



# Year 10 Booklet

27<sup>th</sup> April 2023

## B1 – Lesson 7 The central Nervous System

I can name my senses and sense organs

I can link key words to their meanings

I can describe the passage of an electrical impulse through the central nervous system

I can explain the importance of the Myelin sheath and neuron transmitters.



I can describe what happens with deceases of the CNS

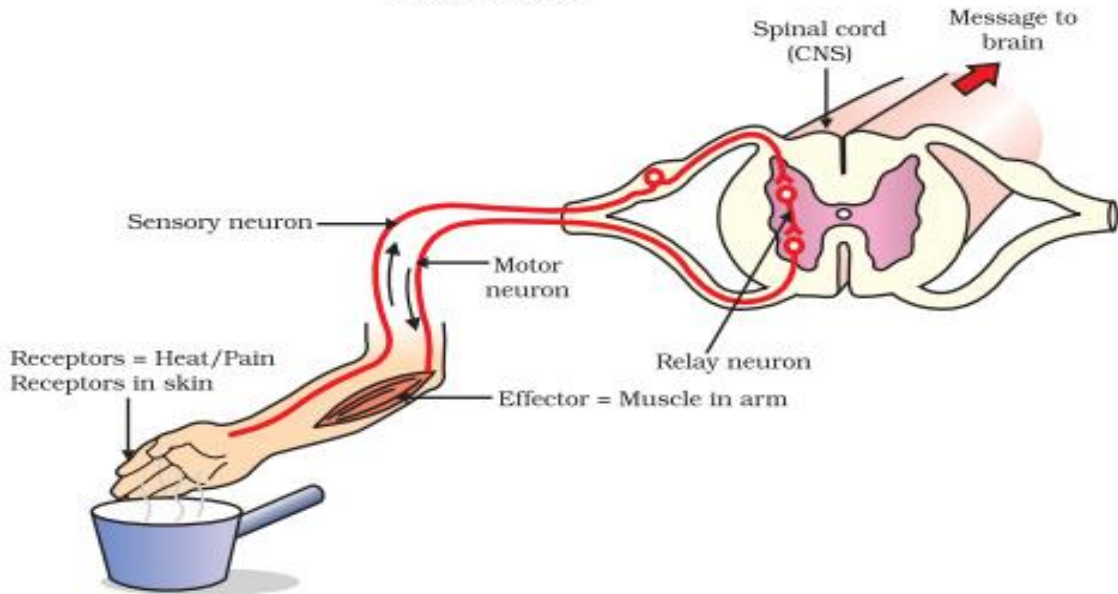


What do you all ready know discuss!

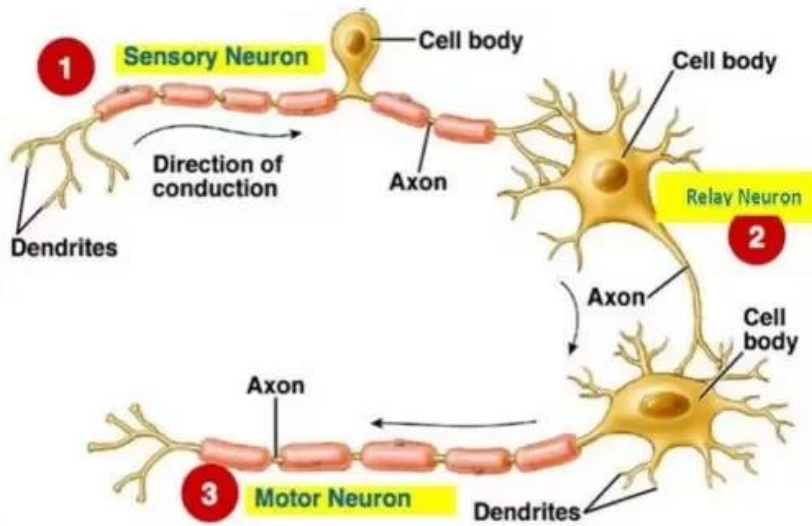
# Demystify

The CNS consists of the brain and spinal cord.

## Reflex Arc



## Three Types of Neurons



You skin is a sense organ. It touches a hot pan and the sensory neurons carry the signal to the relay neurons in the central nervous system. The relay neurones pass the signal to the motor neuron that carries the signal to the muscles and you move your hand.

The myelin sheath coats the axon and allows electrical impulses to travel faster.

A synapse is where two neurones meet.

A neurotransmitter is a chemical that carries the message across the synapse.

I can name my senses and sense organs

I can link key words to their meanings

Sense	Organ	Example
Sight	Eyes	See a car on the road

Three types of neurone are :-

.....  
.....  
.....

The neurone that come from my sense organ is called.

.....

The neurone that passes on the message in my CNS is called the.....

The neurone that goes to my muscles is called the

.....

I see a dog. The neuron that carries the message from my brain is.....

I run away. The neuron that carries the signal to my leg muscles is.....

I can describe the passage of an electrical impulse through the central nervous system

Complete a reaction time test and record your results below in a table

Test	Time/s
1	
2	
3	
Average	

1. Use the model answer in the demystify to describe how you completed the reaction time test. (4 marks)

Use the key words – **Senses, sensory neurone, relay neurone, motor neurone, muscles, electrical signal.**

2. In the model answer when touching a hot pan your brain does not need to think of the response. What do you think the difference is between the reflex arc and normal reactions to stimuli?

I can explain the importance of the Myelin sheath and neuron transmitters.

1. Use your previous answer and the explanation of the synapse and myelin sheath to redraft your answer into a 6 mark answer. (6 marks)

Use the key words – **Senses, sensory neurone, relay neurone, motor neurone, muscles, electrical signal, myelin sheath, synapse**

I can describe what happens with diseases of the CNS

Use a computer to research what Multiple sclerosis is and explain how it is linked to today's lesson.

