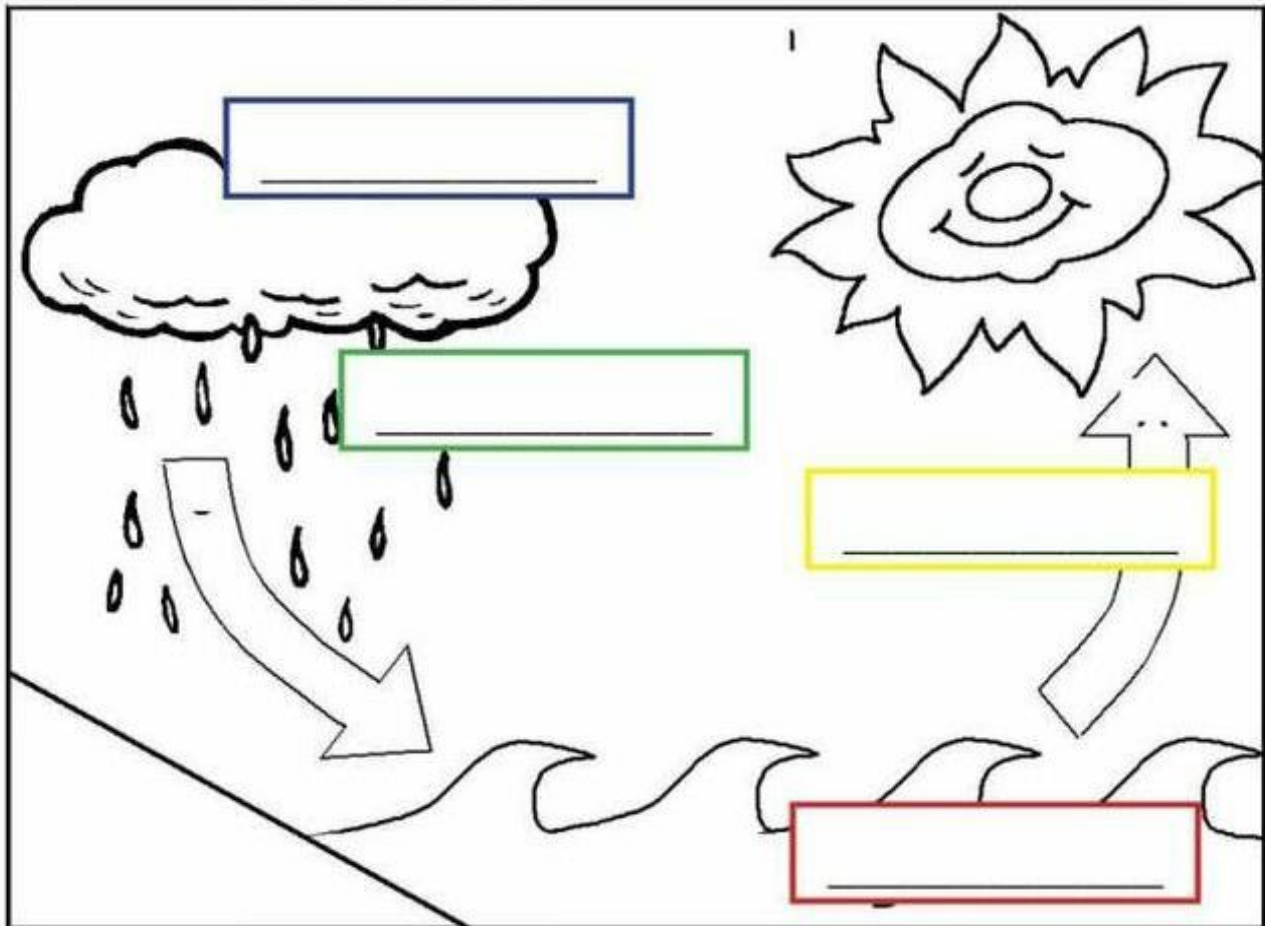




The Water Cycle



Water vapour in the air gets cold and changes into liquid, forming clouds.

