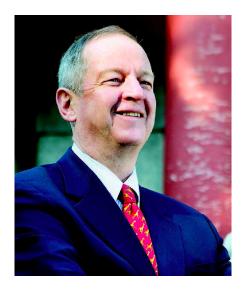


# IBDIPLOMA CURRICULUM HANDBOOK 2022-2024





#### Dear Students,

Welcome to the start of the culmination of your years at Keystone. You are about to enter a most challenging, exciting, and rewarding period: the two years of the IB Diploma Programme. Congratulations. What an intellectual adventure this will be.

This Handbook is your guide. Keep it close to hand. Use it to get to know the IBDP and to make sensible choices. You should aim to choose courses that you will enjoy, that will stretch you intellectually, and that will be aligned with your aspirations and interests for college or university. Getting this balance right requires careful thought, and thoughtful advice. This Handbook is a place to start, but please make good use of our IBDP experts among the teaching faculty.

Find out quickly what these letters mean: CAS, TOK, and the EE. These elements form the core of the IBDP, and you should pay particular attention to them. They are not additions to the program, they are at its very heart. They invite you to make creative connections between the various elements of the IBDP.

Please understand that you have been given a great privilege. Over the next two years, you will have little to do other than read widely, study hard, think deeply, act compassionately, and continue to develop into a person of good character. In actuality, that is a great deal and you will be busy. But remember that you will only enjoy this privilege for just a few more years, as it will disappear quickly after college, when you enter the world of salaried work.

The coming two years should be bountiful and exhilarating. Make them so.

Warm regards

Malcolm McKenzie

Malcolm McKenzie

Head of School

Régine de Blegiers Head of High School







#### Dear Students,

We would first like to congratulate you on having successfully come this far in your educational journey. Secondly, we would like to welcome you to the world of the International Baccalaureate Diploma Programme (IBDP). You are about to embark on a challenging yet highly rewarding learning experience which will hopefully enable you to become more independent, well-rounded, inquisitive, aware of the world around you and willing to take calculated and informed risks.

Keystone Academy welcomes you to the final two years of your secondary school life and we hope that you are enthusiastic about and engaged with what is being offered to you. This guide will provide information about the IB Diploma Programme (IBDP) curriculum and help you in deciding which courses best suit you.

The IBDP curriculum offered by Keystone provides a rigorous, cohesive and comprehensive two-year program of concurrent study for highly motivated students who come from varying educational backgrounds, abilities and interests and who are seeking tertiary opportunities both locally and abroad. The IBDP is a challenging pre-university program which promotes learning and creativity and provides a sound basis for lifelong learning. The Diploma is recognized as an excellent university preparatory course and is highly regarded by universities and colleges around the world.

At Keystone you will have a variety of courses and levels of focus from which to choose, complemented by a wide selection of co-curricular activities to provide you with a well-rounded education. This guide is intended to give you an overview of what to expect over the next two years. Your educational experience is not simply meant to develop your mental ability but will also work to strengthen your physical, emotional, ethical, creative and spiritual advancement.

Enjoy the journey!

Sincerely

Jia Lili
Associate Head of School and
Dean of Curriculum

Nick Daniel

Assistant Head of High School,

IB Diploma Coordinator

Baldeep Singh Sawhney

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Science Teacher

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#### **Mission**

Keystone Academy is a new model of education in China. It blends distinctive traditions in eastern, western, and international education, creating a new world school with a liberal arts program that is academically outstanding. All our endeavors are framed by five shared Confucian values: compassion, justice, respect, wisdom and honesty.

At Keystone, we embrace a world that is dynamic and ever-changing. We learn from and we learn for this enterprising, global, and diverse community.

#### Our keystones are:

- bilingual immersion in Chinese and English;
- building character and community throughout our residential setting;
- promoting Chinese culture and identity in a world context.

Our ambition is to share successes generously and to learn from failures bravely, to open our doors to many, and to engage fully with the world of education, and the world at large, beyond our gates.

Our students are hungry for opportunity, bold in their thinking, and creative in their instincts. They are encouraged to become expansive in their dreaming, determined in their actions, collaborative in their teamwork, and humble in their achievement. They learn to be stewards of the environment and to be at ease with otherness.

Our teachers are passionate about learning, rigorous in their standards, and inspirational in their methods. They are respectful listeners, attentive caregivers, interrogative thinkers, compassionate mentors, and world-minded citizens.

Our graduates will possess the intellectual, cultural, and ecological fluency to navigate gracefully the colleges, careers, and communities of their choice. They will know how to apply their emotional intelligence, character, and zest for learning to help develop and improve the communities in which they live.

#### **Shared Values**

Each member of the Keystone Academy community — parents, students, teachers and support staff — is expected to act in ways that show respect, compassion and consideration for others, and to provide a safe and healthy learning environment for all. Membership in our community offers unique privileges and also implies shared responsibility. In an atmosphere where safety, trust and belonging are our goals, we create a strong community partnership through a collective sense of values and traditions. All community members affirm our Five Traditional Values, and these core principles provide the foundation for our behavior and interactions.

#### REN 仁 COMPASSION

Individuals are not completely autonomous; we are social beings who derive identity from our interactions with each other. We recognize the interdependence of communities and cultures. We act with kindness, understanding and empathy in our relationships with others. We value the quality of our connections, and care for the emotional, physical and spiritual health of self and those around us. We act with a generous spirit and make a positive difference in the communities in which we live and learn.

#### YI 义 JUSTICE

We act rationally and fulfill our responsibilities courageously and with determination, steadfast in our integrity and sense of balance. We resolutely uphold justice for all. We are compassionate stewards of our community, of humankind, and of our world ecology.

#### LI 礼 RESPECT

We value the norms and expectations for social behavior in our community and beyond. We base our interactions and relationships on respect, reverence, equality and a desire to serve and better understand each other. We possess a sense of duty and compassion towards family, community and our ever-changing world.

#### ZHI 智 WISDOM

We accept the wisdom of others while diligently pursuing personal enrichment and knowledge. Wisdom guides us to make the right decisions in life. We use intuition, intelligence and reflection to seek higher meaning and we employ our introspective abilities to understand the human heart and condition. We carry forth our knowledge to lead and serve in ways that benefit the common good.

#### XIN 信 HONESTY

Honesty and trust are the building blocks of every community. We rely on good intentions, the honoring of commitments and authenticity in each and every interaction. Our community members tell the truth, act with integrity and live up to the highest of expectations. We will be self-governing, accept responsibility for our actions and lead by example.

#### **The IB Learner Profile**

The aim of all IB programmes is to develop internationally minded people who, recognising their common humanity and shared guardianship of the planet, help to create a better and more peaceful world. By focusing on the dynamic combination of knowledge, skills, independent critical and creative thought and international-mindedness, the IBO espouses the principle of educating the whole person for a life of active, responsible citizenship. Underlying the IB programmes is the concept of education of the whole person as a lifelong process. The learner profile is a profile of the whole person as a lifelong learner.

#### IB Learners strive to be

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.





# Some Questions about the IB

#### What is the International Baccalaureate (IB)?

The International Baccalaureate is a rigorous, international curriculum which offers high quality programs of education to a worldwide community of schools. There are more than 1.3 million IB students at 4,388 schools in 139 countries. The IB incorporates the best elements of several national educational systems with a focus on academic rigor, an international perspective and the interrelationship of all knowledge.

#### What is the IB's 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 IB works with schools, governments and international organisations to develop challenging programs of international education and rigorous assessment. These programs encourage students across the world to become active, compassionate and lifelong learners who understand that other people, with their differences, can also be right."

#### How does the IB align with the Keystone Mission?

The IB Diploma is a natural partner to our school's ethos and

vision. Keystone Academy is a community school, locally-rooted but globally minded. As a Chinese school with a global perspective, we foster the fundamental principles of the International Baccalaureate:

- International-mindedness
- Holistic Education
- Communication

Keystone Academy students benefit from an international education by gaining historical and contemporary knowledge of the world, and a strong foundation in Chinese language, culture and heritage whilst, at the same time, acquiring English as a second or even complementary first language. They develop an awareness and understanding of global issues and of interacting with people who may hold differing views and perspectives.

Keystone Academy students are principled and they examine critically the viewpoints of others while acting in support of them. They think and act critically, creatively and independently and understand the relationship between rights and responsibilities while practising tolerance and acceptance. Keystone Academy students are rooted in the school's five shared values: Compassion, Justice, Respect, Wisdom and Honesty.

#### How do students benefit from earning an IB Diploma?

The advantages afforded to a student earning an IB Diploma are many. Since the Diploma is internationally recognised, universities throughout the world are eager to admit Diplomaholders into their institutions because the IB Diploma produces students who are well-rounded, possess depth and breadth in their studies, take on challenging risks and learn to reflect on their growth. IB graduates are knowledgeable thinkers who analyze critically the world around them and work towards creating a better, more peaceful world. They have very strong communication skills and are able to adapt creatively and flexibly to a wide range of circumstances.

The student who satisfies the demands of the IB Diploma demonstrates a strong commitment to learning, both in terms of the mastery of subject content and in the development of wide-ranging skills. He or she is also encouraged to appreciate the enduring value of human diversity and its legitimate boundaries, while at the same time understanding the common humanity that we all share. While each component of the Diploma Programme has specific aims and assessment objectives, the distinctive aims of the program as a whole are to:

- provide an internationally accepted qualification for entry into higher education
- promote international understanding
- educate the whole person, emphasizing intellectual, personal, emotional and social growth
- develop inquiry and thinking skills, and the capacity to reflect upon and to evaluate actions critically.



#### **Admission Requirements**

In accordance with the Keystone Academy mission, we seek to develop students who are hungry for opportunity, bold in their thinking, creative in their instincts, expansive in their dreaming, determined in their actions, collaborative in their teamwork, humble in their achievement, stewards of the environment, and at ease with otherness.

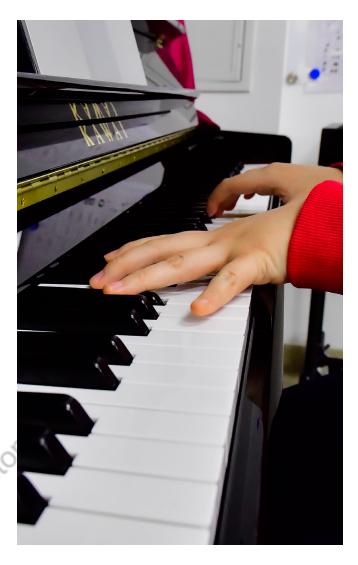
We are a national school, serving Chinese students, but we are also committed to attracting a diverse student population with representatives from a range of nationalities, economic backgrounds, and cultures. We see ourselves as a world school with a local flavor.

Keystone is a school community dedicated to nurturing academic excellence, creativity, discovery, and compassion within its student body. Our admission team looks for students who are prepared to engage with a rigorous academic program that embodies high expectations. We seek to bring together a group of bright, broadly-talented students, and we will help them to grow in intellectual, emotional, physical, social, and cultural realms.

A qualified student is one who is likely to find success in the Academy's bilingual, residential, university preparatory program. Depending on the applicant's age, this determination will be made by Keystone through a variety of means, including interviews, a review of official school records, standardized assessments, and other evaluative procedures. We are looking for students who bring unique qualities to their grade at the Academy, and who distinguish themselves through their potential, their academic record, and their performance on the various components of our admission appraisal process.

Keystone does not discriminate on the basis of gender, race, ethnicity, disability, religion, sexual orientation, gender identity, or national origin in the administration of our admission policy or scholarship program.

Applicants to Grades Eleven or Twelve must exhibit



appropriate preparation to transition smoothly into the demands of the IB Diploma Programme.

#### Internal candidate entry

In order to ensure access to an IB Diploma Higher Level course, a student will usually, but not necessarily, have studied the subject in Grade 10 and gained at least an end of year MYP level 5 or equivalent. In order to ensure access to an IB Diploma Standard Level course, a student must have gained at least an end of year MYP level 4 or equivalent in the last year that he/she studied the subject. Please note that if a subject is not offered in Grades 9 and 10, for instance group 3 Business Management or group 5 Computer Science, a student should have gained a suitable grade in another subject from the same group.

# High School Curriculum Pathways

The High School curriculum is currently comprised of two possible pathways. There is coherence in both programmes and aspects of each are common to all students. Each pathway is part of a continuous educational opportunity for the student. Both pathways lead to the award of the Keystone Diploma.

#### Two academic pathways

- 1. Full International Baccalaureate Diploma
- 2. Keystone Diploma Diploma Programme Courses (Certificates).

#### Both pathways:

- Meet entry requirements for a broad range of university and tertiary institutions around the world
- Support all students in attaining their educational goals
- Require a high level of English language proficiency, and therefore students requiring EAL support must make appropriate arrangements outside of school



- Are comprised of courses which have external verification and grading
- Contain a core element, as well as a wide range of examination subjects from which students may select a field of study appropriate to their ability and interests. The core is designed to ensure that the student's education is kept within a broad context. It comprises Creativity, Activity and Service (CAS), Theory of Knowledge (TOK), a research paper or Extended Essay (EE), and college counseling, as well as demonstrated participation in Keystone Academy's three keystones.

#### Pathway One - The IB Diploma Programme

The IB Diploma programme consists of 6 subject groups:

Group 1 Studies in Language and Literature

Group 2 Language Acquisition

Group 3 Individuals and Societies

Group 4 Sciences

Group 5 Mathematics

Group 6 The Arts and/or electives

#### Students wishing to take the full IB Diploma must:

- choose **ONE subject** from every group = **6 subjects**
- choose 3 Higher Level and 3 Standard Level courses
- successfully satisfy core elements: CAS, Theory of Knowledge and Extended Essay (students must score higher than a Grade E in both Theory of Knowledge and the Extended Essay).

#### Who is the IB DP for?

The IB is suited to motivated and responsible students with a combination of the following characteristics:

- An ability to cope with university courses when they leave Keystone
- The willingness to develop positive study characteristics, including self-discipline, self-motivation and time management
- A capacity for thinking critically and creatively
- An international outlook and genuine concern for others.

Throughout their studies students discover that effective learners following an IB curriculum need to be motivated,



knowledgeable, reflective and socially interactive. A student gaining the IB Diploma is usually awarded a Keystone Diploma.

### Pathway Two – Keystone Diploma (Diploma Programme courses)

Students only wishing to qualify for the Keystone Diploma must still take Diploma Programme Courses (Certificates) instead of the full IB Diploma Programme. Students will need to:

- take at least FIVE IB Diploma subjects as well as satisfactorily complete the IB core elements: CAS, TOK, EE (suitable to their ability and effort)
- take these courses at either Higher or Standard level (except for core courses).

Students will normally be expected to take both an English and Chinese language course as well as a Mathematics course.

Students not doing the full IB Diploma and selecting separate courses must also satisfy all other requirements as stipulated in the Keystone Diploma (see Appendix 1) as well as consult carefully with parents, advisor and the IBDP Coordinator on subject choices and/or changes.

#### **Subject Choices 2022-2024**

In 2022-24, Keystone Academy intends to offer the following IB Diploma Programme courses:

Studies in Language and	Chinese A: Language and Literature	HL & SL		
Literature	Chinese A: Literature	HL & SL		
	English A: Language and Literature	HL & SL		
	Self - Taught Languages	SL only		
Language Acquisition	Chinese B	HL & SL		
	English B	HL & SL		
	Language ab initio (Mandarin)	SL only		
Individuals & Societies	Business Management	HL & SL		
	Economics	HL & SL		
	History	HL & SL		
	Psychology	HL& SL		
	Geography	HL & SL		
	Environmental Systems and Societies	SL only		
	(Interdisciplinary - satisfies the requirements of both group 3 and 4)			
Sciences	Biology	HL & SL		
	Chemistry	HL & SL		
	Design Technology	HL & SL		
	Physics	HL & SL		
	Computer Science	HL & SL		
	Environmental Systems and Societies	SL only		
	(Interdisciplinary - satisfies the requirements of both group 3 and 4)			
Mathematics	Maths: Analysis and Approaches	HL & SL		
	Maths: Applications and Interpretation	HL & SL		
Arts & Electives	Music	HL & SL		
	Theatre Arts	HL & SL		
	Visual Arts	HL & SL		

Electives - students who do not wish to take a Group 6 Arts subject may choose to do any other course from Groups 1 through to 4 from a select list of options.

#### Higher Level (HL) and Standard Level (SL) courses

The distinction between Higher Level and Standard Level courses is an important feature of the IB Diploma Programme and details vary from subject to subject. Some subjects have a common examination and the distinction is on the quantity of material covered while others have a different curriculum for each of the levels.

