

DEEP DEEP
**DEEP
LEARNING**

BLOCK ONE



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At ICHK we teach Curriculum X in Years 7 to 11, followed by the IB Diploma in Years 12 and 13. Curriculum X is an eXtended Curriculum, comprising the conventional core plus Human Technologies, Big History, DCVT, Enrichment & Flow, Free Learning and Deep Learning; with the core delivered through IGCSEs in Year 10 and 11.

"Curriculum X", is an innovative approach to education. It provides an opportunity for students to learn, freed from the shackles and constraints of traditional timetables and subjects. X denotes mystery or the unknown and at ICHK we recognise that each teacher and student will have different and sometimes unexpected interests and passions to bring to the extended curriculum.

Accordingly, Curriculum X is an eclectic selection of units that changes and shifts over time, reflecting the evolution of the teaching staff and morphing as the teachers themselves grow and develop. Equally, a major component of the learning in Curriculum X is the personal interest of each individual student. The different choices that students make in terms of their units or routes of enquiry result in very personalised learning experiences.



Deep Learning units give teachers the freedom to be flexible and creative in designing modules to engage students. This, in turn, allows students to choose spheres of enquiry which are not always available via the traditional curriculum and which are, by nature, interdisciplinary.

Units are designed to be delivered across a series of whole days, instead of being parcelled up into periods and taught intermittently over weeks and months.

This allows for a deeper, more immersive, more detailed study into a topic or theme. The interdisciplinary approach combines subjects such as Maths, History, PE and Art, for example, into an overarching theme that recognises authentically the interconnectedness of human knowledge and enterprise.

THRIVING

STUDENT

COMMUNITY

& PARTNERSHIP

ENVIRONMENT

FOR LIVING & LEARNING

BEST POSSIBLE

TEACHER

The student learning experience is extended to life beyond the confines of the classroom and school campus, widened routinely through field trips and site visits across Hong Kong, making the learning all the more significant and memorable. We are able to engage with relevant organisations and groups, meet with experts, and undertake other activities to deepen understanding, in ways which are possible only outside of the conventional timetable. Deep Learning is presented to students not as an exotic 'something special' but as a basic insight to the way knowledge is constructed, and is embedded into ICHK school life.

Deep Learning units cover a broad range of subject areas. These may be an extension of subjects that already exist in the core

curriculum or an expansion of the curriculum into entirely new subject domains. Learning is modular and self-contained, with students free to make their own choices, grouped by shared interests and across year groups. The main features of this curriculum are an experiential and collaborative approach to education which fully supports ICHK's Four Strategic Directions: Thriving Student, Best Possible Teacher, Community & Partnership, Environment for Living & Learning.

In short, Deep Learning is a pioneering and progressive programme of study drawing upon the individual strengths and specialisms of our teaching staff, and making maximum use of our unique local and regional environment and community.

BAMBOO CREATIVITY

MAJOR: Science, Construction, Teamwork, Creativity, Service

MINOR: Sustainability, Ecology, Modelling

This unit looks at the different species of bamboo and how it can be used. More specifically, we will look at creating our own “jungle gym” playground out of local bamboo. We plan to work together with a Laos NGO to also use our design for school playgrounds in Laos. There is a cost of approximately \$100 per person to purchase the bamboo materials.

By the end of the four days, you will:

- Know more about the bamboo species
- Understand its different uses
- Understand what sustainability means and role bamboo plays in a sustainable model
- Have designed your own model as a prototype of playground equipment
- Visit a bamboo supplier to buy resources for the project
- Created a piece of playground equipment



Day 1

Based in school, you will learn about bamboo and the nature of the proposed project. You will design and make a model prototype. Together, we will decide which design we will create.

DAY 2

We will visit a local supplier and source material for our project. Upon returning to school, we will look around the local area at potential sites of interest where bamboo grows.

DAY 3

With the material that we have gathered, we will work together to build a life size version of the model that we have decided to build, at school.

DAY 4

Continue to work at school building and finishing our project. We will need to create a record of our project with a design template and instructions on how to construct the playground equipment and send to our partner schools/NGO in Laos.