Water falls from the sky as rain, hail, or snow.

Water flows into rivers, lakes and oceans.

The Sun's energy causes water to change into a gas.

Precipitation

Condensation

Evaporation

Collection

What is Soil?

Directions: Match the definitions to the key words. These can be used in your records of soil observations.

Key Word List Match

humus



The smallest type of rock particle

clay



small rock particle larger than sand,
ranging in size from 2mm to 4mm

silt



small rock particles that are visible to
the naked eye, larger than clay or silt,
but smaller than gravel

sand



Mostly organic matter, such as
decomposing leaves.

gravel



small rock particles, slightly larger
than clay, that can be easily
transported by wind and water

pebble



larger sized gravel ranging in size
from 4mm to 64mm

Cell Riddles

All living things are made up of cells. Cells are small structures that contain all the biological parts necessary for an organism to live. Cells are made up of smaller structures, called organelles.

Directions: Read each cell riddle below. Decide which organelle the riddle describes, and write the name of that structure in the blank. Note that all possible answers are listed in the top box below.

cell wall	cell membrane	cytosol	nucleus	Golgi apparatus
nucleolus	chromosomes	central vacuole	ribosomes	endoplasmic reticulum
mitochondrion	chloroplasts	lysosome		

Riddle #1

I am the jelly-like fluid inside the cell. I provide an area of movement for all the dissolved molecules that keep the cell working. I am the _____.

Riddle #2

I am found inside of the nucleus. I help produce ribosomes. I am the _____.

Riddle #3

I am a thin protective layer around the cell, but I am not one solid piece. I have tiny openings that allow materials to pass in and out of the cell. I am the _____.

Riddle #4

When a cell needs energy, I take in nutrients, break them down, and supply energy to the cell. I can also convert stored energy in the cell to food. I am a _____.

Riddle #5

I am a large storage unit in the cell. I am very large in plant cells, and I store water, food, and wastes. I help support the plant. When I start to shrink due to a lack of water, the plant may wilt. I am the _____.

Riddle #6

I am a food producer for plant cells. I absorb light energy from the sun and use it to convert carbon dioxide and water to sugar and oxygen. I am not found in animal cells. I am a _____.

Riddle #7

I act like a digestive system in an animal cell. I contain enzymes that break down wastes and other materials. I am a _____.

Riddle #8

We build proteins in the cell. We can be found in several places in the cell, including in the cytosol and on the endoplasmic reticulum. We are _____.

Riddle #9

We direct the genetic information of the cell. We are made of DNA, and found in the nucleus, usually in pairs. We are the _____.

Riddle #10

I am the "brain" of the cell, and I control all the activities of the cell. I am located in the cytosol, but you would not find me in prokaryotic cells. I am the _____.

Riddle #11

I am the cell's transport system. There are two types of me, rough and smooth. The rough type has ribosomes attached. I am the _____.

Riddle #12

I am found only in plant cells. I am the outermost part of the plant cell. I am made of a specialized sugar called cellulose. I provide support and protection and give plants their shape, since they don't have bones. I am the _____.

Riddle #13

I gather molecules and make them more complex. I store these molecules or send them into the cytosol or out of the cell. I process the proteins produced by the endoplasmic reticulum and ribosomes. I am the _____.

Lab Safety

When you perform an experiment at home or school, your first priority should be your safety and the safety of those around you. When you experiment at school, ALWAYS follow your teacher's or the book's instructions and NEVER try anything on your own without asking the teacher first.