Higher Level subjects will involve 240 hours of instruction

over two years and they generally reflect the student's interests and strengths. HL courses are more lengthy and difficult and their internal assessments are more thorough and demanding.

Standard Level subjects are less demanding but still comparable to introductory college level courses. Standard Level subjects will involve 150 hours of instruction over two years.



#### Assessment

The IB grading system is criterion based. Results are determined by performance against set standards, not by each student's position in the overall rank order.

In nearly all subjects at least some of the assessment is carried out internally by teachers who mark individual pieces of work produced as part of the course of study. Examples include oral exercises, projects, portfolios, presentations, practical laboratory work and mathematical investigations. Some assessments are conducted and overseen by teachers but marked and moderated externally.

IB Diploma Programme students take written examinations in May of their senior year. These exams are sent to external IB examiners and results are available at the beginning of July.

#### **Choosing your courses**

There are many questions to ask yourself and your parents when choosing your IB Diploma courses. As you consider your choices, use these questions to guide your decision making:

- What is my primary motivation for choosing the IB Diploma Programme?
- How successful have I been in the past in challenging courses?
- Do I enjoy educational challenges?
- How much do I contribute to the class?
- Do I enjoy reading?
- Do I draw my own conclusions or do I want the teacher to tell me what I am supposed to think?

When choosing your courses you should be considering the following:

- Which subjects you possess the most ability or talent in
- Which subjects you enjoy learning about the most
- What you would like to study in university
- Which subjects may be deemed important for your own career path or for projected employment trends
- Which subjects provide the right degree of challenge for you
- Which subjects lend themselves to a holistic balance
- Which subjects provide you with intellectual stimulation
- A realistic balance of higher and standard level subjects.

When planning an IBDP course, students should bear the following in mind:

- The same subject cannot be taken at both HL and SL
- The same language cannot be taken in both Group 1 and Group 2
- A student who is bilingual may take two Language A courses (with approval from IBDP Coordinator and Department Leaders).

Students should take into account their future study and career plans. As previously implied, certain selections or omissions from the programme will limit study choices in some university systems. Therefore, before they plan their IB programme, students should become familiar with the requirements and expectations of the universities in the country or countries to which they intend to apply. They should consult with the Office of College Counseling for information about specific university requirements.

Furthermore, there are also online DP courses available through Pamoja Education (see "Online DP Courses") for the right candidates.

#### The Bilingual Diploma

A Bilingual Diploma is granted to a student who:

- a. has completed two languages selected from group 1 with the award of a grade 3 or higher in both
- b. has completed one of the subjects from group 3 or group 4 in a language that is not the same as the candidate's group 1 language. The candidate must attain a grade 3 or higher in both the group 1 language and the subject from group 3 or 4.

Thus, if you are taking a Chinese course from Group 1 such as Literature or Language and Literature, you will automatically qualify for the Bilingual Diploma.

A Bilingual Diploma is prestigious and can improve a student's profile on application to university.

Students who wish to do two first language courses must first check with the IBDP Coordinator, his/her parents and university requirements for tertiary study. Students who choose to do TWO first languages should:

- exhibit a love for literature (they read frequently for pleasure because they enjoy it)
- possess a talent for critical analysis and ability to craft persuasive literary arguments
- be able to think quickly in both languages and understand the subtleties and nuances of the two languages.



#### **Pastoral Guidance**

#### Attitude to study

The IB is not a course purely based on academic rigor - it focuses on the individual as a whole and guides her or him to build on key skills as well as scholastic ones. The key expectations of all IB students are that they are organised, focused, dedicated and communicative, with a desire to be challenged and pushed. This builds a foundation of the skills needed to cope with higher education and, beyond that, the work place.

Students are expected to come to all of their classes ready to learn. They should be focused and engaged and display a willingness to learn. They must be properly equipped. If they are not, it is quite likely they will be unable to participate in the lesson. Any missed work due to disorganisation must be caught up in the student's own time.

In order to succeed in the course, we expect students to be able to meet strict deadlines and to deal with a much higher workload than the MYP. Of course, guidance will be given in this aspect, but IB Diploma students are of an age where they should be becoming more independent in their daily lives and study. This requires a degree of focus which is demanding of both their time and their resources.

A student may struggle or have areas of weakness which may be a drawback to the study of IB Diploma courses, but if they are willing to communicate clearly and effectively with their teachers and the advisors, asking for help and allowing themselves appropriate time to complete work and meet deadlines, then they will achieve what is needed to succeed.

#### Homework

Because of the demands of the IB and the volume of study material, it is essential that students keep up to date with their work at all times. Students should note the following:

- Homework should usually be attempted on the day that it is set
- Homework should not be done late at night when a student will be tired or less focused



- If students have problems in completing homework and there is no one available who can help them, they should go over their notes, go online to research the topic and/or contact another member of their class for help
- If a student still does not understand, email the teacher that evening to arrange an appointment to see them the next day (in most cases, this will still allow them time to complete the homework within the deadline as it is being first attempted on the day it is set)
- If any homework is missed, for any reason, the student is fully responsible for catching up and submitting it to the teacher for the next day
- Homework should not be limited to that set by the teachers. If a unit of work has been completed then students are expected to make revision notes/cards of condensed information (as necessary) in preparation for exams. In addition to this, students should be participating in wider reading of a range of subjects (book lists will be provided by teachers for each subject).

#### Checklist for successful study

The attitude that we expect from our students is highlighted above, but there are a series of practical steps that students can take to make their study successful:

- Complete revision notes/summative notes after each unit of study since if you leave it until just before the deadline, then you will have too much work to do at once
- Keep your files up to date both on paper and on your computers
- Keep your working files up to date, so that you never come to a class without the correct materials (this is especially important at IBDP as if you do not have the correct materials, it is often not possible for you to participate in the class)
- If you are absent from school, you must ensure you contact your teacher directly for any work missed
- Keep a clear track of upcoming deadlines and attempt to have first drafts of work completed well before these deadlines. Often, if you do not submit a first draft you are in jeopardy of receiving valuable feedback which will inform your completed work
- If you have misunderstood any part of your course, address it with the teacher immediately
- If you are feeling stressed and are not sure how to handle the workload, do not hide from it: speak to your advisor/subject teachers and they will help you prioritise and balance what needs to be completed.

#### **Dealing with stress**

The jump from MYP to DP is a big one and students will have far more subject content to cover as well as extra-curricular, CAS commitments, which all count towards their final course grade. In addition to this, students' work is continually assessed and examinations and coursework take place throughout the course of both years. Furthermore, especially in the second year, students are very busy putting together university applications. Being under this kind of pressure over an extended period of time can lead to stress. Unlike university, we are able to provide much needed support and to give students the skills needed to deal with this stress, something that will help them throughout life.



If a student finds her/himself stressed, has feelings of being unable to cope, being overwhelmed or overloaded, they must not suffer in silence. The quickest and most effective way of dealing with stress is to communicate it to someone. Students can speak to parents, advisors, subject teachers and counselors in school. It is most important that stressful situations and feelings are addressed as soon as possible so that they do not grow unnecessarily and impede both development and wellbeing.

#### Meeting deadlines

To be a successful IB Diploma student, it is necessary to be punctual both to classes and to school, to have an excellent attendance record, and to complete work on time and to an appropriate standard. In all courses, students must complete mandatory coursework assignments. Typically this coursework amounts to 25% of the final grade for each course, although in some cases it may be higher or lower. The key to doing this work to an acceptable standard is organisation, and the importance of keeping to internal deadlines cannot be stressed enough.

# Graduation Requirements

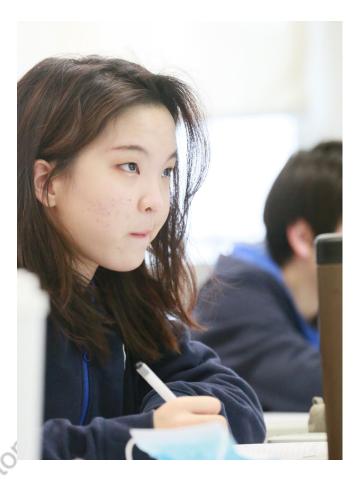
There is a maximum of 7 points available for each of the six required elective courses. In addition, there are 3 points available for the combination of TOK and the Extended Essay. This makes a maximum total of 45 points. A minimum of three courses must be at Higher Level. In general, in order to receive the IB Diploma, a student will have to score at least a 4 in each subject, or 24 points or more in total. The full criteria for passing the IB DP are set out below and students need to be aware that a score of 24 points will not always guarantee a pass.

Students will be considered for graduation from Keystone Academy if they successfully complete the requirements of Pathway One (IB Diploma) and/or Pathway Two (Keystone Diploma) as outlined on page 11.

For information on the Keystone Diploma, see Appendix 1.

From the May 2017 session the following failing conditions and associated codes for the IB Diploma are in place.

- 1. CAS requirements have not been met.
- 2. Candidate's total points are fewer than 24.
- 3. An N has been given for Theory of Knowledge, Extended Essay or for a contributing subject.
- 4. A grade E has been awarded for one or both of Theory of Knowledge and the Extended Essay.
- 5. There is a grade 1 awarded in a subject/level.
- 6. Grade 2 has been awarded three or more times (HL or SL).
- 7. Grade 3 or below has been awarded four or more times (HL or SL).
- 8. Candidate has gained fewer than 12 points on HL subjects (for candidates who register for four HL subjects, the three highest grades count).
- 9. Candidate has gained fewer than 9 points on SL subjects (candidates who register for two SL subjects must gain at least 5 points at SL).
- 10. Candidate has received a penalty for academic misconduct from the Final Award Committee.



#### **Core Requirements**

The IB Diploma Programme consists of three core elements:

- Creativity, Activity and Service (CAS)
- Theory of Knowledge (TOK)
- Extended Essay (EE)

These are not additional subjects and must be satisfactorily completed by every IB Diploma student. They are intended to act as an interdisciplinary link between the subject areas and enhance the holistic educational experience of IB students.

Those taking academic Pathway Two (IB Diploma Programme courses) are able to take these elements as subjects and receive certification for them. To qualify for a Keystone Diploma, all students must participate in CAS, TOK, and the EE to an appropriate level of proficiency.

# Creativity, Activity, Service (CAS)

Creativity, Activity & Service (CAS) is an integral part of the International Baccalaureate's Diploma Programme as well as of the school's culture. In order to obtain their Diploma, students must successfully complete the CAS component. At Keystone all students are expected to participate in CAS throughout their school careers. However, students studying for their Diploma are required to be more involved and proactive in CAS, learning to be much more independent in developing their own CAS programme rather than having teachers organise it for them. This, in turn, provides an integral part of a holistic education and helps develop a more balanced lifestyle, something that should be lifelong.

#### **Keystone's CAS vision**

CAS provides students with opportunities to transform their classroom learning into genuine, real world experiences of growth and personal development. It offers a vital pathway to meeting the Keystone vision of inspiring students to realise their full potential as responsible, principled and respectful global citizens. At the core of our philosophy, we seek to develop a culture in which all members of the Keystone community are committed to supporting students as they challenge themselves to grow through CAS, in the classroom, across the school, throughout Beijing and China, and in the wider world.

#### What is CAS?

Some activities are CAS, and some are not. Some activities can be easily placed into one of the three categories, and some cannot. Some examples of CAS activities are:

#### Creativity

- Arts (e.g. theatre, music, painting)
- Teaching (e.g. sports coaching, peer mentoring)
- Thinking (e.g. debating, orienteering, computer programming)

#### Activity

- Sports (e.g. swimming, badminton, football, basketball)
- Outdoor pursuits (e.g. hiking, camping, kayaking)
- Other physical activities (e.g. tree planting, theatre set design)

#### **Service**

- Volunteering (e.g. school cleanup, reading to students in a school for the disadvantaged, Project Roundabout)
- Helping others to do something; coaching (eg. helping the basketball coach; reading a book to younger children)

Under the Diploma Programme, CAS is the ongoing participation in a range of organised activities involving elements of creativity, activity and service. Students are expected to participate equally in each of the three areas. Activities must challenge students, and as such, they should be something the student has not tried before. If students wish to continue with a previous activity, they can approach it in a different way: for example, a student who has played basketball for 5 years might wish to try basketball coaching or refereeing as a way to add a new element to something familiar.

#### Assessment

Students are considered to have successfully completed CAS if, by the end of their Diploma studies, they have met the 7 learning outcomes set down by the IBO. These outcomes will be presented to students during the CAS programme:



To begin with, it is enough for students to know that they need to challenge themselves in the three CAS areas. The IB Coordinator, in conjunction with the CAS Coordinator, will ultimately decide whether a student has successfully met the learning outcomes and will have thereby satisfied the CAS requirement of the Diploma.

#### What CAS is not

The following are examples of activities that do not count as CAS:

- Classes and activities that are already part of the Diploma
- Any activities where students are given financial or material rewards
- Simple, repetitive or tedious work (e.g. photocopying, washing dishes)
- Religious or political activities
- Passive activities (e.g. watching a movie, attending the theatre or watching sports)
- Unplanned sports (e.g. lunchtime football kick around)

It is important to remember that CAS is not about the quantity of activities, but instead is about the quality of experiences that students have.

#### The CAS process

Over the course of the Diploma, students will be expected to:

- Plan whilst school-organised activities are acceptable in some cases, students need to initiate and plan their own activities, increasingly so in Grade
- **Participate** students need to demonstrate active and ongoing involvement in their activities
- Reflect students need to reflect on their activities to help them understand what they have learned
- Record using Managebac, students will need to record their progress through CAS
- Interview students will be interviewed by their CAS
  Advisor on three occasions, with the aim of helping
  students monitor their progression.

#### What helps in CAS?

Attitude! Students who are negative and resent the requirements of CAS find it very difficult to succeed. To make the most of CAS, students need a positive attitude, a willingness to learn, an appetite for challenge and an open mind. These are all traits that can be learned through CAS.

#### Theory of Knowledge

The interdisciplinary TOK course is designed to develop a coherent approach to learning that transcends and unifies the academic areas and encourages appreciation of other cultural perspectives while asking students to consider how individual and shared knowledge are constructed and critically examined.

The Theory of Knowledge course is in part intended to develop international-mindedness by encouraging students to reflect on their own beliefs and assumptions, and to understand that knowledge includes a responsibility to take responsible action when huge shifts such as the digital revolution, and the information economy are bringing changes to our world. The extent and impact of the changes vary greatly in different parts of the world, but everywhere their implications for knowledge are profound.

#### Theory of Knowledge in Chinese and English

Theory of Knowledge at Keystone is unusual in that all TOK classes are conducted in both Chinese and English. Chinese and English co-teachers work together to create a unique bilingual TOK experience for their students. In this way, students learn TOK concepts and explore TOK ideas in both languages, leading to a much wider range of perspectives. This supports two of the school's keystones: bilingual immersion in Chinese and English, and promoting Chinese culture and identity in a world context.

Theory of Knowledge encourages critical thinking about knowledge itself, and aims to help young people make sense of what they encounter. Its core content focuses on questions such as:

- What counts as knowledge and as a knowledge question?
- How is knowledge constructed?
- What are its limits?
- Who owns knowledge?
- What is the value of knowledge?
- What are the implications of having, or not having, knowledge?
- To what extent is knowledge shared, and to what extent is it personal?
- How might knowledge relate to the metaphors of "maps" and "mental maps"?

TOK activities and discussions aim to help students discover and express their views on knowledge questions. The course encourages students to share ideas with others and to listen and learn from what others think. In this process, students' thinking and their understanding of knowledge as a human construction are shaped, enriched and deepened. Connections may be made between knowledge encountered in different Diploma Programme subjects, in CAS experiences or in Extended Essay research. Distinctions between different kinds of knowledge may also be clarified.

The TOK course is central to the entire Diploma Programme and dedicated TOK teachers will teach the course. Each subject teacher will also be highlighting the relevance of TOK in his/her subject.

The course comprises 100 hours of class lessons spread over the two years with the majority of the course and assessments completed by February of the second year.

#### Assessment

Part 1 External assessment (10 marks)

Essay on a prescribed title (Maximum 1,600 words)

One essay on a title chosen from a list of SIX titles prescribed by the IBO [for each examination session] in the second year of the course, as well as one planning document, using the relevant IB form. Part 2 Internal assessment Exhibition

The TOK exhibition

The exhibition is an opportunity for students to showcase their understanding of TOK. Students will create an exhibition of 3 objects that show how TOK manifests in the real world. These will be framed by prompts such as:

- Are some types of knowledge more useful than others?
- What counts as good evidence for a claim?
- Are some types of knowledge less open to interpretation than others?
- How can we know that current knowledge is an improvement upon past knowledge?
- Does some knowledge belong only to particular communities of knowers?
- What constraints should there be on the pursuit of knowledge?

