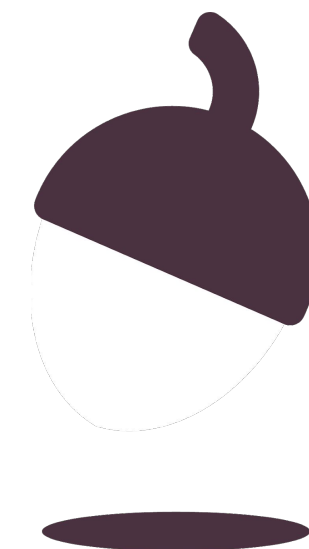


Combined Science - Biology - KS4
Homeostasis and Response

The Nervous System

Miss Ray



OAK
NATIONAL
ACADEMY

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. |



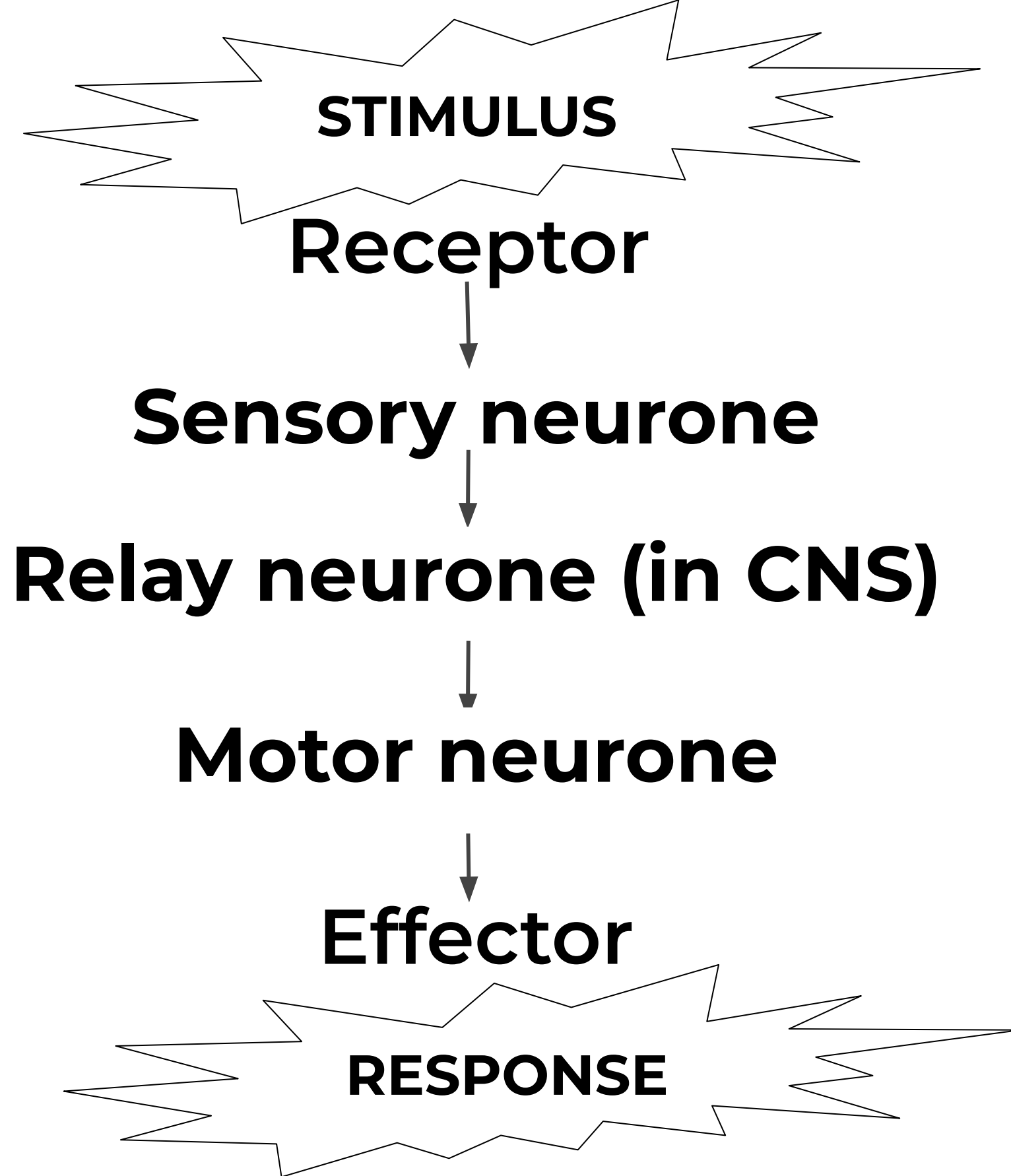
Answers are rearranged into the correct order.

| <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.





