III Liceum Ogólnokształcące z Oddziałami Dwujęzycznymi w Gdyni

IB World School 000704

International Baccalaureate Diploma Programme curriculum brief

POLISH A: Literature

Na podstawie Język A: przewodnik do zajęć z literatury od 2021 r.

Podstawą programu jest **lista lektur** skonstruowana zależnie od poziomu nauczania (lista autorów: Prescribed Reading List). Dla poziomu podstawowego (SL: Standard Level) to minimum **9 tekstów**, dla rozszerzonego (HL: Hight Level) -**13 tekstów**.

Całość kursu opiera się na tzw. **obszarach badawczych** (**area of exploration**), które należy uwzględniać przy konstrukcji programu i wyborze lektur:

1. READERS, WRITERS,TEXTS (czytelnik, twórca, tekst): w ścieżce tej uwzględniamy relacje czytelnik-autor-tekst; badamy zależności między tymi trzema obszarami; sposoby generowania znaczeń w tekście. Uczniowie, analizując różnorodne teksty literackie:
• zapoznają się z technikami literackimi i ich funkcjami w kształtowaniu znaczeń;
• badają dzieło w procesie odbioru przez jednostkę i zbiorowość;
• dostrzegają, że odczytanie sensów tekstów jest zależne od perspektywy i doświadczenia.

Możliwe powiązania z teorią wiedzy (TOK)
„Powiązania z TOK w tym obszarze koncentrują się wokół pytań o to, jakiego rodzaju wiedzę można uzyskać z tekstu literackiego, jak ta wiedza jest konstruowana i w jakim stopniu znaczenie tekstu literackiego można uznać za stałe. Poniżej przedstawiono przykłady powiązań z TOK, które wynikają z tego obszaru badawczego:
• Czego uczy nas literatura? Jaką rolę spełnia literatura? Jaki jest jej cel?
• W jaki sposób wiedza, którą czerpiemy z literatury, różni się od tej, którą zdobywamy podczas nauki innych dyscyplin? Na ile możemy być pewni wiedzy zdobytej dzięki lekturze tekstów literackich?
• W jakim stopniu wiedza, którą zdobywamy, czytając tekst literacki, zależy od intencji autora, założeń kulturowych czytelnika i celu, jaki wspólnota czytelników przypisuje tekstowi?
• Czy niektóre interpretacje tekstów literackich są lepsze niż inne? Jak najlepiej pogodzić ze sobą wiele znaczeń?
• Co stanowi dobry dowód w wyjaśnianiu odpowiedzi na pytania z literatury?" (Źródło: *Język A: przewodnik do zajęć z literatury* z lutego 2023)

2. TIME AND SPACE (czas i przestrzeń): w tej ścieżce proponujemy uczniom teksty, które powstały w różnych epokach i miejscach; zwracamy uwagę na kwestie kontekstów (biograficznego, historycznego, politycznego, kulturowego, itp.) i ich wpływu na odczytanie utworu. Uczniowie, analizując różnorodne teksty literackie:
• badają biografię autora i tło historyczne, polityczne, kulturowe epoki;
• analizują problematykę, wątki i motywy dzieła;
• próbują ustalić, w jaki sposób konteksty wpływają na zrozumie dzieł;
• analizują, w jaki sposób dzieło odzwierciedla aspekty społeczne, polityczne, historyczne itp.;

• badają, w jaki sposób język odzwierciedla daną społeczność, żyjącą w konkretnym czasie i przestrzeni;
• uświadamiają sobie, że dzieła odzwierciedlają perspektywy historyczne i kulturowe, osadzone są w kontekstach, a także ukazują problemy ludzi żyjących w przeszłości, które mają znaczenie uniwersalne; niezmiennie zdarzają się w różnych czasach i przestrzeniach.

Możliwe powiązania z teorią wiedzy (TOK)
„Powiązania z TOK w tym obszarze dotyczą pytań o to, w jakim stopniu kontekst powstania tekstu literackiego wpływa na jego znaczenie lub je kształtuje oraz w jakim stopniu wiedza, którą czytelnik może czerpać z tekstu literackiego, jest uwarunkowana kontekstem jego odbioru. Poniżej przedstawiono przykłady powiązań z TOK, które wynikają z tego obszaru badawczego:

• W jakim stopniu czytelnik może zrozumieć tekst literacki, który został napisany w kontekście innym niż jego własny?
• W jakim stopniu konieczne jest podzielanie światopoglądu autora, aby móc zrozumieć jego twórczość?
• Co traci się w tłumaczeniu z jednego języka na drugi?
• Czym może różnić się podejście do danego czasu i miejsca poety, dramaturga, powieściopisarza i historyka?
• Czy pojęcie kanonu jest pomocne w badaniu i rozumieniu literatury? Jak tworzy się kanon? Jakie czynniki wpływają na jego ekspansję lub zmianę z biegiem czasu?" (Źródło: *Język A: przewodnik do zajęć z literatury* z lutego 2023)

3. INTERTEXTUALITY – CONNECTING TEXTS (intertekstualność): uczniowie koncentrują się na zagadnieniu związków występujących pomiędzy różnymi tekstami literackimi, ideami, konwencjami itp.; porównują je na różnych płaszczyznach. Uczniowie, analizując różnorodne teksty literackie:
• zapoznają się z definicją intertekstualności;
• porównują teksty, dostrzegając między nimi system powiązań;
• badają dzieła pod względem formy literackiej, gatunku, motywu, archetypu, kreacji bohatera itp.
• poznają różne perspektywy badawcze.

Możliwe powiązania z teorią wiedzy (TOK)
„Powiązania z TOK w tym obszarze dotyczą pytania o to, jak interakcja tekstu literackiego z innymi tekstami literackimi – celowo wywołana przez autora lub stworzona przez czytelnika w procesie odbioru tekstu – wpływa na nasze postrzeganie tych tekstów i ich znaczenia. Poniżej przedstawiono przykłady powiązań z TOK, które wynikają z tego obszaru badawczego:
• Jaką wiedzę o tekście literackim i o literaturze zdobywamy, porównując i zestawiając ze sobą teksty literackie?
• Czy znajomość konwencji formy i technik literackich pozwala na lepsze i głębsze zrozumienie tekstu literackiego?
• W jaki sposób dokonuje się oceny wartości literackiej tekstu? Co sprawia, że dany tekst literacki jest lepszy od innych?
• Czy do nauki literatury lepiej podchodzić z perspektywy czasowej (grupując teksty według czasu ich powstania), czy z perspektywy tematycznej (grupując je według tematyki lub problemu, który je łączy)? Jaki wpływ ma każdy z nich na wiedzę o tej dyscyplinie?
• Na ile przydatne są klasyfikacje tekstów literackich ze względu na formę i epokę? W jaki sposób pomagają one zrozumieć literaturę i historię? (Źródło: *Język A: przewodnik do zajęć z literatury* z lutego 2023)

Przez dwa lata na zajęciach z literatury polskiej i powszechnej, na przedmiocie *Polish: Literature,* uczniowie poznają także zagadnienia związane z kształceniem kompetencji globalnych (**global issue)**. Zagadnienia te uczniowie będą prezentowali na egzaminie ustnym **(Individual Oral)**
Jest 5 podstawowych **zagadnień globalnych**, które wskazuje IB:
1. CULTURE, IDENTITY, COMMUNITY – kultura, tożsamość, społeczność;
2. BELIEFS, VALUES, EDUCATION – wartości, przekonania, edukacja;
3. POLITICS, POWER, JUSTICE – polityka, władza, sprawiedliwość;
4. ART, CREATIVITY, IMAGINATION – sztuka, kreatywność, wyobraźnia;
5. SCIENCE, TECHNOLOGY, NATURAL WORD – nauka, technologia, natura.

Na stworzenie szerokiej perspektywy badawczej pozwalają **koncepty** (to inaczej zagadnienia, idee, problemy, itd…), które uczeń powinien wykorzystać przy pisaniu eseju HL, w sposób odpowiedni do wybranego tematu. IB proponuje 7 podstawowych **konceptów**:
1. Tożsamość (Identity)
2. Kultura (Culture)
3. Komunikacja (Communication)
4. Tworzenie (Creativity)
5. Perspektywa (Perspective)
6. Transformacja (Transformation)
7. Reprezentacja (Representation).

Podczas kursu ćwiczy się konkretne **umiejętności**, które podlegają ocenie; znajdują odzwierciedlenie w kryteriach oceniania na poziomie wszystkich komponentów maturalnych: na egzaminie ustnym (Individual Oral); w pracy pisemnej będącej ukierunkowaną ianalizą i nterpretacją tekstu (Arkusz pierwszy: Paper 1); w drugiej pracy pisemnej, która jest esejem porównawczym (Arkusz drugi: Paper2). Podstawowe **umiejętności** to:
1. Know, understand and interpret – znajomość i wnikliwość interpretacji lektur;
2. Analysis and evaluate – analiza i ewaluacja technik autorskich.
3. Communicate – sprawność komunikowania i redagowania wypowiedzi.

Lista lektur ma umożliwić poznanie różnych form i zjawisk literackich, będacych odzwierciedleniem różnych epok, kultur, doświadczeń człowieka. IB klasyfikuje **formy literackie** następująco: proza fikcjonalna (fiction), proza nieficjonalna (non-fiction), poezja (poetry), dramat (drama). Oto wymagania lekturowe dotyczące poziomu SL i HL:

1. lektury na poziomie podstawowym (SL) – 9 lektur:
- minimum 4 teksty napisane po polsku (Prescribed Reading List);
- minimum 3 obce (teksty w tłumaczeniu: Prescribed Reading List);
- 2 dowolne (mogą być z Prescribed Reading List);
- mininum po 2 lektury z każdego obszaru badawczego (area of exploration);
- minimum 3 formy literackie, 3 okresy, 3 kraje/regiony (zgodnie z opisem na Prescribed Reading List), 2 kontynenty;

1. lektury na poziomie rozszerzonym (HL) – 13 lektur:
- minimum 5 tekstów napisanych po polsku (Prescribed Reading List);
- minimum 4 teksty w przekładzie (Prescribed Reading List);
- 4 dowolne;
- mininum po 3 lektury z każdego obszaru badawczego (area of exploration);
- 4 formy literackie, 3 okresy, 3 kraje/regiony (zgodnie z opisem na Prescribed Reading List), 2 kontynenty.

Podczas trwania kursu i studiów nad dziełami literackimi uczennice i uczniowie prowadzą LEARNER PORTFOLIO. Jest to dokumentacja uczenia się i osiągnięć, stanowi centralny element kursu, miejsce na refleksję, samoocenę, porównywanie i badanie dzieł oraz konceptów; bazę informacji na temat budowy kursu, programu i lektur. Zawiera też dokumentację wszystkich działań: prace domowe, refleksje, notatki z lekcji i samodzielnej pracy, wypowiedzi pisemne, itp.

KOMPONENTY MATURALNE przedstawione są w poniższej tabeli:

HL poziom rozszerzony	**SL** poziom podstawowy
External assessment: 80% Internal assessment: 20%	External assessment: 70% Internal assessment: 30%
1. Paper 1: maj Oceniany zewnętrznie. Arkusz zawiera 2 teksty, prezentujące inne formy literackie oraz pytanie ukierunkowujące pracę ucznia. **Uczeń pisze dwie analizy.**	**1**. **Paper 1**: maj Oceniany zewnętrznie. Arkusz zawiera 2 teksty, prezentujące inne formy literackie oraz pytanie ukierunkowujące pracę ucznia. **Uczeń pisze jedną analizę wybranego tekstu.**

40 punktów czas tej części egzaminu - 135 minut 35% oceny	20 punktów czas tej części egzaminu -75 minut 35% oceny
2. Paper 2: maj Oceniany zewnętrznie. Esej porównawczy na podstawie dwóch wybranych dzieł. 30 punktów czas – 105 minut 25% oceny	**2. Paper 2**:maj Oceniany zewnętrznie. Esej porównawczy na podstawie dwóch wybranych dzieł. 30 punktów czas – 105 minut 25% oceny
3. Individual Oral: egzamin ustny Oceniany wewnetrznie, moderowany zewnętrznie. Wypowiedź zgodna z poleceniem. 40 punktów czas tej części egzaminu -15 minut 20% oceny Opis egzaminu i zadanie ucznia: *Zbadaj różne sposoby realizacji wybranego przez Ciebie zagadnienia o znaczeniu globalnym na poziomie treści i formy w dwóch omówionych dziełach.* Uczeń wygłasza 10-minutową, przygotowaną w domu, wypowiedź, na podstawie wybranych dwóch dzieł; jednego napisanego po polsku, drugiego w tłumaczeniu (dotyczącą realizacji w dziele zagadnienia o znaczeniu globalnym). Po wypowiedzi uczennica/uczeń odpowiada na pytania nauczyciela (5 min.)	**3. Individual Oral:** egzamin ustny Oceniany wewnetrznie, moderowany zewnętrznie. Wypowiedź zgodna z poleceniem. 40 punktów czas tej części egzaminu -15 minut 30% oceny Opis egzaminu i zadanie ucznia: *Zbadaj różne sposoby realizacji wybranego przez Ciebie zagadnienia o znaczeniu globalnym na poziomie treści i formy w dwóch omówionych dziełach.* Uczeń wygłasza 10-minutową, przygotowaną w domu, wypowiedź, na podstawie wybranych dwóch dzieł; jednego napisanego po polsku, drugiego w tłumaczeniu (dotyczącą realizacji w dziele zagadnienia o znaczeniu globalnym). Po wypowiedzi uczennica/uczeń odpowiada na pytania nauczyciela (5 min.)
4. Esej HL na 1200-1500 słów na temat jednego dzieła omawianego na kursie.	

Bibliografia *Język A: przewodnik do zajęć z literatury,* IBO, 2023
*(*wersja publikacji pierwotnie wydana w języku angielskim luty 2019 pod tytułem Language A: literature guide)

English B HL

(based on Language B guide, first exams 2020, 6h/week)

Nature of the subject

Students are expected to extend the range and complexity of the language they use and understand in order to communicate. They continue to develop their knowledge of vocabulary and grammar, as well as their conceptual understanding of how language works, in order to construct, analyse and evaluate arguments on a variety of topics relating to course content and the target language culture(s).

