GPS BROOKES KOCHI

International Baccalaureate Diploma Programme Guide

2022 - 2024

Unlock Your Potential

GPS Brookes Kochi

IB Diploma Programme Guide

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Acknowledgement:

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IB Learner profile 2013, IB DP Subject Guides and IB DP Subject Briefs as well as IB Guides to Core content.

Further information can be found at:
http://www.ibo.org/programmes/diploma-programme/curriculum/

GPS Brookes Kochi

GPS Brookes Kochi is powered by two leading education networks, Global Education Trust (GET) and Brookes Education Group (BEG). GPS Brookes Kochi is the first school in Kochi to offer the world-leading International Baccalaureate Diploma Programme (IB DP) to Grade 11 and 12.

Spanning across 157 countries, the IB DP is a globally recognized program offered to students aged 16 through 19 and is highly regarded by leading universities. The rigorous academic program paired with the IB philosophy focused on cultivating the whole child, prepares students to enter the world open- minded, balanced and prepared for post-secondary endeavors.

GPS Brookes Kochi will foster a safe and supportive home catered towards every child's needs. Our expert faculty will bring learning alive in a personalized classroom setting, providing inquiry-based learning tempered with care and support of a true family.

Introduction

The purpose of this document is to outline the structure of the IB DP (International Baccalaureate Diploma Programme) that the school - GPS Brookes Kochi, offers to students in Diploma 1 and 2 (Grades 11 and 12). Please carefully consider the School and IBO Mission Statements that are the framework in which our academic programme is delivered.

The School Mission Statement

Students are supported in a caring environment and given opportunities to learn about themselves and to take action in areas in which they are passionate. Our students and teachers come from diverse backgrounds, and we connect globally with our other campuses to learn about the world, from the world. We inspire and teach students about global issues by connecting ideas and stories locally. We strive to use our environment as a tool and a canvas for learning and action.

Our Vision

A world of self-confident lifelong learners connected and inspired to help others.

Our Aim

To inspire students to be lifelong learners, as competent, adaptable global citizens who will enrich and improve the world.

Our Values

Through leadership challenges and opportunities, we help students discover their passion, develop their character, and understand their connection to others and society. We espouse creativity, build character and develop connections to deliver exceptional educational learning experiences.

The IBO Mission Statement

"The International Baccalaureate® aims to develop inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect.

To this end the organization works with schools, governments, and international organizations to develop challenging programmes of international education and rigorous assessment.

These programmes encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right."

The IB Diploma Programme (IB DP)

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What Is The IB Diploma Programme?

The International Baccalaureate Diploma Programme (IB DP) is a curriculum framework designed by the IB for students in the last two years of high school. It leads to external examinations and the award of a diploma.

The IB DP is internationally recognized as representing one of the highest standards in university preparatory education. The success of the programme can be measured by the 39.3% growth rate in schools taking on the Diploma, between 2012 and 2017.

The IB DP is now offered in over 5,088 schools, located in over 156 countries in six continents.

What Is The IB DP Curriculum?

IB DP students' study six subjects (three at standard level – SL and three at higher level - HL) over two years and complete three additional requirements: the Theory of Knowledge (TOK), the Extended Essay and at least 150 hours of CAS—creativity, activity and service tasks outside of the classroom.

While it is possible to take four subjects at Higher Level, this is not recommended other than in exceptional cases. HL courses represent 240 teaching hours, SL courses require 150 hours. One subject is chosen from each of the subject groups.

GPS Brookes Kochi

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CURRICULUM MODEL AT GPS Brookes Kochi

GROUP 1
Studies in Language and Literature course

The language could be:

English A - Language & Literature *(HL/SL)*
Hindi A – Literature* *(HL/SL)*

or the student's mother tongue as a School Supported Self Taught Literature course at Standard Level only.

**Hindi A would be offered only in the Year, wherein a student intake with proficiency in the language mandates it.*

GROUP 2
Language acquisition

This language could be:

Language B – a second language course for students who have studied the language for a minimum of 2 years and a maximum of 5 years – Hindi, French or English* (All at Higher/Standard Level).

Language ab initio *(SL only)* **–** a second language course for students new to language or with a basic background in that language. French & Spanish are offered as an ab initio subject at GPS Brookes Kochi in conjunction with Pamoja Education.

SSST – A language the student chooses as an alternative to Group 2 language as School Supported Self Taught Literature course at Standard Level only.

GROUP 3
Individuals and Societies

Business Management *(Higher / Standard Level)*
Psychology *(Higher / Standard Level)*
Economics *(Higher / Standard Level)**

**Economics would be offered only in the Year, wherein a student intake for the subject exceeds two or more learners.*

GROUP 4
Sciences

Biology *(Higher/Standard Level)*
Chemistry *(Higher/Standard Level)*
Physics *Higher/Standard Level)*
Computer Science (Higher/ Standard Level)

GROUP 5
Mathematics

Mathematics – Applications and Interpretation *(Higher/Standard Level)*

Mathematics – Analysis and Approaches *(Higher/Standard Level)*

GROUP 6
Arts and Electives

Visual Arts *(Higher/Standard Level)*
or A second choice from Group 3 or
A second choice from Group 4.

CORE

Additionally, each IB DP candidate must participate in the Theory of Knowledge (TOK) and Creativity/Activity/Service (CAS) courses and write an Extended Essay (EE). The unique characteristics of TOK, CAS and the EE (known as the IB Diploma Core) qualify them to receive the full Diploma of the International Baccalaureate.

Standard Level (SL) & Higher Level (HL)

Subject rotations for July/August 2022 - 24

OPTION BLOCK A	OPTION BLOCK B	OPTION BLOCK C	OPTION BLOCK D	OPTION BLOCK E	OPTION BLOCK F
English A Language and Literature *HL/SL*	Hindi B *HL/SL*	Psychology *HL/SL*	Biology *HL/SL*	Mathematics - Application *HL/SL*	Visual Arts *HL/SL*
	French B *HL/SL*	Business Management *HL/SL*	Physics *HL/SL*	Mathematics – Analysis *HL/SL*	Economics *HL/SL* *(subject to confirmation)*
	French ab *SL* *(Pamoja)* SSST				Chemistry *HL/SL*

The Learner Profile

The aim of all IB programmes is to develop internationally minded people who, recognizing their common humanity and shared guardianship of the planet, help to create a better and more peaceful world.

The GPS Brookes Kochi is committed to the IB Learner Profile as an integral part of the life of the school. With the Learner profile and GPS Brookes Kochi's own ethos of igniting the spark of genius, every student can be elevated to the pinnacle of their own potential.

INQUIRERS They develop their natural curiosity. They acquire the skills necessary to conduct inquiry and research and show independence in learning. They actively enjoy learning and this love of learning will be sustained throughout their lives.

KNOWLEDGEABLE They explore concepts, ideas and issues that have local and global significance. In so doing, they acquire in-depth knowledge and develop understanding across a broad and balanced range of disciplines.

THINKERS They exercise initiative in applying thinking skills critically and creatively to recognize and approach complex problems, and make reasoned, ethical decisions.

COMMUNICATORS They understand and express ideas and information confidently and creatively in more than one language and in a variety of modes of communication. They work effectively and willingly in collaboration with others.

PRINCIPLED They act with integrity and honesty, with a strong sense of fairness, justice and respect for the dignity of the individual, groups and communities. They take responsibility for their own actions and the consequences that accompany them.

OPEN-MINDED They understand and appreciate their own cultures and personal histories, and are open to the perspectives, values and traditions of other individuals and communities. They are accustomed to seeking and evaluating a range of points of view and are willing to grow from the experience.

CARING They show empathy, compassion and respect towards the needs and feelings of others. They have a personal commitment to service, and act to make a positive difference to the lives of others and to the environment.

RISK-TAKERS They approach unfamiliar situations and uncertainty with courage and forethought and have the independence of spirit to explore new roles, ideas and strategies. They are brave and articulate in defending their beliefs.

BALANCED They understand the importance of intellectual, physical and emotional balance to achieve personal well-being for themselves and others.

REFLECTIVE They give thoughtful consideration to their own learning and experience. They are able to assess and understand their strengths and limitations in order to support their learning and personal development.

The Core

Theory of Knowledge (TOK)

This course is obligatory for every candidate for the IB DP, and highly recommended for students taking either a full diploma or individual diploma course certificates, available at GPS Brookes Kochi. It is a key element in the educational philosophy of the IB. Its purpose is to stimulate critical reflection upon the knowledge and to let students think about themselves as "knowers". The course is thus "philosophical" in the sense that it is meant to encourage students to acquire a critical awareness of what they and others know through analyzing concepts and arguments as well as the bases of value judgments, which all human beings have to make.