CHINESE OPERA

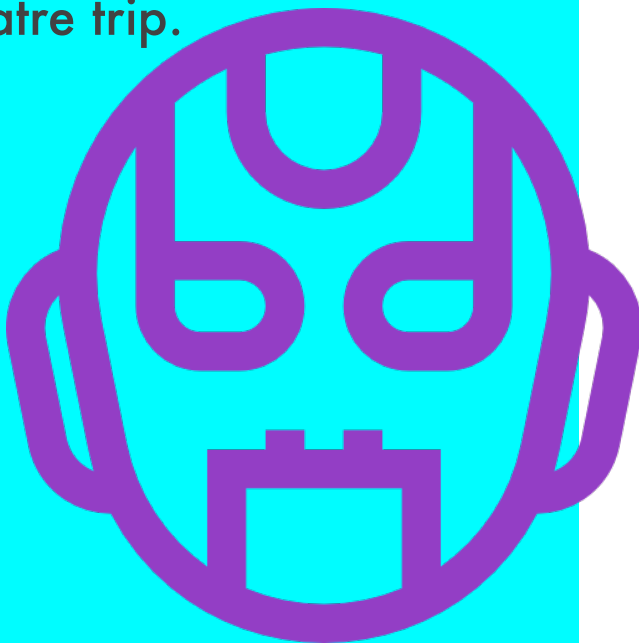
MAJOR: Performing Arts, Language

MINOR: Creativity, Mythology

This deep learning unit is an exciting look at how an ancient form of Chinese performing arts, Chinese opera, has evolved.

It comprises 5 sections:

- What is Chinese Opera?
- Make up and stage arrangements
- Performing Cantonese Opera
- The Music and the Instruments
- Theatre trip.



DAY 1 - WHAT IS CHINESE OPERA?

After a brief introduction, you will be free to explore with props and costumes available around the classroom and to consider what type of characters do you think these props and costumes are for and why? You will then pick one of these props or costumes and be given time to research on it. While doing so, you will have an opportunity to think about the following questions:

- How do you think different emotions get conveyed when you are using/wearing this prop/costume?
- What material do you think it is made of and how much do you think it costs?

You will then be assigned a clip from YouTube each and even if you do not speak much Cantonese/Mandarin, you should be able to come up with some views and report on the following:

- What mood/emotions do you think this piece portrays? i.e. Do you think this is a sad/happy piece?
- Can you have a guess as to what the story line is?

DAY 2 - MAKE UP AND STAGE ARRANGEMENTS

You will be given some pictures of lightings and stage arrangements from actual operas to look at:

- Why do you think they have used certain lightings and stage arrangements for those scenes?

You will also be given a few scripts from scenes from different Chinese operas to look at (with translations), what sort of lighting or props do you think is appropriate for these scenes?

A guest speaker will be coming in to talk about the makeup involved in Cantonese Opera. You will also get to put on some make-up yourselves if you want to.

DAY 3 - PERFORMING CANTONESE OPERA

You will spend a whole day learning some of the basics of how to perform Cantonese Opera. We may even try and learn to perform a short poem in Chinese Opera style...

We will look at how music is read in Chinese Opera and also what traditional Chinese instruments are involved in accompanying these operas. You may even get to play on some of them.

DAY 4 - THEATRE TRIP

We will be going to the theatre and watch it all in action. This will include a trip to the backstage of the performance!

A LIFE WELL LIVED



MAJOR: Philosophy

MINOR: Economics, Environment

Whilst economics, business and consumerism have helped humans, as a whole, become healthier and wealthier over the past 200 years, they have failed in one glaring regard: happiness. This unit asks you what it means to lead a good, happy life, and exposes you to ideas that will hopefully stretch your thinking in new ways. This unit is suitable for those interested in their future and human happiness.

This Deep Learning unit comprises 8 sections:

- What is happiness?
- How advertising and consumerism can make us unhappy
- Experiments in happiness
- The minimal life
- Career vs vocation
- Hands On Work vs Brain Work
- Happiness Human Technologies
- Your Life

Day 1 - What is Happiness?