Receptive skills: Students understand and evaluate a wide variety of written and spoken authentic personal, professional and mass media texts; they understand fundamental elements of literary texts such as theme, plot and character. They analyse arguments, distinguishing main points from relevant supporting details and explanations. They use a variety of strategies to deduce meaning.

Productive skills: Students present and develop their ideas and opinions on a variety of topics, both orally and in writing. They construct and support arguments with explanations and examples. They speak and write at length, and with purpose, in order to meet a wide range of communicative needs: describing, narrating, comparing, explaining, persuading, justifying, evaluating.

Interactive skills: Students initiate, maintain and close oral exchanges, displaying some ability to make adjustments in style or emphasis. They use a variety of strategies to maintain the flow of conversations and discussions on a variety of topics relating to course content and the culture(s) of the target language. Students are adept in negotiating meaning and fostering communication.

Approaches to Learning (ATL) skills developed during the course:

- thinking skills
- social skills
- communication skills
- self- management skills
- research skills

Aims of the course:

1. Develop international-mindedness through the study of languages, cultures, and ideas and issues of global significance.

2. Enable students to communicate in the language they have studied in a range of contexts and for a variety of purposes.

3. Encourage, through the study of texts and through social interaction, an awareness and appreciation of a variety of perspectives of people from diverse cultures.

4. Develop students' understanding of the relationship between the languages and cultures with which they are familiar.

5. Develop students' awareness of the importance of language in relation to other areas of knowledge.

6. Provide students, through language learning and the process of inquiry, with opportunities for

intellectual engagement and the development of critical- and creative-thinking skills.

7. Provide students with a basis for further study, work and leisure through the use of an additional language.

8. Foster curiosity, creativity and a lifelong enjoyment of language learning.

Objectives of the course:

1. Communicate clearly and effectively in a range of contexts and for a variety of purposes.

2. Understand and use language appropriate to a range of interpersonal and/or intercultural contexts and audiences.

3. Understand and use language to express and respond to a range of ideas with fluency and accuracy.

4. Identify, organize and present ideas on a range of topics.

5. Understand, analyse and reflect upon a range of written, audio, visual and audio-visual texts.

Syllabus content:

1. **Themes**:

   • identities

   • experiences

   • human ingenuity

   • social organization

   • sharing the planet.

2. **Types of texts:**

The guiding principle for using texts in the English B HL course is to develop students' receptive, productive and interactive skills in the target language by focusing their attention on the ways in which good communicators consider the audience, context and purpose of what they want to say or write in the process of choosing and developing an appropriate text type to convey a message.

Text types to be covered during the course:

- personal texts: blog, diary entry, email, personal letter, social media posting/chat room

- professional texts: blog, email, essay, formal letter, proposal, questionnaire, report, set of

instructions, survey

-media texts: advertisement, article (newspaper, magazine) blog, brochure, interview,

leaflet, news report, opinion column/editorial, pamphlet, podcast, poster, public

commentary (editorial/ readers' letters), review, speech, travel guide, web page.

3. Literature

The study of two literary works originally written in the target language is a requirement at HL in English B. The students are expected to understand fundamental elements of the literary works studied, such as themes, plot and characters. . In the English B HL course, literature is intended as a stimulus for ideas to be explored, principally through oral assessment rather than a study of literary criticism.

Assessment outline

Assessment component	Weighting
External assessment (3 hours 30 minutes)	**75%**
Paper 1 (1 hour 30 minutes)	**25%**
Productive skills—writing (30 marks)	
One writing task of 450–600 words from a choice of three, each from a different	
theme, choosing a text type from among those listed in the examination	
instructions.	
Paper 2 (2 hours)	**50%**
Receptive skills—separate sections for listening and reading (65 marks)	
Listening comprehension (1 hour) (25 marks)	
Reading comprehension (1 hour) (40 marks)	
Comprehension exercises on three audio passages and three written texts, drawn	
from all five themes.	
Internal assessment	**25%**
This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.	
Individual oral assessment	
A conversation with the teacher, based on an extract from one of the literary works studied in class, followed by discussion based on one or more of the themes from the syllabus. (30 marks)	

Bibliography: *Language B guide, first assessment 2020,* IBO, 2018, updated2019 & 2021

HISTORY HL

(based on History guide, first exams 2020, 6h/week)

The DP history course is focused on six key concepts: causation, consequence, change, continuity, significance and perspectives. These concepts help students to think critically about historical issues; helping students to identify and solve problems, make decisions, and form judgments about past claims, actors and issues. These concepts are also extremely useful to history teachers as a tool for helping to craft creative lessons and assessment activities that avoid passive content delivery, and that provide opportunities for students to build on their prior knowledge and to think deeply about historical issues and events.

The DP history course, as with all DP courses, provides rich opportunities to develop students' thinking, research, communication, social and self-management skills.

Course overview:
Paper 1. Prescribed subject:
1. The move to global war
Paper 2. World history topics:
1. Authoritarian states (20th century)
2. The Cold War - Superpower tensions and rivalries (20th century)
Paper 3. History of Europe
1. Italy (1815–1871) and Germany (1815–1890)
2. Inter-war domestic developments in European states (1918–1939)
3. The Soviet Union and post-Soviet Russia (1924–2000)
Internal Assessment

COURSE OF STUDY

Content – topics and guiding questions	
The move to global war	
Case study 1: Japanese expansion in East Asia (1931–1941)	Causes of expansion - The impact of Japanese nationalism and militarism on foreign policy - Japanese domestic issues: political and economic issues, and their impact on foreign relations - Political instability in China Events - Japanese invasion of Manchuria and northern China (1931) - Sino-Japanese War (1937–1941) - The Three Power/Tripartite Pact; the outbreak of war; Pearl Harbor (1941) Responses - League of Nations and the Lytton report - Political developments within China - the Second United Front - International response, including US initiatives and increasing tensions between the US and Japan
Case study 2: German and Italian expansion (1933–1940)	Causes of expansion - Impact of fascism and Nazism on the foreign policies of Italy and Germany

	- Impact of domestic economic issues on the foreign policies of Italy and Germany - Changing diplomatic alignments in Europe; the end of collective security; appeasement Events - German challenges to the post-war settlements (1933–1938) - Italian expansion: Abyssinia (1935–1936); Albania; entry into the Second World War - German expansion (1938–1939); Pact of Steel, Nazi–Soviet Pact and the outbreak of war Responses - International response to German aggression (1933–1938) - International response to Italian aggression (1935–1936) - International response to German and Italian aggression (1940)
Authoritarian states (20th century)	
Emergence of authoritarian states	- Conditions in which authoritarian states emerged: economic factors; social division; impact of war; weakness of political system - Methods used to establish authoritarian states: persuasion and coercion; the role of leaders; ideology; the use of force; propaganda
Consolidation and maintenance of power	- Use of legal methods; use of force; charismatic leadership; dissemination of propaganda - Nature, extent and treatment of opposition - The impact of the success and/or failure of foreign policy on the maintenance of power
Aims and results of policies	- Aims and impact of domestic economic, political, cultural and social policies - The impact of policies on women and minorities - Authoritarian control and the extent to which it was achieved Examples: Germany - Hitler; USSR - Lenin, Stalin; Italy - Mussolini; China - Mao
The Cold War - Superpower tensions and rivalries (20th century)	
Rivalry, mistrust and accord	- The breakdown of the grand alliance and the emergence of superpower rivalry in Europe and Asia (1943–1949): role of ideology; fear and aggression; economic interests; a comparison of the roles of the US and the USSR - The US, USSR and China—superpower relations (1947–1979): containment; peaceful co-existence; Sino-Soviet and Sino-US relations; detente - Confrontation and reconciliation; reasons for the end of the Cold War (1980– 1991): ideological challenges and dissent; economic problems; arms race
Leaders and nations	- The impact of two leaders, each chosen from a different region, on the course and development of the Cold War - The impact of economic, social and cultural Cold War tensions on two countries (to be chosen from different regions)
Cold War crises	- Cold War crises case studies: detailed study of any two Cold War

	crises from different regions: examination and comparison of the causes, impact and significance of the two crises Examples of leaders Truman, Stalin, Khrushchev, Nixon, Mao, Castro, Brezhnev, Reagan, Gorbachev, Nasser Examples of Cold War crises Africa and the Middle East: Suez Crisis (1956) The Americas: Cuban Missile Crisis (1962) Asia and Oceania: North Korean invasion of South Korea (1950); Soviet invasion of Afghanistan (1979) Europe: Berlin blockade (1948–1949), Berlin Wall (1958–1961); Hungary (1956); the Prague spring (1968); the USSR and eastern Europe (1981–1989)
Italy (1815–1871) and Germany (1815–1890)	
- Italy (1815–1849): impact of the Congress of Vienna on Italy, Austrian dominance, role of Metternich; nationalism and liberalism; attempted revolutions in Italy between 1820 and 1844; Mazzini and Gioberti; role of the papacy; 1848–1849 Revolutions - causes, nature, defeat and consequences - Germany (1815–1849): impact of the Congress of Vienna on Germany; nationalism and liberalism in the Vormärz period; economic and social change before 1848; 1848–1849 Revolutions - causes, nature, defeat and consequences - Unification of Italy (1849–1871); Cavour and Garibaldi; the role of foreign influence - The rise of Prussia and the decline of Austria (1815–1866); the Zollverein - Bismarck, Prussia and final unification: diplomatic, economic, military reorganization; Wars of Unification; the 1871 Constitution - Germany (1871–1890): Bismarck's domestic policies, including the *Kulturkampf* and the anti-socialist campaign; consolidation of the new German state and the role of Prussia within it	
Inter-war domestic developments in European states (1918–1939)	
- Weimar Germany: constitutional, political, economic/financial and social issues (1918–1933); initial challenges (1918–1923); "Golden Era" under Stresemann (1924–1929); the crisis years and the rise of Hitler (1929–1933) - Hitler's Germany (1933–1939): consolidation of power; Hitler's pre-war domestic policies, including economic, social and political policies; nature of the Nazi state; the extent of resistance to the Nazis - Italy (1918–1939): rise of Mussolini; consolidation of power; Mussolini's pre-war domestic policies, including economic, social and political policies; nature of the fascist state - Spain (1918–1939): political, social and economic conditions in Spain; the Primo de Rivera regime; polarization and political parties under the Second Republic; Azaña and Gil Robles; causes of the Civil War; foreign involvement; reasons for nationalist victory under Franco - Case study of domestic political, economic and social developments in **one** European country (other than Germany, Italy or Spain) in the inter-war years.	

The Soviet Union and post-Soviet Russia (1924–2000)
- Soviet Union (1924–1941): Stalin and the struggle for power (1924–1929); defeat of Trotsky; Stalin's policies of collectivization and the Five-Year Plans; government and propaganda under Stalin; the purges and the Great Terror - The impact of the Great Patriotic War (1941–1945); post-war Soviet Union (1945–1953): political and economic developments - Khrushchev and Brezhnev: domestic policies and foreign relations - Transformation of the Soviet Union (1985–1991): Gorbachev (aims, policies and extent of success); political developments and change - Collapse of the Soviet Union; post-Soviet Russia to 2000; role and policies of Yeltsin; political and economic developments to 2000

INTERNAL ASSESSMENT
Weighting: 20%

Internal assessment is an integral part of the course and is compulsory for both SL and HL students. It enables students to demonstrate the application of skills and knowledge, and to pursue their personal interests, without the time limitations and other constraints that are associated with written examinations.

All students complete a historical investigation into a historical topic of their choice. The internal assessment allows flexibility for students to select a topic of personal interest. The topic need not be related to the syllabus and students should be encouraged to use their own initiative when deciding on a topic. The free choice of topic means that the historical investigation provides a particularly good opportunity for students to engage with topics that are of personal interest, or topics related to their own local or national history.

Each individual student must complete an individual historical investigation—group work may not be undertaken.

Students at both SL and HL are required to complete a historical investigation into **a topic of their choice**.

The historical investigation is made of up three sections.

Section 1: Identification and evaluation of sources
This section requires students to analyse in detail **two** of the sources that they will use in their investigation. The sources can be either primary or secondary sources.

Section 2: Investigation
This section of the internal assessment task consists of the actual investigation. The internal assessment task provides scope for a wide variety of different types of historical investigation.

Section 3: Reflection
This section of the internal assessment task requires students to reflect on what undertaking their investigation highlighted to them about the methods used by, and the challenges facing, the historian.

EXTERNAL ASSESSMENT DETAILS
Paper 1
Duration: 1 hour
Weighting: 20%

First question, part A	This question will test understanding of one of the sources.	3 marks
First question, part B	This question will test understanding of one of the sources.	2 marks
Second question	This question will ask students to analyse the value and limitations of one of the sources. In their analysis of value and limitations, students should refer to the origin, purpose and content of the specified source.	4 marks
Third question	This question will ask students to compare and contrast what two of the sources reveal to a historian studying the particular aspect of the prescribed subject.	6 marks
Fourth question	This will be an evaluative question that asks students to draw on both the sources and their own knowledge in their evaluation.	9 marks

Bibliography: *History guide, first examinations 2020,* IBO, 2015, updated 2019

PHILOSOPHY SL

(based on *Philosophy Guide*, first assessment May 2025)

Philosophy aims

The main focus is on engaging students in philosophical activity, enabling them to:

- explore philosophical concepts and issues in an inquiring way
- articulate their own views and arguments
- reflect critically on their own experiences and perspectives
- be open to learn from other people
- appreciate the diversity of perspectives, traditions and approaches within philosophical thinking
- apply their philosophical knowledge and skills to the world around them.