The course also encourages students to have more in-depth conversations about areas that have a profound influence on people's lives both inside but also outside of the classroom.

Programme of Study

The course is structured into a core theme, optional themes, and five compulsory areas of knowledge.

Core theme Knowledge and the knower	Me as a knower and a thinker What shapes my perspective? Where do our values come from? How can we navigate the world? How can we tell whem we are beign manipulated?
Areas of Knowledge	History The Human Sciences The Natural Sciences Mathematics The Arts
Optionals Themes	Knowledge and technology Knowledge and language Knowledge and indigenous societies Knowledge and politics Knowledge and religion

ASSESSMENT

External Assessment Essay on a prescribed title presented as a knowledge question (1,200-1,600 words) and assessed externally.

INTERNAL ASSESSMENT: TOK Exhibition and assessed internally *(externally moderated)*

(Please consult the GPS Brookes Kochi: TOK Handbook for details)

Extended Essay (EE)

The Extended Essay (EE) is an in-depth study of a focused topic chosen from the list of available IB DP subjects for the session in question. This is normally one of the student's six chosen subjects* for those taking the IB DP, or a subject that a course student has a background in.

This requirement reflects the principle that independent research skills are vital to all areas of study and deserve a central role in the curriculum.

With the TOK and CAS components, the EE provides the 'glue' that makes the IB DP a coherent and integrated qualification.

The EE is an in-depth study of a limited topic within an IB subject. It is recommended that students spend a maximum of 40 hours on it, though many willingly exceed this, often by a significant amount.

Students have around 5 hours contact time including 3 mandatory reflection sessions, with an academic supervisor, who is usually a teacher within the school, and are expected to work independently for the remainder of the time. The supervisor provides the candidate with advice and guidance in the skills of undertaking research – by assisting, for example, with defining a suitable topic, with techniques of gathering and analyzing information/ evidence/ data, with documentation methods for acknowledging sources and with writing an abstract. The work is typically undertaken over several months..

**Please note that despite the title, projects can be undertaken in any subject not just those traditionally associated with formal essay writing.*

Core Content:

Students are required to write independently a research essay (maximum 4000 words) on a topic of their own choice in an IB subject and a reflection of no more than 500 words.

Assessment:

All Extended Essays are marked externally.

Marks for the essay are based on subject specific content and specific research skills which are common and highly transferable and graded through five criteria.

- Criterion A: Focus and method
- Criterion B: Knowledge and understanding
- Criterion C: Critical thinking
- Criterion D: Presentation
- Criterion E: Engagement

Examples of Extended Essay titles:

"To what extent do geographical factors play a role in the distribution of multiple sclerosis cases in Canada and Iran?"

"How has globalization contributed to dietary changes and obesity in developed and developing countries?"

"Doing versus being language and reality in the Mimamsa school of Indian philosophy."

"The effects of sugar-free chewing gum on the pH of saliva in the mouth after a meal."

"To what extent has the fall in the exchange rate of the US dollar affected the tourism industry in Carmel, California?"

"What level of data compression in music files is acceptable to the human ear?"

(Please consult the GPS Brookes Kochi: Extended Essay Handbook for further details)

Creativity Activity and Service (CAS)

Creativity, Activity, Service (CAS) is at the heart of the IB DP. It is one of the three essential elements in every student's IB DP experience. It involves students in a range of activities alongside their academic studies throughout the IB DP. The three strands of CAS, which are often interwoven with particular activities, are characterized as follows:

CREATIVITY: exploring and extending ideas leading to an original or interpretive product or performance.

ACTIVITY: physical exertion contributing to a healthy lifestyle.

SERVICE: collaborative and reciprocal engagement with the community in response to an authentic need.

CAS enables students to enhance their personal and interpersonal development through experiential learning through acting and reflection on those actions. At the same time, it provides an important counterbalance to the academic pressures of the rest of the IB DP. A good CAS programme should be both challenging and enjoyable, a personal journey of self-discovery. Each individual student has a different starting point, and therefore different goals and needs, but for many their CAS activities include experiences that are profound and life changing.

Through meaningful and purposeful CAS experiences, students develop the necessary skills, attributes and understandings to achieve the seven CAS learning outcomes. These are:

- Identify your own strengths and develop areas for growth.
- Demonstrate that challenges have been undertaken, developing new skills in the process.
- Demonstrate how to initiate and plan a CAS experience.
- Show commitment to and perseverance in CAS experiences.
- Demonstrate the skills and recognize the benefits of working collaboratively.
- Demonstrate engagement with issues of global significance.
- Recognize and consider the ethics of choices and actions.

Concurrency of learning is important in the IB DP. Therefore, CAS activities should continue on a regular basis for as long as possible throughout the programme. The CAS programme formally begins at the start of the IB DP and continues regularly, ideally on a weekly basis, for at least 18 months with a reasonable balance between creativity, activity, and service. A typical CAS programme takes about one afternoon per school week.

All CAS students are expected to maintain and complete a CAS portfolio as evidence of their engagement with CAS. The CAS portfolio is a collection of evidence that showcases CAS experiences and for student reflections; it is not formally assessed.

Further, students undertake a CAS project of at least one month's duration that challenges students to show initiative, demonstrate perseverance, and develop skills such as collaboration, problem-solving, and decision-making.

Successful completion of CAS is a requirement for the award of the IB DP. While not formally assessed, students reflect on their CAS experiences and provide evidence in their CAS portfolios of achieving the seven learning outcomes at least once through their CAS programme.

The school's CAS Coordinator will monitor student planning and performing. There are three formal documented interviews students must have with their CAS coordinator/adviser. The first interview is at the beginning of the CAS programme, the second at the end of the first year, and the third interview is at the end of the CAS programme. The CAS coordinator must reach agreement with the student as to what evidence is necessary to demonstrate achievement of each CAS learning outcome. Commonly, the evidence of achieving the seven CAS learning outcomes is found in students' reflections.

A student who fails to fulfil the CAS requirements will not be eligible for the IB diploma.

(Please consult the GPS Brookes Kochi: CAS Handbook for more details)

Point for the Core: How the Core Contributes to the IB Diploma Score

While the IB DP Core consists of three elements, the CAS element must be completed but does not count towards IB DP points.

The EE and TOK components are awarded grades A to E, with A being the highest grade and E being the lowest. These grades are then combined according to the following table, and up to three core points can be awarded.

	THEORY OF KNOWLEDGE					
EXTENDED ESSAY	**EXCELLENT A**	**GOOD B**	**SATISFACTORY C**	**MEDIOCRE D**	**ELEMENTARY E**	**NO GRADE N**
EXCELLENT **A**	3	3	3	3	Failing condition	Failing condition
GOOD **B**	3	2	2	2	Failing condition	Failing condition
SATISFACTORY **C**	2	2	2	2	Failing condition	Failing condition
MEDIOCRE **D**	2	1	1	1	Failing condition	Failing condition
ELEMENTARY **E**	Failing condition	Failing condition	Failing condition	Failing condition	Failing condition	Failing condition
NO GRADE **N**	Failing condition	Failing condition	Failing condition	Failing condition	Failing condition	Failing condition

Receiving an E in either the EE or TOK will result in the IB Diploma not being awarded to the student. IB DP Course certificates will still be awarded for each of the subjects that the student has taken.

Admissions to the IB DP at GPS Brookes Kochi

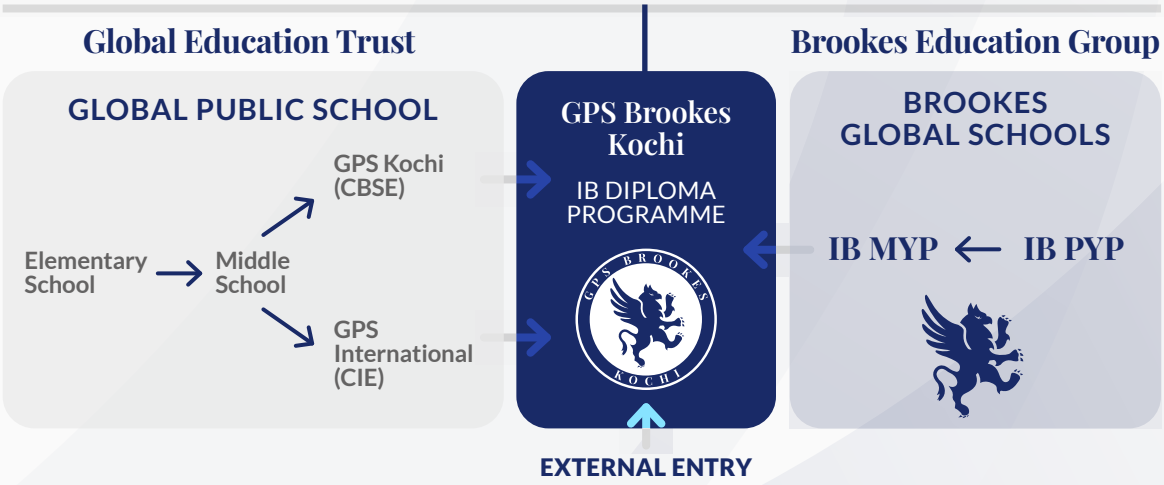
Can anyone enter the IB DP?

