

Monday

- Complete
"Organs and Organ
Systems" pgs. 4-6

Passage can be used as
a reference. Does not
need to be read if you
know the answers.

Tuesday

- Complete
"Minerals and Rocks"
pgs. 8-10

Passage can be used as
a reference. Does not
need to be read if you
know the answers.

Wednesday

- Complete
"Energy Can Cause
Change"
pgs. 12-13

Passage can be used as
a reference. Does not
need to be read if you
know the answers.

Thursday

- Complete
"Heat and Electricity"
pgs. 15-17

Passage can be used as
a reference. Does not
need to be read if you
know the answers.

**NO HOMEWORK !!
ENJOY YOUR WEEKEND :)**

Reminders

- Review Topics given from End Of Year Baseline
- PPT link pasted for review
- End of Year Science Assessment 5/14/25
- 5th Grade Science Review PPT

5th Grade Science Review PPT



SC.5.L.14.1 Identify the organs in the human body and describe their functions, including the skin, brain, heart, lungs, stomach, liver, intestines, pancreas, muscles and skeleton, reproductive organs, kidneys, bladder, and sensory organs.

Organs and Organ Systems

Body Organization

An **organism** is a living thing. It is made of smaller parts that work together to meet its needs. An **organ** is a body part made up of even smaller parts that work together to do a certain job. Groups of organs work together. An **organ system** is a group of organs that do one type of job. Your body has several organ systems that help it meet your needs. All plants and animals are organisms that have organs and organ systems to meet their needs.

Nervous System

The job of the nervous system is to sense information about your environment and communicate within the body. The nervous system is made up of tiny structures called nerve cells. Collections of nerve cell fibers make up nerves that carry information to and from the spinal cord and brain. The brain is the organ that processes information and sends instructions to the body. It is made of millions of nerve cells working like a computer.

The spinal cord is a rope-like bundle of nerve cells and nerve fibers that runs along the backbone. It is the main pathway for information traveling to and from the brain. Some the nerve fibers send information to the brain; others receive signals from the brain.

The brain receives and processes information collected by nerves in the eyes, ears, nose, and tongue. The brain decides on a response and sends messages through the spinal column. The spinal column directs the messages to nerves that connect

to muscles. The messages tell the muscles what to do, such as telling the legs to run. This communication takes place in fractions of a second.

The Senses

Your senses are the body's way of collecting information about your environment. Special structures in parts of your body detect different things about the world around you.

Your eyes collect information as light enters the eye through a hole in the iris called the **pupil**. Light then passes through the lens and hits the back of the eye, or **retina**. In the retina, nerve cells detect light and send this information to the brain. The brain interprets the information as images that you see.

Your ears collect sound information that allows you to hear. The outer ear, the part of your ear that you can see, funnels sound into the middle ear. Sound causes the eardrum in the middle ear to vibrate. The vibrations are passed through tiny bones into the inner ear and into a fluid-filled structure called the **cochlea**. Nerves send messages about the vibrations to the brain, and you sense sound.

When you breath, air travels through your nose. Inside your nose are structures that sense chemicals in the air. These structures are attached to nerve cells in the olfactory bulb that send messages to the brain about the chemicals. This makes up your sense of smell.

The small bumps all over your tongue called taste buds are chemical detectors. They detect chemicals in things that enter the mouth.

Nerves attached to the taste buds send messages about the chemical to the brain. Your brain interprets these messages as taste.



Integumentary System

The function of the integumentary system is to protect the inside of your body and to help control body temperature. Your skin, hair, and nails are all parts of the integumentary system.

Skin protects your body by keeping germs out. It also helps keep water from leaving your body so you do not get dehydrated. The skin helps regulate body temperature through the release of sweat from sweat glands in the skin.

The nails protect the vulnerable ends of your fingers and toes from damage. Hair helps to cushion the body, protects it from the sun's damaging rays, and helps to keep the body warm.

The skin also has nerves that provide information about temperature, pressure, vibrations, and pain. Your sense of touch comes from nerves in the skin.

Skeletal System

The functions of the skeletal system are to support and protect the body and allow movement. The bones of the skull and the ribs protect the internal organs of the body. Bones attach to muscles to help move the body. Bones have a hard calcium-containing outer layer and a spongy inner layer from which blood cells are formed.