Assessment objectives

By the end of the course, students will be expected to achieve the following objectives:

1. **Knowledge and understanding**

- demonstrate knowledge and understanding of philosophical concepts, issues and arguments
- identify philosophical issues present in philosophical and non-philosophical stimuli

2. **Application and analysis**

- explain and analyse philosophical concepts, issues and arguments
- construct and develop clear explanations, making use of relevant examples
- analyse the philosophical issues present in philosophical and non-philosophical stimuli

3. **Synthesis and evaluation**

- evaluate philosophical concepts, issues and arguments
- construct and develop balanced and focused arguments, making use of relevant evidence
- discuss different point of view and come to reasoned conclusions

4. **Use and application of appropriate skills**

- produce clear and well-structured written responses
- demonstrate appropriate and precise use of philosophical vocabulary
- demonstrate evidence of research skills, organization and referencing.

Philosophy SL syllabus

Core theme: Being human (min. 45 hours)

It is *compulsory* for all students

The core theme explores the fundamental question of what it means to be human. It focuses on exploration of key concepts such as identity, freedom, human nature, consciousness, personhood and self. The study of the following six key concepts is mandatory, but there is a flexibility in topics, issues and examples' exploration.

1. Identity: personal identity, cultural identity, identity over time;
2. Freedom: freedom and determinism, social conditioning, existential angst and authenticity;
3. Human nature: individuality and universality, the nature vs nurture debate, emotion and reason;
4. Consciousness: the self and the world, the mind-body problem, the problem of other minds;
5. Personhood: self-consciousness, agency, moral responsibility;
6. Self and the other: self and non-self, solipsism and intersubjectivity, relations to others.

Optional themes (min. 45 hours)

SL students are required to study **one** theme from the list below. A teacher selects one theme to explore with students. For each optional theme there are three topics for study, the prescribed content and suggestions for interesting examples and discussion questions.

1. Aesthetics:
- the nature of art
- the artist and the artistic process
- aesthetic experience and judgement

2. Epistemology:
- nature of knowledge
- problems of knowledge
- application of knowledge

3. Ethics:
- normative ethics
- meta-ethics
- applied ethics

4. Philosophy of religion:
- nature and existence of God
- religious language
- religious experience and behaviour

5. Philosophy of science:
- nature and methodologies of science

- science and the self
- science and society

6. Political philosophy:
- the state
- justice
- liberty and rights

7. Social philosophy:
- social structures and institutions
- equality and discrimination
- gender

Prescribed text (min. 40 hours)

All students are required to study **one** text from the following list. A teacher selects one text from the list below to study in full with students. It provides an opportunity to gain knowledge and understanding of a philosophical text.

1. Alfred Jules Ayer *Language, Truth and Logic*
2. Simone de Beauvoir *The Second Sex*, Volume 1 part 1, Volume 2 part 1 and Volume2 part 4
3. Confucius *The Analects*
4. René Descartes *Meditations on First Philosophy*
5. Frantz Fanon *Black Skin, White Masks*
6. John Stuart Mill *On Liberty*
7. Friedrich Nietzsche *The Genealogy of Morals*
8. Martha C. Nussbaum *Creating Capabilities: The Human Development Approach*
9. José Ortega y Gasset *The Revolt of the Masses*
10. Plato *The Republic*, Books IV–IX
11. Charles Taylor *The Ethics of Authenticity*
12. Lao Tzu *Tao Te Ching*

Internal assessment (20 hours):

All students are required to write a philosophical analysis of a non-philosophical stimulus. It enables students to demonstrate the application of their skills and knowledge, and to pursue their personal interests. The exercise is worth 25 marks and the word limit is 2000.

Assessment

Assessment component	Weight
External assessment	
Paper 1 (1 hour 45 minutes)	50 %

This paper contains two compulsory sections: section A and section B. • Section A consists of two stimulus-based questions on **the core theme**. Candidates are required to answer one question. This task presents candidates with a stimulus in the form of either a short text extract or an image. Candidates are required to explore a philosophical issue related to what it is to be human—the focus of the core theme—that arises from this stimulus. Within their critical exploration of their chosen issue, candidates are required to make explicit reference both to the stimulus and to their wider knowledge from their study of the core theme. • Section B consists of two essay questions for each of **the optional themes**. Candidates are required to answer one question. This task requires candidates to write an essay on the optional theme they have studied. Candidates are presented with a choice of two questions per theme, with each question relating to one of the points of required content specified for that theme. They are required to undertake a critical discussion, selecting and using specific examples.	
Paper 2 (1 hour) This paper consists of two questions for each of **the prescribed philosophical texts**. • Each question is split into two parts: part A and part B. Candidates are required to answer one question, and to answer both part A and part B of that question. Part A requires candidates to explain a specified concept, issue or argument from the prescribed text. Part B requires candidates to undertake a critical discussion of a specified concept, issue or argument from the prescribed text. As part A and part B of each question are based on the same specified concept, issue or argument from the prescribed text, candidates are not required to repeat explanatory material from their part A response.	25 %
Internal Assessment	
Candidates are required to write **a philosophical analysis of a non-philosophical stimulus.** This component is internally assessed by the teacher and externally moderated by the IB at the end of the course. Suitable non-philosophical stimuli include, but are not limited to: novels, plays or poems, song lyrics, cartoons, paintings, photographs or other visual images, films, television shows and radio broadcasts, advertisements, newspaper articles/letters/online content such as social media posts, blogs, etc	25 %

GEOGRAPHY

Curriculum model overview(*)

Syllabus component

Part 1	**Geographic themes—seven options** **Two options are studied at SL, and three at HL** • Freshwater—drainage basins • Oceans and coastal margins • Extreme environments • Geophysical hazards • Leisure, tourism and sport • Food and health • Urban environments
Part 2	**SL and HL core** **Geographic perspectives—global change** • Population distribution—changing population • Global climate—vulnerability and resilience • Global resource consumption and security
Part 3 HL core extentions	**HL only** **Geographic perspectives—global interactions** • Power, places and networks • Human development and diversity • Global risks and resilience
Internal Assessment	**SL and HL** **Fieldwork** Fieldwork, leading to one written report based on a fieldwork question, information collection and analysis with evaluation

Assessment model

There are four assessment objectives (AOs) for the SL and HL geographycourse. Having followed the course at SL or HL, students will be expected to do the following:

1.Demonstrate knowledge and understanding of specified content

• the core theme—global change

• two optional themes at SL and three optional themes at HL

• at HL, the HL extension—global interactions

• in internal assessment, a specific geographic research topic.

2. Demonstrate application and analysis of knowledge and understanding

• apply and analyse geographic concepts and theories

• identify and interpret geographic patterns and processes in unfamiliar information, data and cartographic material

• demonstrate the extent to which theories and concepts are recognized and understood in particular contexts.

3. Demonstrate synthesis and evaluation

• examine and evaluate geographic concepts, theories and perceptions

• use geographic concepts and examples to formulate and present an argument

• evaluate materials using methodology appropriate for geographic fieldwork

• at HL only, demonstrate synthesis and evaluation of the HL extension—global interactions.

4. Select, use and apply a variety of appropriate skills and techniques

• select, use and apply:

- prescribed geographic skills in appropriate contexts
- techniques and skills appropriate to a geographic research question.

• produce well-structured written material, using appropriateterminology.

Internal assessment

Appendices

Assessment

- Home
- Guide
- Assessment
- Assessment outline—SL

Assessment outline—SL

Assessment component	Weighting
External assessment (2 hours 45 minutes)	**75%**
Paper 1 (1 hour 30 minutes) Geographic themes—two options (40 marks)	**35%**
Paper 2 (1 hour 15 minutes) Geographic perspectives—global change (50 marks)	**40%**
Internal assessment (20 hours) This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.	**25%**
Fieldwork (20 hours) Written report (25 marks)	

Assessment outline—HL

Assessment component	Weighting
External assessment (4 hours 30 minutes)	**80%**
Paper 1 (2 hours 15 minutes) Geographic themes—three options (60 marks)	**35%**
Paper 2 (1 hour 15 minutes) Geographic perspectives—global change (50 marks)	**25%**
Paper 3 (1 hour) Geographic perspectives—global interactions (28 marks)	**20%**
Internal assessment (20 hours) This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.	**20%**
Fieldwork (20 hours) Written report (25 marks)	

Part one: Geographic themes

General Topic Paper I	Content	Skills taught
Geophysical hazards	Geophysical systems How geological processes give rise to geophysical events of differing type and magnitude Geophysical hazard risks How geophysical systems generate hazard risks for different place Hazard risk and vulnerability The varying power of geophysical hazards to affect people in different local contexts Future resilience and adaptation Future possibilities for lessening human vulnerability to geophysical hazards	Through study of this optional theme, students will develop their understanding of processes, places, power and geographic possibilities. They will additionally gain understanding of more specialized concepts including risk and vulnerability (both of which vary according to the local context) and also resilience and adaptation (in relation to pre-event and post-event disaster management). Interpret, analyse and construct tables, graphs, diagrams, cartographic material and images Research, process and interpret data and information Produce written material
Leisure, tourism and sport	Changing leisure patterns How human development processes give rise to leisure activities Tourism and sport at the local and national scale How physical and human factors shape places into sites of leisure Tourism and sport at the international scale The varying power of different countries to participate in global tourism and sport Managing tourism	Through study of this optional theme, students will develop their understanding of processes, places, power and geographical possibilities. They will additionally gain understanding of more specialized concepts including consumption (of landscapes), carrying capacity and threshold (in relation to environmental stress) and sustainability (in relation to long-term management of touristic resources). Interpret, analyse and construct tables, graphs, diagrams, cartographic material and images Research, process and interpret data and information Produce written material Undertake statistical calculations

	and sport for the future Future possibilities for management of, and participation in, tourism and sport at varying scale	
Food and health	Measuring food and health Ways of measuring disparities in food and health between places Food systems and spread of diseases How physical and human processes lead to changes in food production and consumption, and incidence and spread of disease Stakeholders in food and health The power of different stakeholders in relation to influence over diets and health Future health and food security and sustainability Future possibilities for sustainable agriculture and improved health	Through study of this optional theme, students will develop their understanding of processes, places, power and geographical possibilities. They will additionally gain understanding of more specialized concepts including some, such as diffusion and barriers, which are applicable to both food production systems and the spread of diseases. Sustainability is considered in relation to long-term food production Interpret, analyse and construct tables, graphs, diagrams, cartographic material and images Research, process and interpret data and information Produce written material Undertake statistical calculations
Urban environments	The variety of urban environments The characteristics and distribution of urban places, populations and economic activities Changing urban systems How economic and demographic processes bring change over time to urban systems Urban environmental and social stresses	Through study of this optional theme, students will develop their understanding of processes, places, power and geographical possibilities. They will additionally gain understanding of more specialized concepts including hierarchies (of settlements), systems (in relation to movements of people and the management of transport and waste flows) and sustainability. Interpret, analyse and construct tables, graphs, diagrams, cartographic material and images Research, process and interpret data and information Produce written material Undertake statistical calculations

	The varying power of different stakeholders in relation to the experience of, and management of, urban stresses Building sustainable urban systems for the future Future possibilities for the sustainable management of urban systems	

Part two: Global change

General Topic Paper II	Content	Skills taught
Changing population	Population and economic development patterns. How population varies between places. Changing populations and places. Processes of population change and their effect on people and places Challenges and opportunities. Population possibilities and power over the decision-making process	The relative importance of different influences on where people live and spatial interactions between places at varying scales How the impacts of population change and spatial interactions between places can be categorized and represented graphically How population change may affect the power balance between groups of people at local, national and international scales
Global climate—vulnerability and resilience	Causes of global climate change How natural and human processes affect the global energy balance. Consequences of global climate change The effects of global climate change on places, societies and environmental systems.	The complexity of the dynamic climate system and the spatial interactions of different processes and feedback mechanisms The uneven spatial distribution of effects and uncertainty about their timing, scale and impacts for individuals and societies Why perspectives and viewpoints may be different about the need for, practicality and urgency of action on global climate change

	Responding to global climate change Possibilities for responding to climate change and power over the decision-making process	
Global trends in consumption	Global trends in consumption How global development processes affect resource availability and consumption. Impacts of changing trends in resource consumption How pressure on resources affects the future security of places Resource stewardship Possibilities for managing resources sustainably and power over the decision-making process	How different patterns and trends are interrelated and involve spatial interactions between different places How perspectives on, and priorities for, national resource security vary between places and at different scales Different perspectives on global resource use and the likely effectiveness of management actions at varying scales

Part three: HL core extension : Geographic perspectives—global interactions

General Topic Paper III	Content	Skills taught
Power, places and networks	Global interactions and global power How global power and influence varies spatially Global networks and flows How different places become interconnected by global interactions Human and physical influences on global How political, technological and physical processes influence global interactions	Presenting material in a clear & well – structured way (Paper 3) Responding: appropriately to command terms Written material : essays ,reports and investigation, , presentation of case studies
Human development	Development opportunities	Presenting material in a clear & well – structured way (Paper 3)

and diversity	Changing identities and cultures Local responses to global interactions	Responding: appropriately to command terms Written material : essays ,reports and investigation, presentation of case studies
Global risk and resilience	Geopolitical and economic risks Environmental risks Local and global resilience	Presenting material in a clear & well – structured way (Paper 3) Responding: appropriately to command terms Written material : essays ,reports and investigation, presentation of case studies

**source: https://www.ibo.org/contentassets/5895a05412144fe890312bad52b17044/geography-sl-hl-2017-en.pdf*

developed using the data https://www.rchk.edu.hk/wp-content/uploads/2017/08/IB-Geography-Guide.pdf

Bibliography: *Geography guide,* IBO, 2017, updated 2022

BIOLOGY

syllabus & course of study
(based on Biology guide first assessment 2025)

A. COURSE AIMS

Biology is a study of life. Of all the sciences, biology is a study that takes more of a pragmatic view than a theoretical approach. The earliest evidence of life on Earth dates from at least 3.5 billion years ago, since then life has diversified tremendously, occupying a wide variety of niches. This diversity makes biology both a deeply fascinating and significantly challenging study. Unifying themes provide frameworks for interpretation and help us make sense of living world: Form and function, Unity and diversity, Continuity and change, and Interaction and interdependence.