Yes! The IB DP is an open programme.

However, the programme is rigorous, and students are advised to seriously consider the recommendations of teachers and counsellors before choosing their subjects as this can impact upon success at the IB DP.

Admission to the IB DP at GPS Brookes Kochi is firmly rooted in two supporting principles. The first being, where possible all students who can benefit from participation in the IB DP should have that opportunity. The second is that where possible all students should have access to the full IB DP.

Admissions Route



Internal Entries: Existing Students moving from Grade 10 to Grade 11

Students entering the IB DP internally from the IGCSE Programme at GPS Brookes Kochi take part in an extensive course selection process that includes input from faculty as well as DP Coordinator. The IB DP course selection process occurs during Grade 10, where students take part in a series of workshops and seminar sessions.

While each student is individual and this is evident within each student's own programme, GPS Brookes Kochi advises that students selecting Higher Level (*HL*) subjects would be expecting to regularly achieve 80% (for CBSE) or Grades B or above (for IGCSE) during the final two years of in-school assessment as a final percentage of marks/ Grade in that subject. All students entering the IB DP should also demonstrate a commitment to the Learner Profile, in part evidenced through their approach to learning.

For Standard Level (*SL*) subjects' students would be expected to regularly achieve 70% (for CBSE) or Grades C or above during the final two years of in school assessment as a final CBSE percentage of marks / IGCSE Grade in that subject.

Where a student has not met the above requirements fully, entry to the fully IB DP may be granted as a conditional entry through discussion with the Principal and IB DP Coordinator.

Students entering conditionally will be expected to follow a support programme agreed with the IB DP Coordinator towards successful completion of the IB DP. Progress of conditional students will also be monitored throughout the programme with target setting and review meetings twice each semester.

Students who have not met the above requirements may elect to take individual IB DP courses. Where this route is deemed appropriate for the student and their future aspirations individual programmes of courses and support will be developed through discussion with the IB DP Coordinator.

External Entries

Programme testing is based on the preliminary subject choices of each entrance student, with tests in English and Mathematics mandatory for all applicants. This is considered in conjunction with previous GET School records and results of any recognised external examinations or assessments that are aligned to the expectations for Internal entrance within GET Schools.

As part of the application process each applicant and their parents have an individual course selection session with the IB DP Coordinator and the Guidance Counsellor, following successful completion of all entrance requirements prior to formal acceptance into the Programme. Each application is processed on a case-by-case basis.

All external entries to the IB DP undertake placement testing to help determine suitable pathways through the programme for each student. Crossover students from other Brookes schools only undertake placement testing beyond that required for internal admissions only if they have attended a Brookes school for less than one academic year or are entering through the Key Centre Programme.

Programme testing is based on the preliminary subject choices of each entrance student with tests in English and Mathematics mandatory for all applicants. This is considered in conjunction with previous GET school records and results of any recognised external examinations or assessments that are aligned to the expectations for internal entrance within GET School.

As part of the application process each applicant and their parents have an individual course selection session with the IB DP Coordinator and Guidance Counsellor following successful completion of all entrance requirements prior to formal acceptance into the Programme. Each application is processed on a case-by-case basis.

For example:

CBSE

HL Subjects: achieving 80% or above in the subject.

SL Subjects: achieving 70 % in the subject.

IGCSE

HL Subjects: achieving a grade B or above in the subject.

SL Subjects: achieving a C in the subject.

IB MYP

HL subjects: regularly achieving a 5 or above in the final two years of the MYP.

SL subjects: regularly achieving a 4 or above in the final two years of the MYP.

For further details please refer to the GPS Brookes Kochi Admissions Policy.

What does successful completion of the IB DP mean?

All final written examinations are taken by Grade 12 studetns at GPS Brookes Kochi in May but they are set and assessed by external examiners. For most subjects, approximately 25% of the assessment is done internally.

The marking scheme for each subject is as follows:

7 = excellent
6 = very good
5 = good
4 = satisfactory
3 = mediocre
2 = poor
1 = very poor

The IB Diploma will be awarded to a candidate provided all the following requirements have been met.

a. CAS requirements have been met.
b. The candidate's total points are 24 or more.
c. There is no "N" awarded for theory of knowledge, the extended essay or for a contributing subject.
d. There is no grade E awarded for theory of knowledge and/or the extended essay.
e. There is no grade 1 awarded in a subject/level.
f. There are no more than two grade 2s awarded (HL or SL).
g. There are no more than three grade 3s or below awarded (HL or SL).
h. The candidate has gained 12 points or more on HL subjects (for candidates who register for four HL subjects, the three highest grades count).
i. The candidate has gained 9 points or more on SL subjects (candidates who register for two SL subjects must gain at least 5 points at SL).
j. The candidate has not received a penalty for academic misconduct from the Final Award Committee.

Bonus points

Up to three bonus points in total can be earned for distinguished performance in the Theory of Knowledge and the Extended Essay. These bonus points are added to the candidate's total score.

Is it necessary to follow the whole programme?

Students who wish to obtain the IB Diploma must meet all requirements. Under some conditions it may not be possible for students to take the full IB DP. In these instances, a student is entered for Individual Diploma Programme Course credits, whereby the student gains individual certification from the IB for each successfully completed full IB Diploma subject course.

How do students decide which programme and subjects to take?

Since all candidates have different needs and backgrounds, it is important to work out which programme to take in consultation with the IB DP Coordinator and University and College Counsellor. This process for students transitions from Global Public School to GPS Brookes Kochi, this process starts in November of Grade 10; prior to the student starting the two-year programme. There will also be Information Evenings to inform parents and students about the various courses offered.

Further information

For further information about the programme is available from ***www.gpsbrookeskochi.org***
Or alternatively contact ***info@gpsbrookeskochi.org***

GPS Brookes Kochi

IB Diploma Programme Subjects

GROUP 1

Studies in Language and Literature Language A

Studies in language and literature are designed for students from a wide variety of linguistic and cultural backgrounds, who have experience of using the language of the course in an educational context.

Through the study of the course students are expected to develop their proficiency, fluency and linguistic range, and in particular to acquire the vocabulary appropriate to the analysis of texts. They will also deepen their understanding of a wide variety of concepts explored through literary and non-literary texts to interpret, analyze, evaluate and then communicate this understanding in clear, organized and developed products.

The syllabus is outlined to cover three components —the exploration of the nature of the interactions between readers, writers, and texts; the exploration of how texts interact with time and space and the exploration of intertextuality and how texts connect with each other.

Syllabus Component	Readers, writers, and texts Time and space Intertextuality: connecting texts

ENGLISH A: LANGUAGE AND LITERATURE

In the Language A: Language and Literature course students study a wide range of literary and non-literary texts in a variety of media. By examining communicative acts across literary form and textual type alongside appropriate secondary readings, students will investigate the nature of language itself and the ways in which it shapes and is influenced by identity and culture.

In the Language A: Language and Literature course students will learn about the complex and dynamic nature of language and explore both its practical and aesthetic dimensions. They will explore the crucial role language plays in communication, reflecting experience and shaping the world. Students will also learn about their own roles as producers of language and develop their productive skills. Throughout the course, students will explore the various ways in which language choices, text types, literary forms, and contextual elements all affect meaning. Through close analysis of various text types and literary forms, students will consider their own interpretations, as well as the critical perspectives of others, to explore how such positions are shaped by cultural belief systems and to negotiate meanings for texts. Students will engage in activities that involve them in the process of production and help shape their critical awareness of how texts and their associated visual and audio elements work together to influence the audience/reader and how audiences/readers open up the possibilities of texts. With its focus on a wide variety of communicative acts, the course is meant to develop sensitivity to the foundational nature, and pervasive influence, of language in the world at large.

