contractions in the digestive system that move food through the alimentary canal.
 - 8 Organs that work together to perform special functions form a _____
 - 9 The basic unit of body structure is a _____
 - 10 Groups of tissues with the same function form an _____
 - 11 A _____ is a tiny blood vessel.
 - 12 A group of cells with similar function is _____
 - 13 _____ is the process in which the lining of the uterus breaks up and is discharged from the body through the vagina.
 - 14 A chemical substance secreted by the glands into the bloodstream is a _____
 - 15 A _____ is a blood vessel that carries blood back to the heart.
- Circle the CORRECT Answer**
- 16 A cell is
 - A Only found in muscles
 - B The basic unit of body structure
 - C Can live without oxygen
 - D A group of tissues
 - 17 The control center of a cell is the
 - A Membrane
 - B Protoplasm
 - C Cytoplasm
 - D Nucleus
 - 18 Genes control
 - A Cell division
 - B Tissues
 - C Physical and chemical traits inherited by children
 - D Organs
 - 19 Connective tissue
 - A Covers internal and external body surface
 - B Receives and carries impulses to the brain and back to body parts
 - C Anchors, connects, and supports other body tissues
 - D Allows the body to move by stretching and contracting
 - 20 Living cells of the epidermis contain
 - A Blood vessels and many nerves
 - B Sweat and oil glands
 - C Pigment that gives skin color
 - D Hair roots
 - 21 Sweat glands help
 - A The body regulate temperature
 - B To keep the hair and skin soft and shiny
 - C Protect the nose from dust, insects, and other foreign objects
 - D The skin sense pleasant and unpleasant sensations
 - 22 Long bones
 - A Allow skill and ease in movement
 - B Bear the weight of the body
 - C Protect organs
 - D Allow various degrees of movement and flexion
 - 23 Blood cells are manufactured in
 - A The heart
 - B The liver
 - C Blood vessels
 - D Bone marrow
 - 24 Joints move smoothly because of
 - A Cartilage
 - B Synovial fluid
 - C Muscle
 - D Ligaments
 - 25 A joint that moves in all directions is a
 - A Ball and socket
 - B Hinge
 - C Pivot
 - D All of the above
 - 26 Voluntary muscles are

- A Found in the stomach and intestines
B Attached to bones
C Cardiac muscle
D Tendons
- 27 Muscles produce heat by
A Contracting
B Relaxing
C Maintaining posture
D Working automatically
- 28 The central nervous system consists of
A A myelin sheath
B Nerves throughout the body
C The brain and spinal column
D Cranial nerves
- 29 The medulla controls
A Muscle contraction and relaxation
B Heart rate, breathing, blood vessel size, and swallowing
C Reasoning, memory, and consciousness
D Hearing and vision
- 30 Cerebrospinal fluid
A Cushions shocks that could injure structure of the brain and spinal cord
B Controls voluntary muscles
C Lubricates movement
D Controls involuntary muscles
- 31 Cranial nerves conduct impulses between the
A Brain and the head, neck, chest, and abdomen
B Brain and the skin and extremities
C Brain and internal body structures
D Spinal cord and lower extremities
- 32 When you are frightened the _____ nervous system is stimulated.
A Sympathetic
B Parasympathetic
C Central
D Cranial
- 33 Receptors for vision and nerve fibers of the optic nerve are found in the
A Sclera
B Choroids
C Retina
D Cornea
- 34 What structure of the ear is involved in balance?
A Malleus
B Auditory canal
C Tympanic membrane
D Semicircular canal
- 35 Hemoglobin in red blood cells gives blood its red color and carries _____ to the cells
A Oxygen
B Food
C Waste products.
D Water
- 36 Red blood cells live for
A About 9 days
B 3 or 4 months
C 4 days
D A year
- 37 White blood cells or leukocytes
A Protect the body against infection
B Are necessary for blood clotting
C Carry food, hormone, chemicals, and waste products
D Pick up carbon dioxide
- 38 The left atrium of the heart
A Receives blood from the lungs
B Receives blood from the body tissues
C Pumps blood to the lungs
D Pumps blood to all parts of the body
- 39 Arteries
A Return blood to the heart
B Pass food, oxygen, and other substances into the cells
C Pick up waste products including carbon dioxide from the cells
D Carry blood away from the heart
- 40 In the lungs, oxygen and carbon dioxide are exchanged
A In the epiglottis
B Between the right bronchus and the left bronchus
C By the bronchioles
D Between the alveoli and capillaries
- 41 The lungs are protected by
A The diaphragm
B The pleura
C A bony framework of the ribs, sternum, and vertebrae
D The lobes
- 42 Food is moved through the alimentary canal (GI tract) by
A Chyme
B Peristalsis
C Swallowing
D Bile
- 43 Water is absorbed from chyme in the
A Small intestine
B Stomach
C Esophagus
D Large intestine
- 44 Digested food is absorbed through tiny projections called
A Jejunum
B Ileum
C Villi
D Colon
- 45 A function of the urinary system is to
A Remove waste products from the blood
B Rid the body of solid waste
C Rid the body of carbon dioxide
D Burn food for energy
- 46 A person feels the need to urinate when the bladder contains about
A 1000 ml of urine
B 500 ml of urine
C 250 ml of urine
D 125 ml of urine
- 47 Testosterone is needed for
A Male secondary sex characteristics
B Female secondary sex characteristics
C Sperm to be produced

