

SECONDARY CURRICULUM
IB DIPLOMA
CHEMISTRY
OVERVIEWS
GRADE 11 – GRADE 12

IB Diploma Programme at Tesla Education

The **International Baccalaureate (IB) Diploma Programme** at Tesla Education, offered to students in **Grades 11 and 12**, represents the pinnacle of their learning journey. Designed to prepare students for success at university and beyond, the DP fosters **academic excellence, personal growth**, and a deep sense of **global citizenship**. Through its rigorous and **interdisciplinary curriculum**, students are challenged to think critically, engage with complex local and global issues, and develop an ethical perspective that informs responsible decision-making. The DP nurtures independent inquiry, research, and collaboration, empowering students to become **active, compassionate, and lifelong learners** who can thrive in a rapidly changing world. At Tesla, the DP experience is enriched by our commitment to **innovative teaching, personalized learning pathways**, and the integration of **IB Learner Profile attributes** across all subjects. Our graduates leave Tesla equipped with the **skills, knowledge, and mindset** required to succeed in leading universities and to contribute meaningfully to society.

Criteria for Successfully Achieving the IB Diploma Certificate

To be awarded the **IB Diploma**, students must meet the following requirements:

1. Subject Requirements

Students must complete **six DP subjects**, one from each group:

- **Group 1:** Studies in Language and Literature
- **Group 2:** Language Acquisition
- **Group 3:** Individuals and Societies RS | PRIMARY | MIDDLE | HIGH SCHOOL
- **Group 4:** Sciences
- **Group 5:** Mathematics
- **Group 6:** The Arts **OR** a second subject from Groups 1–4

2. Levels

- At least **three subjects** must be taken at **Higher Level (HL)**.
- The remaining **three subjects** are taken at **Standard Level (SL)**.

3. Core Requirements *(Mandatory for All Candidates)*

Students must complete and pass all three components of the **IB Diploma Programme Core**:

- **Theory of Knowledge (TOK):** Assessed through an exhibition and an essay.

- **Extended Essay (EE):** An independent, 4,000-word research paper.
- **Creativity, Activity, Service (CAS):** Successful completion of documented CAS experiences and a final project.

4. Point Requirements

- Minimum total: **24 points** out of **45**.
- Up to **3 bonus points** may be earned based on combined performance in **TOK** and **EE**.
- **CAS** completion is compulsory but does not contribute to points.

5. Minimum Scores Per Level

- A total of **at least 12 points** across the **three HL subjects**.
- A total of **at least 9 points** across the **three SL subjects**.
- No score lower than **2** in any HL subject.
- No score of **“N”** (non-submission) in any subject or core component.

6. Award of the Diploma

- **Maximum score:** 45 points
 - 6 subjects × **7 points** each = **42**
 - **TOK + EE bonus:** up to **3 additional points**
- The **IB Diploma** is awarded if the student:
 - Achieves **24 points or more**.
 - Meets the HL/SL minimum requirements.
 - Completes **TOK, EE, and CAS** successfully.
 - Has **no disqualifying conditions**.



Policy Alignment Statement

This course is delivered in full alignment with Tesla Education’s IB-approved policies on assessment, language, inclusion, and academic integrity. These policies ensure that teaching, learning, and evaluation within the course are consistent with the IB Diploma Programme standards and support all students in achieving their personal and academic goals.

Subject Description

The IB Diploma Programme (DP) Chemistry course explores the composition, structure, properties, and reactions of matter through concept-driven inquiry, practical investigations, and a strong integration of the Nature of Science (NOS). Students develop an understanding of how scientific knowledge is generated, validated, and applied in real-world contexts, while considering ethical, technological, and environmental implications.

The course equips learners with 21st-century scientific literacy, preparing them to critically analyse global challenges such as climate change, energy resources, sustainable materials, and biotechnology. Through laboratory investigations, field studies, data-driven analysis, and collaborative research, students gain essential skills for higher education, STEM careers, and informed citizenship.

Overarching Themes

The DP Chemistry syllabus is organised conceptually around Structure and Reactivity, linking content across molecular, macroscopic, and global scales:

- Structure → Models of matter, bonding, periodicity, functional groups.
- Reactivity → Energy changes, mechanisms, equilibria, rates, and redox.
- Interconnected Understanding → "Structure determines reactivity, which transforms structure," promoting conceptual links between topics.