Distinction between Standard Level (SL) and Higher Level (HL)

The model for Language A: Language and Literature is the same at SL and HL, but there are significant quantitative and qualitative differences between the levels.

Across the three areas of exploration at least four works must be studied in the SL course and at least six works must be studied in the HL course.

The written assessment tasks at SL are significantly easier and fewer than the tasks at HL. The first is the paper 1 Guided textual analysis, where SL students address and analyze only one passage, while HL students make an analysis of two passages.

The second is an analytical task, where students must write a comparative essay based on two works studied on the course. HL students must submit an additional essay on one non-literary text or collection of non-literary texts by one author.

All these written tasks are submitted for external assessment.

Both SL and HL also involve an individual oral commentary task which is internally assessed by the teacher and externally moderated by the IB at the end of the course.

Differences between the HL and SL Language and Literature course

WORKS READ	SL	HL
Works in translation written by authors on the Prescribed reading list	Study of a minimum of one work	Study of a minimum of two works
Works originally written in the language studied, by authors on the Prescribed reading list	Study of a minimum of one work	Study of a minimum of two works
Free choice works	Study of two works freely chosen	Study of two works freely chosen
Total works studied	4	6
External assessment	**SL**	**HL**
Paper 1: Guided textual analysis	A guided analysis of a previously unseen non-literary extract or text from a choice of two	Two guided analyzes of previously unseen non-literary extracts or texts
HL essay		A 1200–1500-word essay exploring a line of inquiry in connection with a studied text or work

Assessment at SL

ASSESSMENT COMPONENT	WEIGHTING
External assessment (3 hours)	70%
Paper 1: Guided Textual analysis (1 hour 15 minutes)	35%
Paper 2: Comparative Essay (1 hour 45 minutes)	35%
Internal assessment	30%
Individual oral commentary (15 minutes)	30%

Assessment at HL

ASSESSMENT COMPONENT	WEIGHTING
External assessment (4 hours)	80%
Paper 1: Guided textual analysis (2 hours 15 minutes)	35%
Paper 2: Comparative Essay (1 hour 45 minutes)	25%
HL Essay	20%
Internal assessment	20%
Individual oral commentary (15 minutes)	20%

HINDI A: LITERATURE

In the Language A: Literature course students will focus exclusively on literary texts, adopting a variety of approaches to textual criticism. Students explore the nature of literature, the aesthetic function of literary language and textuality, and the relationship between literature and the world.

In the Language A: Literature course, students will learn about the various manifestations of literature as a powerful mode of writing across cultures and throughout history. They will explore and develop an understanding of factors that contribute to the production and reception of literature, such as:

- the creativity of writers and readers
- the nature of the interaction with the writers' and readers' respective contexts and with literary tradition
- the ways in which language can give rise to meaning and/or effect
- the performative and transformative potential of literary creation and response.

Through close analysis of literary texts in several forms and from different times and places, students will consider their own interpretations, as well as the critical perspectives of others. In turn, this will encourage the exploration of how viewpoints are shaped by cultural belief systems and how meanings are negotiated within them. Students will be involved in processes of critical response and creative production, which will help shape their awareness of how texts work to influence the reader and how readers open up the possibilities of texts. With its focus

on literature, this course is particularly concerned with developing sensitivity to aesthetic uses of language and empowering students to consider the ways in which literature represents and constructs the world and social and cultural identities.

Distinction between SL and HL

The model for Language A: Literature is the same at SL and HL but there are significant quantitative and qualitative differences between the levels.

SL students are required to study 9 works, while HL students are required to study 13.

In paper 1, both SL and HL students are presented with two previously unseen literary extracts or texts from different literary forms, each accompanied by a guiding question. SL students are required to write a guided analysis of one of these, while HL students must write guided analyzes of both literary extracts and texts.

In addition, HL students will have a fourth assessment component, the higher level (HL) essay, and a written coursework task that requires students to explore a line of inquiry in relation to a studied literary text or work. The outcome is an essay of 1,200–1,500 words in which HL students are expected to demonstrate a deeper understanding of the nature of literary study.

The distinction between SL and HL is summarized below:

WORKS READ	SL	HL
Works in translation written by authors on the Prescribed reading list	Study of a minimum of three works	Study of a minimum of four works
Works originally written in the language studied, by authors on the Prescribed reading list	Study of a minimum of four works	Study of a minimum of five works
Free choice works	Study of two works freely chosen	Study of four works freely chosen
Total works studied	**9**	**13**
External assessment	**SL**	**HL**
Paper 1: Guided literary analysis	A guided analysis of a previously unseen literary extract or text from a choice of two.	Two guided analyzes of previously unseen literary extracts or texts.
HL essay		An essay of 1,200–1,500 words exploring a line of inquiry in connection with a studied literary text or work.

Assessment at SL

ASSESSMENT COMPONENT	WEIGHTING
External assessment (3 hours)	70%
Paper 1: Guided Literary analysis (1 hour 15 minutes)	35%
Paper 2: Comparative Essay (1 hour 45 minutes)	35%
Internal assessment	30%
Individual oral commentary (15 minutes)	

Assessment at HL

ASSESSMENT COMPONENT	WEIGHTING
External assessment (4 hours)	80%
Paper 1: Guided literary analysis (2 hours 15 minutes)	35%
Paper 2: Comparative Essay (1 hour 45 minutes)	25%
Higher Level (HL) Essay	20 %
Internal assessment	20%
Individual oral commentary (15 minutes)	

GROUP 2

Language Acquisition

Overview

Language Acquisition consists of two modern language courses—Language ab initio and Language B—that are offered in several languages. Language ab initio and Language B are language acquisition courses designed to provide students with the necessary skills and intercultural understanding to enable them to communicate successfully in an environment where the language studied is spoken. This process allows the learner to go beyond the confines of the classroom, expanding their awareness of the world and fostering respect for cultural diversity.

The two modern language courses—Language ab initio and Language B—develop students' linguistic abilities through the development of receptive, productive and interactive skills. Language B is a language acquisition course designed for students with some previous experience of the target language. In the language B course, students further develop their ability to communicate in the target language through the study of language, themes and texts. In doing so, they also develop conceptual understandings of how language works, as appropriate to the level of the course.

Distinction between SL and HL

At both levels of Language B (SL and HL), students learn to communicate in the target language in familiar and unfamiliar contexts. They describe situations, narrate events, make comparisons, explain problems, and state and support their personal opinions on a variety of topics relating to course content. The study of two literary works originally written in the target language is required only at Language B HL. The distinction between Language B SL and HL can also be seen in the level of competency the student is expected to develop in the receptive, productive, and interactive skills.

Five prescribed themes are common to the syllabuses of Language B and language ab initio; the themes provide relevant contexts for study at all levels of language acquisition in the DP, and opportunities for students to communicate about matters of personal, local or national, and global interest.

The five prescribed themes are:

- identities
- experiences
- human ingenuity
- social organization
- sharing the planet.

The themes allow students to compare the target language and culture(s) to other languages and cultures with which they are familiar. The themes also provide opportunities for students to make connections to other disciplinary areas in the IB DP.

LANGUAGE B: FRENCH & HINDI

Language B is an additional language-learning course designed for students with some previous learning of that language. It may be studied at either SL or HL. The focus of the course is on language acquisition and development of language skills. These language skills should be developed through the study and use of a range of written and spoken material. Such material will extend from everyday oral exchanges to literary texts and should be related to the culture(s) concerned. The material enables students to develop mastery of language skills and intercultural understanding. It should not be intended solely for the study of specific subject matter or content.

There are six assessment objectives for the Language B course. Students will be assessed on their ability to:

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, analyze and reflect upon a range of written, audio, visual and audio-visual texts.

Presently at GPS Brookes Kochi, Language B is offered at both HL and SL in French and Hindi.

Course Structure

The course has five prescribed themes that are common to the syllabuses of Language B and Language ab initio; the themes provide relevant contexts for study at all levels of language acquisition in the IB DP, and opportunities for students to communicate about matters of personal, local or national, and global interest.

The themes allow students to compare the target language and culture(s) to other languages and cultures with which they are familiar. The themes also provide opportunities for students to make connections to other disciplinary areas in the IB DP. Language B students must study authentic texts that explore the culture(s) of the target language. In addition, the study of two literary works is required at HL.