The scale of life in biology ranges from the molecules and cells of organisms to ecosystems and the biosphere. At each level of biological organization, different properties exist. Living systems are based on interactions, interdependence and integration of components between all levels of biological organization.

A student of biology should gain not only a conceptual understanding of subject, but also an awareness of how biologists construct knowledge claims and the limitations of these methods.

B. Structure of the syllabus and conceptual understanding

The biology syllabus comprises four themes, each made up of two concepts. Each theme is a lens through which the syllabus content can be viewed.

Theme A: Unity and diversity
Theme B: Form and function
Theme C: Interactions and interdependence
Theme D: Continuity and change

The arrangement of syllabus content follows four levels of biological organization, which also serve as conceptual lenses.

Level 1: Molecules
Level 2: Cells
Level 3: Organisms
Level 4: Ecosystems

C. COURSE OBJECTIVES

The course enables students, through the overarching theme of the Nature of Science, to:

1. Develop conceptual understanding that allows connections to be made between different areas of the subject, and to other Diploma Programme sciences subjects.
2. Acquire and apply a body of knowledge, methods, tools and techniques that characterize science.
3. Develop the ability to analyse, evaluate and synthesize scientific information and claims.
4. Develop the ability to approach unfamiliar situations with creativity and resilience.
5. Design and model solutions to local and global problems in a scientific context.
6. Develop an appreciation of the possibilities and limitations of science.
7. Develop technology skills in a scientific context.
8. Develop the ability to communicate and collaborate effectively.
9. Develop awareness of the ethical, environmental, economic, cultural and social impact of science.
10.

D. COURSE OVERVIEW

D.1 Course content

Theme A Unity and diversity

Common ancestry has given living organisms many shared features while evolution has resulted in the rich biodiversity of life on Earth.

1. Molecules: water, nucleic acids
2. Cells: origin of cells *(HL only)*, cell structure, viruses *(HL only)*
3. Organisms: diversity of organisms, classification and cladistics *(HL only)*
4. Ecosystems: evolution and speciation, conservation and biodiversity

Theme B Form and function

Adaptations are forms that correspond to function. These adaptations persist from generation to generation because they increase the chances of survival.

1. Molecules: carbohydrates and lipids, proteins
2. Cells: membranes and membrane transport, organelles and compartmentalization, cell specialization
3. Organisms: gas exchange, transport, muscle and motility *(HL only)*
4. Ecosystems: adaptation to environment, ecological niches

Theme C Interaction and interdependence

Systems are based on interactions, interdependence and integration of components. Systems result in emergence of new properties at each level of biological organization.

1. Molecules: enzymes and metabolism, cell respiration, photosynthesis
2. Cells: chemical signalling*(HL only)*, neural signalling
3. Organisms: Integration of body systems, defence against disease
4. Ecosystems: populations and communities, transfer of energy

Theme D Continuity and change

Living things have mechanisms for maintaining equilibrium and for bringing about transformation. Environmental change is a driver for evolution by natural selection.

1. Molecules: DNA replication, protein synthesis, mutation and gene editing
2. Cells: cell and nuclear division, gene expression *(HL only)*, water potential
3. Organisms: reproduction, inheritance, homeostasis
4. Ecosystems: natural selection, stability and change, climate change

D.2 Other requirements

Experimental programme: practical work 20 hours SL/ 40 hours HL; collaborative science project both SL/HL 10 hours; scientific investigation both SL/HL 10 hours

D.3 Textbook & reference book

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E. COURSE OF STUDY

Themes	Content – topics and guiding questions		Time provision
Unity and diversity - molecules	Water	What physical and chemical properties of water make it essential for life? What are the challenges and opportunities of water as habitat?	2 hours AHL 1 hour
	Nucleic acids	How does the structure of nucleic acids allow hereditary information to be stored? How does the structure of DNA facilitate accurate replication?	3 hours AHL 2 hours
Unity and diversity - cells	Origin of cells	What plausible hypothesis could account for the origin of life? What intermediate stages could there have been between non-living matter and the first living cells?	2 hours
	Cell structure	For what reasons is heredity an essential feature of living things? What is needed for structures to be able to evolve by natural selection?	4 hours AHL 1 hour
	Viruses	What explains the use of certain molecular building blocks in all living cells? What are the features of a compelling theory?	AHL 2 hours

Unity and diversity - organisms	Diversity of organisms	What is a species? What patterns are seen in the diversity of genomes within and between species?	3 hours AHL 2 hours
	Classification and cladistics	What tools are used to classify organisms into taxonomic groups? How do cladistic methods differ from traditional taxonomic methods?	AHL 3 hours
Unity and diversity – ecosystems	Evolution and speciation	What is evidence for evolution? How do analogous and homologous structures exemplify commonality and diversity?	4 hours AHL 1 hour
	Conservation of biodiveristy	How does the theory of evolution by natural selection predict and explain the unity and diversity of life on Earth? What counts as strong evidence in biology?	3 hours
Form and function - molecules	Carbohydrates and lipids	In what ways do variations in form allow diversity of function in carbohydrates and lipids? How do carbohydrates and lipids compare as energy storage compounds?	4 hours
	Proteins	What is the relationship between amino acid sequence and the diverisity in form and function of proteins?	2 hours AHL 2 hours
Form and function - cells	Membranes and membrane transport	How do molecules of lipid assemble into biological membranes? What determines whether a substance can pass through a biological membrane?	4 hours AHL 2 hours
	organelles and compartmentalization	How are organelles in cells adapted to their functions? What are the advantages of compartmentalization in cells?	1 hour AHL 2 hours
	cell specialization	What are the roles of stem cells in multicellular organisms? How are differentiated cells adapted to their specialized functions?	2 hours AHL 1 hour
Form and function - organisms	gas exchange	How are multicellular organisms adapted to carry out gas exchange? What are the similarities and differences in gas exchange between a flowering plant and a mammal?	3 hours AHL 1 hour
	transport	What adaptations facilitate transport of fluids in animals and plants? What are the differences and similarities between transport in animals and plants?	3 hours AHL 2 hour
	muscle and motility	How do muscles contract and cause movement? What are the benefits to animals of having muscle tissue?	AHL 3 hours
Form and function - ecosystems	adaptation to environment	How are the adaptations and habitats of species related? What causes the similarities between ecosystems within a terrestrial biome?	3 hours
	ecological niches	What are the advantages of specialized modes of nutrition to living organisms? How are the adaptations of a species related to its niche in an ecosystem?	4 hours

Interaction and interdependence - molecules	Enzymes and metabolism	In what ways do enzymes interact with other molecules? What are the interdependent components of metabolism?	SL 3 hours AHL 2 hours
	Cell respiration	What are the roles of hydrogen and oxygen in the release of energy in cells? How is energy distributed and used inside cells?	SL 2 hours AHL 3 hours
	Photosynthesis	How is energy from sunlight absorbed and used in photosynthesis? How do abiotic factors interact with photosynthesis?	SL 3 hours AHL 3 hours
Interaction and interdependence - cells	Chemical signalling	How do cells distinguish between the many different signals that they receive? What interactions occur inside animal cells in response to chemical signals?	AHL only 4 hours
	Neural signalling	How are electrical signals generated and moved within neurons? How can neurons interact with other cells?	SL 3 hours AHL 3 hours
Interaction and interdependence - organisms	Integration of body systems	What are the roles of nerves and hormones in integration of body systems? What are roles of feedback mechanisms in regulation of body systems?	SL 5 hours AHL 2 hours
	Defence against disease	How do body systems recognize pathogens and fight infections? What factors influence the incidence of disease in populations?	SL 5 hours
Interaction and interdependence - ecosystems	Populations and communities	How do interactions between organisms regulate sizes of populations in a community? What interactions with a community make its populations interdependent?	SL 5 hours
	Transfer of energy and matter	What is the reason matter can be recycled in ecosystems but energy can not? How is energy that is lost by each group of organisms in an ecosystem replaced?	SL 5 hours
Continuity and change - molecules	DNA replication	How is DNA produced? How has knowledge of DNA replication enabled applications in biotechnology?	SL 2 hours AHL 2 hours
	Protein synthesis	How does a cell produce a sequence of amino acids from a sequence of DNA bases? How is the reliability of protein synthesis ensured?	SL 3 hours AHL 3 hours
	Mutation and gene editing	How do gene mutation occur? What are the consequences of gene mutation?	SL 3 hours AHL 2 hours
Continuity and change - cells	Cell and nuclear division	How can large numbers of genetically identical calls be produced? How do eukaryotes produce genetically varied cells that can develop into gametes?	SL 3 hours AHL 1 hour

	Gene expression	How is gene expression changed in a cell? How can patterns of gene expression be conserved through inheritance?	AHL 3 hours
	Water potential	What factors affect the movement of water into or out of cells? How do plant and animal cells differ in their regulation of water movement?	SL 2 hours AHL 2 hours
Continuity and change - organisms	Reproduction	How does asexual reproduction exemplify themes of change or continuity? What changes within organisms are required for reproduction?	AL 5 hours AHL 3 hours
	Inheritance	What pattern of inheritance exist in plants and animals? What is the molecular basis of inheritance pattern?	SL 5 hours AHL 3 hours
	Homeostasis	How are constant internal conditions maintained in humans? What are the benefits to organisms of maintaining constant internal conditions?	SL 2 hours AHL 2 hours
Continuity and change - ecosystems	Natural selection	What processes can cause changes in allele frequencies within a population? What is the role of reproduction in the process of natural selection?	SL 2 hours AHL 2 hours
	Stability and change	What features of ecosystem allow stability over unlimited time periods? What changes caused by humans threaten the stability of ecosystems?	SL 4 hours AHL 2 hours
	Climate change	What are the drivers of climate change? What are the impacts of climate change on ecosystems?	SL 3 hours AHL 1 hour

F. ASSESSMENT

F.1 Assessment outline SL

External assessment 80%
Paper 1 – 1 hour and 30 minutes: multiple-choice questions; data-based questions
Paper 2 – 1 hour and 30 minutes: data-based and short answer questions; extended-response questions

Internal assessment 20 %
The internal assessment consists of one task: scientific investigation. This component is internally assessed by the teacher and externally moderated by the IB at. The end of the course.

F.2 Assessment outline HL

External assessment 80%
Paper 1 – 2 hours: multiple-choice questions; data-based questions
Paper 2 – 2 hour and 30 minutes: data-based and short answer questions; extended-response questions

Internal assessment 20 %
The internal assessment consists of one task: scientific investigation. This component is internally assessed by the teacher and externally moderated by the IB at. The end of the course.

CHEMISTRY

based on *Chemistry guide First assessment 2025* ,IBO, 2023

A. Course Aims

1. Develop conceptual understanding that allows connections to be made between differentareas of chemistry, and to other DP sciences subjects.

2. Acquire and apply a body of knowledge, methods, tools and techniques that characterizescience.

3. Develop the ability to analyse, evaluate and synthesize scientific information and claims.

4. Develop the ability to approach unfamiliar situations with creativity and resilience

5. Develop and model solutions to local and global problems in a scientific context

6. Develop an appreciation of the possibilities and limitations of science

7. Develop technology skills in a scientific context

8. Develop the ability to communicate and collaborate effectively

9. Develop awareness of the ethical, environmental, economic, cultural and social impact ofscience.

B. Key points about the chemistry syllabus

Syllabus content		SL 110 HL180
Structure 1.	Models of the particulate nature of matter.	
Structure 2.	Models of bonding and structure.	
Structure 3.	Classification of matter.	
Reactivity 1.	What drives chemical reactions?	
Reactivity 2.	How much, how fast and how far?	
Reactivity 3.	What are the mechanisms of chemical change?	
Experimental programme		SL 40 HL 60
Practical work		
Collaborative sciences project		
Scientific investigation		

C. Syllabus roadmap

Students and teachers are encouraged to integrate concepts, topic content and the NOS listed in the syllabus through inquiry. Each of the three sub-sections of the Structure and Reactivitystrands are sub-divided in the roadmap into separate sub-topics. For example Reactivity 1.What drives chemical reactions? is divided into:

Reactivity 1.1—Measuring enthalpy

changesReactivity 1.2—Energy cycles in

reactions Reactivity 1.3—Energy from fuels

Reactivity 1.4—Entropy and spontaneity (Additional higher level)

D. Skills in the study of chemistry

The skills and techniques students must experience through the course are encompassed within the tools. These support the application and development of the inquiry process in thedelivery of the chemistry course.

Tools

- Tool 1: Experimental techniques
- Tool 2: Technology
- Tool 3: Mathematics

Inquiry process

- Inquiry 1: Exploring and designing
- Inquiry 2: Collecting and processing data
- Inquiry 3: Concluding and evaluating

The skills in the study of chemistry can be assessed through internal and external assessment.

E. Assessment objectives

The assessment objectives for chemistry reflect those parts of the aims that will be formally assessed either internally or externally. It is the intention of this course that students are ableto fulfil the following assessment objectives.

1. Demonstrate knowledge of:
    1. terminology, facts and concepts
    2. skills, techniques and methodologies.

2. Understand and apply knowledge of:
    1. terminology and concepts
    2. skills, techniques and methodologies.
3. Analyse, evaluate, and synthesize:
    1. experimental procedures
    2. primary and secondary data
    3. trends, patterns and predictions.
4. Demonstrate the application of skills necessary to carry out insightful and ethicalinvestigations.

