**Reading Outline for Plotnik’s Introduction to Psychology, 4th Edition**

**Module 3 “Brain’s building Blocks”**

**Introduction**

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1. **Overview: Human Brain**

*Four Questions about the Brain*

1. What is the Brain Made Of?

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Glial cells –

Neurons –

2. How Do Brain Cells Develop?

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3. Can the Brain Repair Its Damaged Cells?

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4. Is the Brain the Same as the Mind?

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**B. Neurons: Structure and Function**

1. The cell body –

2. Dendrites –

3. The axon –

4. The myelin –

5. Terminal buttons –

6. The synapse –

**C. Neurons versus Nerves**

Can arms be Reattached?

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The peripheral nervous system –

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The central nervous system –

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**D. Sending Information**

1. Axon Membranes: Chemical Gates

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2. Ions: Charged Particles

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3. Resting State: Charged Battery

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4. Action Potential: Sending Information

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5. Nerve Impulse: Combining Action Potentials

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5a. The all-or-none-law –

5b.

5c.

5d.

**E. Neurotransmitters & Receptors**

*Neurotransmitter –*

1.

2.

3.

4.

5.

6.

*How Many Chemical Keys and Locks?*

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*How Does Alzheimer’s Affect Neurotransmitters?*

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*What are the New Neurotransmitters?*

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**F. Reflex Responses**

*How Do You Move Your Hand Without Thinking?*

Reflex –

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*Four steps in a reflex response*

1.

2.

3.

4.

*Why Do We Have Reflexes?*

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G. Research Focus: Phantom Limb

*What Happens after Amputation?*

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*What is Phantom Limb?*

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*What is Neural Plasticity?*

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**H. Cultural Diversity**

*How do drugs affect neurotransmitters?*

1. Cocaine: Blocking reuptake

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2. Curare: Blocking Receptors

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3. Mescaline: Mimics neurotransmitter

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**I. Application: Concerns about Research**

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*Issues Surrounding Fetal Transplantation*

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*Fetal Tissue Transplant*

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*Results*

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*Brain Scans*

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*Significance of Fetal Tissue Transplant*

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