THEME	GUIDING PRINCIPLE	TOPICS
Identities	Explore the nature of the self and what it is to be human.	Lifestyles, Health and well-being, Beliefs and Values, Subcultures, Language and identity
Experiences	Explore and tell the stories of the events, experiences and journeys that shape our lives.	Leisure activities, Life Stories, Holidays & Travel, Rites of passage, Customs and Traditions, Migration
Human ingenuity	Explore the ways in which human creativity and innovation affect out world.	Artistic Expressions, Entertainment, Communication & Media, Technology, Scientific Innovation
Social organization	Explore the ways in which groups of people organize themselves, or are organized, through common systems or interests.	Social relationships, Law and Order, Community, Education, The working world, social engagement
Sharing the planet	Explore the challenges and opportunities faced by individuals and communities in the modern world.	Peace & Conflict, Human rights, Equality • The environment • Globalization • Ethics • Urban and Rural environment

Language B assessment at SL and HL:

All language B Courses follow a common Assessment structure and teaching sequence.

Assessment at SL

ASSESSMENT COMPONENT	WEIGHTING
External assessment	75%
Paper 1 (1 hour 15 minutes): Productive skills - Writing	25%
Paper 2 (1 hour 45 minutes): Receptive skills	50%
- Listening & Reading	
Listening comprehension (45 minutes) (25 %)	
Reading comprehension (1 hour) (25%)	
Internal assessment	25%
Individual oral	

Assessment at HL

ASSESSMENT COMPONENT	WEIGHTING
External assessment	75%
Paper 1 (1 hour 30 minutes): Productive skills - Writing	25%
Paper 2 (2 hours): Receptive skills – Listening & Reading	50%
Listening comprehension (1 hour) (25 %)	
Reading comprehension (1 hour) (25%)	
Internal assessment	25%
Individual oral	

LANGUAGE AB INITIO: FRENCH

At GPS Brookes Kochi, Language ab initio is offered only in conjunction with Pamoja Education as a special request online IB course.

Language ab initio is a language acquisition course designed for students with no prior experience of the target language, or for those students with extremely limited previous exposure. It should be noted that language ab initio is offered at SL only.

All final decisions on the appropriateness of the course for which students are entered are taken by coordinators in liaison with teachers, using their experience and professional judgment to guide them. The most important consideration is that the language ab initio course should be a challenging educational experience for the student.

There are five assessment objectives for the language ab initio course. Students will be assessed on their ability to:

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, analyze, and reflect upon a range of written, audio, visual and audio-visual texts.

At GPS Brookes Kochi, Language ab initio is offered only in conjunction with Pamoja Education as a special request online IB course. In the absence of takers for French B, the course would be offered as a taught course at school.

Course Structure

The Language ab initio course is organized into five themes.

THEME	GUIDING PRINCIPLE	PRESCRIBED TOPICS
Identities	Explore the nature of the self and how we express who we are.	Personal attributes, Personal relationships, Eating and drinking, Physical well-being.
Experiences	Explore and tell the stories of the events, experiences and journeys that shape our lives.	Daily routine, Leisure, Holidays, Festivals and Celebrations.
Human ingenuity	Explore the ways in which human creativity and innovation affect out world.	Transport, Entertainment, Media, Technology
Social organization	Explore the ways in which groups of people organize themselves, or are organized, through common systems or interests.	Neighborhood, Education, The workplace, Social issues
Sharing the planet	Explore the challenges and opportunities faced by individuals and communities in the modern world.	Climate, Physical Geography, The environment, Global issues.

The themes allow students to compare the target language and culture(s) to other languages and cultures with which they are familiar. Because a structured learning environment is crucial for the success of beginning language learners, the language ab initio syllabus prescribes four topics for each of the five prescribed themes.

These provide the students with opportunities to practice and explore the language as well as to develop intercultural understanding. Through the development of receptive, productive, and interactive skills, students should be able to respond and interact appropriately in a defined range of everyday situations.

Assessment at SL ab initio

ASSESSMENT COMPONENT	WEIGHTING
External assessment (2 hours 45 minutes)	**75%**
Paper 1 (1 hour) – Productive skills – writing	**25%**
Paper 2 (1 hour and 45 minutes) – Receptive skills – Listening & Reading	**50%**
Listening comprehension (45 minutes) - 25%	
Reading comprehension (1 hour) - 25%	
Internal assessment (7-10 minutes) Individual oral assessment.	**25%**

GROUP 3

Individuals and Societies

Psychology

The study of behavior and mental processes in Psychology requires a multidisciplinary approach and the use of a variety of research techniques whilst recognizing that behavior is not a static phenomenon, it is adaptive, and as the world, societies and challenges facing societies change, so does behavior.

At the core of the IB DP psychology course is an introduction to three different approaches to understanding behavior:

- biological approach to understanding behavior
- cognitive approach to understanding behavior
- sociocultural approach to understanding behavior.

The knowledge, concepts, theories, and research that have developed the understanding in these fields will be studied and critically evaluated to answer some of the questions being asked by psychologists today. Furthermore, the interaction of these approaches to studying psychology will form the basis of a holistic and integrated approach to understanding mental processes and behavior as a complex, dynamic phenomenon, allowing students to appreciate the diversity as well as the commonality between their own behavior and that of others.

The contribution and the interaction of the three approaches can be best understood through the options. There are four options in the course. They focus on areas of applied psychology:

- abnormal psychology
- developmental psychology
- health psychology
- psychology of human relationships.

The options provide an opportunity to take what is learned from the study of the approaches to psychology and put it into the context of specific lines of inquiry, broaden students' experience of the discipline and develop the students' critical inquiry skills.
The aims of the psychology course at SL and at HL are that the students would have the ability to:

1. develop an understanding of the biological, cognitive, and sociocultural factors affecting mental processes and behavior.
2. apply an understanding of the biological, cognitive, and sociocultural factors affecting mental processes and behavior to at least one applied area of study.
3. understand diverse methods of inquiry.
4. understand the importance of ethical practice in psychological research in general and observe ethical practice in their own inquiries.
5. ensure that ethical practices are upheld in all psychological inquiry and discussion.
6. develop an awareness of how psychological research can be applied to address real-world problems and promote positive change.

Distinction between SL and HL

There are three main distinctions between this course at SL and at HL.

1. The following extensions to the core approaches are studied at HL only:

- the role of animal research in understanding human behavior
- cognitive processing in the digital world
- the influence of globalization on individual attitudes, identities, and behavior.

This differentiation is reflected in paper 1 section B of the external assessment.

2. SL students are required to study one option while HL students' study two options. This differentiation is reflected in paper 2 of the external assessment.

3. Both SL and HL students will be expected to show their understanding of approaches to research in the internal assessment and for criterion D (critical thinking) in paper 1 section B and paper 2 responses. Additionally, HL students will be directly assessed on their understanding of approaches to research in paper 3 of the external assessment. This will cover both qualitative and quantitative research methods.

Internal Assessment: Experimental study – The student prepares a report on an experimental study undertaken during the course.

Assessment at SL

ASSESSMENT COMPONENT	WEIGHTING
External assessment (3 hours)	75%
Paper 1 (2 hours)	50%
Paper 2 (1 hour)	25%
Internal assessment (20 teaching hours) Experimental study	25%

Assessment at HL

ASSESSMENT COMPONENT	WEIGHTING
External assessment (5 hours)	80%
Paper 1 (2 hours)	40%
Paper 2 (2 hours)	20%
Paper 3 (1 hour)	20%
Internal assessment (20 teaching hours) Experimental study	20%

Business Management

The IB DP Business Management course is designed to develop students' knowledge and understanding of business management theories, as well as their ability to apply a range of tools and techniques. Students learn to analyze, discuss and evaluate business activities at local, national and international levels. The course covers a range of organizations from all sectors, as well as the socio-cultural and economic contexts in which those organizations operate.

The course covers the key characteristics of business organization and environment, and the business functions of human resource management, finance and accounts, marketing, and operations management. Through the exploration of six underpinning concepts (change, culture, ethics, globalization, innovation, and strategy), the course allows students to develop a holistic understanding of today's complex and dynamic business environment. The conceptual learning is firmly anchored in business management theories, tools and techniques and placed in the context of real-world examples and case studies.

The course encourages the appreciation of ethical concerns, at both a local and global level. It aims to develop relevant and transferable skills, including the ability to: think critically; make ethically sound and well-informed decisions; appreciate the pace, nature and significance of change; think strategically; and undertake long term planning, analysis and evaluation. The course also develops subject-specific skills, such as financial analysis.

The aims of the Business Management course at HL and SL are to:

1. encourage a holistic view of the world of business
2. empower students to think critically and strategically about individual and organizational behavior
3. promote the importance of exploring business issues from differentcultural perspectives
4. enable the student to appreciate the nature and significance ofchange in a local, regional and global context
5. promote awareness of the importance of environmental, social and ethical factors in the actions of individuals and organizations
6. develop an understanding of the importance of innovation in abusiness environment.