Complete each of the important safety tips below with a word or phrase from the box. Each word or phrase will only be used once.

organized	flame	glassware	wash	cords
long hair	clean up	directions	well-lit	taste
ask questions	teacher	eat or drink	shoes	sharp
safety goggles	broken glass	closed	live plants or animals	spill
plastic gloves	unapproved	safety equipment	heat-resistant gloves	apron
lab materials				

1. Always _____ your hands before and after an experiment.
2. Read all _____ before beginning the experiment and ask questions if you are unsure of directions.
3. Keep your work area neat and _____.
4. Know the location of _____ and how to use it.
5. Always wear _____ when working with chemicals, burners, or any substance that may hurt your eyes.
6. Never touch, _____, or smell any chemical.
7. Be careful not to _____ any materials. If a spill does occur, clean it up immediately.
8. Never reach across a _____.
9. Pull back _____ and push up sleeves.
10. Have an adult handle _____ objects such as knives or blades.
11. Always work in a _____ and well-ventilated area.
12. Never heat liquids in a _____ container.
13. Always use the tongs, clamps, or _____ when moving hot containers.
14. Never use broken or chipped _____.
15. Dispose of _____ or other sharp objects in the proper container.
16. Notify the _____ immediately if you are cut, burned, or otherwise hurt.
17. _____ your work area when the experiment is completed.
18. Return all _____ to their proper location when the experiment is completed.
19. Never perform unsupervised or _____ experiments.
20. Wear an _____ to protect yourself and your clothes from chemicals.
21. Wear closed-toe _____ when performing experiments.
22. Make sure appliances are working properly and keep _____ untangled and out of walking paths.
23. Handle _____ with care and never be cruel or harm living creatures in an experiment.
24. Make sure you know how to use all of the equipment and _____ if you don't.
25. Wear _____ to protect your hands when handling live animals, plants, or chemicals.
26. Do not _____ while completing an experiment.



Skeletal System

Directions: Label the parts of the skeleton.

