

Combined Science - Biology - KS4

Homeostasis and Response

The Nervous System

Miss Ray

Match the neurone structure to its function.

<u>Structure</u>	<u>Function</u>
Axon	Insulates the axon
Myelin Sheath	Small parts of exposed axon that promote fast conduction of electrical impulses.
Dendron	Receives impulses from another neurone / receptor.
Node of Ranvier	Carries impulses along the neurone.



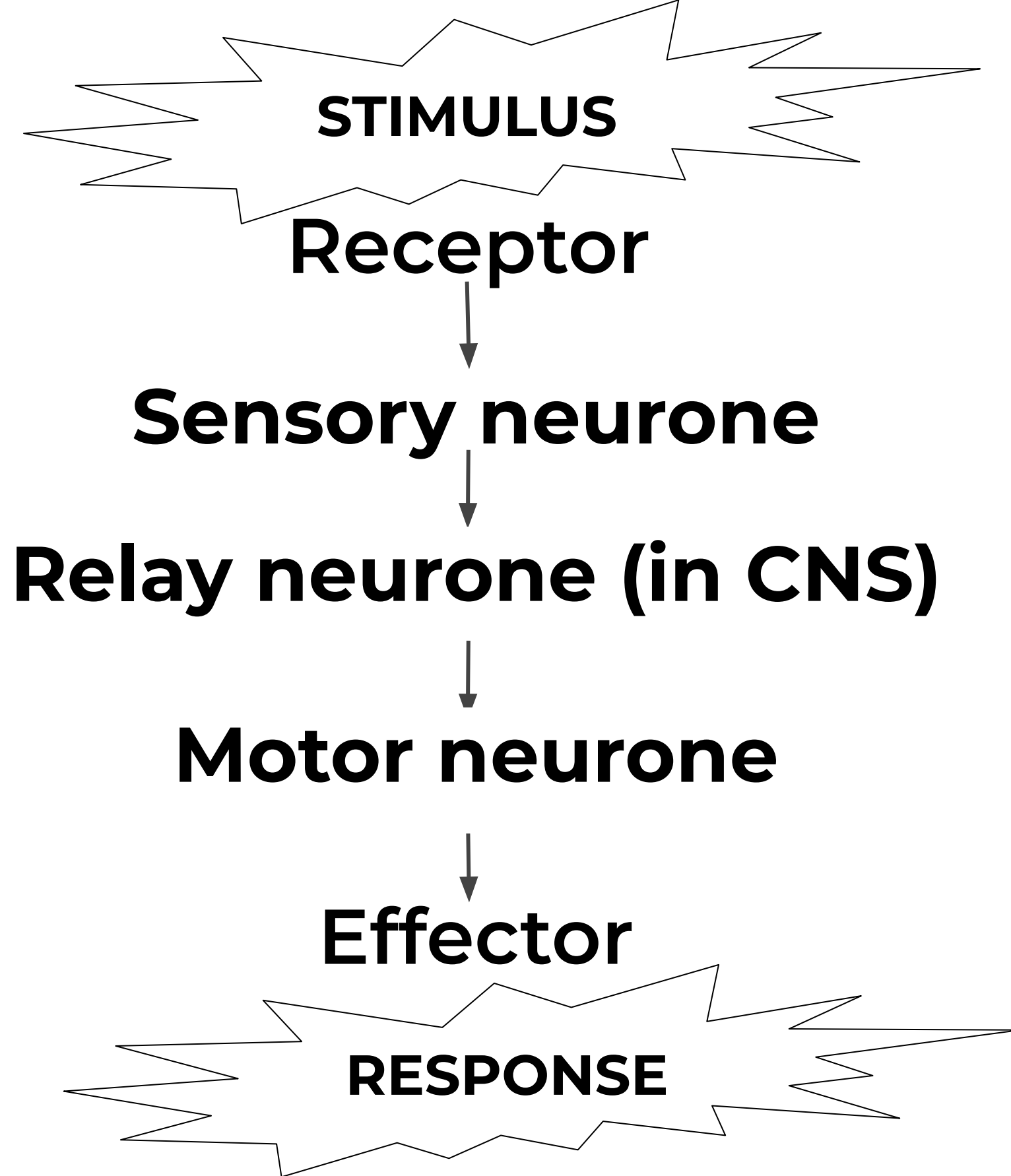
Answers are rearranged into the correct order.

<u>Structure</u>	<u>Function</u>
Axon	Carries impulses along the neurone.
Myelin Sheath	Insulates the axon.
Dendron	Receives impulses from another neurone / receptor.
Node of Ranvier	Small parts of exposed axon that promote fast conduction of electrical impulses.