Distinction between SL & HL

The HL course in business management differs from the SL course in business management in terms of the:

- recommended hours devoted to teaching (240 hours for HL compared to 150 hours for SL)
- extra depth and breadth required (extension units for HL)
- nature of the internal assessment task
- nature of the examination questions.

Course Structure

Unit 1: Business organization and environment
Unit 2: Human resource management
Unit 3: Finance and accounts
Unit 4: Marketing
Unit 5: Operations management

Business Management assessment at SL

ASSESSMENT COMPONENT	WEIGHTING
External assessment (3 hours)	70%
Paper 1 (1 hour and 30 minutes)	35%
Paper 2 (1 hour and 30 minutes)	35%
Internal assessment (20 teaching hours)	30%
Business Research Project	

Business Management assessment at HL

ASSESSMENT COMPONENT	WEIGHTING
External assessment (4 hours 30 minutes)	80%
Paper 1 (1 hour and 30 minutes)	25%
Paper 2 (1 hour and 45 minutes)	30%
Paper 3 (1 hour and 15 minutes)	25%
Internal assessment (20 teaching hours)	20%
Business Research Project	

Economics

The IB DP Economics course is an exciting, dynamic subject that allows students to develop an understanding of the complexities and interdependence of economic activities in a rapidly changing world. At the heart of economic theory is the problem of scarcity. While the world's population has unlimited needs and wants, there are limited resources to satisfy these needs and wants. As a result of this scarcity, choices have to be made. The economics course, at both SL and HL, uses economic theories to examine the ways in which these choices are made:

- at the level of producers and consumers in individual markets (microeconomics)
- at the level of the government and the national economy (macroeconomics)
- at an international level where countries are becoming increasingly interdependent through international trade and the movement of labour and capital (the global economy).

The choices made by economic agents (consumers, producers and governments) generate positive and negative outcomes and these outcomes affect the relative well-being of individuals and societies. As a social science, economics examines these choices through the use of models and theories. The IB DP Economics course allows students to explore these models and theories, and apply them, using empirical data, through the examination of the following six real-world issues which are posed as economic questions:

- How do consumers and producers make choices in trying to meet their economic objectives?
- When are markets unable to satisfy important economic objectives—and does government intervention help?
- Why does economic activity vary over time and why does this matter?
- How do governments manage their economy and how effective are their policies?
- Who are the winners and losers of the integration of the world's economies?
- Why is economic development uneven?

Given the rapidly changing world, economic activity and its outcomes are constantly in flux. Therefore, students are encouraged, throughout the course, to research current real-world issues. Through their own inquiry, it is expected that students will be able to appreciate both the values and limitations of economic models in explaining real-world economic behavior and outcomes.

By focusing on the six real-world issues through the nine key concepts (scarcity, choice, efficiency, equity, economic well-being, sustainability, change, interdependence and intervention), students of the economics course will develop the knowledge, skills, values and attitudes that will encourage them to act responsibly as global citizens.

The aims of the economics course at SL and HL are to enable students to:

- develop a critical understanding of a range of economic theories, models, ideas and tools in the areas of microeconomics, macroeconomics and the global economy
- apply economic theories, models, ideas and tools and analyze economic data to understand and engage with real-world economic issues and problems facing individuals and societies
- develop a conceptual understanding of individuals' and societies' economic choices, interactions, challenges and consequences of economic decision-making.

Distinction between SL & HL

The HL course in economics differs from the SL course in economics in terms of the:

- recommended hours devoted to teaching (240 hours for HL compared to 150 hours for SL)
- extra depth and breadth required (extension material for HL only)
- nature of the examination questions. Both SL and HL students develop quantitative skills, but HL students will need to further develop these as appropriate, in analyzing and evaluating economic relationships in order to provide informed policy advice. These skills are specifically assessed in HL paper 3.

Course structure

Unit 1: Introduction to economics
Unit 2: Microeconomics
Unit 3: Macroeconomics
Unit 4: The global economy

Economics assessment at SL

ASSESSMENT COMPONENT	WEIGHTING
External assessment (3 hours)	70%
Paper 1 (1 hour and 15 minutes)	30%
Paper 2 (1 hour and 45 minutes)	40%
Internal assessment (20 teaching hours)	30%
Commentary	

Economics assessment at HL

ASSESSMENT COMPONENT	WEIGHTING
External assessment (4 hours 45 minutes)	80%
Paper 1 (1 hour and 15 minutes)	20%
Paper 2 (1 hour and 45 minutes)	30%
Paper 3 (1 hour and 45 minutes)	30%
Internal assessment (20 teaching hours)	20%
Commentary	

GROUP 4

Sciences

Biology

The Biologists have accumulated huge amounts of information about living organisms, and it would be easy to confuse students by teaching large numbers of seemingly unrelated facts. In the IB DP Biology course, it is hoped that students will acquire a limited body of facts and, at the same time, develop a broad, general understanding of the principles of the subject.

By studying biology in the IB DP students should become aware of how scientists work and communicate with each other. While the scientific method may take on a wide variety of forms, it is the emphasis on a practical approach through experimental work that characterizes the sciences. Teachers provide students with opportunities to design investigations, collect data, develop manipulative skills, analyze results, collaborate with peers and evaluate and communicate their findings.

Through the overarching theme of the nature of science, the aims of the IB DP Biology course are to enable students to:

1. appreciate scientific study and creativity within a global context through stimulating and challenging opportunities
2. acquire a body of knowledge, methods and techniques that characterize science and technology
3. apply and use a body of knowledge, methods and techniques that characterize science and technology
4. develop an ability to analyze, evaluate and synthesize scientific information
5. develop a critical awareness of the need for, and the value of, effective collaboration and communication during scientific activities
6. develop experimental and investigative scientific skills including the use of current technologies
7. develop and apply 21st century communication skills in the study of science
8. become critically aware, as global citizens, of the ethical implications of using science and technology
9. develop an appreciation of the possibilities and limitations of science and technology
10. develop an understanding of the relationships between scientific disciplines and their influence on other areas of knowledge.

Distinction between SL and HL

Group 4 students at SL and HL undertake a common core syllabus, a common internal assessment (IA) scheme and have some overlapping elements in the option studied. They are presented with a syllabus that encourages the development of certain skills, attributes, and attitudes.

While the skills and activities of group 4 science subjects are common to students at both SL and HL, students at HL are required to study some topics in greater depth, in the additional higher-level material and in the common options. The distinction between SL and HL is one of breadth and depth.

Group 4 Project

All IB DP Course candidates must participate in an interdisciplinary investigation into the nature and process of science. This is a collaborative investigation including students from all three disciplines.

Course Structure

CORE (SL AND HL)

1. Cell biology
2. Molecular biology
3. Genetics
4. Ecology
5. Evolution and biodiversity
6. Human physiology

ADDITIONAL HIGHER LEVEL

7. Nucleic acids
8. Metabolism, cell respiration and photosynthesis
9. Plant biology
10. Genetics and evolution
11. Animal physiology

OPTION *(choice of 1 out of 4)*

1. Neurobiology and behavior
2. Biotechnology and bioinformatics
3. Ecology and conservation
4. Human physiology

Assessment at SL

ASSESSMENT COMPONENT	WEIGHTING
External assessment (3 hours)	80%
Paper 1 MCQ (45 minutes)	20%
Paper 2 (1 hour and 15 minutes)	40%
Paper 3 (1 hour)	20%
Internal assessment (10 hours)	20%

Assessment at HL

ASSESSMENT COMPONENT	WEIGHTING
External assessment (4 hours 30 minutes)	80%
Paper 1 MCQ (1 hour)	20%
Paper 2 (2 hour and 15 minutes)	36%
Paper 3 (1 hour and 15 minutes)	24%
Internal assessment (10 hours)	20%

Chemistry

Chemistry is an experimental science that combines academic study with the acquisition of practical and investigational skills. It is called the central science, as chemical principles underpin both the physical environment in which we live and all biological systems. Apart from being a subject worthy of study, chemistry is a prerequisite for many other courses in higher education, such as medicine, biological science and environmental science, and serves as useful preparation for employment.

All students undertake both theory and practical work as they complement one another naturally, both in school and in the wider scientific community. The IB DP Chemistry course allows students to develop a wide range of practical skills and to increase facility in the use of mathematics. It also allows students to develop interpersonal and information technology skills, which are essential to life in the 21st century.

By studying chemistry students should become aware of how scientists work and communicate with each other. While the scientific method may take on a wide variety of forms, it is the emphasis on a practical approach through experimental work that characterizes the subject.

