# TERM 2: WEEK 6 – 7 (22nd June – 3rd July)

# Strand 3: Organism Level Biology

## Sub-strand 3.4 Nervous System

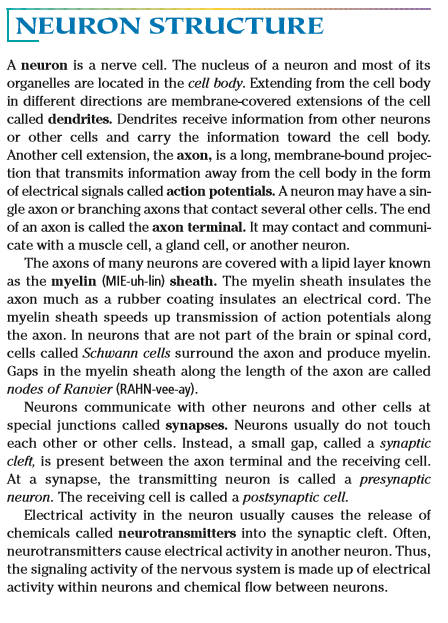
### Lesson Activity 3.3

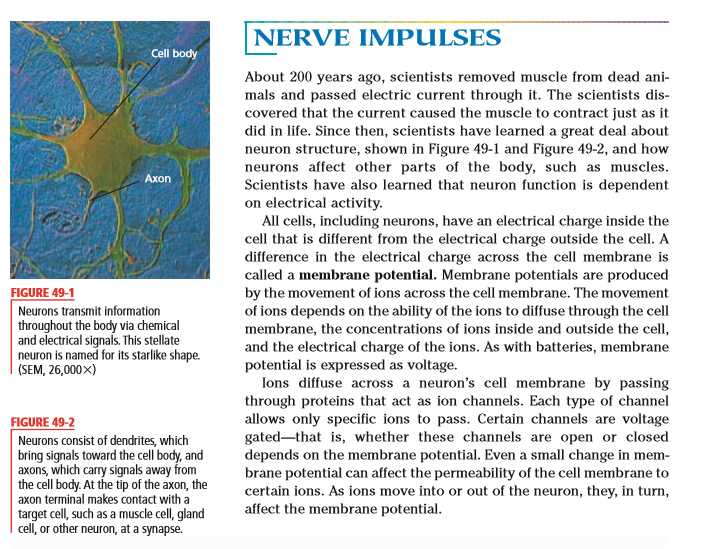
**The specific learning outcomes (SLO) targeted in this activity are provided below:**

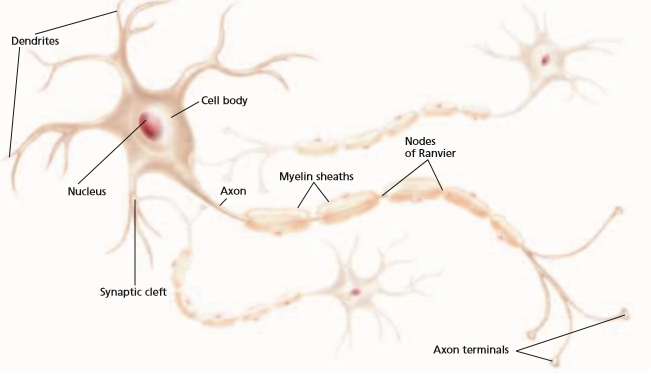
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| --- | --- | --- | --- |
| **Specific Learning Outcomes:** Students are able to | **Skill level** | **SLO code** | **Achieved**  **(Yes / No)** |
| Describe the structure of neurons | 2 | Bio3.4.2.1 |  |
| Describe the characteristics of neurons | 2 | Bio3.4.2.2 |  |
| Explain the mechanism of nervous signal production and transmission | 3 | Bio3.4.3.1 |  |
| Define action potential, resting potential | 1 | Bio3.4.1.1 |  |
| Differentiate between an action potential and a resting potential | 3 | Bio3.4.3.2 |  |
| Differentiate the actions of neuro transmitters between an action potential and a resting potential | 3 | Bio3.4.3.3 |  |
| Explain the function of chemical messengers provided by the nervous system | 3 | Bio3.4.3.4 |  |
| Discuss how the nervous, excretory and circulatory systems in a named animal work together to maintain a constant body environment | 4 | Bio3.4.4.1 |  |

