ASSESSMENT TASK 1: PRELIMINARY BIOLOGY

MANGROVE ECOSYSTEMS - FIELD STUDY REPORT

1. Complete all sheets from the field trip.

   P2 - Applies the processes that are used to test and validate models, theories and laws of Science, with particular emphasis on first hand investigations in Biology.

   20 marks

2. Research 2 animals and 2 plants that live in the mangrove ecosystems (include specific adaptations for this type of ecosystem). (4 pages, not including pictures)

   P7 - Describes the range of organisms in terms of specialization for a habitat.

   20 marks

3. Construct food chains and webs for the mangrove ecosystems and discuss possible relationships between organisms.

   P8 - Analyses the interrelationships of organism within the ecosystem.

   20 marks
4. Present an overall report of the field trip including
   (a) A purpose and hypothesis.  
       5 marks

   (b) Methods for estimating abundance and distribution for 
       certain species.  
       5 marks

   (c) Methods for testing abiotic characteristics 
       (equipment how it was used, what it is measured in) 
       5 marks

   (d) Results for abundance, distribution and abiotic 
       characteristics presented in tables and graphically. 
       5 marks

   P11 - Identifies and implements improvements to investigation plans.

   (e) Discussion of what factors affect the distribution and 
       abundance of certain species within the mangrove ecosystem 
       (using the information collected about abiotic features as 
       well as your research). (constantly refer to info 1-2 pages)

   P14 - Draws valid conclusions from gathered data and information 
       15 marks

   (f) Outline the reliability and validity of the data collected 
       during the field trip.

   P12 - Discusses the validity and reliability of data gathered from 
       first hand investigations and secondary sources. 
       5 marks
Marking Rubric for Field Trip - Killalea State Park

1.

<table>
<thead>
<tr>
<th>OUTCOME</th>
<th>5 Marks</th>
<th>10 marks</th>
<th>15 marks</th>
<th>20 marks</th>
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<tbody>
<tr>
<td>P2</td>
<td>Basic completion of prac work</td>
<td>Tests theories using prac work</td>
<td>Basic validation of prac work</td>
<td>Advanced testing and validation using prac work</td>
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2.

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<tbody>
<tr>
<td>P7</td>
<td>Describes at least 1 animal and plant</td>
<td>Describes at least 1 animal and plant and related to mangrove ecosystems</td>
<td>Describes 2 animals and plants</td>
<td>Describes 2 animals and plants and relates to mangrove ecosystems</td>
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3.

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<tbody>
<tr>
<td>P8</td>
<td>Identifies relationships using 1 food and web chain</td>
<td>Identifies relationships using 2 food chains and webs</td>
<td>Describes some re’ships in the mangroves</td>
<td>Analyses re’ships in the mangroves</td>
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### 4.(a),(b),(c),(d)

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<tr>
<td>P11</td>
<td>Identifies a purpose and hypothesis</td>
<td>Describes and presents information of distribution and abundance</td>
<td>Describes and presents information on abiotic factors</td>
<td>Information presented in appropriate formats work.</td>
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### 4.(e)

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<tr>
<td>P14</td>
<td>Summarises results</td>
<td>Summaries results + some general knowledge of mangrove ecosystems</td>
<td>Draws valid conclusions using research and data gathered in the field</td>
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### 4.(f)

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<tbody>
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<td>P12</td>
<td>Basic completion of prac work.</td>
<td>Tests theories using prac work.</td>
<td>Basic validation of prac work.</td>
<td>Advanced testing and validation using prac work.</td>
<td>Discusses validity and reliability</td>
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