Chemistry provides students with opportunities to develop manipulative skills, design investigations, collect data, analyze results, and evaluate and communicate their findings.

Through the overarching theme of the nature of science, the aims of the IB DP Chemistry course are to enable students to:

1. appreciate scientific study and creativity within a global context through stimulating and challenging opportunities
2. acquire a body of knowledge, methods and techniques that characterize science and technology
3. apply and use a body of knowledge, methods and techniques that characterize science and technology
4. develop an ability to analyze, evaluate and synthesize scientific information
5. develop a critical awareness of the need for, and the value of, effective collaboration and communication during scientific activities
6. develop experimental and investigative scientific skills including the use of current technologies
7. develop and apply 21st century communication skills in the study of science

8. become critically aware, as global citizens, of the ethical implications of using science and technology
9. develop an appreciation of the possibilities and limitations of science and technology
10. develop an understanding of the relationships between scientific disciplines and their influence on other areas of knowledge.

Distinction between SL and HL

Group 4 students at SL and HL undertake a common core syllabus, a common internal assessment (IA) scheme and have some overlapping elements in the option studied. They are presented with a syllabus that encourages the development of certain skills, attributes, and attitudes.

While the skills and activities of group 4 science subjects are common to students at both SL and HL, students at HL are required to study some topics in greater depth, in the additional higher-level material and in the common options. The distinction between SL and HL is one of breadth and depth.

Group 4 Project

All IB DP Course candidates must participate in an interdisciplinary investigation into the nature and process of science. This is a collaborative investigation including students from all three disciplines.

Course Structure

CORE *(SL AND HL)*

1. Stoichiometric relationships
2. Atomic structure
3. Periodicity
4. Chemical bonding and structure
5. Energetics/thermochemistry
6. Chemical kinetics
7. Equilibrium
8. Acids and bases
9. Redox processes
10. Organic chemistry
11. Measurement and data processing

ADDITIONAL HIGHER LEVEL

12. Atomic structure
13. The periodic table—the transition metals
14. Chemical bonding and structure
15. Energetics/thermochemistry
16. Chemical kinetics
17. Equilibrium
18. Acids and bases
19. Redox processes
20. Organic chemistry
21. Measurement and analysis

OPTION *(choice of 1 out of 4)*

A. Materials
B. Biochemistry
C. Energy
D. Medicinal chemistry

Assessment at SL

ASSESSMENT COMPONENT	WEIGHTING
External assessment (3 hours)	80%
Paper 1 MCQ (45 minutes)	20%
Paper 2 (1 hour and 15 minutes)	40%
Paper 3 (1 hour)	20%
Internal assessment (10 hours)	20%

Assessment at HL

ASSESSMENT COMPONENT	WEIGHTING
External assessment (4 hours 30 minutes)	80%
Paper 1 MCQ (1 hour)	20%
Paper 2 (2 hour and 15 minutes)	36%
Paper 3 (1 hour and 15 minutes)	24%
Internal assessment (10 hours)	20%

Physics

Physics is the most fundamental of the experimental sciences as it seeks to explain the universe itself, from the very smallest particles to the vast distances between galaxies. Despite the exciting and extraordinary development of ideas throughout the history of physics, observations remain essential to the very core of the subject. Models are developed to try to understand observations, and these themselves can become theories that attempt to explain the observations.

Besides helping us better understand the natural world, physics gives us the ability to alter our environments. This raises the issue of the impact of physics on society, the moral and ethical dilemmas, and the social, economic, and environmental implications of the work of physicists.

By studying physics students should become aware of how scientists work and communicate with each other. While the scientific method may take on a wide variety of forms, it is the emphasis on a practical approach through experimental work that characterizes the subject.

Physics provides students with opportunities to develop manipulative skills, design investigations, collect data, analyze results, and evaluate and communicate their findings.

Through the overarching theme of the nature of science, the aims of the IB DP Physics course are to enable students to:

1. appreciate scientific study and creativity within a global context through stimulating and challenging opportunities.
2. acquire a body of knowledge, methods and techniques that characterize science and technology.
3. apply and use a body of knowledge, methods and techniques that characterize science and technology.
4. develop an ability to analyze, evaluate and synthesize scientific information.
5. develop a critical awareness of the need for, and the value of, effective collaboration and communication during scientific activities.
6. develop experimental and investigative scientific skills including the use of current technologies.
7. develop and apply 21st century communication skills in the study of science.
8. become critically aware, as global citizens, of the ethical implications of using science and technology.
9. develop an appreciation of the possibilities and limitations of science and technology.
10. develop an understanding of the relationships between scientific disciplines and their influence on other areas of knowledge.

Distinction between SL and HL

Group 4 students at SL and HL undertake a common core syllabus, a common internal assessment (IA) scheme and have some overlapping elements in the option studied. They are presented with a syllabus that encourages the development of certain skills, attributes, and attitudes.

While the skills and activities of group 4 science subjects are common to students at both SL and HL, students at HL are required to study some topics in greater depth, in the additional higher-level material and in the common options. The distinction between SL and HL is one of breadth and depth.

Group 4 Project

All IB DP Course candidates must participate in an interdisciplinary investigation into the nature and process of science. This is a collaborative investigation including students from all three disciplines.

Course Structure

CORE (SL AND HL)

1. Measurements and uncertainties
2. Mechanics
3. Thermal physics
4. Waves
5. Electricity and magnetism
6. Circular motion and gravitation
7. Atomic, nuclear and particle physics
8. Energy production

ADDITIONAL HIGHER LEVEL

9. Wave phenomena
10. Fields
11. Electromagnetic induction
12. Quantum and nuclear physics

OPTION (CHOICE OF 1 OUT OF 4)

A. Relativity
B. Engineering physics
C. Imaging
D. Astrophysics

Assessment at SL

ASSESSMENT COMPONENT	WEIGHTING
External assessment (3 hours)	80%
Paper 1 MCQ (45 minutes)	20%
Paper 2 (1 hour and 15 minutes)	40%
Paper 3 (1 hour)	20%
Internal assessment (10 hours)	20%

Assessment at HL

ASSESSMENT COMPONENT	WEIGHTING
External assessment (4 hours 30 minutes)	80%
Paper 1 MCQ (1 hour)	20%
Paper 2 (2 hour and 15 minutes)	36%
Paper 3 (1 hour and 15 minutes)	24%
Internal assessment (10 hours)	20%

GROUP 5

Mathematics

Mathematics – Analysis and Approaches

This course is designed for students who enjoy developing their mathematics to become fluent in the construction of mathematical arguments and develop strong skills in mathematical thinking. They will also be fascinated by exploring real and abstract applications of these ideas, with and without technology. Students who take IB DP Mathematics: Analysis and Approaches will be those who enjoy the thrill of mathematical problem solving and generalization.

This course recognizes the need for analytical expertise in a world where innovation is increasingly dependent on a deep understanding of mathematics. This course includes topics that are both traditionally part of a pre-university mathematics course *(for example, functions, trigonometry, calculus)* as well as topics that are amenable to investigation, conjecture, and proof, for instance the study of sequences and series at both SL and HL, and proof by induction at HL.

The course allows the use of technology, as fluency in relevant mathematical software and hand-held technology is important regardless of choice of course. However, Mathematics: Analysis and Approaches has a strong emphasis on the ability to construct, communicate and justify correct mathematical arguments.

Distinction between SL and HL

Students who choose Mathematics: analysis and approaches at SL or HL should be comfortable in the manipulation of algebraic expressions and enjoy the recognition of patterns and understand the mathematical generalization of these patterns.

Students who wish to take Mathematics: analysis and approaches at a higher level will have strong algebraic skills and the ability to understand simple proof. They will be students who enjoy spending time with problems and get pleasure and satisfaction from solving challenging problems.

Aims

The aims of all IB DP mathematics courses are to enable students to:

1. develop a curiosity and enjoyment of mathematics and appreciate its elegance and power.
2. develop an understanding of the concepts, principles, and nature of mathematics.
3. communicate mathematics clearly, concisely, and confidently in a variety of contexts.
4. develop logical and creative thinking, and patience and persistence in problem solving to instill confidence in using mathematics.
5. employ and refine their powers of abstraction and generalization.

6. 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.
7. appreciate how developments in technology and mathematics influence each other.
8. appreciate the moral, social and ethical questions arising from the work of mathematicians and the applications of mathematics.
9. appreciate the universality of mathematics and it's multicultural, international and historical perspectives.
10. appreciate the contribution of mathematics to other disciplines, and as a particular "area of knowledge" in the TOK course
11. develop the ability to reflect critically upon their own work and the work of others
12. independently and collaboratively extend their understanding of mathematics.

