**NERVOUS SYSTEM: REVISION CHECKLIST**

**Central and peripheral nervous system:**

|  |  |  |
| --- | --- | --- |
|  | Composed of: | What type of neurons? |
| Central nervous system |  |  |
| Peripheral nervous system |  |  |

**Synapses.** List the stages of synaptic transmission: you will need to mention the following:

What causes the synaptic vesicles containing neurotransmitter to move towards the pre-synaptic membrane?

How does the neurotransmitter get released into the synaptic cleft?

How does the neurotransmitter reach the post-synaptic membrane?

What does the neurotransmitter bind to?

What causes the post-synaptic membrane to depolarise?



**Reflexes**

How does the receptor respond to the stimulus? (1)

How is information about the stimulus passed along the sensory, relay and motor neurons? (2,3,4)

How does the motor neuron cause the muscle to contract?



**Action potentials: the importance of ions.**

A neuron’s membrane potential is determined by the distribution of Na+ and K+ across the membrane.

Find the answer to these questions:

* At rest, there is a higher concentration of which ion INSIDE the neuron:
* At rest, there is a higher concentration of which ion OUTSIDE the neuron:
* What causes the hyperpolarising phase (5) of the action potential?
* Which structure is important in re-establishing the resting potential after an action potential?
* During the depolarising phase (2) of an action potential, which ion diffuse INTO the neuron?
* During the repolarising phase (4) of an action potential, which ion diffuses OUT of the neuron?