ORANGE HIGH SCHOOL

ASSESSMENT TASK NOTIFICATION

Subject	Biology
Topic	Cells as the Basis of Life
Class Teacher	Ms Paul, Mrs Griffen, Mr Shea
Head Teacher	Shea
Year	Year 11
Date Given	Week 10
Date Due	Term 2 Week 2 or 3 (In double period)
Weighting	30 % (working scientifically 25%, knowledge 5%)

Assessment Outline

This task will involve you completing a first-hand practical investigation.

It will involve you conducting a practical task and completing an analysis of the task.

For this task you must have a good understanding of the scientific method. Aim, hypothesis, safety, equipment, material, method, results presentation and analysis, discussion and a scientific conclusion.

There could be questions asked on any aspect of the practicals you have completed this year and an understanding of the biological knowledge involved in those practicals.

Non-completion of Task:

If you know you are going to be away on the day that the task is due, you must make alternative arrangements with your teacher beforehand. If you are suddenly away on the day that the task is due, you must contact your teacher or Head Teacher on your return to school. Documentation will be required in both classes.

Plagiarism:

Plagiarism, the using of the work of others without acknowledgement will incur serious penalties and may result in zero award. Any cheating will also incur penalties.

Failure to follow the above procedures may result in a zero award.
The policies and procedures that are outlined on the ROSA booklet will be followed regarding the non-completion of assessment tasks.

Outcomes Assessed

BIO11 – 1 Develops and evaluates questions and hypotheses for scientific investigation
BIO11 – 2 Designs and evaluates investigations in order to obtain primary and secondary data and information
BIO11 – 3 Conducts investigations to collect valid and reliable primary and secondary data and information
BIO11 – 5 Analyses and evaluates primary and secondary data and information
BIO11 – 6 Solves scientific problems using primary and secondary data, critical thinking skills and scientific processes
BIO11 – 8 describes single cells as the basis for all life by analysing and explaining cells' ultrastructure and biochemical processes

<u>To allow you to focus on your study prior to this task the following syllabus outcomes may be assessed</u>

- investigate a variety of prokaryotic and eukaryotic cell structures, including but not limited to:
  - drawing scaled diagrams of a variety of cells

- investigate the way in which materials can move into and out of cells, including but not limited to:
  - conducting a practical investigation modelling diffusion and osmosis

- investigate the way in which materials can move into and out of cells, including but not limited to:
  - relating the exchange of materials across membranes to the surface-area-to-volume ratio, concentration gradients and characteristics of the materials being exchanged

- conduct a practical investigation to model the action of enzymes in cells

- investigate the effects of the environment on enzyme activity through the collection of primary or secondary data

Specifically you will need to have some understanding of the following practicals

- **Observation under microscopes. Identify cells and basic cell structure seen under a light microscope**
- **Use a microscope and a mini grid to draw a cell to calculate size and use a scale.**
- **Have some understanding of a practical that shows the requirements of plants to grow**
- **A practical to show diffusion and osmosis.**
- **A practical to show how the surface area to volume ration affects the diffusion of chemicals into cells**
- **A practical to show the effects of the environment on the activity of enzymes.**

- **In addition you must have an understanding of the scientific method for each practical and you may be asked to answer questions on aim, hypothesis, safety, method, equipment, results (including constructing graphs and tables), discussions and conclusions for any of these practical tasks where they are appropriate and you have done them in class.**