#### **TOK Curriculum Model**

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 when we are being manipulated?
Optional themes (pick 2)	<ul> <li>Knowledge and technology</li> <li>Knowledge and language</li> <li>Knowledge and indigenous societies</li> <li>Knowledge and politics</li> <li>Knowledge and religion</li> </ul>
Areas of Knowledge	<ul> <li>History</li> <li>The Human Sciences</li> <li>The Natural Sciences</li> <li>Mathematics</li> <li>The Arts</li> </ul>

#### **Extended Essay**

The Extended Essay is an in-depth study of a limited topic within a Diploma subject. Its purpose is to provide a student with an opportunity to engage in independent research at an introductory level. Emphasis is placed on the process of engaging in personal research, on the communication of ideas and information in a logical and coherent manner, and on the overall presentation of the Extended Essay in compliance with IB guidelines.

Students are required to devote 40+ hours to the essay over the course of ten months.

#### Subject choice

In choosing a subject, an essential consideration should be the personal interest of the student. The subject should offer the opportunity for in depth research but should also be limited in scope. It should present the candidate with the opportunity to collect or generate information and/or data for analysis and evaluation. Students may choose any subject currently being taught or offered at Keystone but may also do an essay in a subject not on this list, provided a teacher on staff

can act as supervisor and has competence and experience in the subject and/or topic.

Extended Essays submitted in Language B (Chinese or English) or Language A (Chinese, English or Self-Taught language) must be written in that language. All other essays must be in English.

#### Organisation of the Extended Essay

The Extended Essay is limited to 4,000 words if in English (4,800 characters if in Chinese), and should include an abstract, an introduction, a development methodology, a conclusion, a bibliography, and any necessary appendices.

#### Assessment

The Extended Essay is externally examined. Marks are awarded against a set of published criteria (both general and subject specific). The final Extended Essay grade and the final TOK grade are entered into the Diploma Points Matrix to award a maximum of 3 extra points to be added to a student's Diploma scores. Candidates not submitting at least satisfactory work in either area will fail the Diploma.

#### The diploma points matrix

TOK/EE	A	В	С	D	Е
A	3	3	2	2	
В	3	2	2	1	Failir
С	2	2	1	0	Failing condition
D	2	1	0	0	ition
Е	Failing condition				



# Studies in Language and Literature -Language A



#### The Nature of Group 1 Courses

All students must study a Group 1 course. Your choice of Group 1 subject should be based on your first or best language in an academic context. It should be the language you are most confident using for writing essays, oral presentations and reading literary texts.

All Group 1 courses contain a high degree of literature and, as such, require close analytical reading. These courses are designed to develop your critical faculty, language competence, and communication skills. All courses are available at Higher and Standard Levels.

#### **Language A: Chinese or English Language** & Literature

#### Introduction

The Language A: Chinese Language and Literature course develops skills of textual analysis. Texts are analysed for their form and how their meaning is affected by reading practices that are culturally defined. Students will explore the ways in which language is used to construct meaning in a range of contexts both literary and non-literary. Students will engage in both written and oral literary analysis based on familiar and unfamiliar texts. Texts are chosen from a variety of sources, genre and media including works in translation. This course will foster student ability to use various modes of writing appropriate to purpose and audience, organize a logical and sustained argument, and use sophisticated language with coherence, precision and clarity.

#### **Aims & Objectives**

The aims of studies in Group 1 language and literature are to

- Engage with a range of texts in a variety of media and modes, from different periods, styles, genres and cultures
- 2. Develop skills in listening, speaking, reading, writing, viewing, presenting and performing
- 3. Develop skills in analysis, interpretation and evaluation
- 4. Develop sensitivity to the formal and aesthetic qualities of texts
- 5. Develop an understanding of the relationships between studies in language and literature and other areas of knowledge
- Understand a variety of perspectives and cultural contexts in order to engage with local and global issues
- Communicate and collaborate in a confident and creative way
- 8. Foster a lifelong appreciation and enjoyment of language and literature.

#### Syllabus Details Parts of the course

The parts of the studies in language and literature courses allow students to explore different aspects of language and literature.

- Readers, writers and texts aim to introduce students to the notion and purpose of literature and the ways in which texts can be read, interpreted and responded to
- Time and space draws attention to the fact that texts are not isolated entities, but are connected to space and time
- Intertextuality: connecting texts focuses on the connections between and among diverse texts, traditions, creators and ideas.

Each part of the course is accompanied by six questions, linked to the course concepts, that provide a guide to the learning in each part of the course.

#### Readers, writers and texts

- Why and how do we study language and literature?
- How are we affected by texts in various ways?
- In what ways is meaning discovered, constructed and expressed?
- How does language use vary amongst text types?
- How does the structure or style of a text affect meaning?
- How do texts both offer insights and challenges?

#### Time and space

- How important is cultural context to the production and reception of a text?
- How do we approach texts from different times and cultures to our own?
- To what extent do texts offer insight into another culture?
- How does the meaning and impact of a work change over time?
- How do texts engage with local and global issues?
- How does language represent social distinctions and identities?

#### **Intertextuality: connecting texts**

- How do texts adhere to and deviate from conventions associated with genre or text type?
- How do conventions evolve over time?
- In what ways can diverse texts share points of similarity?
- How valid is the notion of a 'classic' work?
- How can texts offer multiple perspectives of a single issue, topic of theme?
- In what ways can comparison and interpretation be transformative?



#### **Assessment Details**

Higher Level	Standard Level		
External assessment (4 hours) 80%	External assessment (3 hours) 70%		
Paper 1: Guided textual analysis (2 hours 15 minutes) 35%  The paper consists of two non-literary passages, from two different text types, each accompanied by a question. Students write an analysis of each of the passages. (40 marks)  Paper 2: Comparative essay (1 hour 45 minutes) 25%  The paper consists of four general questions. In response to one question students write a comparative essay based on two literary works studied in the course. (30 marks)  HL essay 20%  Students submit an essay on one non-literary body of work, or a literary work studied during the course. (20 marks)	Paper 1: Guided textual analysis (1 hour 15 minutes) 35%  The paper consists of two non-literary passages, from two different text types, each accompanied by a question. Students choose one passage and write an analysis of it. (20 marks)  Paper 2: Comparative essay (1 hour 45 minutes) 35%  The paper consists of four general questions. In response to one question students write a comparative essay based on two literary works studied in the course. (30 marks)		
The essay must be 1,200-1,500 words in length.			
Internal assessment: Individual oral (15 minutes) 20%	Internal assessment: Individual oral (15 minutes) 30%		
This component consists of an individual oral which is internally assessed by the teacher and externally moderated by the IB at the end of the course.	This component consists of an individual oral which is internally assessed by the teacher and externally moderated by the IB at the end of the course.		

#### **Language A: Chinese Literature**

#### Introduction

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.

#### **Aims & Objectives**

The aims of studies in Chinese literature are to:

- 1. engage with a range of texts, in a variety of media and forms, from different periods, styles, and cultures
- develop skills in listening, speaking, reading, writing, viewing, presenting and performing
- 3. develop skills in interpretation, analysis and evaluation
- develop sensitivity to the formal and aesthetic qualities of texts and an appreciation of how they contribute to diverse responses and open up multiple meanings
- develop an understanding of relationships between texts and a variety of perspectives, cultural contexts, and local and global issues, and an appreciation of how they contribute to diverse responses and open up multiple meanings
- develop an understanding of the relationships between studies in language and literature and other disciplines
- communicate and collaborate in a confident and creative way
- 8. foster a lifelong interest in and enjoyment of language and literature.

#### Readers, Writers, and Texts

The area of exploration of readers, writers and texts aims to introduce students to the skills and approaches required to closely examine literary texts as well as to introduce metacognitive awareness of the nature of the discipline by considering the following guiding conceptual questions.

- Why and how do we study literature?
- How are we affected by literary texts in various ways?
- In what ways is meaning constructed, negotiated, expressed and interpreted?
- How does language use vary among literary forms?
- How does the structure or style of a literary text affect meaning?
- How do literary texts offer insights and challenges?

#### Time and Space

Time and space aims to broaden student understanding of the open, plural, or cosmopolitan nature of literary texts by considering the following guiding conceptual questions.

- How important is cultural or historical context to the production and reception of a literary text?
- How do we approach literary texts from different times and cultures to our own?
- To what extent do literary texts offer insight into another culture?
- How does the meaning and impact of a literary text change over time?
- How do literary texts reflect, represent or form a part of cultural practices?
- How does language represent social distinctions and identities?

#### Intertextuality

This area of exploration aims to give students a sense of the ways in which literary texts exist in a system of relationships with other literary texts past and present. Students will further engage with literary traditions and new directions by considering the following guiding conceptual questions.

- How do literary texts adhere to and deviate from conventions associated with literary forms?
- How do conventions and systems of reference evolve over time?
- In what ways can diverse literary texts share points of similarity?
- How valid is the notion of a "classic" literary text?
- How can literary texts offer multiple perspectives of a single issue, topic or theme?
- In what ways can comparison and interpretation be transformative?

#### **Assessment Details**

Higher Level	Standard Level		
External Assessment (4 hours) 80%	External Assessment (3 hours) 70%		
Paper 1: Guided Literary Analysis 35% (2 hours 15 minutes) (40 marks)	Paper 1: Guided Literary Analysis 35% (1 hour 15 minutes) (20 marks)		
The paper consists of two literary passages, from two different literary forms, each accompanied by a question. Students write an analysis of each of the passages.  Paper 2: Comparative Essay 25% (1 hour 45 minutes) (30 marks)  The paper consists of four general questions. In response to one question, students write a comparative essay based on two works studied in the course.  Higher Level Essay: 20% (1,200–1,500 words) (20 marks)  Students submit an essay on one work studied during the course.	The paper consists of two passages from two different literary forms, each accompanied by a question. Students choose one passage and write an analysis of it.  Paper 2: Comparative Essay 35% (1 hour 45 minutes) (30 marks)  The paper consists of four general questions. In response to one question, students write a comparative essay based on two works studied in the course.		
Internal Assessment (15 minutes) 20%	Internal Assessment (15 minutes) 30%		
Individual Oral: (15 Minutes) (40 Marks) 20%  This component consists of an individual oral that is internally assessed by the teacher and externally moderated by the IB at the end of the course.	Individual Oral: (15 Minutes) (40 Marks) 30%  This component consists of an individual oral that is internally assessed by the teacher and externally moderated by the IB at the end of the course.		



# Language Acquisition -Language B / Language ab initio (Mandarin)

#### The Nature of Group 2 Courses

Learning a language acquisition course engages the mind and broadens a person's perspective on the world around them. Being able to think, decode, translate and express yourself in two languages has become an increasingly sought after, almost essential, requirement in this globally interconnected world we live in. Furthermore, another language deepens awareness and understanding of other cultures and helps us better appreciate the exciting diversity of humanity in all its colors and flavours. A keystone of the IB Diploma Programme, which differentiates itself from many other educational programmes, is its insistence that all students successfully complete a language acquisition course. This is in keeping with the IBO Mission statement as well as the mission of Keystone Academy.

Language B is a language acquisition course for students who have had previous experience of learning the language and have attained a relatively high degree of fluency and literacy and wish to pursue this further.

Students may study two different languages in Group 1, or one language in Group 1 and one in Group 2. The first choice leads automatically to a Bilingual Diploma.

#### Language B: Chinese or English B

#### Introduction

Chinese or English B is an additional language-learning course designed for students with some previous learning of Chinese or English. It may be studied at either SL or HL. The main 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 should be chosen to enable 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.

#### Aims

- Develop international-mindedness through the study of languages, cultures, and ideas and issues of global significance
- 2. Enable the students to communicate in the language they have studied in a range of contexts and for a variety of purposes
- 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
- Provide students with a basis for further study, work and leisure through the use of an additional language
- 7. Provide students, through language learning and the process of inquiry, with opportunities for intellectual engagement and the development of critical and creative thinking skills

#### **Assessment Objectives**

- Communicate clearly and effective in a range of contexts and for a variety of purposes
- 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
- Understand, analyse and reflect upon a range of written, audio, visual and audio-visual texts
- 6. Understand and use works of literature written in the target language of study (HL only)

#### **Syllabus Details**

#### Themes

Language acquisition programmes will be delivered through the use of five prescribed themes, which are related to the global contexts used in the Middle Years Programme, in order to enhance the learning continuum in the IB programmes.

The prescribed themes are as the following:

- Identities
- Experiences
- Human ingenuity
- Social organization
- Sharing the planet

Both SL and HL will be using these themes in order to structure the course.

#### Literature: HL only

Two literary works to be selected to study and receptive skills to be assessed through the inclusion of one literary extract in assessment 2/paper 2.

#### Concepts

The study of language requires careful attention to forms, structures, functions and conceptual understandings of the language.

The conceptual understandings are:

- Audience: Students understand that language should be appropriate for the person(s) with whom one is communicating
- Context: Students understand that language should be appropriate to the situation in which one is communicating
- Purpose: Students understand that language should be appropriate to achieve a desired intention, goal or result when communicating
- Meaning: Students understand that language is used in a range of ways to communicate a message
- Variation: Students understand that differences exist within a given language, and that speakers of a given language are generally able to understand each other.

#### **Texts**

The study of text types develop students' receptive, productive and interactive skills, texts have been divided into three categories according to their communicative functions and include, but are not limited to, those indicated in the table below:

Personal	Professional	Mass media
texts	texts	texts
Blog	Blog	Article (newspaper,
Diary	Brochure	magazine)
Email	Catalogue	Blog
Invitation	Email	Brochure
List	Essay	Film
Personal letter	Formal letter	Flyer
Postcard	Interview	Interview
Social media	Invitation	Leaflet
posting/	Literature	Literature
chat room	Maps/diagrams	News report
Text message	Menu	Newsletter
Timetable	Online forum	Opinion column/
D.	Personal statement/	editorial
	CV	Pamphlet
	Proposal	Podcast
	Questionnaire	Poster
	Recipe	Public commentary
	Supporting letter	(editorial/readers'
	Report	letters)
	Set of instructions/	Radio program
	guidelines	Review
	Survey	Social media posting
	timetable	Speech
		Travel guide
		TV/drama/music
		Web page



#### **Assessment Details**

Higher Level	Standard Level		
External Assessment 75%  Assessment 1/Paper 1: Writing - 1h30m (25%)  Assessment 2/Paper 2: Receptive skills – listening and reading (separate sections)  Listening comprehension – 1 hr  Reading comprehension – 1 hr  (50%)	External Assessment 75%  Assessment 1/Paper 1: Writing - 1h15m (25%)  Assessment 2/Paper 2: Receptive skills – listening and reading (separate sections)  Listening comprehension – 45 m  Reading comprehension – 1 hr (50%)		
Internal Assessment 25% Individual oral  12 – 15 minutes + 20 minutes of preparation	Internal Assessment 25% Individual oral  12 – 15 minutes + 20 minutes of preparation		

#### Language ab initio: Mandarin

#### Introduction

Mandarin ab initio Course is a language learning course for beginners, designed to be followed over two years by students who have no or little previous experience of learning Mandarin. The main focus of the course is on the acquisition of language required for purposes and situations usual in everyday social interaction. It provides the students with opportunities to practise 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. Mandarin ab initio courses are only available at standard level.

#### Aims

- Develop international-mindedness through the study of languages, cultures, and ideas and issues of global significance
- Enable the students to communicate in the language they have studied in a range of contexts and for a variety of purposes
- 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 with a basis for further study, work and leisure through the use of an additional language
- Provide students, through language learning and the process of inquiry, with opportunities for intellectual engagement and the development of critical and creative thinking skills

#### **Assessment Objectives**

- 1. Communicate clearly and effective in a range of contexts and for a variety of purposes.
- Understand and use language appropriate to a range of interpersonal and/or intercultural contexts and audiences
- 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 Details**

#### Themes

Language ab initio programmes will be delivered through the use of five prescribed themes, which are related to the global contexts used in the Middle Years Programme, in order to enhance the learning continuum in the IB programmes.