G. Assessment

Assessment component SL	Weighting
External assessment (3 hours)	80%
Paper 1 (1 hour and 30 minutes) Paper 1A—Multiple-choice questions Paper 1B—Data-based questions (Total 55 marks)	36%
Paper 2 (1 hour and 30 minutes) Short-answer and extended-response questions(Total 50 marks)	44%
Internal assessment (10 hours)	20%
The internal assessment consists of one task: the scientificinvestigation. This component is internally assessed by the teacher and externallymoderated by the IB at the end of the course. (Total 24 marks)	

Assessment component HL	Weighting
External assessment (4 hours and 30 minutes)	80%
Paper 1 (2 hours) Paper 1A—Multiple-choice questions Paper 1B—Data-based questions (Total 75 marks)	36%
Paper 2 (2 hours and 30 minutes) Short-answer and extended-response questions(Total 90 marks)	44%
Internal assessment (10 hours)	20%
The internal assessment consists of one task: the scientificinvestigation. This component is internally assessed by the teacher and externallymoderated by the IB at the end of the course. (Total 24 marks)	

H. Collaborative sciences project

The collaborative sciences project is an interdisciplinary sciences project, providing a worthwhile challenge to DP and CP students, addressing real-world problems that can be explored through the sciences. The nature of the challenge should allow students to integrate factual, procedural and conceptual knowledge developed through the study of their disciplines.

Through the identification and research of complex issues, students can develop an understanding of how interrelated systems, mechanisms and processes impact a problem. Students will then apply their collective understanding to develop solution-focused strategies that address the issue. With a critical lens they will evaluate and reflect on the inherent complexity of solving real-world problems.

Students will develop an understanding of the extent of global interconnectedness between regional, national, and local communities, which will empower them to become active and engaged citizens of the world. While addressing local and global issues, students will appreciate that the issues of today exist across national boundaries and can only be solved through collective action and international cooperation.

The collaborative sciences project supports the development of students' ATL skills, including teambuilding, negotiation and leadership. It facilitates an appreciation of the environment, and the social and ethical implications of science and technology.

Full details of the requirements are in the Collaborative sciences project guide.

I. Textbook

Chemistry for the IB Diploma Coursebook with Digital Access (2 Years),
ISBN:9781009052658, Steve Owen,Cambridge September 2023

Oxford Resources for IB DP Chemistry: Study Guide, Solidify the key concepts for the 2023DP Chemistry syllabus, Geoffrey Neuss

PHYSICS

syllabus

(based on Physics guide, first assessment 2025)

HL: 6h/week, SL: 4h/week

1. Aims.

The course enables students, through the overarching theme of the NOS, to:

1. develop conceptual understanding that allows connections to be made between different areas of the subject, and to other DP sciences subjects
2. acquire and apply a body of knowledge, methods, tools and techniques that characterize science
3. develop the ability to analyse, evaluate and synthesize scientific information and claims
4. develop the ability to approach unfamiliar situations with creativity and resilience
5. design and model solutions to local and global problems in a scientific context
6. develop an appreciation of the possibilities and limitations of science
7. develop technology skills in a scientific context
8. develop the ability to communicate and collaborate effectively
9. develop awareness of the ethical, environmental, economic, cultural and social impact of science.

2. Assessment objectives.

The assessment objectives for physics reflect those parts of the aims that will be formally assessed either internally or externally. It is the intention of this course that students are able to fulfil the following assessment objectives.

1. Demonstrate knowledge of:
    a. terminology, facts and concepts
    b. skills, techniques and methodologies.
2. Understand and apply knowledge of:
    a. terminology and concepts
    b. skills, techniques and methodologies.
3. Analyse, evaluate, and synthesize:
    a. experimental procedures
    b. primary and secondary data
    c. trends, patterns and predictions.
4. Demonstrate the application of skills necessary to carry out insightful and ethical investigations.

3. Course overview.

3.1. Course content.

Syllabus component	Teaching hours	
	SL	HL
Syllabus content	**110**	**180**
A. Space, time and motion	27	42
B. The particulate nature of matter	24	32
C. Wave behaviour	17	29
D. Fields	19	38
E. Nuclear and quantum physics	23	39
Experimental programme	**40**	**60**
Practical work	20	40
Collaborative sciences project	10	10
Scientific investigation	10	10
Total teaching hours	**150**	**240**

3.2. Content overview.

Physics syllabus content overview

A. Space, time and motion	B. The particulate nature of matter	C. Wave behaviour	D. Fields	E. Nuclear and quantum physics
A.1 Kinematics •	B.1 Thermal energy transfers •	C.1 Simple harmonic motion ••	D.1 Gravitational fields ••	E.1 Structure of the atom ••
A.2 Forces and momentum •	B.2 Greenhouse effect •	C.2 Wave model •	D.2 Electric and magnetic fields ••	E.2 Quantum physics •••
A.3 Work, energy and power •	B.3 Gas laws •	C.3 Wave phenomena ••	D.3 Motion in electromagnetic fields •	E.3 Radioactive decay ••
A.4 Rigid body mechanics •••	B.4 Thermodynamics •••	C.4 Standing waves and resonance •	D.4 Induction •••	E.4 Fission •
A.5 Galilean and special relativity •••	B.5 Current and circuits •	C.5 Doppler effect ••		E.5 Fusion and stars

Fission

• Topics with content that should be taught to all students

•• Topics with content that should be taught to all students plus additional HL content

••• Topics with content that should only be taught to HL students

3.3. Textbook

K.A. Tsokos, Physics for the IB Diploma, seventh edition

3.4. Other requirements

3.4.i. Mathematical requirements

Skill	Description
Applying general mathematics	• Use basic arithmetic and algebraic calculations to solve problems. • Calculate areas and volumes for simple shapes. • Carry out calculations involving decimals, fractions, percentages, ratios, reciprocals, exponents and trigonometric ratios. • Carry out calculations involving logarithmic and exponential functions. • Determine rates of change. • Calculate mean and range. • Use and interpret scientific notation (for example, 3.5×10^6). • Select and manipulate equations. • Derive relationships algebraically. • Use approximation and estimation. • Appreciate when some effects can be neglected and why this is useful. • Compare and quote ratios, values and approximations to the nearest order of magnitude. • Distinguish between continuous and discrete variables. • Understand direct and inverse proportionality, as well as positive and negative relationships or correlations between variables. • Determine the effect of changes to variables on other variables in a relationship. • Calculate and interpret percentage change and percentage difference. • Calculate and interpret percentage error and percentage uncertainty. • Construct and use scale diagrams. • Identify a quantity as a scalar or vector.

Skill	Description
	• Draw and label vectors including magnitude, point of application and direction. • Draw and interpret free-body diagrams showing forces at point of application or centre of mass as required. • Add and subtract vectors in the same plane (limited to three vectors). • Multiply vectors by a scalar. • Resolve vectors (limited to two perpendicular components).
Using units, symbols and numerical values	• Apply and use International System of Units (SI) prefixes and units. • Identify and use symbols stated in the guide and the data booklet. • Work with fundamental units. • Use of units (for example, eV, eVc^{-2}, ly, pc, h, day, year) whenever appropriate. • Express derived units in terms of SI units. • Check an expression using dimensional analysis of units (the formal process of dimensional analysis will not be assessed). • Express quantities and uncertainties to an appropriate number of significant figures or decimal places.
Processing uncertainties	• Understand the significance of uncertainties in raw and processed data. • Record uncertainties in measurements as a range (±) to an appropriate level of precision. • Propagate uncertainties in processed data in calculations involving addition, subtraction, multiplication, division and raising to a power. • Express measurement and processed uncertainties—absolute, fractional (relative) and percentage—to an appropriate number of significant figures or level of precision.
Graphing	• Sketch graphs, with labelled but unscaled axes, to qualitatively describe trends. • Construct and interpret tables, charts and graphs for raw and processed data including bar charts, pie charts, histograms, scatter graphs and line and curve graphs. • Construct and interpret graphs using logarithmic scales. • Plot linear and non-linear graphs showing the relationship between two variables with appropriate scales and axes. • Draw lines or curves of best fit. • Draw and interpret uncertainty bars. • Extrapolate and interpolate graphs. • Linearize graphs (only where appropriate). • On a best-fit linear graph, construct lines of maximum and minimum gradients with relative accuracy (by eye) considering all uncertainty bars. • Determining the uncertainty in gradients and intercepts.

Skill	Description
	• Interpret features of graphs including gradient, changes in gradient, intercepts, maxima and minima, and areas under the graph.

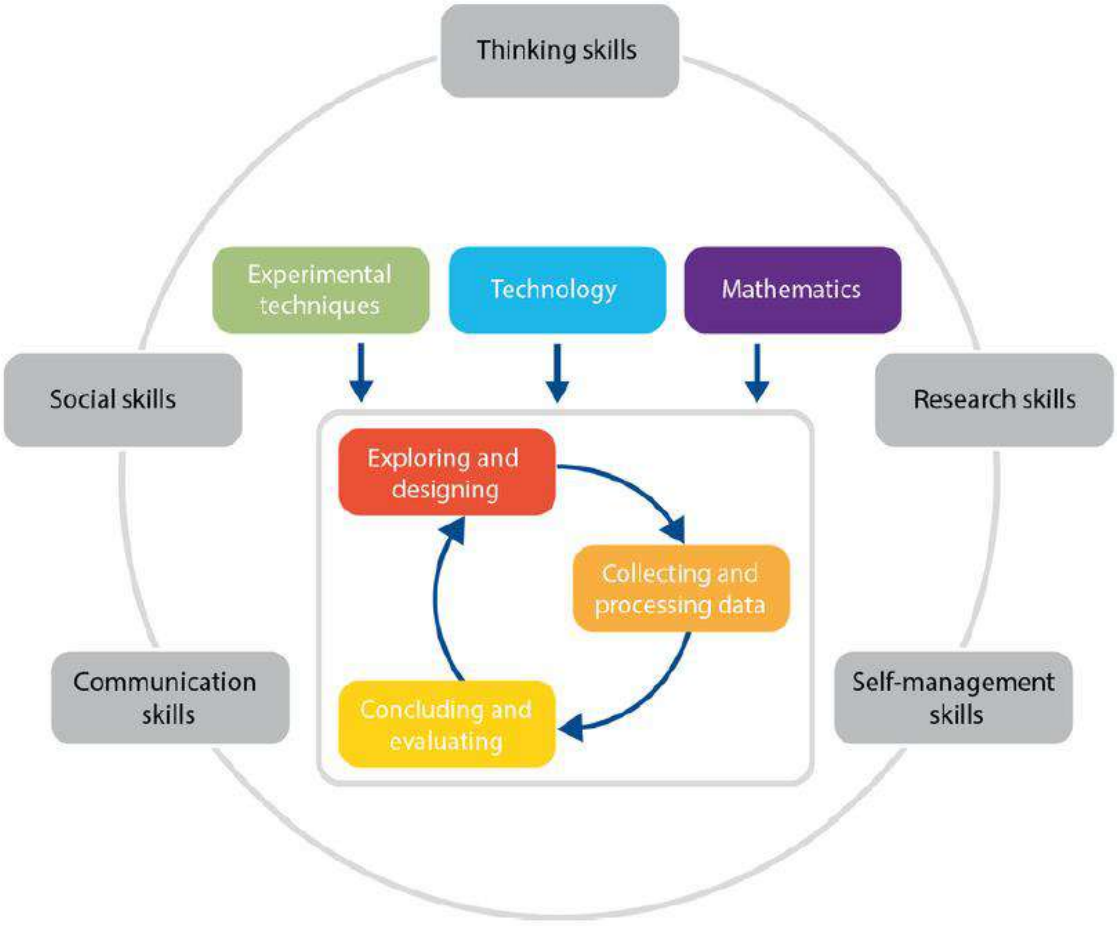
3.4.ii. Booklet

The IB publishes a *Physics data booklet* which contains electrical symbols, mathematical equations, constants, and physics equations relevant to the course. Students must have access to a copy for the duration of the course so that they can become familiar with its contents. Direct reference is made to relevant equations in the understandings sections of the guide. This helps to maintain the emphasis on interpretation and application rather than memorization of symbols, constants and equations. A clean copy of the *Physics data booklet* must also be made available to candidates for all examination papers at both SL and HL.

3.4.iii. Graphical calculator

4. Skills

Skills for physics



5. Assessment

5.1. SL assessment components.

Assessment component	Weighting
External assessment (3 hours)	**80%**
Paper 1 (1 hour and 30 minutes) Paper 1A—Multiple-choice questions Paper 1B—Data-based questions (Total 45 marks)	**36%**
Paper 2 (1 hour and 30 minutes) Short-answer and extended-response questions on standard level material only. (Total 55 marks)	**44%**
Internal assessment (10 hours)	**20%**
The internal assessment consists of one task: the scientific investigation. This component is internally assessed by the teacher and externally moderated by the IB at the end of the course. (Total 24 marks)	

5.2. HL assessment components

Assessment component	Weighting
External assessment (4 hours 30 minutes)	**80%**
Paper 1 (2 hours) Paper 1A—Multiple-choice questions Paper 1B—Data-based questions (Total 60 marks)	**36%**
Paper 2 (2 hour and 30 minutes) Short-answer and extended-response questions on standard level and additional higher level material. (Total 90 marks)	**44%**
Internal assessment (10 hours)	**20%**
The internal assessment consists of one task: the scientific investigation. This component is internally assessed by the teacher and externally moderated by the IB at the end of the course. (Total 24 marks)	

5.3. Internal assessment criteria

Criterion	Maximum number of marks available	Weighting (%)
Research design	6	25
Data analysis	6	25
Conclusion	6	25
Evaluation	6	25
Total	**24**	**100**

6. Collaborative sciences project

The collaborative sciences project is an interdisciplinary sciences project, providing a worthwhile challenge to DP and CP students, addressing real-world problems that can be explored through the sciences. The nature of the challenge should allow students to integrate factual, procedural and conceptual knowledge developed through the study of their disciplines.

Through the identification and research of complex issues, students can develop an understanding of how interrelated systems, mechanisms and processes impact a problem. Students will then apply their collective understanding to develop solution-focused strategies that address the issue. With a critical lens they will evaluate and reflect on the inherent complexity of solving real-world problems.

Students will develop an understanding of the extent of global interconnectedness between regional, national, and local communities, which will empower them to become active and engaged citizens of the world. While addressing local and global issues, students will appreciate that the issues of today exist across national boundaries and can only be solved through collective action and international cooperation.

The collaborative sciences project supports the development of students' ATL skills, including teambuilding, negotiation and leadership. It facilitates an appreciation of the environment, and the social and ethical implications of science and technology.

