<table>
<thead>
<tr>
<th>Teacher(s)</th>
<th>IB Biology PLC</th>
<th>Subject group and course</th>
<th>IB Biology SL Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course part and topic</td>
<td>Internal Assessment Design Lab</td>
<td>SL or HL/Year 1 or 2</td>
<td>SL; Year 2</td>
</tr>
<tr>
<td>Dates</td>
<td>Proposal: Year 1 Experiment: 3 Weeks Aug-Sept Rough Draft Due October Final Draft Due January Final Draft Due to IB by Instructor March 15, 2023</td>
<td></td>
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<table>
<thead>
<tr>
<th>Unit description and texts</th>
<th>DP assessment(s) for unit</th>
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</table>
| Students will develop and execute an individual research project. This is a requirement for the IB diploma. | ● IA Proposal (Year 1)  
● IA Checkpoints (Year 2)  
● IA rough draft (Year 2)  
● IA final draft (Year 2) |

**INQUIRY:** establishing the purpose of the unit

**Transfer goals**

List here one to three big, overarching, long-term goals for this unit. Transfer goals are the major goals that ask students to “transfer” or apply their knowledge, skills, and concepts at the end of the unit under new/different circumstances, and on their own without scaffolding from the teacher.

**SWBAT:**

Investigate an identified biological phenomenon using the following practices:

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Resources, materials, assessments not linked to SGO or unit planner will be reviewed at the local school level.
● Asking Questions and Defining Problems
● Developing & Using Models
● Constructing Explanations

Students may use the following content from the course:

Topic 1: Cell Biology
Topic 2: Molecular Biology
Topic 3: Genetics
Topic 4: Ecology
Topic 5: Evolution and biodiversity
Topic 6: Human Physiology

Students will develop the following skills:
- Effectively develop research questions
- Devising reliable and valid methodology
- Effectively incorporate required safety and ethical guideline into experimentation
- Construct testable hypotheses
- Organize and analyze data using prescribed statistical tests

Students will grasp the following concepts
- Systems and Models
- Interactions and Equilibrium
- Stability and Change

ACTION: teaching and learning through inquiry

Formative assessment: Weekly online quizzes will be conducted to determine growth of learners throughout the unit. Internal Assessment (IA) rough draft

Summative assessment: Internal Assessment (IA) proposal and Internal Assessment final report

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Differentiation:
- Affirm identity—build self-esteem
- Value prior knowledge
- Scaffold learning Extend learning

Details: Growth will be monitored using formative assessments by instructor and self-assessed using provided bulls-eye rubric. Remediation/extension will be conducted through homework activities and investigations conducted in class.

<table>
<thead>
<tr>
<th>Approaches to learning (ATL)</th>
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<tbody>
<tr>
<td>Check the boxes for any explicit approaches to learning connections made during the unit. For more information on ATL, please see the guide.</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Thinking, Social Communication, Self Management</th>
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</thead>
<tbody>
<tr>
<td>Details: Students will conduct their IA research project.</td>
</tr>
</tbody>
</table>

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### Language and learning
Check the boxes for any explicit language and learning connections made during the unit. For more information on the IB's approach to language and learning, please see the guide.

<table>
<thead>
<tr>
<th>Activating background knowledge</th>
<th>Personal and shared knowledge</th>
<th>Creativity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scaffolding for new learning</td>
<td>Ways of knowing</td>
<td>Activity</td>
</tr>
<tr>
<td>Acquisition of new learning through practice</td>
<td>Areas of knowledge</td>
<td>Service</td>
</tr>
<tr>
<td>Demonstrating proficiency</td>
<td>The knowledge framework</td>
<td>Details: Development and execution of the Internal Assessment requires students to think creatively. The work may not be applied to CAS projects but skills developed could be used on developing CAS activities.</td>
</tr>
</tbody>
</table>

Details: This unit applies vocabulary acquired through previous courses. Proficiency will be assessed through formative and summative assessments.

### Resources
List and attach (if applicable) any resources used in this unit

- IB Biology Schoology Course
Reflection—considering the planning, process and impact of the inquiry

<table>
<thead>
<tr>
<th>What worked well</th>
<th>What didn’t work well</th>
<th>Notes/changes/suggestions:</th>
</tr>
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<tbody>
<tr>
<td>List the portions of the unit (content, assessment, planning) that were successful</td>
<td>List the portions of the unit (content, assessment, planning) that were not as successful as hoped</td>
<td>List any notes, suggestions, or considerations for the future teaching of this unit</td>
</tr>
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