The place where two bones meet is called a joint. Some joints, such as those in the skull, do not allow bones to move. Other joints allow for different types of movement. Ligaments connect the bones of a joint.

Cartilage is a flexible material that cushions the ends of bones and forms the ends of ears and the nose. The skeletal system is made up of bones, cartilage, and ligaments.



Muscular System

The major function of the muscular system is to produce movement in the body. **Muscles** are organs that contract to produce movement. Most muscles work in pairs. When one contracts to pull on bone, the other relaxes. Some muscle movements are involuntary; you do not have to control the beat of your heart. Other muscle movements, such as standing, are under your complete control.

There are three types of muscle. The heart is made of one type of muscle. A second type forms the walls of blood vessels and organs. The most abundant type is skeletal muscle that moves the bones.

Respiratory System

Organs in the respiratory system bring in oxygen that the body needs and release carbon dioxide, the body's waste gas. The main organs of the respiratory system are the lungs.

Air brought into the body through the nose and mouth travels through the trachea to the two bronchi. The bronchi branch into smaller vessels called bronchioles. At the end of each bronchiole are tiny air sacs called alveoli. The alveoli are surrounded by capillaries.



Oxygen diffuses from the alveoli into the blood in the capillaries. At the same time, waste carbon dioxide in the blood diffuses into the alveoli. The carbon dioxide is then exhaled out of the body.



Circulatory System

The circulatory system pumps oxygen and nutrients throughout the body and helps to remove waste. The components of the circulatory system are the heart, the blood vessels, and blood.

Blood is made up of a clear liquid called plasma containing cells and nutrients. Blood contains cells in three main types: white cells, red cells, and platelets. Red blood cells carry oxygen throughout the body. White blood cells help fight disease. Platelets help stop bleeding by forming clots.

The human heart has four chambers—two top and two bottom chambers. The top chambers contract to push blood into the bottom chambers. The bottom chambers then contract to push the blood out of the heart. The blood travels through the vessels.

There are three main types of blood vessels. Arteries carry blood away from the heart. Arteries branch and get smaller until they are tiny vessels called capillaries. Nutrients and gases can transfer between the capillaries and tissue. Blood is returned to the heart through veins.

Digestive System

The digestive system breaks food down into nutrients for the body. The organs of the digestive system include the esophagus, the stomach, and the small and large intestines. In addition, the liver, pancreas, and gallbladder play roles in digestion.

Food moves from the mouth to the stomach through the esophagus. In the stomach, acids and the churning of the stomach muscles turn the food into liquid. The food enters the small intestine, where digestive juices made in the pancreas and liver help break down fats and proteins. The nutrients are then absorbed in the small intestine. The remaining food materials pass into the large intestine, where water and minerals are absorbed. The solid waste then leaves the body.



Excretory System

The excretory system eliminates waste that comes from body functions. The structures of the excretory system are the kidneys, ureters, bladder, and urethra.

The use of nutrients to produce energy in the cells leaves toxic waste products behind, such as carbon dioxide and ammonia. The carbon dioxide is exhaled out of the body. The other waste products are filtered from the



blood by the kidneys. The resulting urine travels through the ureters to the bladder. The urine is stored in the bladder until it passes from the body through the urethra.

In addition to filtering the blood, the kidneys help to control the water and salt balance of the body.

Reproductive System

The job of the reproductive system is to make new organisms. The reproductive cells of human males, the sperm, are made in the testes. The reproductive cells of human females, the eggs, are made in the ovaries. These special cells join to form the human embryo. The embryo develops and grows inside the mother. When the baby is ready to live outside the mother, it is born.

Student-Response Activity

- 1 Describe the primary functions of each organ in the human body.

heart _____

small intestine _____

bone _____

nose _____

kidney _____

brain _____

Name _____ Date _____



- 2** Describe how the circulatory and respiratory systems work together to exchange oxygen and waste carbon dioxide.

- 3** Explain the sequence of events that would allow you to catch a ball thrown toward you?