- 48 The prostate gland lies
 A In the scrotum
 B In the testes
 C Just below the bladder
 D In the penis
- 49 The ovaries secrete progesterone and
 A Estrogen
 B Testosterone
 C Ova
 D Semen
- 50 When an ovum is released from an ovary it travels first through the
 A Uterus
 B Fallopian tubes
 C Endometrium
 D Vagina
- 51 Menstruation occurs when
 A The hymen is ruptured
 B The ovary releases an ovum
 C The endometrium breaks up
 D Fertilization occurs
- 52 A fertilized cell implants in the
 A Ovary
 B Fallopian tubes
 C Endometrium
- 53 The master gland is the
 A Thyroid gland
 B Parathyroid gland
 C Adrenal gland
 D Pituitary gland
- 54 Thyroid hormone regulates
 A Growth
 B Metabolism
 C Proper functioning of nerves and muscles
 D Energy produced during energy
- 55 If too little insulin is produced by the pancreas, the person has
 A Tetany
 B Slow growth
 C Diabetes mellitus
 D Slowed metabolism
- 56 When antigens enter the body, they are attacked and destroyed by
 A Antibodies
 B Lymphocytes
 C B cells
 D T cells

Matching

Match the terms with the description.

Musculoskeletal System

- 57 _____ Connective tissue at end of long bones
 58 _____ Skeletal muscle
 59 _____ Membrane that covers bone
 60 _____ Connects muscle to bone
 61 _____ Point at which two or more bones meet
 62 _____ Heart muscle
 63 _____ Involuntary muscle
 64 _____ Acts as a lubricant so the joint can move smoothly
- A Periosteum
 B Joint
 C Cartilage
 D Synovial fluid
 E Striated muscle
 F Smooth muscle
 G Cardiac muscle
 H Tendons

Nervous System

- 65 _____ Contains eustachian tubes and ossicles
 66 _____ Has 12 pairs of cranial nerves and 31 pairs of spinal nerves
 67 _____ White of the eye
 68 _____ Outside of cerebrum; controls highest function of brain
 69 _____ Inner layer of eye; receptors for vision are contained here
 70 _____ Controls involuntary muscles, heartbeat, blood pressure, and other functions
 71 _____ Light enters eye through this structure
 72 _____ Contain midbrain, pons, and medulla
 73 _____ Waxy substance secreted in auditory canal
 74 _____ Contains semicircular canal and cochlea
- A Sclera
 B Cornea
 C Retina
 D Cerumen
 E Middle ear
 F Inner ear
 G Brainstem
 H Cerebral cortex
 I Autonomic nervous system
 J Peripheral nervous system