Course Levels

- Standard Level (SL): provides students with a solid foundation in chemistry, focusing on developing conceptual understanding, analytical skills, and laboratory techniques across the core syllabus, with a minimum of 150 teaching hours.
- Higher Level (HL): builds upon all SL objectives but extends learning to greater depth and breadth, requiring 240 teaching hours. HL students explore additional topics, apply more complex mathematical skills, and undertake extended practical investigations to strengthen scientific inquiry and problem-solving abilities.

Aims

- Develop international-mindedness through exploration of global scientific issues.
- Build conceptual understanding by linking chemistry to the Nature of Science.
- Equip students to apply and evaluate scientific models, theories, and methods.
- Foster critical and creative thinking in analysing chemical phenomena.
- Enhance laboratory, mathematical, and research skills essential for higher education and STEM careers.

- Cultivate ethical awareness of scientific responsibilities and their impacts on society and the environment.

Approaches to Learning (ATL)

ATL Skill	How It's Developed in Chemistry
Thinking Skills	Modelling chemical phenomena, analysing data, predicting reactions, evaluating ethical dilemmas.
Research Skills	Using scientific databases (PubChem, WHO, IPCC), designing experiments, reviewing peer-reviewed literature.
Communication	Preparing structured lab reports, scientific posters, and presentations using IB conventions.
Self-Management	Planning IA investigations, tracking experiments, meeting extended deadlines, managing DP workload.
Social Skills	Collaborating on practical labs, leading group tasks, peer-reviewing experimental designs.

IB Learner Profile

Learner Profile Attribute	How Chemistry Develops It
Inquirers	Design and conduct independent investigations for the IA and EE, developing curiosity-driven research questions and exploring new experimental methods.
Knowledgeable	Build a deep understanding of chemical principles across molecular, atomic, and environmental contexts, applying knowledge to solve real-world problems such as energy sustainability and climate change.
Thinkers	Critically evaluate multiple hypotheses, interpret complex data, and use logical reasoning to draw conclusions and solve unfamiliar chemical challenges.
Communicators	Clearly explain chemical processes using precise terminology, visual models, and evidence-based arguments through structured lab reports, scientific posters, and oral presentations.
Principled	Uphold academic integrity by following ethical research practices, respecting safety protocols, and properly citing all data sources in their IA, EE, and lab portfolios.
Open-minded	Appreciate diverse approaches to solving global scientific challenges, by exploring cross-cultural perspectives on environmental sustainability, pharmaceuticals, and resource management
Caring	Investigate chemistry's role in improving lives, from renewable energy solutions to clean water access, and contribute to CAS projects that address local and global sustainability issues.
Risk-takers	Confidently engage in complex experiments, advanced simulations, and data analysis techniques, embracing unfamiliar methodologies and innovative problem-solving approaches.

Balanced	Balance coursework, lab investigations, IA, CAS, and EE commitments while maintaining personal well-being, through effective time management and self-regulation
Reflective	Regularly evaluate their learning progress, analyse experimental errors, revise methods, and set goals for continuous improvement in both theory and practice.

Assessment Criteria and Scale (Internal and External): Aligned with the IB DP Chemistry Guide (First Assessment 2025)

External Assessment (80%)

Paper 1 — Multiple Choice (20%)

- SL: 30 questions (45 minutes)
- HL: 40 questions (1 hour)
- Focus: AO1 (knowledge & understanding) + AO2 (application of knowledge)

Paper 2 — Data-based, Short & Extended Response (36%)

- SL: 1 hour 15 minutes | HL: 2 hours 15 minutes
- Structure:
 - Data-based questions testing interpretation and evaluation.
 - Short-answer questions on core topics.
 - Extended-response questions requiring synthesis.
- Criteria Evaluated:
 - AO1: Knowledge & understanding.
 - AO2: Application of concepts.
 - AO3: Analysis, synthesis, evaluation.

Paper 3 — Practical-based & Option Questions (24%)

- SL: 1 hour | HL: 1 hour 15 minutes
- Content:
 - Section A: Data-based practical questions.

- Section B: One or two optional topics (school-selected).
- Criteria Evaluated: AO2, AO3 — practical analysis and synthesis.

Internal Assessment (IA) — Scientific Investigation (20%)

Each student completes one individual investigation (6–12 pages, ~10 hours).

- SL & HL: Same task, marked using four IB criteria and moderated externally.