skull

fibula

sternum

radius

coccyx

ulna

pelvis

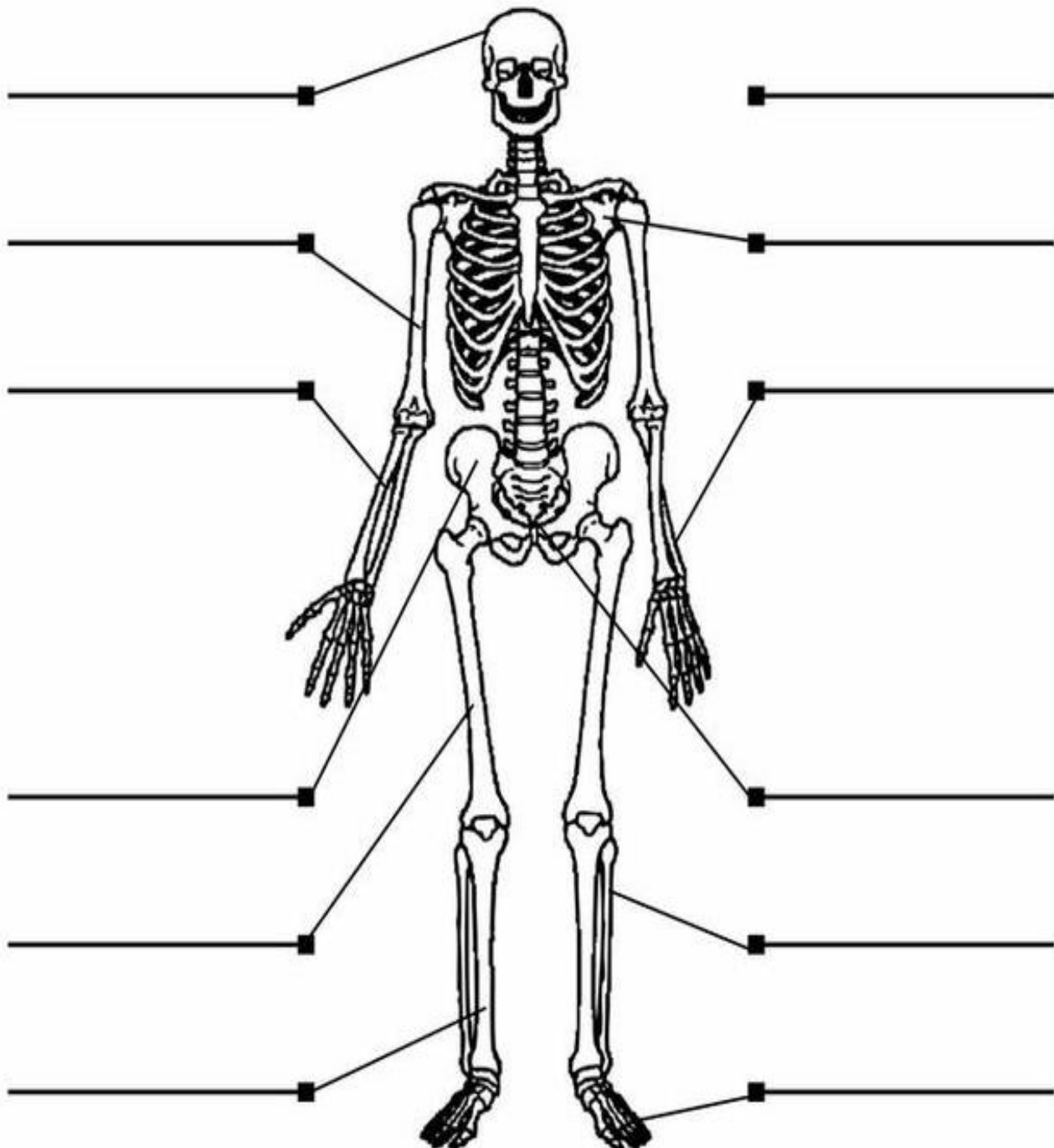
femur

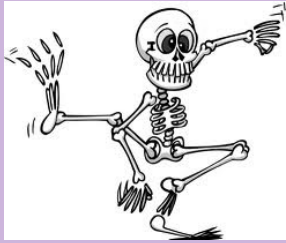
scapula

phalanges

tibia

humerus





Our Amazing Bones

Fill in the blanks from the options given below

There are _____ bones in a grown up skeleton. The largest bone in our skeleton is called the _____ and it is located on the upper part of our _____. Our _____ and _____ have almost half of all of the bones in our body. _____ are where the bones meet, our _____ allow us to move and bend. We have _____ inside of our bones. The _____ is what makes our blood. Our bones keep growing until we are about _____ years old. Our rib bones are important, they form a _____ and it protects our _____, our _____. Some people think we have a funny _____, we don't really have a funny bone. When people knock their elbow and say they've hit their funny bone, they have really hit a nerve that runs along the _____ bone. Our _____ is a very important bone because it protects our _____. We should take very good care of our bones by _____ and by making sure we drink lots of _____ and eat _____ products.

Options:

humorous	brain	hands	bone
skull	206	rib c age	liver
dairy	femur	bone marrow (2)	heart
milk	feet	joints (2)	lungs
exercising	legs	25	

From the words provided for each clue, provide the letter of the word which best matches the clue.

1. This type of energy keeps our watches and remote controls working.
A. battery B. solar C. gas D. oil
2. The energy in the core of an atom.
A. hydro B. nonrenewable C. nuclear D. solar
3. Wind energy is in this group.
A. fuel B. work C. renewable D. light
4. Generated by hydro.
A. work B. electricity C. hydro D. coal
5. A form of energy you can hear.
A. energy B. nonrenewable C. battery D. sound
6. Energy that is stored due to the position of it.
A. wind B. potential C. nuclear D. sound
7. Energy is the ability to do this.
A. solar B. oil C. nuclear D. work
8. Energy provided by the sun.
A. solar B. hydro C. energy D. battery

