

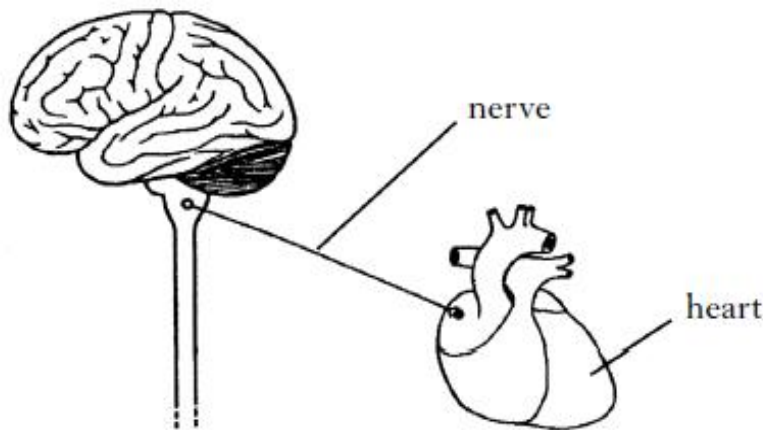
**Dalkeith High School**  
**N5 Biology**  
**Control and Communication (Task 1)**

1. a) Different parts of the brain have different functions. Draw one line to link each part of the brain with its correct function. (One example has been completed for you).

<i>Part of the brain</i>	<i>Function</i>
Cerebrum	control of breathing rate
Medulla	conscious responses
Cerebellum	co-ordination of movement

1

b) The diagram below shows parts of the central nervous system (CNS) and a neuron to the heart.



Name the two parts, shown in the diagram, which make up the central nervous system (CNS).

\_\_\_\_\_ and \_\_\_\_\_

1

2. a) What is the function of a reflex action?

\_\_\_\_\_

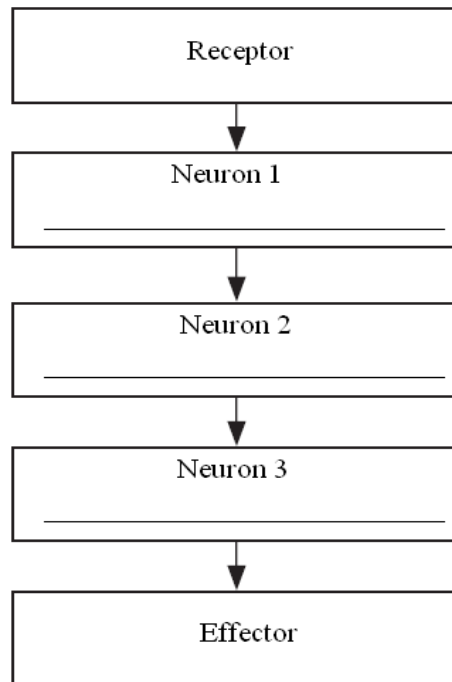
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b) Complete the table below by placing an R next to the statement if it is a reflex action.

<b>Response</b>	
Swallowing when food touches the back of the throat	
Seeking shade in hot weather	
Jumping at a loud noise	
Running cold water over a burnt hand	

2

c) The diagram below shows the flow of information from a receptor to an effector in a reflex action. Complete the diagram by inserting the names of the missing neurons in the correct order.



2

d) Synapses occur between neurons, what is the function of synapses?

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4. Reaction time measures the length of time it takes your nervous system to respond to a stimulus. Reaction time can be measured using a computer game. The results of a reaction time test are shown in the table below.

Student	Reaction time (s)		
	First attempt	Second attempt	Third attempt
1	0.35	0.24	0.19
2	0.27	0.20	0.14
3	0.15	0.10	0.08
4	0.27	0.19	0.15

a) What conclusion can be drawn about the effect of practice on reaction time?

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b) Calculate student 1's average reaction time across the three trials.

\_\_\_\_\_ seconds

1