Internal Assessment - Scientific Investigation

Criterion	Focus	Max Marks
A: Research Design	Clarity of research question, hypotheses, and experimental strategy.	6
B: Data Collection & Analysis	Quality, accuracy, and processing of primary & secondary data.	6
C: Conclusion & Evaluation	Validity of results, evaluation of method, error discussion.	6
D: Communication	Structure, referencing, scientific conventions, academic integrity.	6
Total	24 marks — contributes 20% to the final grade.	

Comparison Table: SL vs HL

Component	SL Weight	HL Weight
Paper 1	20%	20%
Paper 2	40%	36%
Paper 3	20%	24%
Internal Assessment	20%	20%
Total	100%	100%

DP Core Integration (ToK, CAS, EE)

The DP Chemistry course meaningfully integrates the three core components of the IB Diploma Programme — Theory of Knowledge (TOK), Creativity, Activity, Service (CAS), and the Extended Essay (EE) — to enhance students' conceptual understanding, global awareness, and scientific inquiry skills.

1. Theory of Knowledge (TOK) Integration

TOK is embedded throughout the Chemistry curriculum to encourage students to reflect on the Nature of Science (NOS), evaluate the reliability of scientific claims, and connect chemical concepts to real-world contexts involving ethics, technology, and sustainability.

Examples of TOK Guiding Questions:

- *Scientific Modelling*: “How do chemical models, such as bonding theories or reaction mechanisms, shape our understanding of unseen phenomena?”
- *Language & Knowledge*: “How does scientific terminology influence the way we interpret chemical concepts?”
- *Certainty & Limitations*: “To what extent can chemistry provide objective and universal knowledge?”
- *Ethics & Responsibility*: “What ethical considerations arise in chemical research involving pharmaceuticals, nanomaterials, or nuclear energy?”
- *Science & Society*: “How do paradigm shifts — such as the discovery of the periodic table or quantum chemistry — transform our understanding of the material world?”

2. Creativity, Activity, Service (CAS) Integration

CAS offers students the opportunity to apply chemistry in authentic, real-world contexts and contribute meaningfully to their community. CAS connections are embedded into Tesla’s DP Chemistry programme, particularly during laboratory work and sustainability-focused projects.

Examples of CAS-Linked Activities:

- Science Outreach:
 - Lead community chemistry workshops on water testing, air quality, or food safety.
 - Mentor MYP students on simple experimental techniques.
- Environmental Campaigns:
 - Organise school recycling drives and waste management initiatives.
 - Conduct awareness campaigns on sustainable chemical practices.
- Health & Safety Projects:
 - Partner with local health organisations to test water quality.
 - Develop safety guidelines for household chemicals and host workshops for the school community.
- Student-Led Events:
 - Coordinate chemistry-based CAS showcases, including TED-style talks, hands-on demonstrations, or sustainability fairs.

3. Extended Essay (EE) Integration

Students may choose to complete their Extended Essay in Chemistry, conducting independent research into a focused, data-driven research question. EE support is scaffolded throughout the two-year course to ensure alignment with IB standards.

Examples of Chemistry EE Topics:

- Analytical Chemistry: “How accurately can titration methods determine vitamin C content in local fruits?”
- Environmental Chemistry: “To what extent do different filtration methods reduce nitrate levels in local water sources?”
- Physical Chemistry: “How does temperature affect the rate constant of a catalysed esterification reaction?”
- Green Chemistry: “How effective are biodegradable plastics compared to conventional plastics in acidic soil conditions?”

Course Overview

Year	Term	Major Concept	Key Topics / Chemistry Content	SL / HL Differentiation	Laboratory / Project Focus	Assessment Focus (only IB tasks)	Core Integration (TOK / CAS / EE)
Y1	T1	Structure & Atomic Theory	Particulate nature of matter, atomic theory, electron configuration, bonding models	HL: quantum model refinements; intro spectroscopy	Atomic structure & separation labs	Paper 1 diagnostic MCQ; Paper 2 short-answer checkpoint	TOK: How do models explain what we can't observe directly?
Y1	T2	Periodicity & Bonding	Periodic trends, bonding, hybridisation, materials	HL: transition metals, complex ions, magnetism	Chromatography; molecular modelling	Paper 2 data-based question set (DBQ)	CAS: Lead recycling/materials campaign using chemical evidence
Y1	T3	Thermochemistry & Kinetics	Enthalpy, Hess's Law, entropy, reaction rates	HL: Gibbs free energy; multistep mechanisms	Calorimetry; rate investigations; titration	Mid-year mock (Paper 1 & Paper 2)	TOK: How reliable are energy models for prediction?
Y1	T4	Redox & Organic I	Electrochemistry, redox titrations, intro organic reactions	HL: aromatic chemistry, mechanistic pathways, spectroscopy basics	Electrochemical cells; ester/polymer synthesis	Cumulative test (Paper 1 & Paper 2); IA topic/RQ milestone	EE Prep: Topic scoping & feasibility check