Course Structure

All topics are compulsory. Students must study all the sub-topics in each of the topics in the detailed syllabus guide.

Topic 1: Number and Algebra
Topic 2: Functions
Topic 3: Geometry and trigonometry
Topic 4: Statistics and probability
Topic 5: Calculus

Mathematical exploration: Internal assessment in mathematics is an individual exploration. This is a piece of written work that involves investigating an area of mathematics.

Assessment in Mathematics- Analysis and Approaches - SL

ASSESSMENT COMPONENT	WEIGHTING
External assessment (3 hours)	80%
Paper 1 (1 hour 30 minutes) No calculator allowed.	40%
Paper 2 (1 hour 30 minutes) Graphic display calculator required	40%
Internal assessment Mathematical exploration Internal assessment in mathematics SL is an individual exploration.	20%

Assessment in Mathematics: Analysis and Approaches - HL

ASSESSMENT COMPONENT	WEIGHTING
External assessment (5 hours)	80%
Paper 1 (2 hours) No calculator allowed.	30%
Paper 2 (2 hours) Graphic display calculator required.	30%
Paper 3 (1 hour) Graphic display calculator required.	20%
Internal assessment Mathematical exploration Internal assessment in mathematics SL is an individual exploration.	20%

Mathematics – Applications and Interpretation

This course caters for students who are interested in developing their mathematics for describing our world and solving practical problems. They will also be interested in harnessing the power of technology alongside exploring mathematical models. Students who take Mathematics: Applications and Interpretation will be those who enjoy mathematics best when seen in a practical context.

This course recognizes the increasing role that mathematics and technology play in a diverse range of fields in a data-rich world. As such, it emphasizes the meaning of mathematics in context by focusing on topics that are often used as applications or in mathematical modeling. To give this understanding a firm base, this course also includes topics that are traditionally part of a pre-university mathematics course such as calculus and statistics.

The course makes extensive use of technology to allow students to explore and construct mathematical models. Mathematics: Applications and Interpretation will develop mathematical thinking, often in the context of a practical problem and using technology to justify conjectures.

Distinction between SL and HL

Students who choose Mathematics: Applications and Interpretation at SL or HL should enjoy seeing mathematics used in real-world contexts and to solve real-world problems. Students who wish to take Mathematics: applications and interpretation at higher level will have good algebraic skills and experience of solving real-world problems. They will be students who get pleasure and satisfaction when exploring challenging problems and who are comfortable to undertake this exploration using technology.

Aims

The aims of all IB DP mathematics courses are to enable students to:

1. develop a curiosity and enjoyment of mathematics and appreciate its elegance and power.
2. develop an understanding of the concepts, principles, and nature of mathematics.
3. communicate mathematics clearly, concisely, and confidently in a variety of contexts.
4. develop logical and creative thinking, and patience and persistence in problem solving to instill confidence in using mathematics.
5. employ and refine their powers of abstraction and generalization.
6. 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.
7. appreciate how developments in technology and mathematics influence each other.
8. appreciate the moral, social and ethical questions arising from the work of mathematicians and the applications of mathematics.
9. appreciate the universality of mathematics and it's multicultural, international and historical perspectives.
10. appreciate the contribution of mathematics to other disciplines, and as a particular "area of knowledge" in the TOK course
11. develop the ability to reflect critically upon their own work and the work of others
12. independently and collaboratively extend their understanding of mathematics.

Course Structure

All topics are compulsory. Students must study all the sub-topics in each of the topics in the detailed syllabus guide.

Topic 1: Number and Algebra
Topic 2: Functions
Topic 3: Geometry and trigonometry
Topic 4: Statistics and probability
Topic 5: Calculus

Mathematical exploration: Internal assessment in mathematics is an individual exploration. This is a piece of written work that involves investigating an area of mathematics.

Assessment in Mathematics: Applications and Interpretations - SL

ASSESSMENT COMPONENT	WEIGHTING
External assessment (3 hours) **Paper 1 (1 hour and 30 minutes)** Graphic display calculator required.	80% 40%
Paper 2 (1 hour and 30 minutes) Graphic display calculator required.	40%
Internal assessment **Mathematical exploration** Internal assessment in mathematics is an individual exploration.	20%

Assessment in Mathematics: Applications and Interpretations - HL

ASSESSMENT COMPONENT	WEIGHTING
External assessment (5 hours) **Paper 1 (2 hours)** Graphic display calculator required.	80% 30%
Paper 2 (2 hours) Graphic display calculator required.	30%
Paper 3 (1 hour) Graphic display calculator required.	20%
Internal assessment **Mathematical exploration** Internal assessment in mathematics is an individual exploration.	20%

GROUP 6

The Arts

Visual arts

Visual Arts continually create new possibilities and can challenge traditional boundaries. This is evident both in the way we make art and in the way we understand what artists from around the world do. Theory and practice in visual arts are dynamic, ever changing and connect many areas of study and human experience through individual and collaborative production and interpretation.

New ways of expressing ideas help to make Visual Arts one of the most interesting and challenging areas of learning and experience. The processes of designing and making art require a high level of cognitive activity that is both intellectual and effective. Engagement in the arts promotes a sense of identity and makes a unique contribution to the lifelong learning of each student. Study of visual arts provides students with the opportunity to develop a critical and intensely personal view of themselves in relation to the world.

The IB DP 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.

Distinction between SL and HL

Because of the nature of the subject, quality work in visual arts can be produced by students at both HL and SL. The aims and assessment objectives are the same for visual arts students at both HL and SL. Through a variety of teaching approaches, all students are encouraged to develop their creative and critical abilities and to enhance their knowledge, appreciation and enjoyment of visual arts.

The course content for HL and SL may be the same. However, due to the different amount of time available for each, students at HL can develop ideas and skills, to produce a larger body of work and work of greater depth. In order to reflect this, the assessment criteria are differentiated according to level.

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.

In 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.

Course structure

Visual Arts in context
Visual Arts methods
Communicating Visual Arts

Visual Arts assessment

Assessment at SL & HL

ASSESSMENT COMPONENT	WEIGHTING
External assessment	60%
Part 1: Comparative study	20%
Part 2: Process portfolio	40%
Internal assessment	40%
Part 3: Exhibition	

Assessment in The IB DP at GPS Brookes Kochi

Assessment is an integral part of the teaching and learning process. The purpose of assessment at GPS Brookes Kochi is to improve student understanding and performance. Assessment provides students, teachers, and parents, with direction and focus.

Quality of feedback especially in the form of dialogue between students and teachers during the learning process (as opposed to after it) has been shown to be essential to improve student outcomes.

Whether written or verbal it should not just be limited to the marking of homework and tests.

Effective feedback should leave students with two key pieces of knowledge: where they are *(relative to where they aim to be)* and specifically what they can do to improve. This is known as Formative Assessment as it forms the next stage of the journey for the student.

Formative Assessment is also known as Assessment for Learning. It is characterized by continuous and constant monitoring of a student's readiness, skill development and concept understanding by the teacher to inform his/her teaching and planning over a continual basis. This helps students make the largest gains in understanding.

Tests

Tests can be useful at times but are often not the best way to gauge performance or establish ways forward, especially when there are too many and they become little more than a source of stress and anxiety for students.

Alternative assessment types like Socratic seminars, research papers, presentations, debates, multi-stage projects and reflections are often used throughout the IB DP subjects to gauge progress.

When an assessment occurs at the end of a specific teaching period and is the culmination of skills and knowledge learnt in a particular topic, they are known as Summative Assessments. Summative Assessments are Assessment of Learning that has occurred. However, all assessments in school have an element of formative as well.

All assessment should provide the teacher and students with information on the student's current performance, recent progress and needs going forward.

Formal Assessment of the IB DP

This is the process undertaken by the IB to award grade levels to students on completion of the individual IB DP Courses and the IB Diploma as a whole. They are characterized by a combination of both External Assessments (examinations) and Internal Assessments (course work).

Assessment Tasks

IB DP assessment tasks pay attention to developing the higher-order cognitive skills of synthesis, reflection, evaluation, and critical thinking, as well as the more fundamental skills of knowledge, understanding and application.

Assessment tasks take many forms beyond examination questions and are specific to each subject. Examples of formal assessment tasks include oral activities within the languages, written commentaries on real business issues in Business and Management, experimental study in Psychology and investigation projects in the Sciences and Mathematics.

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Unlock Your Potential