**Instructions:**

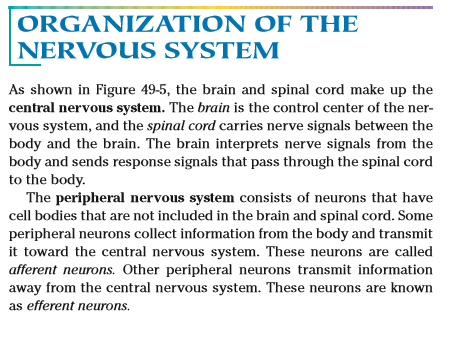
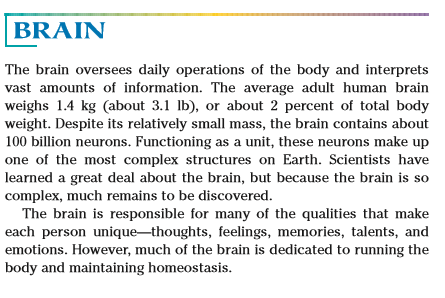
1. If you have access to the internet, refer to Central School’s website: [www.centralschool.edu.vu](http://www.centralschool.edu.vu), Year 12 Biology folder Term 2 Week 6 – 7, to watch videos on nervous system and access other resources.
2. Answer the following questions.
3. Neuron structure







(Source: Holt, Rinehart, & Winston, 2006, pp.1005 – 1006)



(Source: Holt, Rinehart, & Winston, 2006, p 1010)

1. Describe the structure of a neuron.

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1. Describe the function of the neuron.

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1. Explain the mechanism of nervous signal production and transmission.