Y2	T1	Equilibrium & Acids–Bases	Equilibria, Le Châtelier, acid–base theories	HL: Ka/Kb, buffers, pH curves & calculations	Buffer design; Kc determination	IA proposal submission; Paper 1 & Paper 2 mock	TOK: Do approximations in models change truth claims?
Y2	T2	Integration & Environmental Chem	Atmospheric chemistry, green chemistry, energy resources	HL: advanced atmospheric modelling; remediation strategies	Water testing; sustainability project	IA final submission (20%); HL Paper 3 skills checkpoint	CAS: Community water-quality outreach
Y2	T3	HL Extensions & Review	Consolidation of core + HL options (spectroscopy, materials, biochem)	HL: deeper analytical data treatment for P3	Instrumental analysis (IR/UV-Vis/NMR) workshops	Full mock exams: Paper 1, Paper 2, Paper 3 (HL only)	TOK: How do new instruments shift what we “know”?
Y2	T4	Reflection & Science Communication	Scientific literacy; communicating findings; future pathways	HL: extended evaluation of analytical methods	Science exhibition; portfolio curation	Final IB examinations: Paper 1 & Paper 2 (SL/HL); Paper 3 (HL)	CAS/EE Showcase: Public presentation of projects

Scope and Sequence

 EARLY YEARS | PRIMARY | MIDDLE | HIGH SCHOOL

Year 1 – Grade 11

Term 1 – Structure & Atomic Theory

Weeks	Focus Area	SL / HL Differentiation	Practical / Project Work	TOK / CAS / EE Integration
1–2	Introduction to NOS, particulate nature of matter	HL covers quantum numbers and emission spectra	Atomic structure lab	TOK: “How do models explain unobservable phenomena?”
3–4	Atomic models & spectroscopy	HL explores PES and electron transitions	Flame tests & spectroscopy	CAS: Lead student demo at assembly

5–7	Bonding & structure	HL introduces hybridisation and metallic bonding	Modelling bonding geometries	EE Prep: Identify interest areas
8–10	Forces & material properties	HL links to conductivity, magnetism	Materials testing investigation	TOK: “How do models simplify complex bonding?”

Term 2 – Periodicity & Bonding

Weeks	Focus Area	SL / HL Differentiation	Practical / Project Work	TOK / CAS / EE Integration
1–2	Periodic trends	HL includes complex ion behaviour	Reactivity of alkali metals demo	TOK: “How do we organise knowledge in science?”
3–4	Bonding review & resonance	HL covers d-block and ligand field theory	Complex ion synthesis	CAS: Water reuse experiment showcase
5–7	Materials chemistry	HL adds high-temperature superconductors	Thermal conductivity lab	EE Prep: Shortlist EE topics
8–10	Intro to organic chemistry	HL explores stereoisomerism basics	Molecular modelling	TOK: “How does structure affect function?”

Term 3 – Thermochemistry & Kinetics

Weeks	Focus Area	SL / HL Differentiation	Practical / Project Work	TOK / CAS / EE Integration
1–2	Enthalpy & Hess’s Law	HL adds Born–Haber cycles	Calorimetry lab	TOK: “Are energy models accurate representations?”
3–4	Entropy & spontaneity	HL introduces Gibbs free energy	Reaction spontaneity experiments	EE Prep: Draft EE proposal
5–7	Reaction rates	HL covers multi-step mechanisms	Rate constant determination	CAS: Science fair project
8–10	Catalysis & industrial apps	HL includes enzyme kinetics	Catalytic efficiency lab	TOK: “How does chemistry inform sustainability?”