Circulatory System

- 75 _____ Liquid part of blood
 76 _____ Thin sac covering the heart
 77 _____ Very tiny blood vessels
 78 _____ Substance in blood that picks up oxygen
 79 _____ Carry blood away from heart
 80 _____ White blood cells
 81 _____ Carry blood toward heart
 82 _____ Red blood cells
 83 _____ Thick, muscular portion of heart
 84 _____ Platelets; necessary for clotting
 85 _____ Membrane lining inner surface of heart

- A Plasma
 B Erythrocytes
 C Hemoglobin
 D Leukocytes
 E Thrombocytes
 F Pericardium
 G Myocardium
 H Endocardium
 I Arteries
 J Veins
 K Capillaries

Respiratory System

- 86 _____ Air passes from larynx into this structure
 87 _____ A two-layered sac that covers the lungs
 88 _____ Piece of cartilage that acts like a lid over larynx
 89 _____ Separates lungs from the abdominal cavity
 90 _____ The voice box
 91 _____ Several small branches that divide from the bronchus
 92 _____ Tiny one-celled air sacs

- A Epiglottis
 B Larynx
 C Bronchiole
 D Trachea
 E Alveoli
 F Diaphragm
 G Pleura

Digestive System

- 93 _____ Structure that adds more digestive juices to chyme
 94 _____ Semi-liquid food mixture formed in stomach
 95 _____ Portion of GI tract that absorbs food
 96 _____ Stores bile
 97 _____ Portion of GI tract that absorbs water
 98 _____ Produces bile
 99 _____ Moistens food particles in the mouth
 100 _____ Produces digestive juices

- A Liver
 B Chyme
 C Colon
 D Duodenum
 E Jejunum
 F Saliva
 G Pancreas
 H Gallbladder

Urinary System

- 101 _____ Basic working unit of the kidney
 102 _____ Bean-shaped structure that produces urine
 103 _____ A cluster of capillaries in Bowman's capsule
 104 _____ Structure that allows urine to pass from the bladder
 105 _____ A tube attached to the renal pelvis of the kidney
 106 _____ Hollow muscular sac that stores urine
 107 _____ Opening at the end of the urethra
 108 _____ Fluid and waste products form urine in this structure

- A Bladder
 B Glomerulus
 C Kidney
 D Meatus
 E Nephrons
 F Tubules
 G Ureter
 H Urethra

Reproductive System

- 109 ____ Male or female sex organs
- 110 ____ Two folds of tissue on each side of the vagina
- 111 ____ Sac between thighs that contains testes
- 112 ____ External genitalia of female
- 113 ____ Testicles; sperm produced here
- 114 ____ Attached to uterus; ovum travel through this structure
- 115 ____ Stores sperm and produces semen
- 116 ____ Tissue lining the uterus

- A Scrotum
- B Testes
- C Seminal vesicle
- D Gonads
- E Fallopian tubes
- F Endometrium
- G Labia
- H Vulva

Endocrine System

- 117 ____ Released by pancreas; regulates sugar in blood
- 118 ____ Sex hormone secreted by testes
- 119 ____ Sex hormone secreted by ovaries
- 120 ____ Regulates metabolism
- 121 ____ Regulates calcium levels in the body
- 122 ____ Stimulates to produce energy during emergencies

- A Epinephrine
- B Estrogen
- C Insulin
- D Parathormone
- E Testosterone
- F Thyroxine

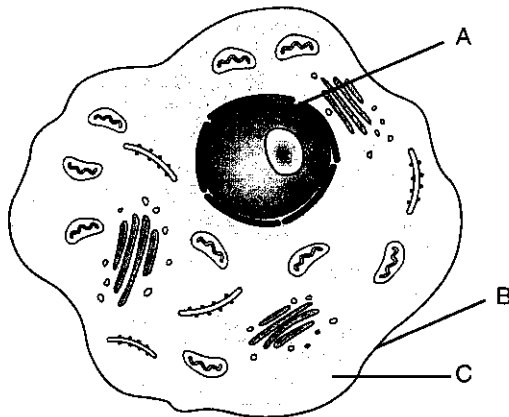
Immune System

- 123 ____ Normal body substances that recognize abnormal or unwanted substances
- 124 ____ Type of cell that destroys invading cells
- 125 ____ Type of white blood cell that digests and destroys microorganisms
- 126 ____ Type of cell that causes production of antibodies
- 127 ____ An abnormal or unwanted substance
- 128 ____ Types of white blood cells that produce antibodies