The prescribed themes are as the following:

- Identities
- Experiences
- Human ingenuity
- Social organization
- Sharing the planet

#### **Topics**

At language ab initio level, the five prescribed themes will be divided into four required topics:

Identities	Experiences	Human Ingenuity	Social organization	Sharing the Planet
Personal attributes	Daily routine	Transport	Neighbourhood	Climate
Personal relationships	Leisure	Entertainment	Education	Physical geography
Eating and drinking	Holidays and tourism	Media	The workplace	Environment
Physical wellbeing	Festivals and celebrations	Technology	Social issues	Global issues

#### **Assessment Details**

#### ab initio

**External Assessment** 

**75%** 

Assessment 1/Paper 1: Writing - 1h (25%)

Assessment 2/Paper 2: Receptive skills – listening and

reading (separate sections)

Listening comprehension – 45 min

Reading comprehension – 1 hr

(50%)

**Internal Assessment** 

25%

Individual oral

7 – 10 minutes + 15 minutes of preparation





## Individuals and Societies



# The Nature of Group 3 courses

Group 3 subjects equip students with the skills of analysis, evaluation and critical thinking. They also develop a student's ability to present their conclusions in a logical and clear manner in both written and oral situations. All courses are designed to be international in character, drawing on examples from around the world.

Keystone Academy students will have gained prerequisite skills in their MYP Economics and 20th Century World History courses and should be able to analyse information critically and draw conclusions from a wide variety of sources. Good essay writing skills and the ability to do extensive academic research are beneficial.

# **Business Management**

# Introduction

The Business Management course in Group 3 is a dynamic course providing students with knowledge of the role of businesses, how they operate, and how they are distinct as organizations in society. Students learn how businesses operate as profit-makers and risk-takers that operate in a

competitive environment. Economics studies the problem of scarcity and resource allocations while Business Management studies business functions, management processes and decision making in contemporary contexts of strategic uncertainty. Students will consider business decisions such as how to allocate resources so they are used efficiently and sustainably within a business organization. They will consider models by which these decisions are made and the impact these decisions could have on stakeholders and the community. Specific business functions such as managing human resources, financing and accounting, marketing and operations will be studied within a broader conceptual framework that takes a global perspective on how businesses operate. These concepts must be understood and must be constantly reconsidered by all businesses; they include innovation and change, the culture in which they produce and from whom they produce, the ethics of production and management, trends and issues surrounding globalization of markets, and strategies for management in all of these areas. Students will learn that businesses need to be profit seekers in order to keep operating, but they will also learn that model businesses reflect corporate social responsibility in their vision, and thus remain both sustainable and valued in the global community.

#### Aims of the course:

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

- develop as confident, creative and compassionate business leaders, entrepreneurs, social entrepreneurs and as change agents
- 2. foster an informed understanding of ethical and sustainable business practices
- 3. explore the connections between individuals, businesses and society
- 4. engage with decision-making as a process and a skill.

#### **Objectives:**

# AO1: Knowledge and understanding

Demonstrate knowledge and understanding of:

- business management tools and theories
- course topics and concepts
- business problems, issues and decisions
- HL extension topics (HL only).

# AO2: Application and analysis

Apply and analyse:

- business management tools and theories
- course topics and concepts
- business problems, issues and decisions
- business decisions and issues through the selection and use of appropriate data
- HL extension topics (HL only).

# AO3: Synthesis and evaluation

Synthesize and evaluate:

- business management tools and theories
- course topics and concepts
- business problems, issues and decisions
- stakeholder interests to reach informed business decisions
- recommendations for competing future strategic options (HL only)
- HL extension topics (HL only).

# AO4: Use and application of appropriate skills

- Select and apply relevant business management tools, theories and concepts to support research into a business issue or problem.
- Select, interpret and analyse business materials from a range of primary and secondary sources.
- Create well-structured materials using business management terminology.
- Communicate analysis, evaluation and conclusions of research effectively.

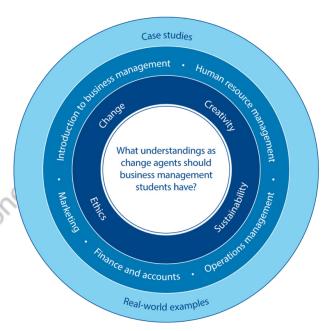


Figure: A visualization of the Business management curriculum model.

#### **Syllabus Outline:**

# **Unit 1: Introduction to business management**

- 1.1 What is a business?
- 1.2 Types of business entities
- 1.3 Business objectives
- 1.4 Stakeholders
- 1.5 Growth and evolution
- 1.6 Multinational companies (MNCs)

# Unit 2: Human resource management

- 2.1 Introduction to human resource management
- 2.2 Organizational structure
- 2.3 Leadership and management
- 2.4 Motivation and demotivation
- 2.5 Organizational (corporate) culture (HL only)
- 2.6 Communication
- 2.7 Industrial/employee relations (HL only)

#### **Unit 3: Finance and accounts**

- 3.1 Introduction to finance
- 3.2 Sources of finance
- 3.3 Costs and revenues
- 3.4 Final accounts
- 3.5 Profitability and liquidity ratio analysis
- 3.6 Debt/equity ratio analysis (HL only)
- 3.7 Cash flow
- 3.8 Investment appraisal
- 3.9 Budgets (HL only)

# **Unit 4: Marketing**

- 4.1 Introduction to marketing
- 4.2 Marketing planning
- 4.3 Sales forecasting (HL only)
- 4.4 Market research
- 4.5 The seven Ps of the marketing mix
- 4.6 International marketing (HL only)

# **Unit 5: Operations management**

- 5.1 Introduction to operations management
- 5.2 Operations methods
- 5.3 Lean production and quality management (HL only)
- 5.4 Location
- 5.5 Break-even analysis
- 5.6 Production planning (HL only)
- 5.7 Crisis management and contingency planning (HL only)
- 5.8 Research and development (HL only)
- 5.9 Management information systems (HL only)
- 6. Business management toolkit



#### **Assessment Details**

# Higher Level

#### External assessment (4 hours and 30 minutes) 80%

#### Paper 1 (1 hour and 30 minutes) 25%

Based on a pre-released statement that specifies the *context and background* for the unseen case study.

Assessment objectives: AO1, AO2, AO3, AO4 (30 marks)

Section A - Syllabus content: Units 1–5 excluding HL extension topics Students answer all structured questions in this section based on the case study (20 marks)

Section B - Syllabus content: Units 1–5 excluding HL extension topics Students answer one out of two extended response questions based on the case study (10 marks)

#### Paper 2 (1 hour and 45 minutes) 30%

Based on the unseen stimulus material with a quantitative focus

Assessment objectives: AO1, AO2, AO3, AO4 (50 marks)

Section A - Syllabus content: Units 1–5 including HL extension topics Students answer all structured questions in this section based on the unseen stimulus material (30 marks)

Section B - Syllabus content: Units 1–5 including HL extension topics Students answer one out of two questions comprised of some structured questions and an extended response question based on the unseen stimulus material (20 marks)

#### Paper 3 (1 hour and 15 minutes) 25%

Based on unseen stimulus material about a social enterprise Syllabus content: Unit 1–5 including HL extension topics Assessment objectives: AO1, AO2, AO3, AO4 (25 marks) Students answer one compulsory question based on the unseen stimulus material (25 marks)

#### Internal assessment (20 hours) 20%

This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.

#### Business research project

Students produce a research project about a real business issue or problem facing a particular organization using a conceptual lens. Maximum 1800 words. (25 marks)

#### External assessment (3 hours) 70%

#### Paper 1: (1 hour and 30 minutes) 35 %

Based on a pre-released statement that specifies the context and background for the unseen case study.

Standard Level

Assessment objectives: AO1, AO2, AO3, AO4 (30 marks)

Section A - Syllabus content: Units 1–5 excluding HL extension topics Students answer all structured questions in this section based on the case study (20 marks)

Section B - Syllabus content: Units 1–5 excluding HL extension topics Students answer one out of two extended response questions based on the case study (10 marks)

# Paper 2: (1 hour and 30 minutes) 35%

Based on unseen stimulus material with a quantitative focus

Assessment objectives: AO1, AO2, AO3, AO4 (40 marks)

Section A - Syllabus content: Units 1–5 excluding HL extension topics.

Students answer all structured questions in this section based on the unseen stimulus material. (20 marks)

Section B - Syllabus content: Units 1–5 excluding HL extension topics Students answer one out of two questions comprised of some structured questions and an extended response question based on the unseen stimulus material. (20 marks)

#### Internal assessment (20 hours) 30%

This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.

#### Business research project

Students produce a research project about a real business issue or problem facing a particular organization using a conceptual lens. Maximum 1800 words. (25 marks)

#### **Economics**

#### **Economics aims**

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.

# Syllabus component

#### **Unit 1: Introduction to economics**

- 1.1 What is economics?
- 1.2 How do economists approach the world?

#### **Unit 2: Microeconomics**

- 2.1 Demand (includes HL only sub-topics)
- 2.2 Supply (includes HL only sub-topics)
- 2.3 Competitive market equilibrium
- 2.4 Critique of the maximizing behavior of consumers and producers
- 2.5 Elasticity of demand (includes HL only sub-topics)
- 2.6 Elasticity of supply (includes HL only sub-topics)
- 2.7 Role of government in microeconomics (includes HL only calculation)
- 2.8 Market failure—externalities and common pool or common access resources (includes HL only calculation)
- 2.9 Market failure—public goods
- 2.10 Market failure—asymmetric information (HL only)
- 2.11 Market failure—market power (HL only)
- 2.12 The market's inability to achieve equity (HL only)

#### **Unit 3: Macroeconomics**

- 3.1 Measuring economic activity and illustrating its variations
- 3.2 Variations in economic activity—aggregate demand and aggregate supply
- 3.3 Macroeconomic objectives (includes HL only calculation)
- 3.4 Economics of inequality and poverty (includes HL only calculation)
- 3.5 Demand management (demand side policies) monetary policy (includes HL only sub-topics)
- 3.6 Demand management—fiscal policy (includes HL only sub-topics)
- 3.7 Supply-side policies

#### Unit 4: The global economy

- 4.1 Benefits of international trade (includes HL only subtopics and calculation)
- 4.2 Types of trade protection (includes HL only calculations)
- 4.3 Arguments for and against trade control/protection
- 4.4 Economic integration
- 4.5 Exchange rates (includes HL only sub-topic)
- 4.6 Balance of payments (includes HL only sub-topics)
- 4.7 Sustainable development (includes HL only subtopic)

#### **Higher Level Assessment**

#### **Standard Level Assessment**

Assessment Component	Assessment Component	
External assessment (3 hours) 70%	External assessment (3 hours) 70%	
Paper 1 (1 hour and 15 minutes) 30%	Paper 1 (1 hour and 15 minutes) 30%	
An extended response paper (25 marks)	An extended response paper (25 marks)	
Students answer one question from a choice of three (25	Students answer one question from a choice of three (25	
marks)	marks)	
Paper 2 (1 hour and 45 minutes) 40%	Paper 2 (1 hour and 45 minutes) 40%	
A data response paper (40 marks)	A data response paper (40 marks)	
Students answer one question from a choice of two (40	Students answer one question from a choice of two (40	
marks)	marks)	
Paper 3 (1 hour and 45 minutes)	J. Beiling	
A policy paper (60 marks)	0811	
Students answer two compulsory questions (30 marks each)		
	ay.	
Internal Assessment (20 teaching hours) 30%	Internal Assessment (20 teaching hours) 30%	
Internally assessed by teacher and externally moderated by	Internally assessed by teacher and externally moderated by	
the IB	the IB	
Students produce a portfolio of three commentaries, based	Students produce a portfolio of three commentaries, based	
on different units of the syllabus (excluding intro. Unit) and	on different units of the syllabus (excluding intro. Unit) and	
on published extracts from the media. Each of the three	on published extracts from the media. Each of the three	
commentaries should use a different key concept as a lens	commentaries should use a different key concept as a lens	
through which to analyze the published extracts	through which to analyze the published extracts	
Maximum 800 words for each commentary (45 marks)	Maximum 800 words for each commentary (45 marks)	

# History

# Introduction

The History course in Group 3 – Individuals and Societies, is a course that encourages inquiry into a range of historical topics subsumed under broader historical concepts. These concepts allow for discussions and evaluation of how events relate to larger historical problems or patterns. Questions that might arise could be: How does this represent change or continuity in history? How can this perspective be justified using evidence? Why is this event significant? Can causal factors for events be identified and agreed upon? Are the consequences of similar events always the same? There are

many ways these questions can be framed, but this method of inquiry develops a critical approach to understanding the past. It requires students to consider multiple perspectives and interpretations while working to support an evaluation with logical, justifiable arguments based on the evidence of the past events. This requires a comparative analysis of political, social, economic, and even cultural factors that may affect their interpretations. The course uses multiple authors and texts to support research and understanding of the areas studied. This is a course that truly develops an internationally minded student that recognizes the problems of how objectivity, perspective, and interpretation help frame historical knowledge.

# **Aims & Objectives**

- Develop an understanding of, and continuing interest in, the past
- Encourage students to engage with multiple perspectives and to appreciate the complex nature of historical concepts, issues, events and developments
- Promote international-mindedness through the study of history from more than one region of the world
- 4. Develop an understanding of history as a discipline and to develop historical consciousness including a sense of chronology and context, and an understanding of different historical perspectives
- Develop key historical skills, including engaging effectively with sources
- 6. Increase students' understanding of themselves and of contemporary society by encouraging reflection on the past.

#### **Syllabus Details**

Prescribed Subject: The Move to Global War

Case Study 1: Causes, Events and Responses to Japanese Expansion in East Asia (1931-1941)

Case Study 2: Causes, Event and Responses to Italian and German Expansion (1933-1940)

# Topics in World History

- 1. Independence Movements (1800-2000)
- 2. The Cold War: Superpower tensions and rivalries (20th century)

HL Option - Depth Studies: History of Asia and Oceania

- 1. Early Modernization and Imperial decline in East Asia (1860-1912)
- 2. China and Korea (1910-1950)
- 3. Cold War Conflict in Asia

#### **Assessment Details**

		13/2	
Higher Level		Standard Level	
<ul> <li>External assessment (5 hours)</li> <li>Paper 1 (1 hour)  Answer four structured question prescribed topic of study.</li> <li>Paper 2 (1.5 hours)  Essay paper based on 12 world haswer two essay questions on two described topic of study.</li> <li>Paper 3 (2.5 hours)  Separate papers for each of the foundation of the selected region, essay questions.</li> </ul>	25% history topics. ifferent topics. 35% four regional	<ul> <li>External assessment (2.5 hours)</li> <li>Paper 1 (1 hours)         Answer four structured prescribed topic of study.     </li> <li>Paper 2 (1 hour 30 minute Essay paper based on 12 v Answer two essay question topics.</li> </ul>	s) 45% world history topics.
Internal assessment Students complete an historical investigat a research question in an area of interest related to the History syllabus.		Internal assessment Students complete an historical in a research question in an area of i related to the History syllabus.	· ·

# **Psychology**

#### Introduction

Psychology is the systematic study of behaviour and mental processes. Psychology has its roots in both the natural and social sciences, leading to a variety of research designs and applications, and providing a unique approach to understanding modern society.

IB psychology examines the interaction of biological, cognitive and sociocultural influences on human behaviour, thereby adopting an integrative approach. In the core of the IB psychology course, the biological level of analysis demonstrates what all humans share, whereas the cognitive and sociocultural levels of analysis reveal the immense diversity of influences that produce human behaviour and mental processes. Cultural diversity is explored and students are encouraged to develop empathy for the feelings, needs and lives of others within and outside their own culture. This empathy contributes to an international understanding.

The ethical concerns raised by the methodology and application of psychological research are key considerations in IB psychology. Students will be looking at classic and modern research conducted in the field of psychology. Students will be asked to understand, evaluate, and even design and carry out their own research studies. In doing this, students will learn what constitutes effective and ethical psychological research.

#### **Aims & Objectives**

- Develop an awareness of how psychological research can be applied for the benefit of human beings
- 2. Ensure that ethical practices are upheld in psychological inquiry
- 3. Develop an understanding of the biological, cognitive and sociocultural influences on human behavior
- Develop an understanding of alternative explanations of behavior
- Understand and use diverse methods of psychological inquiry.



#### **Syllabus Details**

#### Part 1:Core

- The biological level of analysis
- The cognitive level of analysis
- The sociocultural level of analysis

# Part 2: Options

- Abnormal psychology
- Developmental psychology
- Health psychology
- Psychology of human relationships
- Sport psychology

# Part 3: Qualitative Research Methodology (HL only)

Qualitative research in psychology

# Part 4: Simple Experimental Study

• Introduction to experimental research methodology

#### **Assessment Details**

Higher Level	Standard Level	
• Paper 1 (2 hours) 35% Section A: Three compulsory questions on part 1 of the syllabus. Section B: Three questions on part 1 of the syllabus. Students choose one question to answer in essay form.	• Paper 1 (2 hours) 75 % • Paper 1 (2 hours) 50% Section A: Three compulsory questions on part 1 of the syllabus. Section B: Three questions on part 1 of the syllabus. Students choose one question to answer in essay form.	
<ul> <li>Paper 2 (2 hours) 25%         Fifteen questions on part 2 of the syllabus. Students choose two questions to answer in essay form.     </li> <li>Paper 3 (1 hours) 20%</li> </ul>	Paper 2 (1 hour) 25%     Fifteen questions on part 2 of the syllabus.     Students choose one question to answer in essay form.	
Three compulsory questions based on an unseen text, covering part 3 of the syllabus.	Cadell	
Internal assessment 20% A report of a simple experimental study conducted by the student.	Internal assessment 25% A report of a simple experimental study conducted by the student.	

