Marietta City Schools

2025–2026 District Unit Planner

Teacher(s)	IB Biology PLC	**Subject group and course**	IB Biology HL Year 2		
Course part and topic	Internal Assessment Design Lab IB requirement for DP diploma	**SL or HL/Year 1 or 2**	HL; Year 2	**Dates**	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, 2026

Unit description and texts	**DP assessment(s) for unit**
# Internal Assessment In IB Biology, students are tasked with the research, design, performance, and write up their own investigation. This project is known as an **internal assessment** (IA). Students will spend 10 hours doing this investigation which will provide 20% of the overall assessment for the IB biology score (the IB score, not the class grade). The internal assessment is assessed by the teacher and then externally moderated by the IB at the end of the course. There is a large variety and range of possible investigations; each student must complete an investigation that is unique and adequately different from those of other students in the course. Students can choose from: ● Hands-on practical laboratory work ● Fieldwork ● Use of a spreadsheet for analysis and modeling	● IA Proposal (Year 1) ● IA Checkpoints (Year 2) ● IA rough draft (Year 2) ● IA final draft (Year 2)

- Extraction and analysis of data from databases
- Use of a computer simulation

The Internal Assessment is assessed (that means 'graded') using very strict IB criteria. All IB science teachers world-wide must use the same criteria and apply them in the same way—quite a challenge!! To ensure that everyone is following the rules and applying the criteria correctly, schools must send samples of graded student lab reports to IB for monitoring. If a teacher is being too hard or too soft, that teacher's marks which were awarded to students will be adjusted accordingly.

The IB Biology Internal Assessment has a maximum score of 24 points possible *(the points for the I.A. criteria are IB marks, not class grade book points).* Each assessment criterion has level descriptors describing specific achievement levels, together with an appropriate range of marks. The IB advises teachers to use a "best-fit" approach in deciding the appropriate mark for the following criteria:

The scoring rubric to read the levels of performance and indicators per level.

- Research design (up to 6 points)
- Analysis (up to 6 points)
- Conclusion (up to 6 points)
- Evaluation (up to 6 points)

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INQUIRY: establishing the purpose of the unit

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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:

- Asking Questions and Defining Problems
- Developing & Using Models
- Constructing Explanations

Students may use the following content from the course:

The IB Biology curriculum is organized by themes (A-D) and levels of organization (1-4) in a "roadmap."

THEME A: Unity and Diversity

- **A1: Unity and Diversity of Molecules**
- **A2: Unity and Diversity of Cells**
- **A3: Unity and Diversity of Organisms**
- **A4: Unity and Diversity of Ecosystems**

THEME B: Form and Function

- **B1: Form and Function of Molecules**
- **B2: Form and Function of Cells**
- **B3: Form and Function of Organisms**
- **B4: Form and Function of Ecosystems**

THEME C: Interaction and Interdependence

- **C1: Interaction and Interdependence of Molecules**
- **C2: Interaction and Interdependence of Cells**
- **C3: Interaction and Interdependence of Organisms**
- **C4: Interaction and Interdependence of Ecosystems**

THEME D: Continuity and Change

- **D1: Continuity and Change of Molecules**
- **D2: Continuity and Change of Cells**
- **D3: Continuity and Change of Organisms**
- **D4: Continuity and Change of Ecosystems**

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

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.

Approaches to learning (ATL)

Check the boxes for any explicit approaches to learning connections made during the unit. For more information on ATL, please see the guide.

Thinking, Social Communication, Self Management

Details:
Students will conduct their IA research project.

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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.	**TOK connections** Check the boxes for any explicit TOK connections made during the unit	**CAS connections** Check the boxes for any explicit CAS connections. If you check any of the boxes, provide a brief note in the "details" section explaining how students engaged in CAS for this unit.
Activating background knowledge Scaffolding for new learning Acquisition of new learning through practice Demonstrating proficiency Details: This unit applies vocabulary acquired through previous courses. Proficiency will be assessed through formative and summative assessments.	Personal and shared knowledge Ways of knowing Areas of knowledge The knowledge framework Details: Natural science as an area of science will be investigated in this unit.	Creativity Activity Service 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.

Resources

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

MCS Science Resources

- Textbook Pearson Biology for the IB Diploma Standard and Higher Level
- IB Biology Guide First Assessment 2025
- Van de Lagemaat, R. www.inthinking.net: Andorra la Vella, Andorra, 2019.
- IB Biology Schoology Course
- Discovery Education Biology and Chemistry Resources

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Reflection—considering the planning, process and impact of the inquiry

What worked well List the portions of the unit (content, assessment, planning) that were successful	**What didn't work well** List the portions of the unit (content, assessment, planning) that were not as successful as hoped	**Notes/changes/suggestions:** List any notes, suggestions, or considerations for the future teaching of this unit