Term 4 – Redox & Organic Chemistry I

Weeks	Focus Area	SL / HL Differentiation	Practical / Project Work	TOK / CAS / EE Integration
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1–3	Electrochemistry	HL studies electrode potentials	Constructing voltaic cells	CAS: Battery recycling drive
4–6	Redox titrations	HL includes potentiometric methods	$\text{Fe}^{2+}/\text{MnO}_4^-$ titration lab	EE Prep: Confirm EE research question
7–10	Intro to organics	HL adds aromaticity, functional group reactivity	Organic synthesis lab	TOK: “To what extent is synthesis predictable?”

Year 2 – Grade 12

Term 1 – Equilibrium & Acids-Bases

Weeks	Focus Area	SL / HL Differentiation	Practical / Project Work	TOK / CAS / EE Integration
1–3	Chemical equilibria	HL explores advanced K_p/K_c relationships	K_c determination lab	TOK: “Are approximations valid knowledge?”
4–6	Acid-base theory	HL introduces Brønsted-Lowry extensions	Strong vs weak acid titration	CAS: pH monitoring for sustainability
7–10	Buffer systems	HL models buffer design	Buffer preparation experiment	EE Prep: Final EE draft submitted

Term 2 – Environmental & Green Chemistry

Weeks	Focus Area	SL / HL Differentiation	Practical / Project Work	TOK / CAS / EE Integration
1–4	Atmospheric chemistry	HL extends photochemical smog models	Air quality monitoring	CAS: Community air-pollution campaign
5–7	Green chemistry	HL analyses life-cycle impacts	Green solvent synthesis	TOK: “How does science balance progress and ethics?”
8–10	Energy resources	HL introduces alternative fuels	Hydrogen cell efficiency	EE Showcase: EE poster session

Term 3 – HL Extensions & Exam Review

Weeks	Focus Area	SL / HL Differentiation	Practical / Project Work	TOK / CAS / EE Integration
1–5	HL-only options	HL focuses on spectroscopy, protein chemistry	IR, NMR, UV-Vis workshops	TOK: “How does technology redefine knowledge?”

6–8	Synthesis of review	Shared review structure for SL/HL	Instrumental analysis consolidation	CAS: Peer-led study workshops
9–10	IA portfolio wrap-up	HL students refine advanced data evaluation	IA moderation prep	EE: Final supervisor sign-off

Term 8 – Exam Readiness & Reflection

Weeks	Focus Area	SL / HL Differentiation	Practical / Project Work	TOK / CAS / EE Integration
1–5	Exam strategy & mocks	HL integrates Paper 3 option practice	Past paper drills	CAS: Mock feedback leadership
6–8	Final consolidation	HL final data-based Paper 3 session	Independent revision labs	TOK: “What counts as certain in chemistry?”
9–10	Reflection & showcase	HL-led science outreach sessions	Science exhibition	CAS/EE Showcase: Public presentations

Assessment Calendar

Term	Assessment Task	Type	Weighting	Assesses
Y1 T1	Diagnostic Paper 1	Formative	–	AO1
Y1 T2	Paper 2 DBQ checkpoint	Formative	–	AO2, AO3
Y1 T3	Mid-year Mock (P1 & P2)	Summative	10%	AO1, AO2
Y1 T4	Cumulative Term Test (P1 & P2)	Summative	10%	AO1–AO3
Y2 T1	IA Proposal Submission	Internal	–	AO2, AO4
Y2 T2	IA Final Submission	Internal	20%	AO1–AO4
Y2 T3	Full Mock Exams (P1, P2, P3 HL)	Summative	15%	AO1–AO3
Y2 T4	Final IB Exams	External	80%	AO1–AO4

Core Integration & Resource Use

The IB DP Chemistry curriculum at Tesla integrates Theory of Knowledge (TOK), Creativity, Activity, Service (CAS), and the Extended Essay (EE) into classroom learning, laboratory investigations, and independent research. These connections foster scientific inquiry, global awareness, and authentic applications of learning.

1. Theory of Knowledge (TOK) Integration

TOK is embedded across all Chemistry units to encourage students to evaluate the Nature of Science (NOS), analyse the reliability of scientific models, and explore the ethical, cultural, and societal implications of chemical research.

Examples of TOK Prompts Per Unit

- Atomic Structure & Models – “How do models help us explain phenomena we cannot directly observe?”
- Bonding & Periodicity – “How does scientific language shape our understanding of structure and reactivity?”
- Thermodynamics & Kinetics – “To what extent do energy models accurately predict reaction outcomes?”
- Redox & Electrochemistry – “How does technology influence the way we measure and represent chemical processes?”
- Environmental Chemistry – “Should scientists balance progress in materials science against its environmental impact?”
- Organic Chemistry & Biotechnology – “What ethical responsibilities arise when developing pharmaceuticals and polymers?”