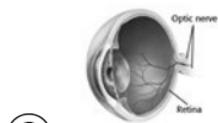
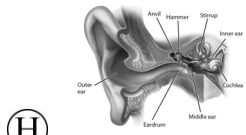
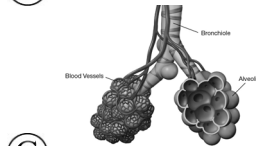
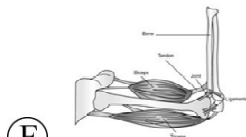
Benchmark Assessment SC.5.L.14.1

Fill in the letter of the best choice.

1 Which does not play a role in digestion?

- (A) ovaries
- (B) pancreas
- (C) small intestine
- (D) stomach

2 Which structure sends information about vibrations to the brain?



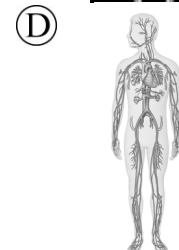
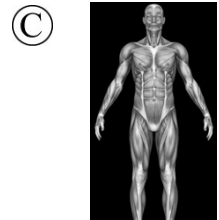
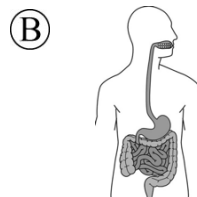
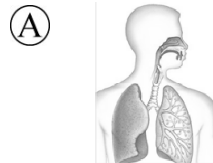
3 Which statement about the skin is **false**?

- (A) It helps prevent infection.
- (B) It helps absorb nutrients.
- (C) It helps regulate body temperature.
- (D) It helps prevent water loss.

4 Which is the correct sequence of signals in the nervous system?

- (F) eye → nerve → brain → spinal column → muscle
- (G) eye → brain → spinal column → nerve → muscle.
- (H) muscle → nerve → spinal column → brain → eye
- (I) muscle → brain → spinal column → nerve → eye

5 Human cells need oxygen and produce carbon dioxide waste. Which depicts the system that exchanges these gases between the body and the air?





SC.4.E.6.2 Identify the physical properties of common earth-forming minerals, including hardness, color, luster, cleavage, and streak color, and recognize the role of minerals in the formation of rocks.

Minerals and Rocks

Minerals

Earth's crust is made up of rock, but not all rock is the same. A **rock** is a solid in nature that is made up of two or more minerals. A **mineral** is any nonliving solid that has a crystal form. All minerals form in nature. For example, granite contains the minerals quartz and feldspar. Metals such as gold and silver are also minerals. Different minerals have different physical properties. A physical property is a quality or characteristic that can be observed. Hardness, color, luster, cleavage, and streak color are some physical properties of minerals.

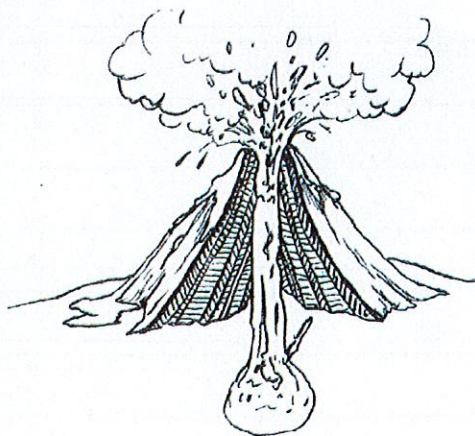
- **Hardness** is a mineral's ability to scratch another mineral. On the Mohs' scale, a mineral with a higher number can scratch a mineral with a lower number. The softest minerals score a 1.
- **Color** can be observed using the sense of sight. Different minerals have different colors.
- **Luster** is a mineral's ability to reflect light. Luster can be described using words such as metallic, earthy, and glassy.
- If a mineral breaks into pieces that have smooth, straight sides, the mineral has **cleavage**. Minerals that do not break along smooth lines have **fracture**.
- You can observe a mineral's **streak** if you rub it along a white tile. The color left behind is the streak.

The physical properties of the minerals that make up rock make different kinds of rocks useful for different tasks. For example, buildings and statues are often made of marble or granite. These rocks are hard enough to withstand weather.

Classifying Rock

Earth's rock is continually breaking down and reforming. On Earth's surface, weathering breaks down rock and erosion carries rock particles to new places. Beneath Earth's surface, heat and pressure cause changes in rock.