RE

## Why do teens get involved with knife crime and what are the consequences?



Kyle's older brother, Dante, has asked him to keep a mystery, wrapped-up object in his school bag for the day, just so it's 'out of the way while things cool down.' Dante says Kyle will be massively helping out his gang by doing this and will gain respect.

**Good:** What could this object be? What questions would you ask?

**Great:** Why do you think Dante wants Kyle to do this?

**EBI:** Analyse what Dante could mean by ‘while things cool down.’

Hypothesise what may have happened the day before

[illegible]

**Task Two: consequences of knife crime** – watch the video below and complete all the challenges.

[https://www.youtube.com/watch?v=Cetu\\_tgYN4k](https://www.youtube.com/watch?v=Cetu_tgYN4k)

### **Good**

Why was the victim stabbed?

What did the murderer do straight after?

Which loved ones does the victim leave behind?

What is 'life-long guilt' and why does this affect the murderer?

How many years does the murderer spend in prison?

### **Great:**

Why can't the murderer understand the pain he's caused?

Why does the murderer have to start taking drugs?

Can the murderer ever live a carefree life now? Why not?

### **EBI:**

What point does the clip make about the state of mind of murderers long after crimes?

Why does the murderer become careless and sloppy?

Why does the murderer never recover from the crime?

How true to life do you think this story is? Explain



[illegible]

# Maths

Design and present an A3 poster to show your dream home. Include a scale drawing with measurements and some costings.

## Requirements:

- Create a scale drawing of your house - you will need a separate drawing for each floor and will need to include the garden. Be careful when choosing your scale as it must all fit on one A3 sheet.
- Your scale drawing of the house should include: a living room, kitchen, bedrooms, bathroom(s) and a garage. You also need to show doors, windows and stairs, plus a hall if you wish. To help, a standard door is 90cm wide.
- You must include a scale for your scale drawing and, for each room, you must give the actual dimensions and the floor area. This can be included on your scale drawing or in a separate table.
- To improve your scale drawing you can add some furniture, drawn to scale. This could be a complete set of furniture in one room or small amounts of furniture in all the rooms. Approximate sizes of some furniture are shown in the table below but don't just stick to this list, you can estimate the size of other pieces of furniture and include these too. As with each room you must include the actual dimensions of each piece of furniture and make sure that it all fits into the room. This can again be stated on your scale drawing or in a table.
- Now choose your flooring. You can either have carpet at £20 per  $\text{m}^2$ , wood at £40 per  $\text{m}^2$ , laminate at £15 per  $\text{m}^2$ , tiles at £25 per  $\text{m}^2$  or stone at £50 per  $\text{m}^2$ . You can also have a mixture of flooring. Once you have chosen, calculate the cost of flooring for your house.

Furniture	Width (cm)	Length (cm)
Single bed	90	190
Double bed	135	190
Wardrobe	115	50
Drawers	50	25
Bookcase	80	30
Bedside table	45	40
Dressing table	120	40
Desk	140	65
Bath	170	70
Cooker	60	60
Washing machine	55	60
Garden shed	180	180

Furniture	Width (cm)	Length (cm)
Dining table	2m	100
Coffee table	120	80
TV table	80	40
Sideboard	120	60
Sofa (2 seater)	170	100
Sofa (3 seater)	220	100
Armchair	80	85
Piano	140	35
Shower	75	75
Fridge	55	60
Freezer	55	60
Garden bench	130	65



### Student notes

#### Possible extensions:

- Students could use the internet to research exact dimensions of specific furniture that they wish to add.
- Students could be asked to cost more of the build. Using the internet, they (or you) could find the costs of bricks, roof tiles, furniture, and other materials. Possibly even the labour involved.
- For a shorter task, students could be asked just to complete the scale drawing of the house without furniture or costings.

Paper that lets the light  
shine through, this  
is what could alter things.  
Paper thinned by age or touching,

the kind you find in well-used books,  
the back of the Koran, where a hand  
has written in the names and histories,  
who was born to whom,

the height and weight, who  
died where and how, on which sepia date,  
pages smoothed and stroked and turned  
transparent with attention.

If buildings were paper, I might  
feel their drift, see how easily  
they fall away on a sigh, a shift  
in the direction of the wind.

Maps too. The sun shines through  
their borderlines, the marks  
that rivers make, roads,  
railtracks, mountainfolds,

Fine slips from grocery shops  
that say how much was sold  
and what was paid by credit card  
might fly our lives like paper kites.

An architect could use all this,  
place layer over layer, luminous  
script over numbers over line,  
and never wish to build again with brick

or block, but let the daylight break  
through capitals and monoliths,  
through the shapes that pride can make,  
find a way to trace a grand design

with living tissue, raise a structure  
never meant to last,  
of paper smoothed and stroked  
and thinned to be transparent,

turned into your skin.

# Tissue – Imitas Dharker

What is the poem about?

The poem is about the poet’s idea that...	Quotation
1 - The world would be a better place if it had more in common with ‘tissue’ – nothing is supposed to last so we should let things go more.	
2 - The world has some big problems: destruction, war, politics, money, wealth, terrorism. We have built the world around these things.	
3 – The world also has some hope.	
4 - People need to ‘let go’ of small, insignificant issues.	

The poem struggles to create a straightforward meaning, but there are some key themes and ideas you should be aware of. **Task** – find a quote to support each of the following ideas:

1. Paper is importance for recording our history.
2. The **paradox** (contradiction, opposites) that paper is fragile, yet it still controls our lives.
3. Life is more complex and precious than other things we create or build.
4. Life is temporary – but each one life forms part of a bigger and ongoing story.