In this section we will take a look at advertising, fashion, magazine covers and creating demand. We will learn that perhaps we are being manipulated to feel less than satisfied and we will consider what happiness really is as well as some stories of things that humans did not used to "need", but now we feel we do such as hair dressers, restaurants, mobile phones and tablets. We will do some experiments that let us feel and compare different types of happiness:

Fleeting happiness

Mindful/relaxation happiness

Companionship, kindness and positivity

Happiness through action/flow

Pleasure saturation

DAY 2 - The Minimal Life

We will examine different lifestyles and you are going to work on two things:

Taking a life/stuff inventory - listing absolutely everything you own

Paring down to the essentials - reducing your list to just the things you feel are important and contribute to your ongoing happiness as a human being.

DAY 3 - Career vs Purpose

In this section we will take a trip to Crossroads to look at people who have made a choice to work for things other than money.

DAY 4 - Your Life

In this final section you will spend some time, alone, in a natural environment, reflecting on and thinking about your own life. Your aim is to formulate a plan about the kind of life you want to live.

What decisions will you need to make to craft the life you want?

ROPE RIGGING FOR ADVENTURE & RESCUE

MAJOR: Abseiling, Ropework, Science, Maths,

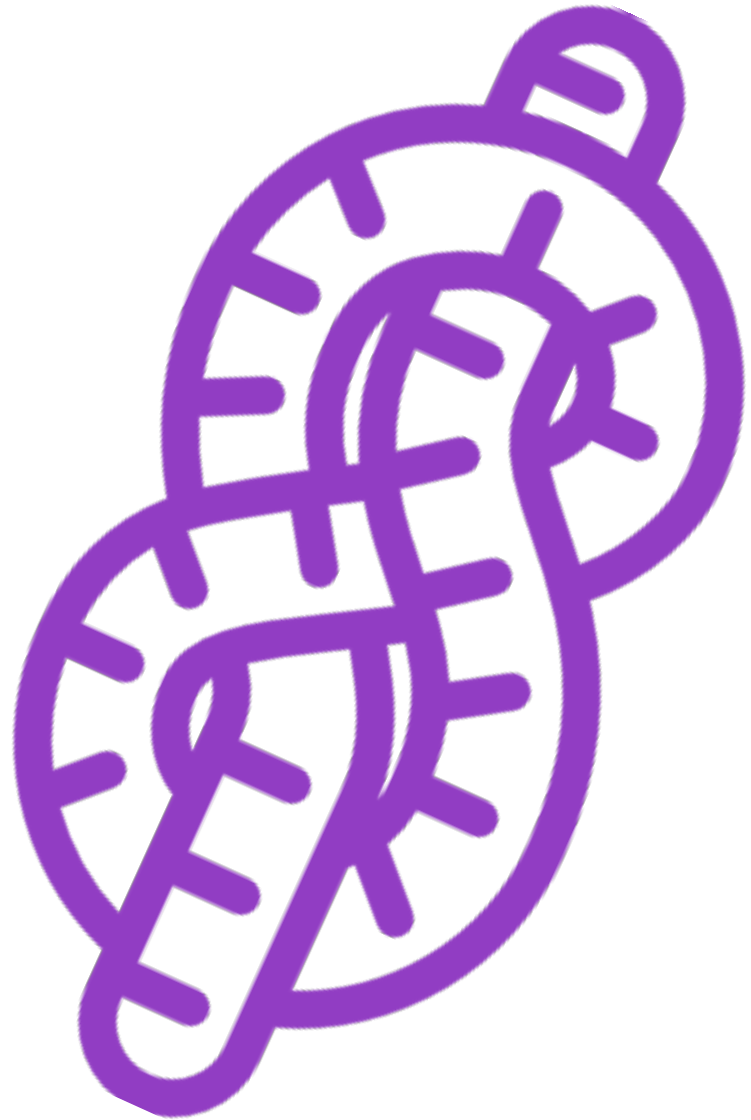
MINOR: Teamwork

This unit is about using rope to rig safety lines and how they can be used in different scenarios.