Scientists classify rock by how it forms. There are three main types of rock—igneous rock, sedimentary rock, and metamorphic rock. **Igneous rock** forms when melted rock, or magma, cools and solidifies deep inside Earth's surface. Igneous rock can also form on Earth's surface when a volcano erupts. On the surface, this melted rock, called lava, cools quickly and becomes solid again. This forms igneous rock.



Magma stored under Earth's surface can flow from a volcano during a volcanic eruption.

Wind and water break down rock on Earth's surface into smaller pieces, called sediment. As layers of sediment are deposited, the bottom layers press together by the weight of the layers above. Air and water in the spaces between the sediment are squeezed out. Over time, the sediments are cemented together and become **sedimentary rock**. Fossils are often found in sedimentary rock because of the way it is formed.

Deep inside Earth, heat and pressure can cause changes in the texture and mineral content of rock. When new rock forms this way, it is called metamorphic rock. These rocks have changed from one form to another.

For example, the metamorphic rock marble forms when high temperature and pressure act on the sedimentary rock limestone. The properties of marble are much different than those of limestone.

The Rock Cycle

After a rock is formed, it does not stay that way forever. The continuous process in which one type of rock changes into another type is called the **rock cycle**. For example, any rock can melt and become magma, then cool again, forming igneous rock. Any rock can be pushed below Earth's surface, where heat and pressure cause metamorphic rock to form. Any kind of rock can be worn away, become sediment, and form sedimentary rock.

Student-Response Activity

- ① Which types of rock can form above Earth's surface? Which kinds can form below Earth's surface? Give an explanation for your response.

Name _____ Date _____

- ② Complete the chart with definitions of each physical property and how it can be observed.

Physical Property	Definition	How Can It Be Observed?
Hardness		
Cleavage		
Luster		
Streak		
Color		

Benchmark Assessment SC.4.E.6.2

Fill in the letter of the best choice.

- 1 On Earth's surface, rock breaks down into tiny pieces. The pieces settle in layers, become compacted, and stick together. Which kind of rock is formed?
 - (A) igneous
 - (B) metamorphic
 - (C) molten
 - (D) sedimentary
- 2 What causes rock to become metamorphic rock?
 - (F) heat and pressure
 - (G) weathering and erosion
 - (H) heating and cooling
 - (I) magma and lava
- 3 Which rock forms when magma cools?
 - (A) igneous
 - (B) metamorphic
 - (C) molten
 - (D) sedimentary
- 4 A mineral can be scratched by an iron nail. What can you conclude?
 - (F) The mineral's hardness is less than iron.
 - (G) The mineral's hardness is greater than iron.
 - (H) The mineral's luster is less than iron.
 - (I) The mineral's luster is greater than iron.
- 5 Josh rubs a mineral across a tile, and observes the color of the residue left behind. What property is Josh testing?
 - (A) cleavage
 - (B) sedimentary
 - (C) luster
 - (D) streak



SC.5.P.10.2 Investigate and explain that energy has the ability to cause motion or create change.

Energy Can Cause Change

Motion

Where are you located right now? Are you at your desk? Under a light? To the right of a door, or 2 meters (6 feet) away from the board? These types of words describe your position. Position is the location of an object. Every object has a position. The position of your nose is the center of your face.

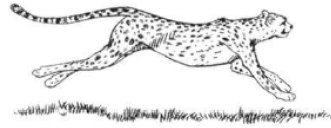
When an object's position changes, the object is in motion. Motion is a change of position of an object. There are many types of motion. You can walk forward or backward. An elevator goes up and down. A pendulum swings from side to side. Things may move quickly or slowly. They may follow a straight, curved, or circular path. All types of motion involve a change in position.

Speed

How fast can you run? If you run faster than your friend, your speed is greater. Speed measures the change in the position of an object changes over a certain amount of time.

You can use words such as *fast* and *slow* to describe speed. Fast-moving objects change their position quickly. Slow-moving objects change their position slowly. You can be more precise if you use numbers such as 20 kilometers per hour or 5 meters per second.