- A Antibodies
- B Antigens
- C Phagocytes
- D Lymphocytes
- E B cells
- F T cells

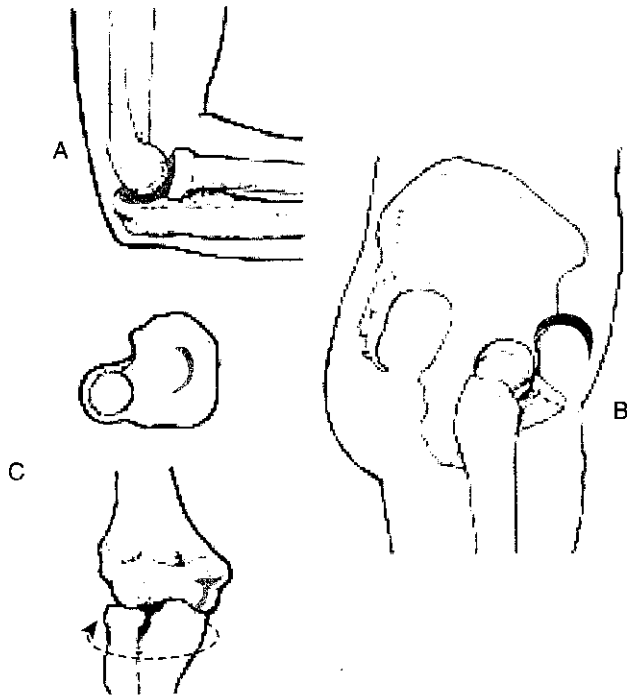
Labeling

129 Name the parts of the cell in the figure.



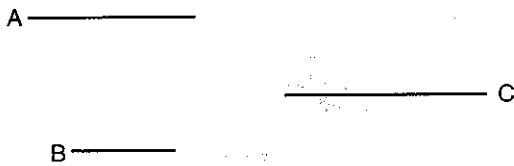
- A _____
- B _____
- C _____

130 Name each type of joint in the figures.



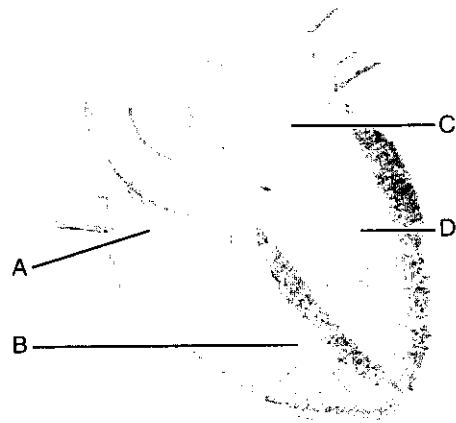
A _____
 B _____
 C _____

131 Name the parts of the brain in the figure.



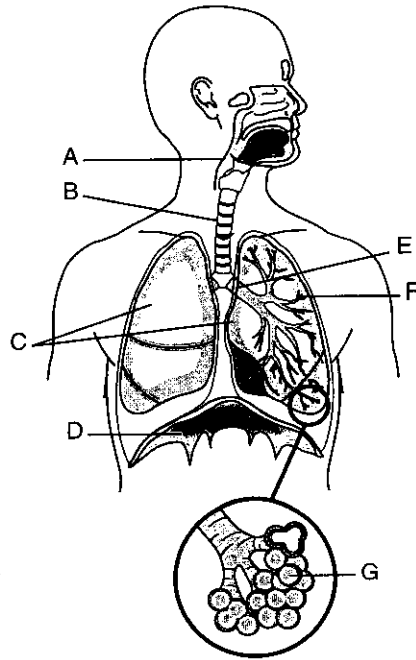
A _____
 B _____
 C _____