ENVIRONMENTAL SYSTEMS AND SOCIETIES

First assessments 2026

Environmental systems and societies (ESS) is an interdisciplinary course, encompassing both the sciences and individuals and societies and is offered at both standard level (SL) and higher level (HL). As such, ESS combines a mixture of methodologies, techniques and knowledge associated with both the sciences and individuals and societies.

ESS aims to empower and equip students to:

1. develop understanding of their own environmental impact, in the broader context of the impact of humanity on the Earth and its biosphere

2. develop knowledge of diverse perspectives to address issues of sustainability

3. engage and evaluate the tensions around environmental issues using critical thinking

4. develop a systems approach that provides a holistic lens for the exploration of environmental issues

5. be inspired to engage in environmental issues across local and global contexts.

Curriculum model overview

Syllabus component	Recommend SL
Syllabus content	**100**
Topic 1 Foundation 1.1 Perspectives 1.2 Systems 1.3 Sustainability	
Topic 2 Ecology	**22**
Topic 3 Biodiversity and conservation	**13**
Topic 4 Water	**12**
Topic 5 Land	**8**
Topic 6 Atmosphere and climate change	**10**
Topic 7 Natural resources	**10**
Topic 8 Human populations and urban systems	**9**
Higher level (HL) lens HL.a Environmental law HL.b Environmental and ecological economics HL.c Environmental ethics	

Syllabus content

Topic 1: Foundation

1.1 Perspectives
1.2 Systems
1.3 Sustainability

Topic 2: Ecology

2.1 Individuals, populations, communities, and ecosystems

2.2 Energy and biomass in ecosystems

2.3 Biogeochemical cycles

2.4 Climate and biomes

2.5 Zonation, succession and change in ecosystems

Topic 3: Biodiversity and conservation

3.1 Biodiversity and evolution

3.2 Human impact on biodiversity

3.3 Conservation and regeneration

Topic 4: Water

4.1 Water systems

4.2 Water access, use and security

4.3 Aquatic food production systems

4.4 Water pollution

Topic 5: Land

5.1 Soil

5.2 Agriculture and food

Topic 6: Atmosphere and climate change

6.1 Introduction to the atmosphere

6.2 Climate change—causes and impacts

6.3 Climate change—mitigation and adaptation

6.4 Stratospheric ozone

Topic 7: Natural resources

7.1 Natural resources—uses and management

7.2 Energy sources—uses and management

7.3 Solid waste

Topic 8: Human populations and urban systems

8.1 Human populations

8.2 Urban systems and urban planning

8.3 Urban air pollution

HL lenses

HL.a Environmental law

HL.b Environmental economics

HL.c Environmental ethics

Skills in the study of environmental systems and societies

The skills and techniques students must experience through the course are encompassed within the tools. These support the application and development of the inquiry process in the delivery of the ESS course.

Tools

• Experimental techniques

• Mathematics

• Technology

• Systems and models

Inquiry process

• Inquiring and designing

• Collecting and processing data

• Concluding and evaluating

Assessment model

There are four assessment objectives for the DP ESS course. Having studied the course, students are expected to demonstrate the following assessment objectives.

Assessment objective 1 Demonstrate knowledge and understanding of relevant:

• terminology, facts, and concepts

• methodologies and techniques

• perspectives and worldviews.

Assessment objective 2 Apply this knowledge and understanding in the analysis of:

• explanations, concepts, and theories

• primary and secondary data and models

• case studies and examples

• arguments and values.

Assessment objective 3 Evaluate, justify, and synthesize, as appropriate:

• explanations, concepts, theories, and models

• arguments and proposed solutions

• methods of fieldwork and investigation

• political, economic, ethical and sociocultural contexts of issues.

Assessment objective 4 Investigate sustainability issues at the local or global level through:

• identifying an appropriate environmental issue and research question for investigation

• selecting and demonstrate the use of appropriate methods and skills to carry out insightful and ethical investigations into environmental issues.

Assessment at a glance

Type of assessment	Format of assessment	Time (hours)	
		SL	H
External		**3.0**	**4**
Paper 1	Students will be provided with data in a variety of forms relating to a specific, previously unseen case study. Questions will be based on the analysis and evaluation of the data in the case study. All questions are compulsory.	1.0	2
Paper 2	Section A is made up of short-answer and data-based	2.0	2
Internal		**10**	
Individual investigation	The individual investigation is an open-ended task in which the student gathers and analyses data to answer their own formulated research question. The outcome of the Individual investigation will be assessed through the form of a written report. The	10	

Source: [Environmental systems and societies - International Baccalaureate® (ibo.org)]

Bibliography: Environmental Sysyems and Societies guide, IBO, 2015, updated 2017

Mathematics Analysis and Approaches

based on Mathematics: analysis and approaches guide, first exams:2021

1. Course aims:
    - develop a curiosity and enjoyment of mathematics, and appreciate its elegance and power
    - develop an understanding of the concepts, principles and nature of mathematics
    - communicate mathematics clearly, concisely and confidently in a variety of contexts
    - develop logical and creative thinking, and patience and persistence in problem solving to instil confidence in using mathematics
    - employ and refine students' powers of abstraction and generalization
    - take action to apply and transfer skills to alternative situations, to other areas of knowledge and to future developments in their local and global communities
    - appreciate how developments in technology and mathematics influence each other
    - appreciate the moral, social and ethical questions arising from the work of mathematicians and the applications of mathematics
    - appreciate the universality of mathematics and its multicultural, international and historical perspectives
    - appreciate the contribution of mathematics to other disciplines, and as a particular "area of knowledge" in the TOK course
    - develop the ability to reflect critically upon students' own work and the work of others
    - independently and collaboratively extend students' understanding of mathematics
2. Assessment objectives
    - Knowledge and understanding: Recall, select and use their knowledge of mathematical facts, concepts and techniques in a variety of familiar and unfamiliar contexts.
    - Problem solving: Recall, select and use their knowledge of mathematical skills, results and models in both abstract and real-world contexts to solve problems.
    - Communication and interpretation: Transform common realistic contexts into mathematics; comment on the context; sketch or draw mathematical diagrams, graphs or constructions both on paper and using technology; record methods, solutions and conclusions using standardized notation; use appropriate notation and terminology
    - Technology: Use technology accurately, appropriately and efficiently both to explore new ideas and to solve problems
    - Reasoning: Construct mathematical arguments through use of precise statements, logical deductions and inference and by the manipulation of mathematical expressions.
    - Inquiry approaches: Investigate unfamiliar situations, both abstract and from the real world, involving organizing and analyzing information, making conjectures, drawing conclusions, and testing their validity.

3. Assessment details
    - Standard Level
        - External assessment component:
          Paper 1 (90 minutes, no technology allowed, weight 40%)
          Paper 2 (90 minutes, technology required, weight 40%)
        - Internal assessment component:
          Mathematical exploration (piece of written work, weight 20%)
    - Higher Level
        - External assessment component:
          Paper 1 (120 minutes, no technology allowed, weight 30%)

Paper 2 (120 minutes, technology required, weight 30%)
Paper 3 (60 minutes, technology required, weight 20%)
- Internal assessment component:
  Mathematical exploration (piece of written work, weight 20%)

4. Course overview
   - Number and algebra
   - Functions
   - Geometry and trigonometry
   - Statistics and probability
   - Calculus
5. Course content
   - Number and algebra: exponential notation for very small and very large numbers; arithmetic sequences and series, geometric sequences and series (including infinite convergent series); sigma notation; financial mathematics; exponents, logarithms; counting principles, the binomial theorem (HL: extension to fractional and negative indices);simple deductive proof; (HL: proof by contradiction, proof by induction); HL only: partial fractions, complex numbers; systems of linear equations.
   - Functions: equation of a straight line; concept of function; properties of function; composite functions; inverse functions; graphing functions; transformations of graphs; properties and graphs of basic functions; quadratic function (HL: polynomial functions; factor and remainder theorems for polynomials; roots of polynomials); simple rational functions (HL: rational functions); exponential and logarithmic functions; equations and inequalities using graphs.
   - Geometry and trigonometry: distance between points, midpoint; basic two-dimensional shapes; basic three-dimensional shapes; radian and degree measures of angles; definitions of trigonometric ratios; compound angle and double angle identities; trigonometric functions and composite trigonometric functions; trigonometric equations; the cosine rule and the sine rule; solution of triangles; HL only: inverse trigonometric functions; vectors in 2 and in 3 dimensions; properties of vectors; operations on vectors; equation of a line; location of lines; equation of a plane; location of planes; location of lines and planes.
   - Statistics and probability: concept of population and sample; reliability of data sources; sampling process; discrete and continuous data; organizing data: grouped data, frequency tables, cumulative frequency tables; statistical diagrams; numerical description of data: central value and measure of spread of data; linear correlation; concept of trial, event and sample space; definition of probability; properties of probability; conditional probability (HL: Baye's theorem); independent events; binomial distribution; normal distribution; HL only:concept of discrete and continuous random variables and their probability distributions; expected value, mode, median, variance and standard deviation for given probability distribution.
   - Calculus: concept of limit and convergence; definition of derivative; interpretations of derivative; derivatives of basic functions; derivatives of sum, product, quotient, composition of function (HL: implicit differentiation); second derivative; application of differentiation; indefinite integral of basic functions (HL: integration by substitution and integration by parts; partial fractions in integration); definite integral; applications of definite integral; HL only: first order differential equations; Maclaurin series; L'Hospital rule.
6. Course of study
   - Concepts: approximation, change, equivalence, generalization, modelling, patterns, quantity, relationships, representation, space, systems, validity
   - Links with TOK:
     - Is mathematics invented or discovered?
     - Do proofs provide us with completely certain knowledge?
     - What are the differences between mathematics and other areas of knowledge?
     - Conflict between intuition and mathematically proved facts.
     - Mathematics as a universal language.

    - Relationship between real-world problems and mathematical models.
    - Can mathematics be seen as independent of culture?
    - What is axiomatic system?
    - What is the relationship between concepts and facts?
    - Concept of fair game. Gambling and mathematics.
    - Correlation and causation.
    - In what ways has technology impacted mathematics?
- Links with international mindedness
    - The history of mathematical concepts and their development in various cultures.
    - Development of mathematical notation.
    - Historical problems from various countries and cultures.
    - Various methods of solving problems from other cultures.
    - Benefits of sharing and analysing data from different countries and cultures.
- Links with CAS
    - Mathematics provides and important key to understanding the world.
    - Mathematical skills and techniques allow the students to evaluate and influence the world around, which allows them to develop, plan and deliver CAS experiences and projects.
    - Mathematics courses develop the ability to systematically analyse situations and recognize the impact that mathematics can have on the world around.
    - Mathematics teaches to reflect critically on the information that societies are given or generate.
    - Collecting data and analyzing the results.
- ATT employed
    - Mathematical inquiry by making frequent use of strategies which stimulate students' critical thinking and problem-solving skills.
    - Mathematical modelling by creating a real-life situation, engaging the students, supporting the students in their investigations, helping them to critically analyse the results.
    - Mathematical proof as an essential element in developing critical thinking.
    - Use of technology as a tool to support and enhance student understanding in many ways including: bringing out teaching points, addressing misconceptions, aiding visualization, supporting students in making conjectures and checking generalizations, making explicit links between different mathematical representations or approaches.
- ATL taught
    - Learing mathematical inquiry by active participation in learning activities. Students should be able to conduct the cycle of mathematical inquiry (exploring the content, making a conjecture, testing the conjecture, rejecting or accepting the conjecture, justifying and extending).
    - Sutdents should be able to conduct the cycle of mathematical modelling (considering of a real-life situation, choosing a suitable mathematical representation, testing the model, rejecting or accepting the model, critical reflection upon the process and results, extending).
    - Mathematical proof as a tool to develop the following skills: groupwork, impersonal skills, reasoning, research, oral and written communication, creative thinking, organization.
    - Use of technology accurately, appropriately and efficiently to explore new ideas and to solve problems. Students can use technology to engage with the learing process in many ways, e.g. to develop and enhance their own personal conceptual understanding, to search for patterns, to test conjectures or generalizations, to justify interpretations, to collaborate on project based work, to help organize and analyse data.

VISUAL ARTS SL/HL

based on VISUAL ARTS guide, first exams: 2016

1. Course aims

The arts aims.

The aims of the arts subjects are to enable students to:

1. enjoy lifelong engagement with the arts
2. become informed, reflective and critical practitioners in the arts
3. understand the dynamic and changing nature of the arts
4. explore and value the diversity of the arts across time, place and cultures
5. express ideas with confidence and competence
6. develop perceptual and analytical skills.

Visual arts aimsIn addition, the aims of the visual arts course at SL and HL are to enable students to:

7. make artwork that is influenced by personal and cultural contexts
8. become informed and critical observers and makers of visual culture and media
9. develop skills, techniques and processes in order to communicate concepts and ideas.

