Comparison between cholinergic and inhibitory synapses

|  |  |  |
| --- | --- | --- |
|  | Cholinergic synapses | Inhibitory synapses |
| Neurotransmitter released |  |  |
| Neurotransmitter binds to receptor sites on….. |  |  |
| Type of ion that moves into postsynaptic neurone |  |  |
| Binding of neurotransmitter causes opening of nearby …… |  |  |
| …… ions move out of the postsynaptic neurone |  |  |
| Postsynaptic membrane becomes more ……. on the inside |  |  |
| This makes the postsynaptic membrane…. |  |  |
| This has the effect of ……. |  |  |

Comparison between cholinergic and inhibitory synapses

|  |  |  |
| --- | --- | --- |
|  | Cholinergic synapses | Inhibitory synapses |
| Neurotransmitter released | Acetylcholine | E.g. GABA |
| Neurotransmitter binds to receptor sites on….. | Sodium ion protein channels | Chloride ion protein channels |
| Type of ion that moves into postsynaptic neurone | Sodium | Chloride |
| Binding of neurotransmitter causes opening of nearby …… |  | Potassium protein channels |
| …… ions move out of the postsynaptic neurone |  | Potassium |
| Postsynaptic membrane becomes more ……. on the inside | Positive | Negative |
| This makes the postsynaptic membrane…. | Depolarised | Hyperpolarised |
| This has the effect of ……. | Generating a new action potential | Making it less likely that a new action potential will be created |