132 Name the four chambers of the heart in the figure.



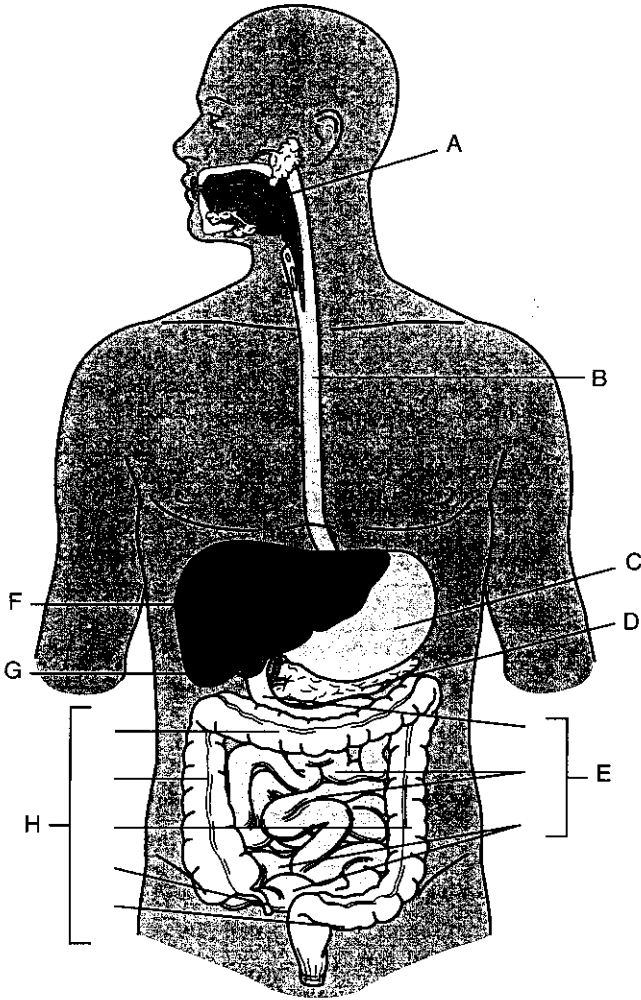
A _____
 B _____
 C _____
 D _____

133 Name the structures of the respiratory system in the figure.



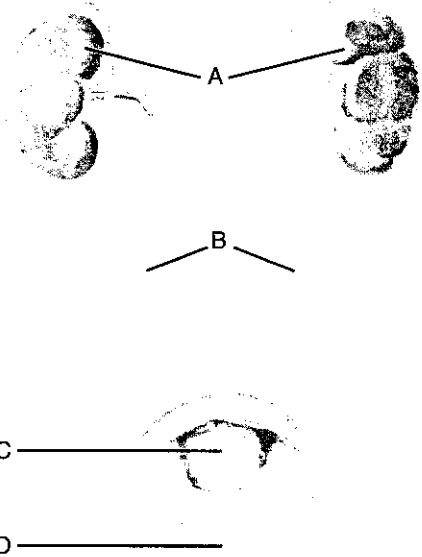
A _____
 B _____
 C _____
 D _____
 E _____
 F _____
 G _____

134 Name the structures of the digestive system in the figure.



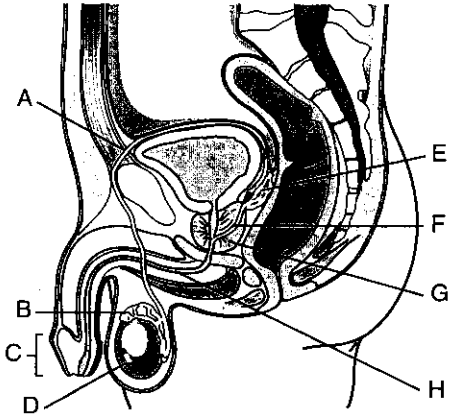
- A _____
- B _____
- C _____
- D _____
- E _____
- F _____
- G _____
- H _____