# Environmental Systems and Societies (Interdisciplinary, satisfies the requirements of both groups 3 and 4)

#### Introduction

As a transdisciplinary subject, Environmental Systems and Societies is designed to combine the techniques and knowledge associated with Group 3 subjects (Individuals and Societies) with Group 4 subjects (the Experimental Sciences). By choosing to study a transdisciplinary course such as this as part of their Diploma, students are able to satisfy the requirements for both groups 3 and 4,thus allowing them to choose another subject from any group (including another Group 3 or 4 subject). The Environmental Systems and Societies course is offered at Standard Level only.

The prime intent of this course is to provide students with

a coherent perspective of the interrelationships between environmental systems and societies; one that enables them to adopt an informed personal response to the wide range of pressing environmental issues that they will inevitably come to face, their own relationship with their environment and the significance of choices and decisions that they make in their own lives. It is intended that students develop a sound understanding of the interrelationships between environmental systems and societies.

# **Aims & Objectives**

- 1. Acquire the knowledge and understandings of environmental systems at a variety of scales
- Apply the knowledge, methodologies and skills to analyse environmental systems and issues at a variety of scales
- 3. Appreciate the dynamic interconnectedness between

environmental systems and societies

- Value the combination of personal, local and global perspectives in making informed decisions and taking responsible actions on environmental issues
- 5. Be critically aware that resources are finite, and that these could be inequitably distributed and exploited, and that management of these inequities is the key to sustainability
- 6. Develop awareness of the diversity of environmental value systems
- Develop critical awareness that environmental problems are caused and solved by decisions made by individuals and societies that are based on different areas of knowledge
- 8. Engage with the controversies that surround a variety of environmental issues
- 9. Create innovative solutions to environmental issues by engaging actively in local and global contexts.

# **Syllabus Details**

# **Core content**

Topic 1—Foundations of environmental systems and societies

Topic 2—Ecosystems and ecology

Topic 3—Biodiversity and conservation

Topic 4—Water and aquatic food production systems and societies

Topic 5—Soil systems and terrestrial food production systems

and societies

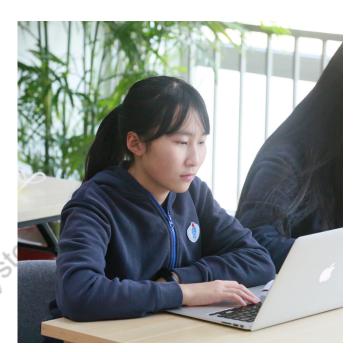
Topic 6—Atmospheric systems and societies

Topic 7—Climate change and energy production

Topic 8—Human systems and resource use

#### Practical scheme of work

Practical activities
Individual investigation



#### **Assessment Details**

Assessment component	Weighting %	Approximate weighting of objectives in each component (%)		Duration (hours)
component		1 and 2	3	(Hours)
Paper 1 (case study)	25	50	50	1
Paper 2 (short answers and structured essays)	50	50	50	2
Internal assessment (individual investigation)	25	Covers objectives 1, 2, 3 and 4		10

# Geography

Geography is a dynamic subject that is firmly grounded in the real world and focuses on the interactions between individuals, societies and physical processes in both time and space. It seeks to identify trends and patterns in these interactions. It also investigates the way in which people adapt and respond to change, and evaluates actual and possible management strategies associated with such change. Geography describes and helps to explain the similarities and differences between different places. These may be defined on a variety of scales and from the perspectives of a different range of actors, with varying powers over decision-making processes.

Within individuals and societies subjects, geography is distinctive in its spatial dimension and occupies a middle ground between social or human sciences and natural sciences. The Diploma Programme geography course integrates physical, environmental and human geography, and ensures that students acquire elements of both socioeconomic and scientific methodologies. Geography takes advantage of its position to examine relevant concepts and ideas from a wide variety of disciplines. This helps students develop life skills and have an appreciation of, and a respect for, alternative approaches, viewpoints and ideas.

# Geography aims

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

- 1. develop an understanding of the dynamic interrelationships between people, places, spaces and the environment at different scales
- develop a critical awareness and consider complexity thinking in the context of the nexus of geographic issues, including:
  - acquiring an in-depth understanding of how geographic issues, or wicked problems, have been shaped by powerful human and physical processes
  - synthesizing diverse geographic knowledge in order to form viewpoints about how these issues could be resolved

3. understand and evaluate the need for planning and sustainable development through the management of resources at varying scales.

#### **Assessment objectives**

There are four assessment objectives (AOs) for the SL and HL Diploma Programme geography course.

Having followed the course at SL or HL, students will be expected to do the following.

- Demonstrate knowledge and understanding of specified content
  - Demonstrate knowledge and understanding of the core theme—global change
  - Demonstrate knowledge and understanding of two optional themes at SL and three optional themes at HL
  - At HL only, demonstrate knowledge and understanding of the HL extension—global interactions
  - In internal assessment, demonstrate knowledge and understanding of 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

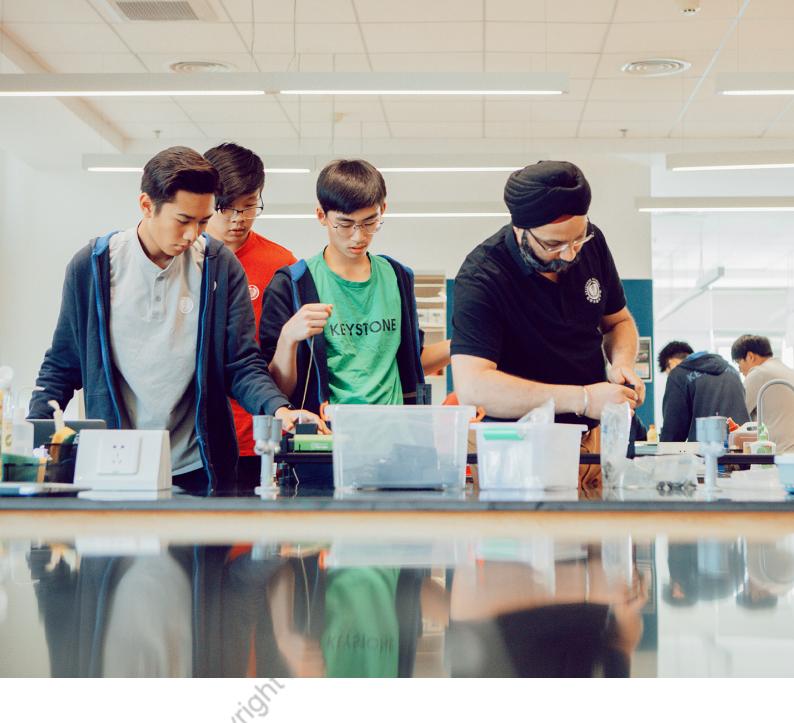
- 4. Select, use and apply a variety of appropriate skills and techniques
  - Select, use and apply the prescribed geographic skills in appropriate contexts
  - Produce well-structured written material, using appropriate terminology
  - Select, use and apply techniques and skills appropriate to a geographic research question

# **Assessment Details**

	Diploma Programme geography—SL and HL curriculum	HL assessment	SL assessment
Part 1	Geographic themes—seven options	Paper 1	Paper 1
	Two options are studied at SL, and three at HL	HL weight 35% 45 minutes per option question	SL weight 35% 45 minutes per option question
	<ul> <li>Freshwater—drainage basins</li> <li>Oceans and coastal margins</li> <li>Extreme environments</li> <li>Geophysical hazards</li> </ul>	Total 2 hours 15 minutes  Each option has a structured question and one extended answer question from a	Total 1 hour 30 minutes Each option has a structured question and one extended answer question from a
	<ul><li>Leisure, tourism and sport</li><li>Food and health</li><li>Urban environments</li></ul>	choice of two	choice of two
Part 2	SL and HL core	Paper 2	Paper 2
	Geographic perspectives—global	HL weight 25%	SL weight 40%
	change	Total 1 hour 15 minutes	Total 1 hour 15 minutes
	-08,	Paper 2 Section A	Paper 2 Section A
	<ul> <li>Population distribution—</li> </ul>	Three structured questions,	Three structured questions,
	changing population	based on each SL/HL core	based on each SL/HL core
	Global climate—vulnerability and	unit	unit
	resilience	Paper 2 Section B	Paper 2 Section B
	Global resource consumption and	Infographic or visual	Infographic or visual
	security	stimulus, with structured	stimulus, with structured
		questions	questions
		Paper 2 Section C	Paper 2 Section C
		One extended answer	One extended answer
		question from a choice of two	question from a choice of two

	Diploma Programme geography—SL and HL curriculum	HL assessment	SL assessment
Part two HL	HL only	Paper 3	
core extension	Geographic perspectives—global interactions  • Power, places and networks	HL weight 20% Total 1 hour Choice of three extended answer questions, with two	
	Human development and diversity	parts, based on each HL core unit	
	Global risks and resilience	Bei	
Internal assessment	SL and HL	Internal assessment	Internal assessment
	Fieldwork	HL weight 20% Fieldwork question to be	SL weight 25% Fieldwork question to be
	Fieldwork, leading to one written report based on a fieldwork question, information collection and analysis with evaluation	based on any suitable topic from the syllabus	based on any suitable topic from the syllabus

# Group Sciences 4



# The Nature of Group 4 Courses

Group 4 subjects are necessary in developing the skills of inquiry, hypothesis, application, evaluation and reflection. Group 4 courses are excellent preparation for university study. Keystone Academy will be offering Biology, Chemistry, Design Technology, Computer Science and Physics at Higher and Standard Levels as well as the transdisciplinary subject, Environmental Systems and Societies at Standard Level.

Students should carefully check university admission requirements regarding entry into Science or Technology faculties. Many universities require students to do two Sciences along with an advanced Maths course.

Higher level courses are suitable for students who have a keen interest and ability in Science and who score a minimum grade of 5 in MYP Science and Maths.

# The Group 4 Project

The Group 4 Project is a collaborative activity where students from different Group 4 subjects work together on a scientific or technological topic, allowing for concepts and perceptions from across the disciplines to be shared in line with Aim 10 of the program. It is also used toward Aims 7 & 8. The project may be done either as an internal or external field trip.

# **Biology**

#### Introduction

DP biology in Keystone Academy is concept based, inquiry based, and practice based. The students are required to understand key concepts, which have trans-disciplinary value, by exploring biological phenomena and applying biological theory. Through the process of thinking, asking, and answering inquiry questions, students will construct a knowledge system in their mind. As a typical experiment based discipline, biology study requires students to investigate biological phenomena via the whole process of scientific method, including making hypotheses, deducting predictions, designing experiments, gathering interpreting data, drawing conclusions and evaluating their results. By taking the course, students should build a clear and logical knowledge structure in biology, which will help them to get ready for further relevant study. They will also have developed their skills in analyzing complex systems and dealing with complex issues, which can be widely used in their future work and life.

# **Aims & Objectives**

- 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 analyse, evaluate and synthesize scientific information
- 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.

#### **Syllabus Details**

DP Biology in Keystone Academy is made up of 10 units, which cover the sub-disciplines including evolution, ecology, physiology, cell biology, biochemistry, genetics, molecular biology and bioinformatics. The sequence of the study is carefully designed based on the knowledge structure, the development of science in human history, and the development of students' cognition.

#### **Unit 1: Evolution and biodiversity**

Students explore how human beings model evolutionary theories to explain the diversity and unity of organisms.

Topics of study include: 1) classification of biodiversity, 2) cladistics, 3) evidence of evolution and 4) natural selection.

# **Unit 2: Ecology**

Students explore how organisms adapt and interact with the environment and how ecosystems work.

Topics of study include: 1) species, communities and ecosystems, 2) carbon cycling, 3) climate change and 4) energy flow.

# **Unit 3: Plant biology (HL only)**

Students explore how plant body works as a system.

Topics of study include: 1) transport in the xylem of plants, 2) transport in the phloem, 3) growth in plants, and 4) reproduction in plants.

#### **Unit 4: Animal physiology (HL only)**

Students explore how animal body works as a system.

Topics of study include: 1) movement, 2) the kidney and osmoregulation, and 3) sexual reproduction.

# **Unit 5: Human Physiology**

Students explore how human body works as a system.

Topics of study include: 1) digestion and absorption, 2) the

blood system, 3) gas exchange, and 4) hormones, homeostasis and reproduction.

# **Unit 6: Biological molecules**

Students explore how the molecules in organisms form highly ordered structures and carry out biological functions.

Topics of study include: 1) molecules to metabolism, 2) water, 3) carbohydrates and lipids, 4) proteins and 5) enzymes.

#### Unit 7: Cellular metabolism

Students explore how a cell works as a complex system at the molecular level.

Topics of study include: 1) introduction to cells, 2) ultrastructure of cells, 3) membrane structures, 4) membrane transport, 5) neurons and synapses, 6) defense against infectious disease, 7) antibody production and vaccination (HL), 8) cell respiration, and 9) photosynthesis.

#### **Unit 8: Genetics**

Students explore how genetic information is passed to the next generation and how this process is related to evolution. Topics of study include: 1) cell division, 2) inheritance, 3) chromosomes, 4) meiosis, and 5) gene pools and speciation (HL).

# **Unit 9: DNA sciences**

Students explore how genetic information is expressed and instructs the life activities.

Topics of study include: 1) Structure of DNA and RNA, 2) DNA structure and replication (HL), 3) transcription and gene expression (HL), 4) genes, 5) translation (HL) and 6) genetic modification and biotechnology.

#### Unit 10: Biotechnology and bioinformatics

Students explore how humans apply biological knowledge and technology.

Topics of study include: 1) Microbiology: organisms in industry, 2) biotechnology in agriculture, 3) environmental protection, 4) medicine (HL) and 5) bioinformatics (HL).

# **Chemistry**

#### Introduction

DP chemistry in Keystone Academy is concept based, inquiry based, and practice based. The students are required to understand key concepts, which have trans-disciplinary value, by exploring chemical phenomena and applying chemical theory. Through the process of thinking, asking, and answering inquiry questions, students will construct a system of knowledge in their minds. As a typical experiment based discipline, chemical study requires students to investigate chemical phenomena via the whole process of scientific method, including formulating hypothesis, deducting prediction, designing experiments, gathering and interpreting data, drawing conclusion and evaluating the result. By taking the course, students should build a clear and logical knowledge structure in chemistry, which will help them to get ready for further relevant study. They should also have developed their skills in abstracting simplified models from complex issues in real-life, which can be widely used in their future work and life.

# Aims & Objectives

- 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 analyse, evaluate and synthesize scientific information
- 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.

#### **Syllabus Details**

DP chemistry in Keystone Academy is made up of 12 units, which cover topics including quantitative calculation, atomic and molecular structure, chemical reaction, and organic chemistry. The sequence of the study is carefully designed based on the knowledge structure, the development of science in human history, and the development of students' cognition.

#### **Unit 1: Measurement and Data Processing**

Students learn that measurement has a limit of precision and accuracy, and this must be taken into account when evaluating experimental results.

Topics of study include: 1) uncertainties and errors in measurement and results, and 2) graphical techniques.

#### **Unit 2: Stoichiometric relationships**

Students correlate the number of particles with the mass that can be measured.

Topics of study include: 1) introduction to the particulate nature of matter and chemical change, 2) the mole concept, 3) reacting masses and volumes.

#### **Unit 3: Atomic Structure**

Students explore the structure of atom.

Topics of study include: 1) the nuclear atom, 2) electron configuration, and 3) electrons in atom (HL).

#### **Unit 4: Periodicity**

Students learn the arrangement of elements in the periodic table and predict their electron configuration.

Topics of study include: 1) periodic table, 2) periodic trends, 3) first-row d-block elements (HL) and 4) coloured complexes (HL).

# **Unit 5: Bonding**

Students explore how atoms bond together.

Topics of study include: 1) ionic bonding and structure, 2) Covalent bonding, 3) Covalent structures, 4) Intermolecular forces, 5) Metallic bonding, 6) Covalent bonding and electron domain and molecular geometries (HL), and 7) Hybridization (HL).

