

Name: Root hair cell Job: Take up \_\_\_\_\_ and mineral \_\_\_\_\_ efficiently.

Adaptations	Function
Root hair	
	Increases speed of water movement by osmosis from soil
Mitochondria	Transfer _____ by _____ so roots can take up mineral ions by _____ transport

Labelled diagram

Cells that have \_\_\_\_\_ to perform a particular \_\_\_\_\_

**Definition**

Name: \_\_\_\_\_ Job: Carry \_\_\_\_\_ impulses for \_\_\_\_\_ communication around the body

Adaptations	Function
	Make connections to other nerve cells
Axon	
	Nerve endings that allow transmission of chemical transmitters to other cells or muscles

Synapses need energy to make chemical transmitters, which organelle will there be lots of?

Name: \_\_\_\_\_ Job: Transports \_\_\_\_\_

Adaptations	Function
Sieve plates	
	Contain _____ that provide energy to transport glucose up and down the plant

Label sieve plates on the diagram

**Plant**

**SPECIALISED CELLS**

**Animal**

Name: \_\_\_\_\_ Job: Contract and \_\_\_\_\_

Adaptations	Function
	Slide over each other to help contract and relax
Mitochondria	
Store _____	Broken down into glucose for use in _____ in the mitochondria to release energy for contractions

Types of muscles

Striated Example: Skeletal muscle like biceps and ...

Example: Digestive system

proteins that help contract and relax the muscle

Name: \_\_\_\_\_ Job: Transport \_\_\_\_\_

Match up

- Lignin spirals
- Dead cells
- Cell wall
- Cell support
- Allow xylem to be hollow for transport
- Provide strength to withstand water pressure

**Becoming specialised**

Early cells start unspecialised. these are called \_\_\_\_\_ cells.

A process called \_\_\_\_\_ means cells develop adaptations to perform particular roles

Name: Sperm cell Job: \_\_\_\_\_ an \_\_\_\_\_ cell during reproduction

Adaptations	Function
	Helps sperm to move
Middle filled with _____	Transfer _____ allowing tail to work
Acrosome	
Nucleus	

Labelled diagram