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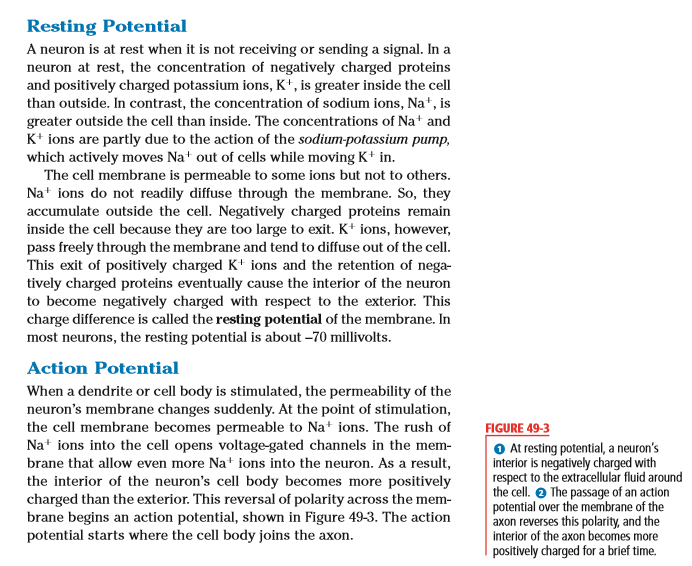
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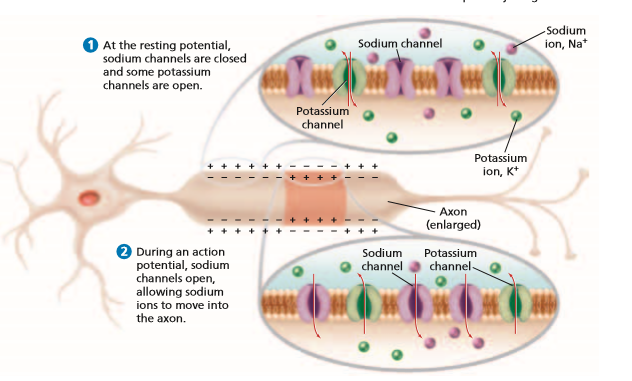
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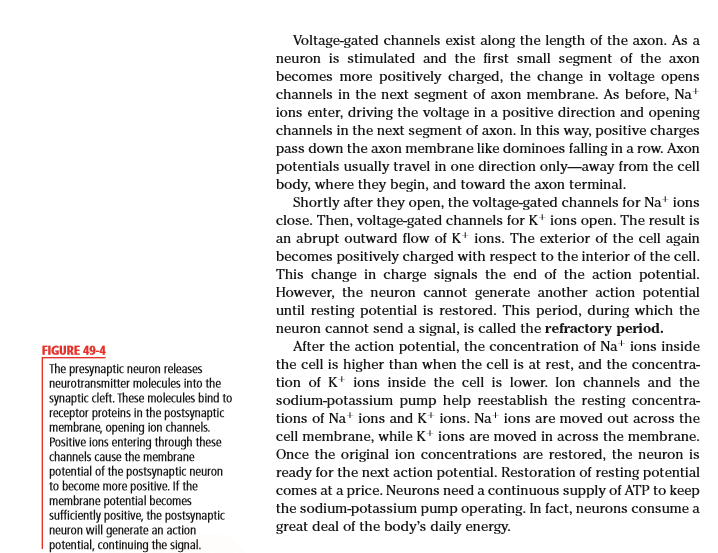
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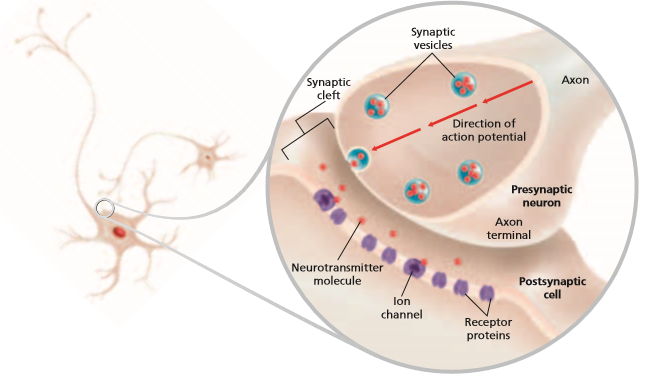
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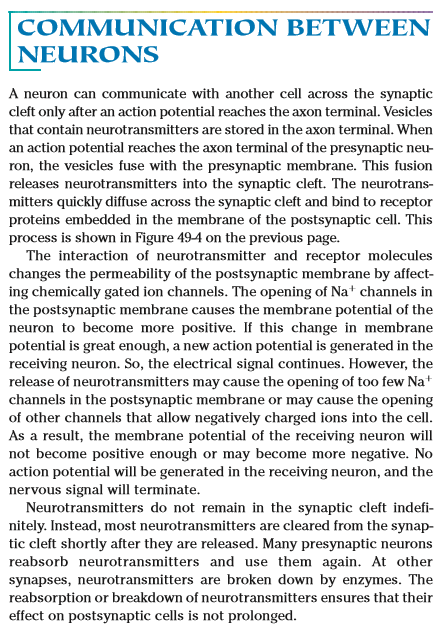
1. **Action potential and Resting potential**











(Source: Holt, Rinehart, & Winston, 2006, pp1007 - 1009)

1. Define action potential

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1. Define resting potential

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1. Explain the differences between action potential and resting potential

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1. Explain the differences in the actions of neuro transmitters between action potential and resting potential.

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1. Explain the function of chemical messengers provided by the nervous system.

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1. Discuss how the nervous, excretory and circulatory systems in a named animal work together to maintain a constant body environment.

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