135 Name the structures of the urinary system in the figure.



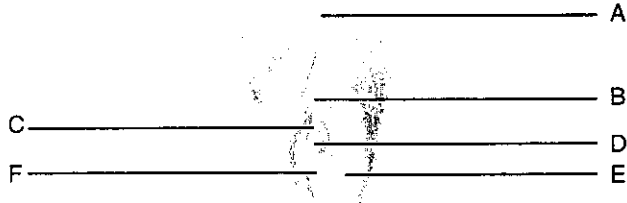
- A _____
- B _____
- C _____
- D _____

136 Name the structures of the male reproductive system in the figure.



- A _____
- B _____
- C _____
- D _____
- E _____
- F _____
- G _____
- H _____

137 Name the external female genitalia in the figure.



- A _____
- B _____
- C _____
- D _____
- E _____
- F _____

Optional Learning Exercises

138 Explain the function of each part of the cell.

- A Cell membrane _____
- B Nucleus _____
- C Cytoplasm _____
- D Protoplasm _____
- E Chromosomes _____
- F Genes _____

139 List the structures contained in the two skin layers.

- A Epidermis _____
- B Dermis _____

140 Explain the functions of the types of bone.

- A Long bones _____
- B Short bones _____
- C Flat bones _____
- D Irregular bones _____

141 Describe how each type of joint moves and give an example of each type.

- A Ball and socket _____
Ex. _____
- B Hinge _____
Ex. _____
- C Pivot _____
Ex. _____

142 Explain what happens when muscles contract.

143 Explain the functions of the three main parts of the brain. Include the functions of the cerebral cortex and the midbrain, pons, and medulla.

- A Cerebrum _____
Cerebral cortex _____
- B Cerebellum _____
- C Brainstem _____
Midbrain and Pons _____
- Medulla _____

144 Explain how the sympathetic and parasympathetic nervous systems balance each other.

145 Explain what happens to each of these structures when light enters the eye.

- A Choroid _____
- B Cornea _____
- C Lens _____
- D Retina _____

146 Explain how each of these structure helps to carry sound in the ear.

- A Ossicles _____
- B Cochlea _____
- C Auditory nerve _____

147 Where are red blood cells destroyed as they wear out?

148 When an infection occurs what do white blood cells do?

149 Explain the functions of the four atria of the heart.

- A Right atrium _____
- B Left atrium _____
- C Right ventricle _____
- D Left ventricle _____

- 150 Explain where each of these veins carries blood.
 A Inferior vena cava _____
 B Superior vena cava _____
- 151 Explain what happens in the alveoli.

- 152 After food is swallowed, explain what happens in each of these parts of the digestive tract.
 A Stomach _____
 B Duodenum _____
 C Jejunum and ileum _____
 D Colon _____
 E Rectum _____
 F Anus _____
- 153 Explain what happens in these structures of the kidney.
 A Glomerulus _____
 B Collecting tubules _____
 C Ureters _____
 D Urethra _____
 E Meatus _____
- 154 Sperm is produced in the testicles. What happens to the sperm in each of these structures?
 A Testes _____
 B Vas deferens _____
- C Seminal vesicle _____
 D Ejaculatory duct _____
 E Prostate gland _____
 F Urethra _____
- 155 What is the function of the endometrium?

- 156 Menstruation occurs about every _____ days. Ovulation usually occurs on or about day _____ of the cycle.
- 157 What is the function of each of these pituitary hormones?
 A Growth hormone _____
 B Thyroid-stimulating hormone _____
 C Adrenocorticotrophic hormone _____
 D Antidiuretic hormone _____
 E Oxytocin _____
- 158 What is the function of insulin?

 What happens if too little insulin is produced?

- 159 What happens when the body senses an antigen?

Independent Learning Activities

Using your own body, move joints of each type to see how they move.

- What joint is a ball and socket? How many ways were you able to move it?
- What joint moves like a hinge? How does it work differently than the ball and socket?
- What joint is a pivot joint? Compare its movement to the other two joints.

Listen to a friend's chest with a stethoscope.

- What sounds do you hear?
- What body systems are making the sounds?
- Are you able to count any of the sounds you hear? What are you counting?

Listen to your lower abdomen with a stethoscope.

- What sounds can you hear?
- What causes sound in the abdomen? What body system is involved in this activity?
- What is occurring when you hear your stomach "growl"? What is the term for this activity that you learned in this chapter?

Look at a friend's eyes in a dimly lit area and observe the size of the pupils.

- What size are the pupils? Are they both the same?
- Shine a flashlight in the eye. What happens to the pupil?
- What happens when you move the light away? If you see a change, how quickly does it occur?