Draw a flowchart to show the full nervous response including neurones.





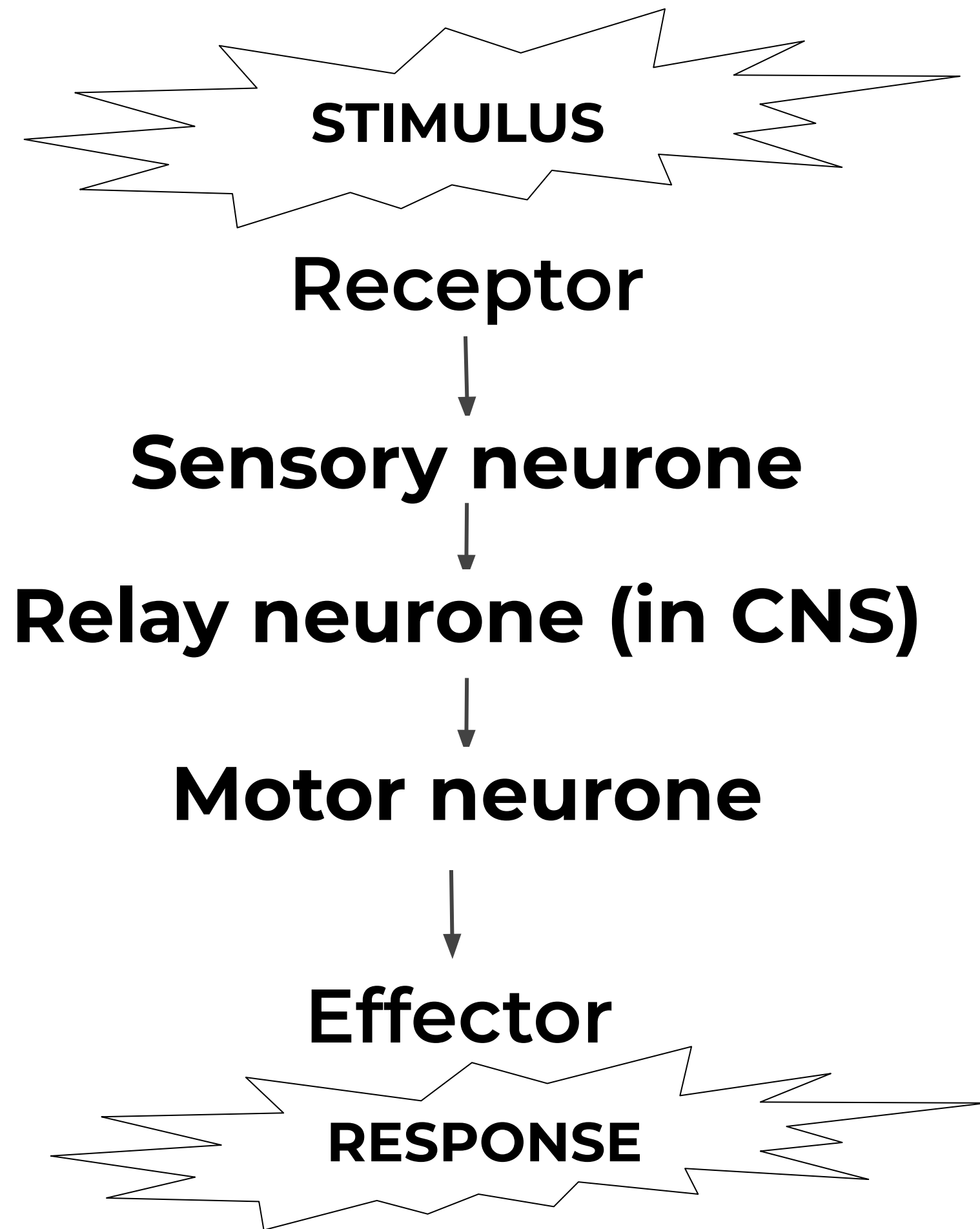
Describe the nervous response pathway when you taste something bad and spit it out.

Keywords:

stimulus, chemical receptor, sensory neurone, relay neurone, motor neurone, muscles, response, electrical impulse, chemicals

Hint - use your flow chart!





Model answer

The stimulus is the chemicals within the food.

This is detected by chemical receptors in the tongue.

The receptor sends an electrical impulse along the sensory neurone to the brain.

The impulse travels via the relay neurone to the motor neurone and then to the muscles in the mouth.

These muscles contract and the response is the person spitting out the food.