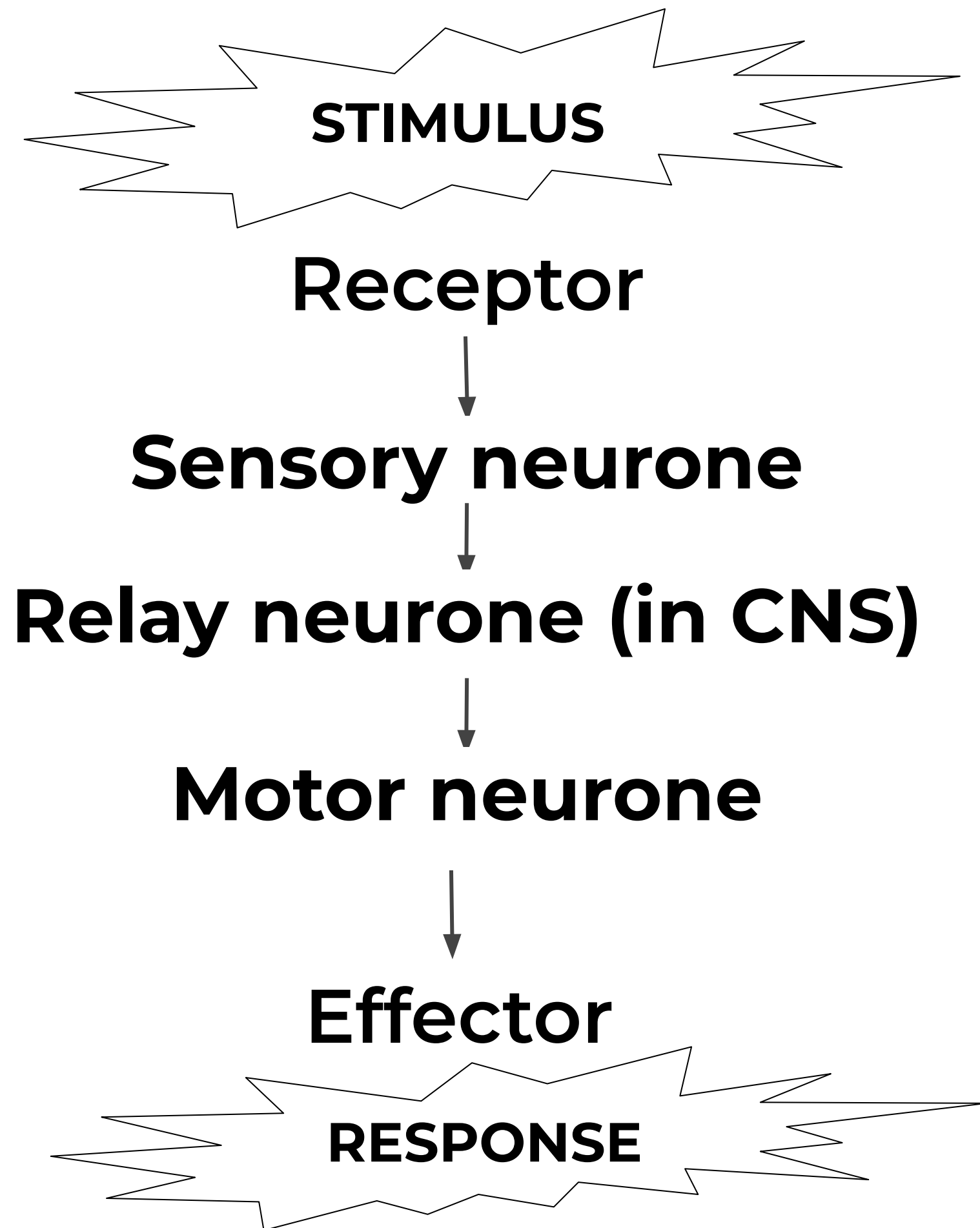
Describe the nervous response pathway when you taste something bad and spit it out.

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.

