OCR
RECOGNISING ACHIEVEMENT

OXFORD CAMBRIDGE AND RSA EXAMINATIONS

Advanced GCE

BIOLOGY 2806/03/PLAN

Practical Examination (Part A): Planning Exercise

For issue on or after: Friday **14 MARCH 2003**

This plan must be handed in by the deadline given by your teacher.

Candidate Name	Centre Number	Candidate Number

INSTRUCTIONS TO CANDIDATES

- Write your name in the space above.
- Write your Centre number and Candidate number in the boxes above.
- Attach this page to the front of your plan.

INFORMATION FOR CANDIDATES

- In this Planning Exercise, you will be assessed on the Experimental and Investigative Skill:
  Skill P Planning
- You will be awarded marks for the quality of your written communication.
- Detailed notes for guidance are given overleaf.

Authentication by teacher

I declare that, to the best of my knowledge, the work submitted is that of the candidate concerned. I have provided details on my Report Form for the Practical Test of any assistance given.

Signature ..... Date .....

FOR EXAMINER'S USE		
	Max.	Mark
Planning	16	

This question paper consists of 3 printed pages and 1 blank page.

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Notes for guidance

1 Your plan should have a clear and helpful structure and should be illustrated by diagrams, tables, charts, graphs etc. as appropriate. Remember that these can often be used to replace words in the text. Diagrams should be relevant to the content of your plan and positioned appropriately. Labels on diagrams, flow charts or tables should be clear and concise. Large blocks of text should be included in the word count.

2 You should take care to use technical and scientific terms correctly and to write in clear and correct English.

3 Your plan should be hand-written or word-processed on A4 paper, which should have a hole punched at the top left hand corner. Pages should be numbered and should have a clear margin on the right hand side. You should write (or print) on one side of the paper only and each sheet should be marked with your Centre number and Candidate number.

4 You should show that you have consulted an appropriate range and variety of sources. At the end of your plan you should list clearly the sources you have used and should refer to these references in your plan where appropriate. Where you have incorporated material which has been copied directly from a source such as a book or the Internet, this must be acknowledged in the report and details included in the references at the end. However, it should be noted that the inclusion of copied material will not in itself gain credit. The list of references should not be included in the word count.

5 Your plan should be based on the use of standard equipment, apparatus, chemicals and other materials available in a school or college science laboratory.

6 Your plan should be of between 500 and 1000 words. A plan that is in excess of 1000 words is likely to have poor structure and unselective choice of material, so that full credit may not be available. You should indicate the number of words in the margin of the plan at approximately 200 word intervals.

7 When you have finished, tie the pages *loosely* together, with this sheet on the top, so that the pages turn over freely, or use a treasury tag. Your Centre will give you the date by which it must be handed in.

Planning Exercise

As seeds germinate they use stored food reserves for their respiration and growth. This results in a progressive decrease in the dry mass of the seedlings in the early stages of their development.

You are required to plan an investigation:

- to compare the rate of utilisation of food reserves during the germination of seeds of two different species;
- to determine a possible reason for any differences that occur in the rates of utilisation.

Part of your plan must be based on a method for determining the progressive decrease in dry mass of the seeds/seedlings.

You can assume that you have access to the following:

- supplies of the two different species of seeds you select;
- materials and equipment for the seeds to be germinated.

In addition you should assume that you have access to your school or college laboratory resources.

Give full details of your method to include the procedures that you would adopt to ensure that the results obtained were:

- accurate;
- presented in appropriate units;
- as reliable as possible with the apparatus at your disposal.

Indicate briefly how you would present the data that you would obtain and how you would analyse them to draw your conclusions.

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