2. Assessment objectives

Having followed the visual arts course at SL or HL, students will be expected to:

Assessment objective 1: demonstrate knowledge and understanding of specified content

a. Identify various contexts in which the visual arts can be created and presented
b. Describe artwork from differing contexts, and identify the ideas, conventions and techniques employed by the art-makers
c. Recognize the skills, techniques, media, forms and processes associated with the visual arts
d. Present work, using appropriate visual arts language, as appropriate to intentions

Assessment objective 2: demonstrate application and analysis of knowledge and understanding

a. Express concepts, ideas and meaning through visual communication
b. Analyse artworks from a variety of different contexts
c. Apply knowledge and understanding of skills, techniques, media, forms and processes related to art-making

Assessment objective 3: demonstrate synthesis and evaluation

a. Critically analyse and discuss artworks created by themselves and others and articulate an informed personal response
b. Formulate personal intentions for the planning, development and making of artworks that consider how meaning can be conveyed to an audience
c. Demonstrate the use of critical reflection to highlight success and failure in order to progress work
d. Evaluate how and why art-making evolves and justify the choices made in their own visual practice

Assessment objective 4: select, use and apply a variety of appropriate skills and techniques

a. Experiment with different media, materials and techniques in art-making
b. Make appropriate choices in the selection of images, media, materials and techniques in art-making
c. Demonstrate technical proficiency in the use and application of skills, techniques, media, images, forms and processes
d. Produce a body of resolved and unresolved artworks as appropriate to intentions

3. Assessment details

External assessment: Comparative study / Process Portfolio

PART 1: COMPARATIVE STUDY – Criteria – External assessment 20%
Students analyse and compare different artworks by different artists. This independent critical and contextual investigation explores artworks, objects and artefacts from differing cultural contexts.
SL: Compare at least 3 different artworks, by at least 2 different artists, with commentary over 10–15 screens
At HL: As SL plus a reflection on the extent to which their work and practices have been influenced by any of the art/artists examined (3–5 screens)

CRITERION		Assessmentobjective	Task details
A: Analysis of formalqualities	6	An effective discussion of the formal elements of art	Describe what you see when you look at awork of art, analysing the formal elementsof design, line, shape, size, space, color, texture and value, and discussing the materials and media used.
B: Interpretation of function and purpose	6	An informed and appropriate interpretation of theartworks	Discuss the function for which the artwork was made, as well as the artist's intention, and explore possible interpretations of thework.
C: Evaluation of cultural significance	6	An informed understanding of theartworks within a cultural context	Compare and contrast the works you haveselected. Make connections between the works by analysing the formal, functional and cultural similarities and differences.
D: Making comparisons and connections	6	Effective and coherentanalytical comparisons betweenthe artworks	Compare and contrast the works you haveselected. Make connections between the works by analyzing the formal, functional and cultural similarities and differences.
E: Presentation andsubject language	6	Clearly, coherentlyand consistently communicated information	Make overall presentation visually engaging and appropriate: design a considered layout with clearly legible writing, make sure your sources are citedand images are referenced correctly with use of accurate subject-specific languagethroughout.
TOTAL SL	30		
F: Making connections to ownart-making practice(HL only)	12	An analysis and reflection on how the artworks studied influence or otherwiserelate to your own art-making	Make meaningful connections between youwork and those of the artists in your study, using clear examples. Analyse and reflect on your own development in relation to the work studied.
TOTAL HL	42		

External assessment: Process Portfolio

PART 2: PROCESS PORTFOLIO – Criteria – External assessment 40%
Students submit carefully selected materials which evidence their experimentation, exploration, manipulation and refinement of a variety of visual arts activities during the two-year course
At SL: 9–18 screens. The submitted work should be in at least two different art-making forms
At HL: 13–25 screens. The submitted work should be in at least three different art-making

forms		
CRITERION	MARKS	Suitable evidence
A: Skills, techniques and processes	12	- Drawings, sketches and designs - Preliminary paintings and small studies - Photographic contact sheets and test prints - Computer screenshots - Photographic record of sculptural process
B: Critical investigation	6	- Annotated images of other artists' works - Experiments with using the style or technique of an artist - Producing copies of works "after" a particular artist - Written reflections on the connections between an investigated artistand your own work
C: Communicationof ideas and intentions	6	- Concept maps of ideas and themes - Planning imagery with annotations considering how meaning might beconveyed through the work - Reflections and evaluations made throughout the progress of a work,resulting in changes in direction or imagery or technique
D: Reviewing, refining and reflecting	6	- Various trials of compositional arrangements - Reworking imagery employing different techniques or media - Reflections and evaluations made throughout the progress of a work,resulting in changes in direction or imagery or technique - Evaluations of completed work generating new ideas
E: Presentation and subject-specific language	4	- Balance of text and visuals - Writing is legible - Layout is considered - Language is appropriate. Appropriate terminology is used.Artists' names and movements are spelled correctly.
TOTAL	34	

Internal assessment: Exhibition

PART 3: EXHIBITION – Criteria – Internal assessment 40%		
Exhibition: Students submit for assessment a selection of resolved artworks from their exhibition. The selected pieces should show evidence of their technical accomplishment during the visual arts course and an understanding of the use of materials, ideas and practices appropriate to visual communication		
At SL: 4–7 pieces with exhibition text for each. A curatorial rationale (400 words maximum)		
At HL: 8–11 pieces with exhibition text for each. A curatorial rationale (700 words maximum)		
CRITERION	MARKS	Suitable evidence
A: Coherent body of works	9	The work forms a coherent collection of works which fulfill stated artistic intentions and communicate clear thematic or stylistic relationships across individual pieces
B: Technical	9	The work demonstrates an effective application and manipulation ofmedia, materials and formal qualities.

competenc e		
C: Conceptual qualities	9	The work demonstrates how the imagery, signs and symbols have been successfully resolved to realize the function, meaning and purpose of the art works, as appropriate to stated intentions.
D: Curatorial practice	3	The curatorial rationale justifies the selection, arrangement and exhibition of a group of artworks within a designated space, as appropriate to start intentions.
TOTAL	30	

4. Course overview

The visual arts are an integral part of everyday life, permeating all levels of human creativity, expression, communication and understanding. They range from traditional forms embedded in local and wider communities, societies and cultures, to the varied and divergent practices associated with new, emerging and contemporary forms of visual language. They may have socio political impact as well as ritual, spiritual, decorative and functional value; they can be persuasive and subversive in some instances, enlightening and uplifting in others. We celebrate the visual arts not only in the way we create images and objects, but also in the way we appreciate, enjoy, respect and respond to the practices of art-making by others from around the world. Theories and practices in visual arts are dynamic and ever-changing, and connect many areas of knowledge and human experience through individual and collaborative exploration, creative production and critical interpretation.The IB Diploma Programme visual arts course encourages students to challenge their own creative and cultural expectations and boundaries. It is a thought-provoking course in which students develop analytical skills in problem-solving and divergent thinking, while working towards technical proficiency and confidence as art-makers. In addition to exploring and comparing visual arts from different perspectives and in different contexts, students are expected to engage in, experiment with and critically reflect upon a wide range of contemporary practices and media. The course is designed for students who want to go on to study visual arts in higher education as well as for those who are seeking lifelong enrichment through visual arts. Supporting the International Baccalaureate mission statement and learner profile, the course encourages students to actively explore the visual arts within and across a variety of local, regional, national, international and intercultural contexts. Through inquiry, investigation, reflection and creative application, visual arts students develop an appreciation for the expressive and aesthetic diversity in the world around them, becoming critically informed makers and consumers of visual culture. Distinction between SL and HL The visual arts syllabus demonstrates a clear distinction between the course at SL and at HL, with additional assessment requirements at HL that allow for breadth and greater depth in the teaching and learning. The assessment tasks require HL students to reflect on how their own work has been influenced by exposure to other artists and for them to experiment in greater depth with additional art-making media, techniques and forms. HL students are encouraged to produce a larger body of resolved works and to demonstrate a deeper consideration of how their resolved works communicate with a potential viewer.

5. Course content

The visual arts course provides a framework that allows teachers to choose content and activities appropriate to the school context with the precise taught activities and subject materials generated by the teacher and students. When constructing a holistic course of

study, the teacher must understand and appreciate how the assessment tasks are drawn from the syllabus areas and design a curriculum which ensures that students are fully equipped and informed in accordance with the visual arts aims and assessment objectives. An integrated relationship between the core areas of visual arts in context, visual arts methods and communicating visual arts is essential throughout the course. The connections between the visual arts syllabus areas and the assessment tasks can be seen in the table “Linking the visual arts core syllabus areas to the assessment tasks”.

6. Course of study

Visual arts and the extended essay

Writing an extended essay in visual arts provides students with an opportunity to undertake independent research into a topic of special interest. Students are encouraged to apply a range of skills in order to develop and explore a focused research question appropriate to visual arts in an imaginative and critical way, and to test and validate their research by considering its effect on the particular visual arts area.The outcome of the research should be a coherent and structured piece of writing (with appropriate visuals) that effectively addresses a particular issue or research question, appropriate to the visual arts (broadly defined to include architecture, design and contemporary forms of visual culture). The research may be generated or inspired by the student’s direct experience of artwork, craftwork or design, or interest in the work of a particular artist, style or period. This might be related to the student’s own culture or another culture. Personal contact with artists, curators and so on is strongly encouraged, as is the use of local and other primary sources.

Examples of suitable extended essays in visual arts include the following titles:

• A critical evaluation of the ways in which Wassily Kandisky use colour

• An analysis of the extent to which African influences are evident in the work of Henry Moore (b.1898)

• An analysis of the term “apartment art” examined through the work of Xiao Lu.Detailed guidance on extended essays in visual arts can be found in the Extended essay guide. Visual arts and CASStudying visual arts provides excellent opportunities for students to make links with their CAS activities. The practical and experiential nature of the subject combines effectively with a range of CAS activities that complement and counterbalance the academic rigour of the Diploma Programme. The challenge and enjoyment of CAS activities can often have a profound effect on visual arts students, who might choose to engage with CAS in the following ways.

• Participation in a range of creative activities within the school, such as art projects for school productions, designing publications and promotional materials, and exhibiting at showcase events—there is great scope for students to extend their creative thinking through participation in the planning, development and presentation of a wide range of school-based arts activities and events involving different audiences.• Participation in a range of artistic activities, workshops and exhibitions in collaboration with others outside of the school context—these might include designing projects with organisations in the local community or creating artworks with other local schools targeted at a specific audience with specific needs.It is important to note that CAS must be distinct from, and may not be included or used in, any aspect of the student’s course requirements for any subject. Teacher support materialFurther opportunities for making links between the visual arts course and CAS can be found in the Visual arts teacher support material.

Visual arts and TOK

The TOK course requires students to reflect on the nature of knowledge and on how we know what we claim to know. The course identifies eight ways of knowing: reason, emotion, language, sense perception, intuition, imagination, faith and memory. Students explore these means of producing knowledge within the context of various areas of knowledge: the natural sciences, the social sciences, the arts, ethics, history, mathematics, religious knowledge systems and indigenous knowledge systems. The course also requires students to make comparisons between the different areas of knowledge, reflecting on how knowledge is arrived at in the various disciplines, what the disciplines have in common and the differences between them. Students of the arts subjects study the various artistic ways through which knowledge, skills and attitudes from different cultural contexts are developed and transmitted. These subjects allow students to investigate and reflect on the complexities of the human condition. By exploring a range of materials and technologies, students should aim to develop an understanding of the technical, creative, expressive and communicative aspects of the arts.Students of the arts subjects have the opportunity to analyse artistic knowledge from various perspectives, and they acquire this knowledge through experiential means as well as more traditional academic methods. The nature of the arts is such that an exploration of the areas of knowledge in general, and knowledge of the different art forms specifically, can combine to help us understand ourselves, our patterns of behaviour and our relationship to each other and our wider environment.The arts subjects complement the TOK ethos by revealing interdisciplinary connections and allowing students to explore the strengths and limitations of individual and cultural perspectives. Studying the arts requires students to reflect on and question their own bases of knowledge. In addition, by exploring other Diploma Programme subjects with an artistic bias, students can gain an understanding of the interdependent nature of knowledge through which they are encouraged to become, “active, compassionate and lifelong learners who understand that other people, with their differences, can also be right” (IB mission statement).Questions related to TOK that a visual arts student might consider include the following.

• To what extent is artistic knowledge something which cannot be expressed in any other way?

• Are ways of knowing employed in radically different ways in the arts than in other areas of knowledge?

• To what extent does imagination play a special role in the visual arts?

• What moral responsibilities do artists have?

• How can the subjective viewpoint of an individual contribute to knowledge in the arts?

• What are the standards by which we judge artworks?

• Why might we be more concerned with process rather than product in the search for knowledge?

• Do the arts have a social function?

• To what extent is truth different in the arts, mathematics and ethics?Visual arts and international-mindedness International-mindedness represents an openness and curiosity about the world and its people. It begins with students understanding themselves in order to effectively connect with others. The arts provide a unique opportunity for students to

recognize the dynamic cultural influences around them. The IB Diploma Programme visual arts course gives students the opportunity to study a wide variety of visual arts disciplines and forms. Students are expected to explore and engage with art from a variety of contexts. Through making, investigating and critically analysing and appreciating different art forms, students deepen their.

Understanding of the visual arts, as well as their knowledge, understanding and experience of the visual arts within the global community. They become more informed and reflective, and develop their abilities to become enriched practitioners, communicators and visual thinkers. They learn to acknowledge the aspects that appear in all art forms and art cultures, and also to recognize the unique ways in which particular cultures express and represent their values and identity visually. CultureFor the purposes of this visual arts guide, “culture” is defined as learned and shared beliefs, values, interests, attitudes, products and all patterns of behaviour created by society. This view of culture includes an organised system of symbols, ideas, explanations, beliefs and material production that humans create and

manipulate in their daily lives. Culture is dynamic and organic, operating on many levels in the global context—international, national, regional and local, as well as among different social groups within a society. Culture is seen as fluid and subject to change. Culture can be seen as providing the overall framework within which humans learn to organise their thoughts, emotions and behaviours in relation to their environment, and within this framework “cultural context”, which specifically appears in both the taught syllabus and assessment tasks of the visual arts course, refers to the conditions that influence and are influenced by culture. These include historical, geographical, political, social and technological factors.Engaging with sensitive topicsStudying visual arts gives students the opportunity to engage with exciting, stimulating and personally relevant topics and issues. However, it should be noted that often such topics and issues can also be sensitive and personally challenging for some students. Teachers should be aware of this and provide guidance on how to approach and engage with such topics in a responsible manner. Consideration should also be given to the personal, political and spiritual values of others, particularly in relation to race, gender or religious beliefs. As part of the collective consideration of the school, visual arts students must be supported in maintaining an ethical perspective during their course. Schools must be vigilant in ensuring that work undertaken by the student does not damage the environment, include excessive or gratuitous violence or reference to explicit sexual activity. Prior learningThe visual arts course at both SL and HL requires no previous experience. The course is designed to enable students to experience visual arts on a personal level and achievement in this subject is reflected in how students demonstrate the knowledge they have gained as well as the skills and attitudes they have developed that are necessary for studying visual arts. Students’ individual abilities to be creative and imaginative and to communicate in artistic form will be developed and extended through the theoretical and practical content of the visual arts course. The visual arts course provides a relevant learning opportunity for a diverse range of students as it lays an appropriate foundation for further study in visual arts, performing arts and other related subjects. In addition, by instilling discipline and refining creative communication and collaborative skills, it offers a valuable course of study for students who may wish to pursue a career or further education studies in areas unconnected to the arts.

