

**Sets (s): all students**

**YEAR 12**

**SUBJECT Biology LP2 (LD)**

**Knowledge Focus: Membranes and Nucleic acids**



**Ysgol Uwchradd  
Prestatyn  
High School**

**This half term : Skills, Knowledge and Understanding to be developed**

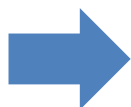
You will continue to learn about membranes and about experiments that show osmosis has occurred. You will learn about the structure of DNA and other nucleic acids, how DNA replicates and about protein synthesis in detail. You will continue to develop your exam technique by applying your knowledge in examination questions.

**Key Terms to be learned this half term:**

Water potential, solute potential, pressure potential, plasmolysis, incipient plasmolysis, Nucleic acid, nucleotide, DNA, RNA, genetic code,

**Week 1 and 2 Learning Objectives etc:**

Describe osmosis and use knowledge to explain changes to cell mass and volume.



**SPECIFIED PRACTICALS:** Investigate the change of potato mass in different salt concentrations. Work out the solute concentration of onion cells.

Calculate water potential and solute potential.

**Objective assessments:**

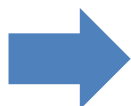
Analysis of data from practical work and explanation of trends.

**Homework:**

Past exam questions on osmosis.

**Week 3 and 4 Learning Objectives etc:**

Describe and compare the structure of DNA and RNA.  
Describe the structure of ATP.



Understand how ATP can be used to transfer energy in living organisms.

**Objective assessments:**

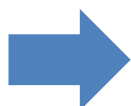
Answers to past exam questions.

**Homework:**

Past exam questions on DNA structure and replication.

**Week 5 and 6 Learning Objectives etc:**

Describe DNA replication and explain why it is semi-conservative using the Meselson-Stahl experiment as evidence.



SA test on topics studied this half term

**Objective assessments:**

Explanation of Meselson-Stahl experiment using knowledge of DNA replication.

**Homework:**

Revision for summative assessment

**Week 7**

Prepare for mock exams after Christmas



**Objective assessments:**

Answers to past exam questions.

**Homework:**

Past exam questions on unit 1