# **Unit 6: Energetics and Thermochemistry**

Students investigate the enthalpy changes from chemical reaction.

Topics of study include: 1) measuring energy changes, 2) Hess's Law, 3) Bond enthalpies, 4) energy cycles (HL) and 5) entropy and spontaneity (HL).

#### **Unit 7: Chemical Kinetics**

Students explore the factors that effect reaction rate.

Topics of study include: 1) collision theory and rates of reaction 2) rate expression and reaction mechanism (HL), and 3) activation energy.

# **Unit 8: Organic Chemistry**

Students explore the structure and properties of organic molecules.

Topics of study include: 1) fundamentals of organic chemistry, 2) functional group chemistry, 3) types of organic reactions (HL), 4) synthetic routes (HL), 5) stereoisomerism (HL), and 6) spectroscopic identification of organic compounds (HL).

#### **Unit 9: Equilibrium**

Students explore the dynamic balance in chemical reactions. Topics of study include: 1) equilibrium and 2) equilibrium law (HL).

#### **Unit 10: Acids and Bases**

Students explore the properties of acids and bases and the reactions between them.

Topics of study include: 1) theories of acids and bases, 2) properties of acids and bases, 3) the pH scale, 4) strong and weak acids and bases, 5) Acid deposition, 6) Lewis acids and bases (HL), 7) calculations involving acids and bases (HL), and 8) pH curves (HL).



# **Unit 11: Redox process**

Students explore the reactions that involve electron transfer. Topics of study include: 1) oxidation and reduction, 2) electrochemical cell, and electrochemical cells (HL).

#### **Unit 12: Option**

Depending on option chosen.

# **Design Technology**

#### Introduction

Diploma Programme design technology aims to develop internationally minded people whose enhanced understanding of design and the technological world can facilitate our shared guardianship of the planet and create a better world.

It focuses on analysis, design development, synthesis and evaluation. The creative tension between theory and practice is what characterizes design technology within the Diploma Programme sciences group.

Inquiry and problem-solving are at the heart of the subject. Diploma Programme design technology requires the use of the design cycle as a tool, which provides the methodology used to structure the inquiry and analysis of problems, the development of feasible solutions, and the testing

and evaluation of the solution. In Diploma Programme design technology, a solution can be defined as a model, prototype, product or system that students have developed independently.

Diploma Programme design technology achieves a high level of design literacy by enabling students to develop critical-thinking and design skills, which they can apply in a practical context. While designing may take various forms, it will involve the selective application of knowledge within an ethical framework.

# **Design Technology aims & objectives**

Through studying design technology, students should become aware of how designers work and communicate with each other. While the design methodology may take on a wide variety of forms, it is the emphasis on a practical approach through design work that characterizes this subject.

The aims of the subject state in a general way what the teacher may expect to teach or do, and what a student may expect to experience or learn.

The aims enable students, through the overarching theme of the nature of design, to develop:

- a sense of curiosity as they acquire the skills necessary for independent and lifelong learning and action through inquiry into the technological world around them
- an ability to explore concepts, ideas and issues with personal, local and global significance to acquire indepth knowledge and understanding of design and technology
- initiative in applying thinking skills critically and creatively to identify and resolve complex social and technological problems through reasoned ethical decision-making
- 4. an ability to understand and express ideas confidently and creatively using a variety of communication techniques through collaboration with others
- 5. a propensity to act with integrity and honesty, and take responsibility for their own actions in designing technological solutions to problems
- 6. an understanding and appreciation of cultures in terms of global technological development, seeking and evaluating a range of perspectives

Component

Paper 2 - data based and extended response questions

Internal Assessment - Individual Design Project

Paper 1- Multiple choice questions

- a willingness to approach unfamiliar situations in an informed manner and explore new roles, ideas and strategies so they can articulate and defend their proposals with confidence
- 8. an understanding of the contribution of design and technology to the promotion of intellectual, physical and emotional balance and the achievement of personal and social well-being
- 9. empathy, compassion and respect for the needs and feelings of others in order to make a positive difference to the lives of others and to the environment
- 10. skills that enable them to reflect on the impacts of design and technology on society and the environment in order to develop their own learning and enhance solutions to technological problems.

#### **Syllabus Details**

#### Core

- 1. Human factors and ergonomics
- 2. Resource management and sustainable production
- 3. Modelling

Overall Weighting

30%

30%

40%

- 4. Final production
- 5. Innovation and design
- 6. Classic design

# Additional higher level (AHL)

- 7. User-centered design (UCD)
- 8. Sustainability
- 9. Innovation and markets
- 10. Commercial production

# Assessment Details - HL

Assessment Details - SL

Component	Overall Weighting
Paper 1 – Multiple choice questions	20%
Paper 2 – data based and extended response questions	20%
Paper 3 – structured questions based on extended material and case study	20%
Internal Assessment – Individual Design Project	40%

#### **Practical work**

Design project Group 4 project Teacher-directed activities

# **Physics**

#### Introduction

DP Physics in Keystone Academy is concept based, inquiry based, and practice based. The students are required to understand key concepts, which have trans-disciplinary value, by exploring physical phenomena and applying physical theory. Through the process of thinking, asking, and answering inquiry questions, students will construct the knowledge system in their mind. As an experiment based discipline, Physics study requires students to investigate physical phenomena via the whole process of scientific method, including making hypotheses, deducting predictions, designing experiments, gathering and interpreting their data, drawing conclusions and evaluating results. By taking the course, students should build a clear and logical knowledge structure in Physics, which will help them to get ready for further relevant study. They should also have developed their skills in applying logical reasoning in dealing real-life issues, which can be widely used in their future work and life.

#### Aims & Objectives

- 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 analyse, evaluate and synthesize scientific information
- 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.

#### **Syllabus Details**

DP Physics in Keystone Academy is made up of 5 units, which cover the sub-disciplines including mechanistics, thermotics, optics, and electromagnetics. The sequence of the study is carefully designed based on the knowledge structure, the development of science in human history, and the development of students' cognition.

#### Unit 1: Motion and force

Students explore how macro objects interact with each other and change the status of motion.

Topics of study include: 1) measurements in physics, 2) uncertainties and errors, 3) motion, 4) forces, 5) circular motion, 6) Newton's law of gravitation, 7) describing fields (HL), 8) fields at work, 9) momentum and impulse, and 10) work, energy and power.

# **Unit 2: Particles**

Students explore how micro particles interact with each other and show macro features.

Topics of study include: 1) the structure of matter, 2) thermal concepts, 3) thermal energy transfer, 4) energy sources, 5) modeling a gas, 6) discrete energy and radioactivity, 7) nuclear reaction, 8) nuclear physics (HL), and 9) the interaction of matter with radiation (HL).

#### **Unit 3: Waves**

Students explore how waves behave.

Topics of study include: 1) oscillation, 2) simple harmonic motion, 3) wave characteristics, 4) travelling waves, 5) standing waves, 6) wave behavior, 7) single-slit diffraction (HL), 8) interference (HL), 9) resolution (HL) and 10) Doppler effect (HL).

#### Unit 4: Electricity and magnetism

Students explore how electromagnetic fields generate

electrical and magnetic phenomena.

Topics of study include: 1) electric fields, 2) capacitance (HL), 3) heating effect of electric currents, 4) magnetic effects of electric current, 5) electromagnetic induction (HL) and 6) power generation and transmission (HL).

#### **Unit 5: Relativity**

Students explore principles of motion in macro scale and high-speed condition.

Topics of study include: 1) the beginning of relativity, 2) Lorentz transformation, 3) spacetime diagrams, 4) relativistic mechanics (HL) and 5) general relativity (HL).

#### **Description of Papers**

Paper 1 is a multiple choice examination consisting of 30 questions at Standard Level and 40 questions at Higher Level. The questions may address any learning area from the subject core material at Standard Level, and from the subject core and additional higher level material at Higher Level.

Paper 2 is a short-answer and extended-response examination. As with Paper 1, the questions may address any learning area from the subject core material at Standard Level, and from the subject core and additional higher level material at

Higher Level.

Paper 3 is also a short-answer and extended-response paper. However, this paper focuses on the experimental nature of the subject, and will also contain questions on the subject Option Topic. See below for more details on available option topics for each subject. This paper is presented in two sections. Section A contains one data-based question and several short-answer questions on experimental work. Section B contains short and long answer questions on the subject Option Topic.

#### **Internal Assessment**

The internal assessment requirements are the same for biology, chemistry and physics. The internal assessment, worth 20% of the final assessment, consists of one scientific investigation. The individual investigation should cover a topic that is commensurate with the level of the course of study.

Student work is internally assessed by the teacher and externally moderated by the IB. The performance in internal assessment at both SL and HL is marked against common assessment criteria, with a total mark out of 24.

Biology, Chemistry, and Physics are all assessed according to the following structure:

Assessment Standard Level (SL)		Higher Level (HL)		
11000001110111	Duration (hours)	Weighting (%)	Duration (hours)	Weighting (%)
Paper 1	3/4	20	1	20
Paper 2	1 1/4	40	2 1/4	36
Paper 3	1	20	1 1/4	24
Internal Assessment (IA)	10	20	10	20



# **Computer Science**

#### Introduction

The Computer Science course develops skills in computational thinking, algorithm design and computer programming. Students will explore the ways in which computers operate with both a hardware and software focus. Students will learn to plan, design and write software for a variety of uses ranging from applications to games. They will analyse different design implementations and evaluate their efficiency with respect to both speed and hardware requirements.

This course will foster the student's ability to think logically and procedurally while developing practical skills in computer programming and systems management.

#### **Aims & Objectives**

- Provide opportunities for study and creativity within a global context that will stimulate and challenge students developing the skills necessary for independent and lifelong learning
- 2. Provide a body of knowledge, methods and techniques that characterize computer science
- Enable students to apply and use a body of knowledge, methods and techniques that characterize computer science
- 4. Demonstrate initiative in applying thinking skills

- critically to identify and resolve complex problems
- Engender an awareness of the need for, and the value of, effective collaboration and communication in resolving complex problems
- Develop logical and critical thinking as well as experimental, investigative and problem-solving skills
- Develop and apply the students' information and communication technology skills in the study of computer science to communicate information confidently and effectively
- 8. Raise awareness of the moral, ethical, social, economic and environmental implications of using science and technology
- 9. Develop an appreciation of the possibilities and limitations associated with continued developments in IT systems and computer science
- Encourage an understanding of the relationships between scientific disciplines and the overarching nature of the scientific method.

#### **Syllabus Details**

SL/HL Core Syllabus Content

 Topic 1: System fundamentals – Students will look at Systems in Organizations and learn System design skills.

- **Topic 2: Computer organization** Students will learn about the hardware of a computer and how it works together.
- Topic 3: Networks Students will learn about computer networking in a range of situations and levels of complexity.
- Topic 4: Computational thinking, problem-solving and programming Students will learn the general principles of programming with a focus on different types of thinking (procedural, logical, forward looking, concurrent, abstract). They will link this knowledge to practical program and algorithm design. Their design skills will allow them to develop proficiency in computer programming.

#### HL only Syllabus Content

• Topic 5: Abstract data structures – Students will learn about data management and efficient ways to store and search data and compare different options

- that weigh computational speed versus computational complexity.
- Topic 6: Resource management Students will look at computers and computer components as resources and make IT management style designs about costs, hardware and software platforms.
- Topic 7: Control Students will look at and discuss computer controlled systems such as elevators, washing machines, GPS devices, robots, etc and they will think about how these system work off of internal feedback and user input.

#### **Options**

Students study one of the following options:

- Option A: Databases
- Option B: Modeling and simulation
- Option C: Web science
- Option D: Object-oriented programming (OOP)

Higher Level		Standard Level	
External Assessment  Paper 1: Core topics – 2h10min  Paper 2: Option – 80min  Paper 3: Case study – 60min	80% (40%) (20%) (20%)	External Assessment  Paper 1: Core topics – 1.5 hrs  Paper 2: Option - 1 hr	<b>70%</b> (45%) (25%)
Internal Assessment Development of a computational	20%	Internal Assessment Development of a computational	30%
Solution Group 4 project	(17%) (3%)	Solution Group 4 project	(25%) (5%)

# Environmental Systems and Societies (Interdisciplinary, satisfies the requirements of both group 3 and 4)

#### Introduction

As a transdisciplinary subject, Environmental Systems and Societies is designed to combine the techniques and knowledge associated with Group 4 subjects (the

Experimental Sciences) with those associated with Group 3 subjects (Individuals and Societies). By choosing to study a transdisciplinary course such as this as part of their Diploma, students are able to satisfy the requirements for both groups 3 and 4,thus allowing them to choose another subject from any group (including another Group 3 or 4 subject). The Environmental Systems and Societies course is offered at Standard Level only.

The prime intent of this course is to provide students with a coherent perspective of the interrelationships between environmental systems and societies; one that enables them to adopt an informed personal response to the wide range of pressing environmental issues that they will inevitably come to face, their own relationship with their environment and the significance of choices and decisions that they make in their own lives. It is intended that students develop a sound understanding of the interrelationships between environmental systems and societies.

# **Aims & Objectives**

- Acquire the knowledge and understandings of environmental systems at a variety of scales
- Apply the knowledge, methodologies and skills to analyse environmental systems and issues at a variety of scales
- 3. Appreciate the dynamic interconnectedness between environmental systems and societies
- Value the combination of personal, local and global perspectives in making informed decisions and taking responsible actions on environmental issues
- Be critically aware that resources are finite, and that these could be inequitably distributed and exploited, and that management of these inequities is the key to sustainability
- 6. Develop awareness of the diversity of environmental

- value systems
- Develop critical awareness that environmental problems are caused and solved by decisions made by individuals and societies that are based on different areas of knowledge
- 8. Engage with the controversies that surround a variety of environmental issues
- 9. Create innovative solutions to environmental issues by engaging actively in local and global contexts.

# **Syllabus Details**

#### **Core content**

Topic 1—Foundations of environmental systems and societies

Topic 2—Ecosystems and ecology

Topic 3—Biodiversity and conservation

Topic 4—Water and aquatic food production systems and societies

Topic 5—Soil systems and terrestrial food production systems and societies

Topic 6—Atmospheric systems and societies

Topic 7—Climate change and energy production

Topic 8—Human systems and resource use

# Practical scheme of work

Practical activities

Individual investigation

#### **Assessment Details**

Assessment component	Weighting %	Approximate weighting of objectives in each component (%)		Duration (hours)
component		1 and 2	3	(Hours)
Paper 1 (case study)	25	50	50	1
Paper 2 (short answers and structured essays)	50	50	50	2
Internal assessment (individual investigation)	25	Covers objectives 1, 2, 3 and 4		10



# Mathematics

#### **Mathematics**

# The Aims of Group 5 Courses

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The mathematics courses aim to contribute to students' personal attributes, subject understanding and global awareness by enabling them to:

- 1. 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
- 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
- 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
- Appreciate the moral, social and ethical questions arising from the work of mathematicians and its applications
- Appreciate the universality of mathematics and its 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

# Mathematics: Analysis and Approaches SL and HL

Mathematics: Analysis and Approaches at SL and HL is appropriate 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 the use of technology. Students who take Mathematics: Analysis and Approaches will be those who enjoy the thrill of mathematical problem solving and generalization. This subject is aimed at students who will go on to study subjects with substantial mathematics content such as mathematics itself, engineering, physical sciences, or economics for example.

# Mathematics: Applications and Interpretation SL and HL

Mathematics: Applications and Interpretation SL and HL is appropriate 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 subject is aimed at students who will go on to study subjects such as social sciences, natural sciences, statistics, business, some economics, psychology, and design, for example.

# **Syllabus Outline**

Mathematics: Analysis and Approaches SL and HL

C. II. h	Suggested teaching hours		
Syllabus component	SL	HL	
Topic 1—Number and algebra	19	39	
Topic 2—Functions	21	32	
Topic 3— Geometry and trigonometry	25	51	
Topic 4—Statistics and probability	27	33	
Topic 5 —Calculus	28	55	
The toolkit and the mathematical exploration  Investigative, problem-solving and modelling skills development leading to an individual exploration. The exploration is a piece of written work that involves investigating an area of mathematics.	30 Phy. Be	30	
Total teaching hours	150	240	

All topics are compulsory. Students must study all the sub-topics in each of the topics in the syllabus as listed in this guide. Students are also required to be familiar with the topics listed as prior learning.