Links to the Middle Years Programme

Although the visual arts course requires no formal prior learning, the IB Middle Years Programme (MYP) arts subject area provides a valuable grounding that students might find beneficial. The MYP is designed for students aged 11 to 16. It provides a framework of learning that encourages students to become creative, critical and reflective thinkers. The MYP emphasises intellectual challenge, encouraging students to make connections between their studies in traditional subjects and the real world. It fosters the development of skills for communication, intercultural understanding and global engagement—essential qualities for young people who are becoming global leaders.The arts subject area in the MYP gives students the opportunity to develop as artists as well as learning about the arts through conceptual understandings essential to the discipline. Learning takes place within contexts relevant to the student, whether personal, local, national, international or globally significant. Throughout the MYP, arts students are required to use knowledge, develop skills, think creatively and respond to a variety of artworks. The MYP arts subject area, and specifically the MYP discipline of visual arts, provides a solid foundation for the Diploma Programme visual arts course.In MYP arts, students are provided opportunities to prepare for the

Diploma Programme visual arts course by:• understanding the role of visual arts in context and using this understanding to inform their work and artistic decisions• discovering the aesthetics of visual arts, and analysing and expressing this in various forms• acquiring, developing and applying skills in the process of making and communicating visual arts• being encouraged to think laterally, develop curiosity and purposefully explore and challenge boundaries• responding to their world, to their own art and its audience, and to the visual arts of others.In the MYP, students not only learn about the arts, they are provided with opportunities to develop themselves as artists. The MYP Arts guide fosters autonomous experimentation and understanding which is valued and developed further in the Diploma Programme. In thinking creatively the students become successful learners of visual arts through inquiry and problem-solving. Emphasis is placed on the artistic process allowing the students to plan, create, present, reflect and evaluate on the process of communicating visual arts. Students further develop their repertoire to engage and convey feelings, experiences and ideas and build on the skills developed in the PYP. Visual arts and academic honestyAcademic honestyKey opportunities for guiding students on academic honesty issues are highlighted in each of the assessment tasks later in this guide.Assessment components across the arts vary considerably, from oral presentations to formal written work, from the presentation of finished works to the collection of ideas and stimuli that inspire the creative process. Although guidelines for maintaining academic honesty are consistent for all subjects and components across the Diploma Programme, the variety and richness of tasks in the arts means that each component

Visual arts guide raises its own challenges for maintaining academic honesty. For more information please see IB publications relating to academic honesty. Referencing sourcesIf a candidate uses content from any source, including the internet, these sources must be acknowledged consistently in accordance with the school's academic honesty policy. These should be recorded in a style that clearly identifies exactly what in the student's work has been taken from another source and its origin. When a student is aware that another person's work, ideas or images have influenced their own but it has not been referred to directly in their work, the source must be included as a bibliography reference in the student's work. This is particularly relevant to the arts where the creative process will be the result of a contrasting range of stimuli, influences and sources of inspiration.Meeting formal requirementsMost of the assessment tasks in the arts are completed as coursework, and as such have strict conditions under which student work must be completed, presented and, in the case of internally assessed work, assessed. There are formal requirements that must be followed to ensure that the work received by examiners and moderators is consistent and can be assessed against the marking criteria. Since these conditions and formal requirements are designed to ensure that each candidate is given an equal opportunity to demonstrate achievement, failure to follow them is a form of academic misconduct as it can lead to candidates having an unfair advantage.Submitting exhibition worksPlease note that any work selected for final assessment in the visual arts course must have been made or constructed by the student. For example, a piece of clothing designed as part of a student's study of fashion or a piece of jewellery cannot be presented for assessment in realised form if the student did not create it themselves. The same principle must be applied to the use of additional elements used to create an atmosphere or a specific experience for an audience (even though any audio component will not be assessed in this visual course). If the student uses music or sound effects, for instance, they must be copyright free with appropriate citations provided or have been created by the student. Where the student has not created

the realised piece themselves, they would still be able to submit the design of the piece as an artwork for assessment in the exhibition, but the realised piece cannot be included. Where a student has taken found objects and created a new artwork with those found objects, the resulting artwork would be considered as a piece constructed by the student. When submitting artworks for assessment, students are required to include exhibition text for each selected piece. The exhibition text outlines the title, medium, size and intention of each piece. Students should identify if objects are self-made, found or purchased under the "medium" section when compiling exhibition text.

Links with CAS

Visual arts and CASStudying visual arts provides excellent opportunities for students to make links with their CAS activities. The practical and experiential nature of the subject combines effectively with a range of CAS activities that complement and counterbalance the academic rigour of the Diploma Programme. The challenge and enjoyment of CAS activities can often have a profound effect on visual arts students, who might choose to engage with CAS in the following ways. • Participation in a range of creative activities within the school, such as art projects for school productions, designing publications and promotional materials, and exhibiting at showcase events—there is great scope for students to extend their creative thinking through participation in the planning, development and presentation of a wide range of school-based arts activities and events involving different audiences.• Participation in a range of artistic activities, workshops and exhibitions in collaboration with others outside of the school context—these might include designing projects with organizations in the local community or creating artworks with other local schools targeted at a specific audience with specific needs.It is important to note that CAS must be distinct from, and may not be included or used in, any aspect of the student's course requirements for any subject

ATT employed

The Diploma Programme visual arts course has been designed to reflect the dynamic nature of visual arts. When designing and delivering their own visual arts curriculum, it is important to note that teachers have a free choice in the selection of artists and art media, forms and studies through which to meet the requirements of the guide and from within the art-making forms table (see section "Art-making forms").Although the core syllabus is identified in this guide through subdivided segments, teachers are encouraged to approach the teaching of the visual arts course in a holistic way. Suggestions for taught activities are included in this guide with the intention of stimulating a broad range of exciting and engaging approaches. These approaches are not intended to be prescriptive nor restrictive activities, but are included to illustrate some of the many possible pathways that can fully prepare students for the demands of the assessment tasks. Teachers are encouraged to interpret this holistic syllabus creatively according to their local circumstances and the context of the individual school. This is an international visual arts course and how teachers choose to explore art and artists from various cultural contexts is left to their own discretion. Teachers should not only teach practices with which they themselves are familiar and are knowledgeable about but should also be risk-takers and expose their students to unfamiliar traditions from around the world.Visual arts teachers are not expected to be sources of all knowledge, deliverers of information or experts. Their role should be to actively and carefully organize learning

experiences for the students, directing their study to enable them to reach their potential and satisfy the demands of the course. Students should be empowered to become autonomous, informed and skilled visual artists. No time allocation is given for any individual area of the syllabus because art-making activities will invariably cover various parts of the course. Careful planning of class activities and, where feasible, visits to exhibitions and workshops with practitioners, however, are needed to make the best use of the time and resources available. Although the course is designed to stand on its own, some schools may wish to arrange extra-curricular activities for visitors to teach skills in some media, or for activities that may be better undertaken over a longer period of time, such as observational drawing, perhaps from life.

ATL taught

Approaches to teaching and learningApproaches to teaching and learning (ATL) across the Diploma Programme refers to deliberate strategies, skills and attitudes which permeate the teaching and learning environment. These approaches and tools, intrinsically linked with the learner profile attributes, enhance student learning and assist student preparation for the Diploma Programme assessment andbeyond. The aims of approaches to teaching and learning in the Diploma Programme are to:• empower teachers as teachers of learners as well as teachers of content• empower teachers to create clearer strategies for facilitating learning experiences in which students are more meaningfully engaged in structured inquiry and greater critical and creative thinking

The Diploma Programme 4 Visual arts guide

• promote both the aims of individual subjects (making them more than course aspirations) and linking previously isolated knowledge (concurrency of learning)

• encourage students to develop an explicit variety of skills that will equip them to continue to be actively engaged in learning after they leave school, and to help them not only obtain university admission through better grades but also prepare for success during tertiary education and beyond

• enhance further the coherence and relevance of the students' Diploma Programme experience

• allow schools to identify the distinctive nature of an IB Diploma Programme education, with its blend of idealism and practicality.The five approaches to learning (developing thinking skills, social skills, communication skills, self-management skills and research skills) along with the six approaches to teaching (teaching that is inquiry-based, conceptually focused, contextualized, collaborative, differentiated and informed by assessment) encompass the key values and principles that underpin IB pedagogy.

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TOK (Theory of Knowledge)

Introduction:

The TOK course provides students with an opportunity to explore and reflect on the nature of knowledge and the process of knowing. It is a core element of the DP to which schools are required to devote at least 100 hours of class time. In TOK, students reflect on the knowledge, beliefs, and opinions that they have built up from their years of academic studies and their lives outside the classroom. The course is intended to be challenging and thought-provoking — as well as empowering — for students.

The course centers on the exploration of knowledge questions, which are a key tool for both teachers and students. These are contestable questions about knowledge itself, such as: “What counts as good evidence for a claim?”, “Are some types of knowledge less open to interpretation than others?”, or “What constraints should there be on the pursuit of knowledge?”. While these questions may initially seem slightly intimidating, they become much more accessible when considered with reference to specific examples within the TOK course.

The aims of the TOK course are:

- to encourage students to reflect on the central question, “How do we know that?”, and to recognize the value of asking that question
- to expose students to ambiguity, uncertainty, and questions with multiple plausible answers
- to equip students to effectively navigate and make sense of the world, and help prepare them to encounter novel and complex situations
- to encourage students to be more aware of their own perspectives and to reflect critically on their own beliefs and assumptions
- to engage students with multiple perspectives, foster open-mindedness, and develop intercultural understanding
- to encourage students to make connections between academic disciplines by exploring underlying concepts and by identifying similarities and differences in the methods of inquiry used in different areas of knowledge
- to prompt students to consider the importance of values, responsibilities, and ethical concerns relating to the production, acquisition, application, and communication of knowledge.

Theory of Knowledge

Having completed the TOK course, students should be able to:

- demonstrate TOK thinking through the critical examination of knowledge questions
- identify and explore links between knowledge questions and the world around us
- identify and explore links between knowledge questions and areas of knowledge
- develop relevant, clear, and coherent arguments
- use examples and evidence effectively to support a discussion
- demonstrate awareness and evaluation of different points of view
- consider the implications of arguments and conclusions.

The TOK curriculum is made up of three deeply interconnected parts:

- The core theme — Knowledge and the knower: This theme encourages students to reflect on themselves as knowers and thinkers, and to consider the different communities of knowers to which we belong.
- Optional themes: This element provides an opportunity to take a more in-depth look at two themes of particular interest to teachers and students. The given themes all have a significant impact on the world today and play a key role in shaping people’s perspectives and identities. Teachers select two optional themes from a choice of five: knowledge and technology; knowledge and language; knowledge and politics; knowledge and religion; and knowledge and indigenous societies.
- Areas of knowledge: The areas of knowledge (AOK) are specific branches of knowledge, each of which can be seen to have a distinct nature and sometimes use different methods of gaining

knowledge. In TOK, students explore five compulsory areas of knowledge: history; the human sciences; the natural sciences; mathematics; and the arts.

To help teachers and students explore these three parts of the TOK curriculum, guidance and suggested knowledge questions are provided. These suggested knowledge questions are organized into a framework of four elements: scope, perspectives, methods and tools, and ethics. This "knowledge framework" encourages a deep exploration of each theme and AOK. Having these common elements run throughout the different parts of the curriculum also helps to unify the course and helps students to make effective connections and comparisons across the different themes and areas of knowledge.

Course Structure:

The TOK course can be structured in a variety of ways and can start from a variety of different entry points. Teachers exercise flexibility, creativity, and innovation in the design and delivery of their TOK course, and to provide a diverse range of examples that meet the specific needs and interests of their own students.

The following 12 concepts have particular prominence within, and thread throughout, the TOK course: evidence, certainty, truth, interpretation, power, justification, explanation, objectivity, perspective, culture, values, and responsibility. Exploration of the relationship between knowledge and these concepts can help students to deepen their understanding, as well as facilitating the transfer of their learning to new and different contexts.

There are two assessment tasks in the TOK course:

- The TOK exhibition assesses the ability of the student to show how TOK manifests in the world around us. The exhibition is an internal assessment component; it is marked by the teacher and is externally moderated by the IB.
- The TOK essay engages students in a more formal and sustained piece of writing in response to a title focused on the areas of knowledge. The essay is an external assessment component; it is marked by IB examiners. The essay must be a maximum of 1,600 words and must be on one of the six prescribed titles issued by the IB for each examination session.

Summing Up...

The TOK course plays a special role in the DP by providing an opportunity for students to reflect on the nature, scope, and limitations of knowledge and the process of knowing. In this way, the main focus of TOK is not on students acquiring new knowledge but on helping students to reflect on and put into perspective what they already know. TOK underpins and helps to unite the subjects that students encounter in the rest of their DP studies. It engages students in explicit reflection on how knowledge is arrived at in different disciplines and areas of knowledge, on what these areas have in common and the differences between them. It is intended that through this holistic approach, discussions in one area will help to enrich and deepen discussions in other areas.

The course is an opportunity for teachers and students to engage in interesting conversations that cross the boundaries of individual disciplines and that help students to reflect on the knowledge they have acquired from both their academic studies and their lives outside the classroom. Students are encouraged to examine the evidence for claims and to consider, for example, how we distinguish fact from opinion, or how we evaluate the credibility of claims that we are exposed to in the media. They explore different methods and tools of inquiry and try to establish what it is about them that makes them effective, as well as considering their limitations.

Source: *Theory of knowledgeguide, First assessment 2022,* IBO, 2020