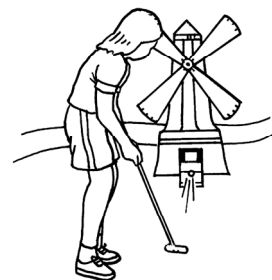
To find an object's speed, you need to measure two things—distance and time. Distance is how far an object traveled. You also need to measure how long it takes the object to move that distance.



A cheetah is the fastest land animal. It can reach speeds of 112 km/hr (70 mi/hr)!

Energy and Motion

Energy is the ability to cause changes to matter. A force—a push or a pull—can cause an object to move. In other words, a push or a pull to cause an object change position—to be in motion. A push or a pull transfers energy from one object to another, which causes the object to move. For example, if you swing a golf club and hit a golf ball off the tee, the energy of the moving club is transferred to the ball, and so the ball begins to move.



When ocean waves crash onto the beach, energy of flowing water can flatten a sandcastle. The energy of moving air—wind—can move a sailboat across the surface of a lake.



An object's speed is also related to energy. When an object is in motion, it has kinetic energy. An object moving at a faster speed has more energy than it has at a slower speed. So a running cheetah has more kinetic energy than a walking cheetah.

Light

Energy does not always need matter to cause change. Light energy is a form of energy that can travel from one place to another without matter. It travels from the sun through areas of space where there is no matter. Some of this light reaches Earth. There, the light causes objects to be visible. Light from the sun also causes objects to warm up.

Student-Response Activity

- 1** Which statements about energy are true? Circle all correct statements.
 - a. Energy is the ability to cause changes to matter.
 - b. Energy can only be transferred when one object pushes or pulls on another.
 - c. Energy can be transferred from objects that touch as well as through empty space.
 - d. An object moving at high speed has more energy than the same object moving slowly.
 - e. An object moving at high speed has the same amount of energy than the same object moving slowly.
- 2** Explain how energy from the sun can cause ice cream to change.

- 3** How can energy of moving water and moving wind cause changes? Give an example of each.

- 4** Describe two ways you could use energy to cause a wagon to move.



Benchmark Assessment SC.5.P.10.2

Fill in the letter of the best choice.

- 1 Which is **not** an example of energy causing motion?
- (A) picking up a box
 - (B) holding a box
 - (C) placing a box on a shelf
 - (D) placing a box on the floor
- 2 Which describes a change caused by the sun's energy?
- (F) A marshmallow toasts over a fire.
 - (G) Water for tea is boiled on a stove.
 - (H) Water in a rain puddle evaporates.
 - (I) A light bulb glows when the switch is turned.
- 3 Which description applies to the picture below?



- (A) Energy from the paddle and the moving water moves the canoe.
- (B) Energy from the paddle and the wind moves the canoe.
- (C) Energy from the wind and the moving water moves the canoe.
- (D) Energy from the wind and gravity moves the canoe.

- 4 Zelig used an electric fan to power four identical toy sailboats across a bowl of water. The data table shows how the distance and time for each sailboat.

Boat	Time (seconds)	Distance (inches)
F	42	24
G	34	24
H	27	24
I	31	24

Which boat traveled with the **most** kinetic energy?

- (F) F
- (G) G
- (H) H
- (I) I



SC.5.P.10.4 Investigate and explain that electrical energy can be transformed into heat, light, and sound energy, as well as the energy of motion.

Heat and Electricity

Heat is the flow of thermal energy from one object to another. Heat always flows from a warmer object to a cooler object, which causes the objects to change temperature.

Conduction

Conduction is the movement of thermal energy between particles of matter that collide, or crash together. Conduction transfers heat through solids or from a liquid or gas to a solid. In order for heat to be conducted from one object to another, the two objects must touch. Particles of one object can collide with particles of another object only when the two objects are touching.

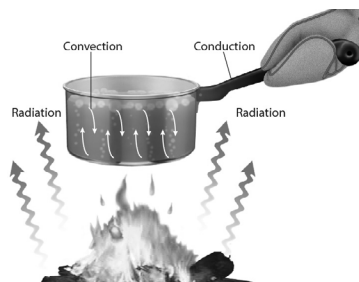
Convection

Heat can also move by convection.