# ${\bf Mathematics: Applications \ and \ Interpretation \ SL \ and \ HL}$

0.11.1	Suggested teaching hours		
Syllabus component	SL	HL	
Topic 1—Number and algebra	16	29	
Topic 2—Functions	31	42	
Topic 3— Geometry and trigonometry	18	46	
Topic 4—Statistics and probability	36	52	
Topic 5 —Calculus	19	41	
The toolkit and the mathematical exploration	80.	•	
Investigative, problem-solving and modelling skills development leading to an individual exploration. The exploration is a piece of written work that involves investigating an area of mathematics.	a Academy.	30	
Total teaching hours	150	240	

All topics are compulsory. Students must study all the sub-topics in each of the topics in the syllabus as listed in this guide. Students are also required to be familiar with the topics listed as prior learning.

# **Assessment Details**

# ${\bf Mathematics: Analysis\ and\ Approaches\ SL\&HL\ Assessment\ Outline}$

Assessment component	Weighting	
	SL	HL
External assesment (3 hours)	80%	80%
Paper 1 (90 minutes)  No technology allowed. (80 marks)  Section A - Compulsory short-response questions based on the syllabus.  Section B - Compulsory extended-response questions based on the syllabus.	40%	30%
Paper 2 (90 minutes) Technology required. (80 marks)  Section A - Compulsory short-response questions based on the syllabus.  Section B - Compulsory extended-response questions based on the syllabus.	40%	30%
Paper 3 (60 minutes) Technology required. (55 marks) Two compulsory extended response problem-solving questions.		20%
Internal assessment 20% This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.  Mathematical exploration Internal assessment in mathematics is an individual exploration. This is a piece of written work that involves investigating an area of mathematics. (20 marks)	20%	20%

# Mathematics: Applications and Interpretation SL&HL Assessment Outline

Assessment component	Weighting	
	SL	HL
External assesment (3 hours)	80%	80%
Paper 1 (90 minutes) Technology required. (80 marks) Compulsory short-response questions based on the syllabus. (80 marks)	40%	30%
Paper 2 (90 minutes) Technology required. (80 marks) Compulsory extended-response questions based on the syllabus. (80 marks)	40%	30%
Paper 3 (60 minutes) Technology required. (55 marks) Two compulsory extended response problem-solving questions.	one Acc	20%
Internal assessment 20% This component is internally assessed by the teacher and externally moderated by the IB at the end of the course.  Mathematical exploration Internal assessment in mathematics is an individual exploration. This is a piece of written work that involves investigating an area of mathematics. (20 marks)	20%	20%



# The Arts and Electives

# The Nature of Group 6 Courses

The Group 6 subjects of Music, Visual Arts and Theatre Arts allow the students to become creatively immersed in an art form that they are passionate about. Those students who have the capacity to discover, consider, challenge and extend new ideas, utilizing these skills will achieve highly in these subject areas.

In addition to skill, students need to be prepared to think 'outside the box' and become excited about their learning and their new creations in these subjects. By studying the arts and engaging with them practically, students will discover how elusive, fascinating and varied art forms can be. Through thinking further, their ideas can be used to frame, reflect, expose, critique and speculate on new perspectives.

Through studying all three art forms the students will continue to gain an appreciation of how the arts have the power to entertain, enrich and transform peoples' everyday lives. All art forms exist to create new ideas, questions, experiences and opportunities for all. The students, through these three Diploma courses, have the opportunity to consider how to do this and to experiment with their ideas. Their appreciation of the arts in their different forms will extend and develop as the courses progress.

The arts are a means of exploring society and relationships within it. There emerge possibilities for individual and communal understanding. The students are encouraged to develop their social skills in order to learn how to work effectively with others, and to be successful in any line of work they decide to pursue. Students will be required to display a willingness to understand alternative views, and to respect and appreciate cultural diversity.







#### Music

#### Introduction

Prospective students will be expected to have studied a suitable music curriculum up to 9th Grade and have individual instrumental or vocal lessons.

The purpose of the course is to create learning environments for students to understand and explore the diversity of music throughout history and culture. It encourages students to develop perceptual skills through musical experiences such as recognizing, analyzing, identify, composing and discriminating musical elements found in a variety of music. Students will develop their performance skills, compositional skills, and research skills. The learning process will help them to reach their full potential as a performer, composer and researcher. Also, they will improve their attitude as a learner by being open-minded, risk-taking, and principled students.

#### **Aims & Objectives**

- 1. Explore the diversity of the arts across time, cultures and contexts
- Develop as imaginative and skilled creators and collaborators
- 3. Express ideas creatively and with competence
- 4. Critically reflect on the process of creating and experiencing the arts
- 5. Develop as informed, perceptive and analytical practitioners
- 6. Enjoy lifelong engagement with the arts
- 7. Explore a range of musical contexts and make links to, and between, different musical practices, conventions and forms of expression (inquiry)
- 8. Acquire, develop and experiment with musical competencies through a range of musical practices, conventions and forms of expression, both individually and in collaboration with others (action)
- 9. Evaluate and develop critical perspectives on their own music and the work of others (reflection).

#### **Curriculum Details**

Throughout the course, students embody three roles: the researcher, the creator and the performer. In these roles, they inquire, create, perform and reflect on the course's three musical processes:

- Exploring music in context
- Experimenting with music
- Presenting music

The exploration of diverse musical material is focused through the lenses of four Areas of Inquiry (AoIs):

- 1. Music for sociocultural and political expression

  Examples may include protest songs, liturgical music,
  national anthems
- 2. Music for listening and performance

  Examples may include chamber music of the Western
  art tradition, cool jazz, experimental music
- 3. Music for dramatic impact, movement and entertainment Examples may include music for film, ballet or musical theatre
- 4. Music technology in the electronic and digital age

  Examples may include electronic dance music,
  technology in popular music production

Engagement with these AoIs takes place across three contexts: **Personal context** – music that has significance to the student, and that they are most familiar with. Students consider their immediate cultural context and interests that contribute to their emerging musical identity.

**Local context** – music that has local significance, but that may be unfamiliar to the student. This can be music from within the student's local, regional or cultural communities, and may include music that the student is not currently engaged with.

Global context – unfamiliar music from a variety of places, societies and cultures. This will include music that the student has not yet connected or engaged with. The music may be from a distant global region or even music in closer geographical proximity but more culturally distant that has not been previously accessible to the student.

# **Assessment Details**

Each assessment submission links directly to one of the course's three musical processes and requires candidates to evidence engagement with that process through the three musical roles.

	SL	HL
Exploring music in context (External)  Students select samples of their work for a portfolio submission (maximum 2,400 words). The submission contains:  a. Exploring as a researcher  • written work demonstrating engagement with, and understanding of, diverse musical material from at least two areas of inquiry  b. Exploring as a creator and as a performer  • one practical creating exercise (score maximum 32 bars and/or audio 1 minute as appropriate to style)  • one performed adaptation of music from a local or global context for the student's own instrument (maximum 2 minutes)  c. supporting audio reference material, (not assessed).	30%	20%
Experimenting with music (Internal)  Students submit an experimentation report with evidence of their musical processes in creating and performing focused through at least two areas of inquiry in a local and/or global context. The report provides a rationale and commentary for each process. Students submit:  a. Experimenting as a researcher  • a written experimentation report that supports the experimentation (maximum 1,500 words)  b. Experimenting as a creator and as a performer  • Practical musical evidence of the experimentation process in the form of  - three related excerpts of creating (total maximum 5 minutes)  - three related excerpts of performing (total maximum 5 minutes)	30%	20%
Presenting music (External)  Students submit a collection of works demonstrating engagement with diverse musical material from four areas of inquiry. The submission contains:  a. Presenting as a researcher  • programme notes (maximum 600 words)  b. Presenting as a creator  • composition and/or improvisation (maximum 6 minutes)  c. Presenting as a performer  • solo and/or ensemble (maximum 12 minutes)  • excerpts, where applicable (maximum 2 minutes)	40%	30%

	SL	HL
The contemporary music-maker (HL only) (Internal)		
Students submit a continuous multimedia presentation documenting their real-life project. Students submit:  Multimedia presentation (maximum 15 minutes), evidencing:  a. the project proposal		30%
<ul><li>a. the project proposal</li><li>b. the process and evaluation</li><li>c. the realized project, or curated selections of it.</li></ul>		

#### **Theatre Arts**

#### Introduction

Theatre is a discipline that examines and encompasses the human experience through a global lens.

Through the endeavor of practical creation, students engage in and explore their place in the creative process through practical engagement in theatre and application of a core ideology of methodologies and techniques. A process of creative problem solving empowers theatre students to live a life of awareness and sensitivity to the human condition.

# Theatre aims

The aims of the DP theatre course are to enable students to:

- explore the diversity of the arts across time, cultures and contexts
- develop as imaginative and skilled creators and collaborators
- 3. express ideas creatively and with competence in forms appropriate to the artistic discipline
- 4. critically reflect on the process of creating and experiencing the arts
- develop as informed, perceptive and analytical practitioners
- 6. enjoy lifelong engagement with the arts.
- 7. inquire into theatre and its contexts

- 8. develop and practically apply theatre performance and production skills and elements, led by intentions
- 9. create, present and evaluate theatre work both independently and collaboratively
- 10. acquire the perspectives and intentions of an internationally-minded theatre-maker

# For HL only:

11. understand, appreciate and explore the relationship between theory and performance.

#### **Objectives**

# 1. Inquiry

- Carry out academic and physical research and identify valuable information and resources to support work in theatre
- 2. Inquire into, and contextualize, the theatrical work and ideas of others

#### 2. Development

- 1. Develop informed and imaginative theatre-maker intentions for making and staging theatre
- Practically and collaboratively explore how performance and production elements combine in practice to create effective moments of theatre

#### 3. Presentation

1. Present theatre work to others in order to fulfill theatre-maker intentions

Communicate theatrical ideas in a variety of forms, formats and contexts

### 4. Evaluation

- Reflect on feedback from others and consider their own development as theatre-makers
- 2. Evaluate the effectiveness of theatre work

### **Syllabus Details**

**Staging play texts:** This area of the syllabus addresses the transformation of play texts into action. Students examine the ways in which ideas are articulated in texts by playwrights and the ways in which performance and production elements can be used to effectively fulfill theatre-maker intentions.

Exploring world theatre traditions: This area of the syllabus addresses the authentic exploration of world theatre traditions through academic and practical research and exploration.

Students inquire into and physically explore world theatre traditions, performance conventions and performance material from those traditions in order to acquire a deeper understanding and appreciation of the traditions through the body and/or voice.

Collaboratively creating original the state of the syllabus addresses the authentic exploration of the syllabus addresses the authentic exploration.

Collaboratively creating original theatre: This area of the syllabus addresses the collaborative development and performance of original theatre as part of an ensemble of theatre-makers. Students formulate intentions for theatre-making and examine the ways in which these intentions can be effectively realized through the collaborative creation of original performance work inspired by a starting point.

Performing theatre theory (HL only): This area of the syllabus addresses the exploration of aspects of theatre theory and the ways in which theory can inform performance. Students research at least one theatre theorist, identify an aspect of their theory and apply this to create and present theatre work that demonstrates this aspect of theory in performance.

### **Assessment Details**

Assessment Task	Standard level	Higher Level
Production proposal (Internal)	30%	20%
Students at SL and HL choose a published play text they have not previously studied and formulate a vision for the design and theoretical staging of the entire play text for an audience. These ideas are presented in the form of a proposal. Each student submits the following.		
<ol> <li>A production proposal (a maximum of 12 pages of written text and images, with written text not exceeding 4,000 words) plus a list of all sources used.</li> </ol>		
Research presentation (External)	30%	20%
Students at SL and HL plan, deliver and video record an individual research presentation (15 minutes maximum) in which they provide evidence of their academic and practical exploration and learning of a world theatre tradition they have not previously studied. Each student submits the following.	30%	
<ol> <li>A video recording of the student's research presentation (15 minutes maximum).</li> <li>A list of all sources cited and any additional resources used by the student during the presentation.</li> </ol>		
Collaborative project	40%	25%
Students at SL and HL collaboratively create and perform an original piece of theatre (lasting 7–10 minutes maximum) created from a starting point of their choice. The piece is presented to an audience as a fully-realized production. Each student submits the following.		
<ol> <li>A project report (a maximum of 10 pages of written text and images, with written text not exceeding 4,000 words) plus a list of all sources used.</li> <li>A video recording of the final piece (7–10 minutes maximum)</li> </ol>		
Solo theatre piece (HL only) (External)		35%
Students at HL research a theatre theorist they have not previously studied, identify an aspect(s) of theory and create and present a solo theatre piece (lasting 4–7 minutes maximum) that demonstrates the practical application of this theory to a theatre piece for an audience. Each student submits the following.		
<ol> <li>A report (2,500 words maximum) plus a list of all primary and secondary sources cited.</li> <li>A continuous unedited video recording of the whole solo theatre piece (4–7 minutes maximum).</li> </ol>		

### **Visual Arts**

#### Introduction

The IB Visual Arts course is an exciting and engaging programme of study for creative students with a passion for Visual Arts. It is a challenging and 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.

### **Aims & Objectives**

- 1. To enjoy lifelong engagement with the arts
- 2. To become informed, reflective and critical practitioners in the arts
- To understand the dynamic and changing nature of the arts
- 4. To explore and value the diversity of the arts across time, place and cultures
- 5. To express ideas with confidence and competence
- 6. Develop perceptual and analytical skills
- 7. Make artwork that is influenced by personal and cultural contexts
- 8. To 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.

### **Syllabus Details**

The course is broken into 3 components. These are:

Visual Arts in context: In this component students examine and compare the work of artists from different cultures. They will consider their own cultural context and the influence this has on their work. Students will make art through a process of investigation, looking at other artists considering their work



critically and experimenting with techniques. Through this process students will begin to formulate their own personal intentions for creating their artwork.

Visual Art methods: This component examines building techniques and skills in a range of media. Pupils will investigate into how and why different techniques have been used by different artists and the process involved. They will experiment and explore a diverse range of techniques for making art and be able to reflect on the process.

Communicating Visual Arts: Students will explore ways of communicating their ideas through both visual and written means. To do this they will have to make artistic choices about how to communicate most effectively. They will present a body of work that shows their process of reflection and evaluation. Students will have to consider how to present their final work in exhibition.

### Assessment Details —Higher Level

Assessment tasks	Weighting
External assessment Part 1: Comparative study	60% 20%
<ul> <li>Students at HL analyse and compare different artworks by different artists. This independent critical and contextual investigation explores artworks, objects and artefacts from differing cultural contexts.</li> <li>HL students submit 10–15 screens which examine and compare at least three artworks, at least two of which need to be by different artists. The works selected for comparison and analysis should come from contrasting contexts (local, national, international and/or intercultural).</li> <li>HL students submit 3–5 screens which analyse the extent to which their work and practices have been influenced by the art and artists examined.</li> <li>HL students submit a list of sources used.</li> </ul>	2070
Part 2: Process portfolio	40%
<ul> <li>Students at HL submit carefully selected materials which evidence their experimentation, exploration, manipulation and refinement of a variety of visual arts activities during the two-year course.</li> <li>HL students submit 13–25 screens which evidence their sustained experimentation, exploration, manipulation and refinement of a variety of art-making activities. For HL students the submitted work must have been created in at least three art-making forms, selected from a minimum of two columns of the art-making forms table.</li> </ul>	
Internal assessment This task is internally assessed by the teacher and externally moderated by the IB at the end of the course. Part 3: Exhibition	40%
Students at HL 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	
<ul> <li>and an understanding of the use of materials, ideas and practices appropriate to visual communication.</li> <li>HL students submit a curatorial rationale that does not exceed 700 words.</li> <li>HL students submit 8–11 artworks.</li> </ul>	
<ul> <li>HL students submit exhibition text (stating the title, medium, size and intention) for each selected artwork.</li> </ul>	
HL students may submit two photographs of their overall exhibition. These exhibition photographs provide an understanding of the context of the exhibition and the size and scope of the works. While	
the photographs will not be used to assess individual artworks, they may give the moderator insight into how a candidate has considered the overall experience of the viewer in their exhibition.	

