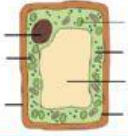
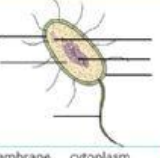


Cells and Organisation (Foundation) Revision Mat

a Label the cells using words from the boxes.

cell membrane
cell wall
cytoplasm
nucleus
chloroplast

mitochondria
permanent vacuole
cytoplasm
nucleus
chloroplast

cell membrane
circular DNA
flagellum

cytoplasm
cell wall
plasmid

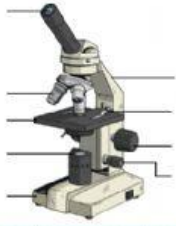
c Complete the table to identify which sub-cellular structures are found in animal cells.

Sub-Cellular Structure	Animal Cell	Plant Cell
nucleus		✓
circular DNA		✗
mitochondria		✓
chloroplasts	✗	✓
cell wall		✓
cell membrane		✓
cytoplasm		✓
flagellum	✗	
permanent vacuole		✓
plasmids		✗

d Explain why animal cells do not need chloroplasts.

e Compare how genetic material is packaged in plant cells and in bacterial cells.

f Label the light microscope using the words in the box.



eyepiece lens
light source
objective lens

stage
stage clips
base
adjustment knob

arm
fine adjustment knob
coarse adjustment knob

Describe how you would use the microscope to view a pre-prepared slide of blood cells.

g Muscle cells and sperm cells both contain lots of mitochondria. Explain why.

h Name each type of cell, then draw **one** line from each cell to its adaptation.









Biconcave shape to give it a large surface area for the diffusion of oxygen.

Long fibres to carry electrical impulses up and down the body.

Cilia to waft mucus along the airways.

Contains bands of protein that change shape to contract and relax.

Contains lots of chloroplasts for photosynthesis.

Long protrusion to fit between grains of soil to absorb water.

Tail-like structure and lots of mitochondria to release energy for movement.

The illustrations show four structures that make up the circulatory system.



Name each **level of organisation** in the correct order from smallest to largest.

smallest

largest

Name each organ system and complete the descriptions of their function.



Name: _____

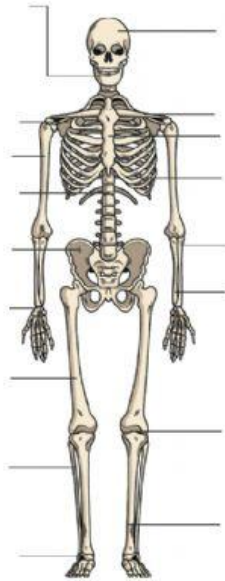
Function: Takes in _____ from the air and removes _____ from the blood.



Name: _____

Function: Breaks down and absorbs _____

Label the parts of the skeleton using the words from the box.



cranium	sternum	radius
clavicle	ribs	tibia
ulna	patella	mandible
scapula	humerus	vertebrae
pelvis	carpals	femur
fibula	talus	

Describe the four functions of the skeleton.

- Support: _____
- Protection: _____
- Movement: _____
- Making blood cells: _____

Name and describe the function of each part of the joint.



_____ is a strong, smooth tissue that covers the ends of the bones to _____

_____ in the joint _____ hold keeps the _____ slippery to _____

Name each joint and give an example of where in the body you would find each type.



joint: _____

Example in body: _____



joint: _____

Example in body: _____

Complete the sentences using words from the box.

antagonistic contracts push shrink
biomechanics expands pull relaxes

Muscles can't _____, they can only _____

A pair of muscles that work together are called _____ muscles.



When one muscle _____, the other muscle _____. The joint is pulled in one direction causing movement.

The combination of muscles, bones and joints making us move is called _____.