2. CAS Integration

CAS opportunities are integrated into the Chemistry curriculum, enabling students to apply chemical knowledge to real-world contexts while contributing to community engagement and sustainability initiatives.

Examples of CAS-Linked Activities

- Environmental Campaigns – Design recycling systems, lead school sustainability drives, or measure carbon footprints.
- Science Outreach – Organise community chemistry workshops, lead science fair demonstrations, or host interactive experiments for younger students.
- Health & Safety Projects – Partner with local health organisations to test water quality, monitor air pollution, or analyse household chemical safety.
- Green Chemistry Initiatives – Collaborate on projects reducing chemical waste, investigating eco-friendly solvents, or evaluating sustainable packaging alternatives.

3. Extended Essay (EE) Integration

Students may choose to complete their Extended Essay in Chemistry, conducting independent research into a focused, data-driven question. EE preparation is scaffolded across two years:

- Year 1 Term 2 → Topic brainstorming and supervisor allocation
- Year 1 Term 3 → Formulation of research question and methodology workshops
- Year 2 Term 1 → Data collection strategies and referencing skills
- Year 2 Term 2 → Draft submission and supervisor feedback
- Year 2 Term 4 → Final EE submission and student presentations

Examples of Chemistry EE Topics

- Analytical Chemistry: “How accurately can different titration methods measure vitamin C levels in fruit?”
- Environmental Chemistry: “To what extent do filtration techniques reduce nitrates in local water sources?”
- Physical Chemistry: “How does temperature affect the rate constant of esterification reactions?”
- Green Chemistry: “How effective are biodegradable plastics compared to conventional plastics in acidic soils?”

4. Resource & Toolkit Integration

Tesla students use a range of authentic scientific tools, simulations, and databases to develop strong investigative and analytical skills.

Databases

- PubChem – Molecular structures, compounds, and chemical pathways
- NIST Chemistry Database – Reference data for spectroscopy and thermodynamics
- IPCC – Climate change reports and atmospheric chemistry data
- ScienceDirect / PubMed – Peer-reviewed research for EE and IA investigations

Simulations

- PhET Simulations – Molecular bonding, gas laws, electrochemistry, and equilibrium
- Molecular Workbench – Visualising reaction mechanisms and intermolecular forces
- ExploreLearning Gizmos – Virtual labs for titration, reaction rates, and spectroscopy

Digital Tools

- Vernier LabQuest & Logger Pro – Real-time data collection and graphing
- SPSS / Excel – IA statistical testing, regression analysis, and uncertainty calculations
- ChemDraw – Molecular drawing and reaction pathway visualisation

IB Official Resources

- IB Programme Resource Centre (PRC) – Chemistry TSM, specimen papers, and IA exemplars
- IB Chemistry Data Booklet – Required for calculations and analysis
- IB QuestionBank – Practice for Paper 1, 2, and 3 (HL only)

Collaborative Planning & Reflection

Tesla’s DP Chemistry team collaborates closely to ensure vertical alignment, horizontal integration, and consistency in assessment practices, maintaining a unified and rigorous Chemistry programme.

1. Vertical Alignment

- Ensures smooth progression from MYP Sciences into DP Chemistry by mapping lab skills, inquiry techniques, and NOS expectations.
- MYP graduates enter DP Chemistry with strong experimental design and data analysis foundations.

2. Horizontal Alignment

- Joint planning with Biology, Physics, and Environmental Systems teachers to coordinate interdisciplinary approaches.
- Shared experimental programmes, such as water quality testing, air pollution monitoring, and carbon footprint studies.

3. IA Standardisation & Moderation

- Regular IA marking moderation sessions to ensure consistent application of IB criteria.
- Calibration workshops using IB exemplars and marking commentaries from the PRC.
- Peer review of IA drafts within the department to provide structured feedback.

4. Shared Resources & Professional Development

- Full access to the IB PRC Chemistry library and TSM for lesson planning and assessment preparation.
- Department workshops focused on Nature of Science (NOS) integration and IA standardisation.
- Participation in regional IB Chemistry networks to exchange best practices and maintain alignment with IB updates.