### Assessment Details —Standard Level

Assessment tasks	Weighting
<ul> <li>External assessment</li> <li>Part 1: Comparative study</li> <li>Students at SL analyse and compare different artworks by different artists. This independent critical and contextual investigation explores artworks, objects and artifacts from differing cultural contexts.</li> <li>SL students submit 10–15 screens which examine and compare at least three artworks, at least two of which should be by different artists. The work selected for comparison and analysis should come from contrasting contexts (local, national, international and/or intercultural).</li> <li>SL students submit a list of sources used.</li> </ul>	60% 20%
<ul> <li>Part 2: Process portfolio</li> <li>Students at SL submit carefully selected materials which evidence their experimentation, exploration, manipulation and refinement of a variety of visual arts activities during the two-year course.</li> <li>SL students submit 9–18 screens which evidence their sustained experimentation, exploration, manipulation and refinement of a variety of art-making activities. For SL students the submitted work must be in at least two art-making forms, each from separate columns of the art-making forms table.</li> <li>SL students submit a list of sources used.</li> </ul>	40%
Internal assessment  This task is internally assessed by the teacher and externally moderated by the IB at the end of the course.  Part 3: Exhibition	40%
Students at SL 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.  • SL students submit a curatorial rationale that does not exceed 400 words.  • SL students submit 4–7 artworks.	
<ul> <li>SL students submit 4-7 artworks.</li> <li>SL students submit exhibition text (stating the title, medium, size and intention) for each selected artwork.</li> <li>SL students may submit two photographs of their overall exhibition. These exhibition photographs provide an understanding of the context of the exhibition and the size and scope of the works. While the photographs will not be used to assess individual artworks, they may give the moderator insight into how a candidate has considered the overall experience of the viewer in their exhibition.</li> </ul>	



### **Electives**

Students may opt not to do a Group 6 Arts subject and choose an elective or second subject from either Groups 3 or 4. The electives for this cohort are as follows:

- Biology
- Business Management
- Chemistry
- Computer Science
- Design Technology
- Economics
- History
- Physics
- Psychology
- Geography

Thus, students are able to take 2 Sciences or 2 Individuals & Societies courses. Please speak to the High School Office if you require further clarification on this.

## **Online DP Courses**

In special circumstances, a student may be able to do one DP course online. Many DP courses are offered online through Pamoja Education (www.pamojaeducation.com). They offer many but not all DP courses and their offerings diversify each year. There are 2 main reasons why a student may need or wish to take an online course:

- A particular course is not being offered at Keystone in an upcoming academic year
- There is a timetable conflict which will not allow a student to take a certain combination of courses

In order to be successful in an online course, a student must demonstrate the following:

- Strong academic results
- Teacher or advisor recommendations
- A demonstrated ability to work independently or with minimal supervision

Online classes are taught by a qualified and experienced DP teacher of that subject and the class is comprised of similar students from around the world who are operating in many different time zones. The 'classroom' has weekly readings, web links, assignments, journal entries and occasional forums, all of which are mandatory. Assignments are posted weekly and graded. Furthermore, there are practice IB exams at the end of Grade 11 and midway in Grade 12.

As online students will have less class time at Keystone than their peers, it is expected that they use this time wisely to complete any online readings, assignments or to read more widely in their subject. Another important point to remember is that there are often regular classes when Keystone has official holidays such as National Day and Chinese New Year.

Keystone will provide what is known as a School-Based Coordinator – a teacher who is appointed to monitor students' progress in their respective courses and to liaise with the online teachers as well as Pamoja. This teacher may or may not have knowledge/experience with a particular subject but their role is not to teach. Meetings with the School-Based Coordinator are held once per cycle at a time convenient to the student and the teacher.

The following online courses are available during the current academic year:

Film Studies SL only
French ab initio SL
Information Technology in a Global Society HL and SL
Mandarin ab initio SL

Philosophy SL

Spanish ab initio SL

Spanish B SL

Keystone currently has a few students doing online courses through Pamoja – they are a valuable source to discuss the benefits and challenges of doing such courses.

If you are interested in doing any of these courses, please come to the High School Office to discuss possibilities and appropriateness to your course selections.

# **Appendix 1**

# The Keystone Diploma: Definition and Assessment

### Introduction

This document refers to students who complete grade 12 at Keystone Academy, and who have been enrolled at Keystone for four, three, two, or one years prior to graduation.

All students successfully completing the graduation requirements at Keystone are awarded the Keystone Diploma. This award is separate from but overlaps with some aspects of the IB Diploma. It is an internal Keystone Academy award, reviewed by Keystone Faculty and voted by the Board of Trustees for each student, and presented at commencement celebrations in May or June of each year.

### General

The Keystone Diploma graduate requirements for Keystone students derive from the school's mission and its three keystones.

The keystones are:

- bilingual immersion in Chinese and English;
- building character and community throughout our residential setting;
- promoting Chinese culture and identity in a world context.

Graduates of Keystone are described in the mission in this way:

Our graduates will possess the intellectual, cultural, and ecological fluency to navigate gracefully in universities, cities, and their chosen professions. They will know how to apply their emotional intelligence, character, and zest for learning to help develop and improve the communities in which they live.

Keystone graduates will be ready to launch into university study and demanding careers. They will be able to conceptualize complex interdependence between people and ideas. They will be able to operate effectively in different cultures and regions. They will be able to assume responsibility for themselves and their communities, and take action to improve the world for future generations.

### The Keystone Diploma

The Keystone Diploma will be awarded to students who complete successfully the following. Any exception to the requirements below would be adjudicated by the Senior Leadership:

### Entering Grade 9, and through Grade 9

- IB MYP passing and promotion requirements.
- Keystone's China and the World program.
- Assessed and appropriate proficiency in the three keystones.

### Entering Grade 10, and through Grade 10

- IB MYP passing and promotion requirements.
- Keystone's China and the World program.
- Assessed and appropriate proficiency in the three keystones.

### Entering Grade 11, and through Grade 11

- No fewer than five IBDP Courses, usually including Chinese, English, and Mathematics, all at passing grades, and with at least a grade of 4 in two College Required Courses (CRCs).
- Appropriate proficiency in the IBDP core elements of CAS, TOK, and the EE.
- Assessed and appropriate proficiency in the three keystones.

### Entering Grade 12, and through Grade 12

- No fewer than five IBDP Courses, usually including Chinese, English, and Mathematics, all at passing grades.
- Appropriate proficiency in the IBDP core elements of CAS, TOK, and the EE.
- Assessed and appropriate proficiency in the three keystones.

### Assessment and Award of the Keystone Diploma

Requirements for the Keystone Diploma will be assessed every year from grade 9 to grade 12.

The 'academic' aspect of this assessment was established from May/June 2015.

The process of assessing the three keystones started in May/ June 2017 for the grade 11 class.

The following year, again at the end of the academic year (that is May/June 2018), all 4 grades from 9 through 12 were assessed in proficiency of the three keystones. This then continued as is in following years.

As outlined above, our three keystones are:

- bilingual immersion in Chinese and English;
- building character and community throughout our residential setting;
- promoting Chinese culture and identity in a world context.

For learners of Chinese as another language, proficiency in the first keystone will be demonstrated by passing grades in Chinese Language Acquisition in grades 9 and 10, and passing grades in Chinese ab initio in grades 11 and 12. In special cases, a student who has completed grades 9 and 10 at Keystone, passing Chinese as described in the previous sentence, may petition to do a language other than Chinese for the IB Diploma and, if granted, still qualify for the Keystone Diploma.

For learners of English as another language, proficiency in the first keystone will be demonstrated by obtaining passing grades in English Acquisition or English Language and Literature in grades 9 to 12. In special cases, a student who has completed grades 9 and 10 at Keystone, passing English as described in the previous sentence, may petition to do a language other than English for the IB Diploma and, if granted, still qualify for the Keystone Diploma.

Proficiency in the second keystone will be demonstrated through assessment as outlined in the table called Keystone Academy Character and Community Assessment.

Proficiency in the third keystone will be demonstrated by passing grades in China in the World courses in grades 9 and 10, and the bicultural Theory of Knowledge course in grades 11 and 12.

### **Keystone Academy Character and Community Assessment**

LO1	Demonstrates commitment to personal character development	
Descriptors	<ul> <li>The student:</li> <li>is keenly aware and proactive in taking care of their physical, emotion and spiritual well-being</li> <li>leads and serves in ways that benefit the common good of the school community</li> <li>makes thoughtful decisions that consider self, others, and the common good</li> <li>pursues personal enrichment and knowledge through reflection and learning from others</li> <li>learns bravely from failures and demonstrate resilience</li> </ul>	
LO2	Displays compassion and concern for others' well being	
Descriptors	The student:  treats everyone with kindness, empathy and understanding  treats everyone fairly and takes courageous actions to correct injustices and unfairness  demonstrates awareness of how his/her social behaviors affect others and acts to promote harmonious interactions in the community	
LO3	Demonstrates regard for community and social responsibility	
Descriptors	<ul> <li>The student: <ul> <li>serves with generous spirit and makes positive contribution to the community where we live and learn</li> <li>shows an understanding of the shared values of the community and seeks to foster harmony, inclusiveness, and self-control.</li> <li>demonstrates an understanding of the environment and exhibits sustainable practices and behaviors at school and beyond.</li> <li>is proactive in developing an understanding of others and demonstrates he/she values others' ideas and beliefs.</li> </ul> </li></ul>	

# PROMOTION, CERTIFICATES & GRADUATION

Students at Keystone Academy are held to high academic and personal standards.

The Secondary School at Keystone Academy offers the Middle Years Program (MYP) and the Diploma Program (DP) of the International Baccalaureate (IB). In addition, the Academy also offers Chinese Thread compulsory courses that promote Chinese culture and identity in a world context.

# PROMOTION Grades 6 to 8

In grades 6, 7 and 8, judgments on promotion, repeating, or even leaving the school are based on academic achievement as well as other considerations, and are resolved through conversation with families. In the case of promotion from grade 8 to 9, students with grades of 1 or 2 in College Required Courses (CRCs) may be required to complete compensatory work, paid for by the parents, before beginning grade 9.

### Grades 9 to 12

In grades 9 to 12, judgments on promotion, repeating, or even leaving the school are influenced by, but not limited to, academic achievement and meeting the expectations of our three keystones. Starting in grade 9, course results are recorded on the student's transcript that is sent to colleges. Courses with scores of 1 or 2 are considered failing and will receive no credit. Credit is awarded for courses with final grades of 3 to 7.

Courses in the following subject areas are designated as College Required Courses:

1. Language and Literature 2. Language Acquisition 3. Individuals & Societies 4. Sciences 5. Mathematics.

# Academic Requirements for Promotion in Grades 9 and 10

In order to support student preparation for university, grade 9 and 10 students must earn a passing grade in all CRCs and a grade of 4 or better in at least two CRCs. In addition, students cannot have more than one failing grade (1 or 2) in a non-CRC. In the event that students do not achieve this, they may be required to repeat a grade, exit the program or enter into a support program, paid for by the parents. Consultation with teachers, counselor, advisor, IB Coordinator and Heads of Division will form part of the decision-making process.

# Academic Requirements for Promotion in Grade 11

Students in grade 11 must pass at least five IBDP courses and earn at least a final grade of 4 in two CRCs. Students must also be "meeting expectations" or "exceeding expectations" in the Theory of Knowledge (TOK) course and the Creativity, Activity, Service (CAS) program, and making satisfactory progress towards completing the Extended Essay (EE). In the event that students do not achieve this, they may be required to repeat grade 11, exit the program or enter into a support program, paid for by the parents at the discretion of the Head of High School in consultation with the Assistant Head of High School and the Head of School.

# Additional Requirements for Promotion in Grades 9 to 11

Students must demonstrate appropriate proficiency in the three keystones in order to be promoted in grades 9 to 11. Students who do not demonstrate appropriate proficiency may be required to complete summer activities to demonstrate growth in these areas. Students who do not make sufficient progress may not be able to continue at Keystone Academy.

# Requirements to Continue as an IB Diploma Candidate

Generally, students in grade 11 will begin by pursuing both the Keystone Diploma and the IB Diploma. Continuation as an IB Diploma Candidate over the two-year period of 11th and 12th grade requires that the student show satisfactory progress in all courses and components of the program. The following outlines cases where students may be required to drop their status as an IB Diploma Candidate. Decisions on continuation as an IB Diploma Candidate will be discussed with the student and parent, but will be decided by the Head of the High School in conjunction with the IB DP Coordinator.

- If any Higher Level (HL) IB semester grade is 2 or less, the class will be changed to Standard Level (SL).
   This usually means that the student will not be able to continue as an IB Diploma candidate as they won't have the requisite combination of HL and SL classes.
- If any IB HL semester grade is equal to 3, the student will have one semester to get it to a 4. If, after one semester, the grade is still 3 or less, the class will be changed to SL. This will usually mean that the student cannot continue as a Diploma candidate as they won't have the requisite number of HL and SL classes.
- If the 3 HL semester grades add to 10 or less, the student will be changed to SL courses.
- If the 3 HL semester grades add to 11, the student will be given one semester to get the total to a minimum of 12 (and all HL courses to a minimum of 4).
- If the 3 SL semester grades add to less than 9, the student must drop from Diploma to separate IB Courses.
- EE, TOK and CAS are crucial core components of the Diploma. If a student fails to meet published milestones and deadlines, they may be required to drop from the IB Diploma to IB Courses. Students are reminded that the EE, TOK and CAS are also components of the Keystone Diploma and they must complete these requirements satisfactorily in order to graduate with a Keystone Diploma.
- Students who fail the first year of an IBDP course may not continue to the second year of that course.

### **Special Education Needs**

Students with Individual Education Plans (IEP's) and that fall under the School's Special Educational Needs (SEN) program are accommodated according to the SEN policy and according to the accommodations outlined by the IB. These students have the same expectations to fulfill the promotion and graduation requirements outlined in this document.

### **IB Anticipated and Predicted Scores**

When needed for university, teachers will provide IB anticipated grades to our school's College Counselors for the purpose of the college application process.

Prior to the final IB exams, teachers will submit formal predicted grades to be sent to the IB as required by the organization.

#### CERTIFICATES AND DIPLOMAS

Keystone Academy's Secondary School is divided into Middle School (Grades 6 to 9) and High School (Grades 10-12). The following certificates and diplomas are awarded in the Secondary School.

### Middle School

Chinese Middle School Diploma

Students from grade 6-9 complete eight MYP courses and two Chinese Thread courses. At the end of grade 9, Chinese national students who successfully complete grade 9 and are promoted to grade 10, will earn a Chinese Middle School Diploma.

### **High School – Grade 10**

Keystone IB MYP Full Certificate

At the end of grade 10, each student who has participated in grade 9 and 10 of the MYP program and who has achieved an overall minimum standard in all aspects of the Keystone Academy MYP will be awarded a Keystone IB MYP Full Certificate. There are no exit exams required for the Keystone IB MYP Full Certificates and in the case of semester courses, the final grades will be averaged and then calculated into the final point total. Please refer to Table 1 below for examples of course calculations.

Minimum standards at the end of grades 9 and 10 are defined as:

 Successfully completing all eight MYP subject groups including two consecutive years in Language Acquisition or two courses of Language and Literature.

- b. Having earned a total of at least 32 from the eight MYP subject groups and the MYP Personal Project combined, out of a possible maximum of 56.
- c. Having earned a minimum grade of 3 (maximum 7) in every IB MYP CRC with at least two of them having a grade of 4. One grade of 2 is allowed in non-CRC courses. All other non-CRC courses should be 3 or higher.
- d. Having earned a minimum grade 3 (maximum 7) for the Personal Project;
- e. Having met the expectations of Service as Action to the satisfaction of the school.

### Keystone IB MYP Certificate of Participation

Students entering Keystone in grade 10 and who have only completed one year of the program at Keystone, may earn a one year Keystone IB MYP Certificate of Participation. The student must meet all the requirements as listed in the section above, with the exception of completing 2 years in the same Language Acquisition course (or two years of two Language A courses).

### Keystone IB MYP Certificate of Recognition

Students who do not meet the requirements of the Keystone IB MYP Full Certificate in grade 10, but fulfill the requirements for promotion to the next grade, are eligible to earn the Keystone IB MYP Certificate of Recognition. These students may be required to complete a program of academic consolidation and reinforcement before commencing the IB Diploma Program (IBDP) i.e. summer courses, required tutor program, etc.

### **High School - Grade 12**

### **Keystone High School Diploma**

At the end of grade 12, each student who has achieved an overall minimum standard in various aspects of Keystone Academy will be awarded a Keystone High School Diploma.

The precise and detailed requirements of the Keystone Diploma are in Appendix 1 below. Exceptions to the graduation requirements are rare and address the needs of students transferring from other school systems. Such exceptions will be approved at the time of admission.

#### IB DP Diploma and DP Course Results

Grade 12 students in the IBDP may also earn an IBDP Diploma if they fulfill all the requirements set by the IBO. Students not pursuing the IBDP Diploma can choose to receive DP Course Results for individual courses. The IBDP Diploma and the IB DP Course Results are awarded by the International Baccalaureate and not by Keystone Academy.

The IBDP Diploma and the DP Course Results have external examination requirements, IB moderated internal assessment requirements, as well as other externally assessed or moderated components. For more details refer to the Keystone IB Diploma Curriculum Handbook.

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## A new world school

真正的世界学校

### A new model of education in China

全新的教育模式