Convection is the transfer of heat through a moving liquid or gas. Think again about water heated in a pot on a stove. The water gets heated where it touches the metal pot by conduction. The heated water particles move faster and then spread farther apart. As a result, the heated water becomes less dense and rises. Cooler water sinks beneath it. This flow causes currents of warmer rising water and cooler sinking water to transfer heat throughout all of the water.

Radiation

Light travels from the sun to Earth's surface through space. These waves cause objects they strike to warm up. Heat transfer by conduction or convection needs particles of matter to carry energy. However, heat transfer by radiation can occur in empty space where there is no matter.



Conductors and Insulators

Materials that allow heat to flow easily through them are called **conductors**. Metals such as aluminum and copper conduct heat well. An **insulator** is a material that heat does not move through easily. Materials such as glass, wood, and plastic are good insulators.

Electricity

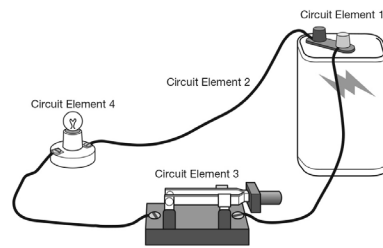
Static electricity and current electricity are two types of electricity. Static electricity is what causes socks from the dryer to stick together. Clothes in the dryer gain and lose electrons by rubbing against other fabrics. Some of the clothes obtain a negative charge by gaining electrons, and other clothes obtain a positive charge by losing electrons. Objects with opposite electrical charges attract each other, so some clothes stick together. Clothes with the same charge will repel each other, even if they are not touching.

Using Electricity

Electrical devices, such as computers, toasters, and lamps, are useful because they transform electrical energy into other forms of energy, such as sound, light, thermal, and mechanical energy. When you plug one of these devices into a wall outlet, electrical current flows from the wires inside the outlet to the device. When you turn the device on, you close the circuit, and the device powers on.

Electrical Circuits

An **electric circuit** is a path along which electric charges can flow. For electricity to flow, the circuit must form a complete, unbroken, loop. A circuit with no breaks in it is called a closed circuit. If the path is broken, charges cannot flow. A circuit with a break in the path is called an open circuit. A switch on a circuit controls the flow of electrical current by opening and closing the circuit.



Electricity flows through the closed circuit. When the circuit is closed, the light bulb will light up.

In general, materials that conduct heat also conduct electricity. Copper wire, a metal that conducts heat well, is commonly used in electrical circuits. Plastic, an insulator, is used to enclose the wires to contain the electrical current in the circuit.

Student-Response Activity

1 Classify these materials as *conductors* or *insulators*.

glass plastic copper gold aluminum
silver iron wood rubber steel

Conductors	Insulators

Name _____ Date _____



2 Describe the energy transformation performed by each device.

toaster _____

light bulb _____

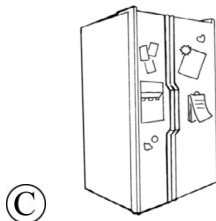
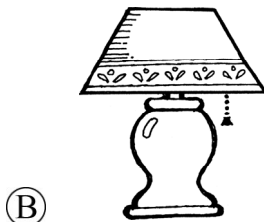
electric guitar _____

television _____

Benchmark Assessment SC.5.P.10.4

Fill in the letter of the best choice.

- 1 Which shows a device designed to transform electrical energy into mechanical energy?



- 2 What energy transformation takes place inside a toaster?
- (F) electrical to light energy
(G) electrical to sound energy
(H) electrical to light and thermal energy
(I) electrical to sound and thermal energy

- 3 Sandy built a circuit that would light a light bulb. When she connected the wire to the battery, however, the light bulb did not light. What is the most likely reason the light bulb would not light?

- (A) The circuit was not continuous.
(B) The wire was made of copper.
(C) The switch was closed.
(D) The battery was not powerful enough.

- 4 What energy transformation takes place inside an oven?

- (F) electrical to light energy
(G) electrical to sound energy
(H) electrical to light and thermal energy
(I) electrical to sound and thermal energy

- 5 Which is a conductor?

- (A) glass
(B) plastic
(C) silver
(D) wood