By the end of the four days, you will have:

- Abseiled* from the school roofs and ceilings
- Learned how to set up an abseil and safely abseil down a rope
- Learned about the forces on rope and how to measure them
- Calculated force and the effect tension has on rope
- Know about the materials that rope are made from and how the material affects their use
- Practiced tying a variety of knots with rope
- Set up various rigs to make safety lines
- Learned and practiced first aid techniques for working at height

* Abseiling is when you use climbing rope to descend from height. Rock climbers use abseiling to come down from cliffs and mountains. Engineers use abseiling to come down the outside of buildings, to make repairs or carry out inspections. Another name for abseiling is rappelling.



DAY 1

Abseil from the Library landing to the ground. Set up a basic anchor for an abseil rope.

DAY 2

Set up and abseil from the 3rd floor. You will calculate the forces acting on anchors.

DAY 3

Set up an abseil from the very top of the school roof. Learn some first aid for working at height.

DAY 4

Set up slant abseils from the school roof. You will learn how to calculate the effect of tension on the forces in rope systems.

WATER SPORTS

MAJOR: PE, Water Safety

MINOR: Marine Biology

Blue Sky Sports Club aims at developing water sports communities and promote an eco-friendly lifestyle. Students will acquire marine knowledge which allows them to enjoy water sports in a safe way and also to respect the ocean environment.

Throughout the program, the aim is to bring different kind of watersports skills for students which include: Stand-up Paddleboarding, Kayaking, Dragon Boating, Wakeboarding, Surfing and Snorkelling.

Students will enjoy the natural beauty of Hong Kong marine life through the programme, for example, the mangrove forest / Yim Tin during an eco tour on SUP or Kayak.

Through snorkelling, students have opportunities to meet different species of fish, star fish, sea cucumber, coral and jelly fish and other marine life.

Venue: Sai Kung Water Sports Centre

Participants:

Must be able to swim 25 meter without assistance

Instructor and students ratio: 1:8

Course Fee: \$4,000 for 4 days

Each day is focussed on a specific activity and it is suggested that we will take part in the following activities: Stand-up Paddle, Kayak, Wake Board, and Snorkelling. However, there is also an opportunity to take part in either Surfing or Dragon Boat if the group desires.

DAY 1

Snorkelling

DAY 2

Wakeboarding

DAY 3

Stand Up Paddleboard

DAY 4

Kayaking

WINDOWS OF THE WORLD

MAJOR: Maths, Science, PE

MINOR: Geography

This unit takes us to view the Windows of the World from a mathematical perspective. Looking at scale models of the most famous tourist attractions around the world, students will gain a better understanding of ratio and proportion. The 108 meter tall Eiffel Tower and the Taj Mahal are in close proximity to each other. In addition to solving problems involving scale factors and models, students will use the artificial ski slope and learn to ski. They will gather data and use scientific experimental skills to investigate displacement and velocity, modelling real-life relationships using graphs. This unit will require travel and there is an approximate cost of \$400 for entry and hire of ski equipment.

By the end of the four days, you will:

- represent ratios found in real-life contexts, using concrete materials, drawings, and standard fractional notation;
- investigate similarity and solve word problems involving ratio and proportion;
- learn how to ski and feel more confident on the artificial slope;
- use appropriate terminology related to kinematics;
- analyse and interpret position-time, velocity-time graphs of motion in one dimension.



DAY 1

Meeting at Sheung Shui MTR, we will travel together to the Windows in the World in Shenzhen. Students will have a ski lesson and afterwards visit the scale models of various modern wonders of the world. They will collect data and use it upon their return to school.

DAY 2

Meeting at Sheung Shui MTR, we will travel together to the Windows in the World in Shenzhen. Students will have a ski lesson and afterwards be able to collect data to measure.

DAY 3

Meeting at Sheung Shui MTR, we will travel together to the Windows in the World. During the ski lesson, they will collect data that they will use to calculate displacement, velocity and acceleration. Back at school they will learn more about kinematics, with an emphasis on linear motion.

DAY 4

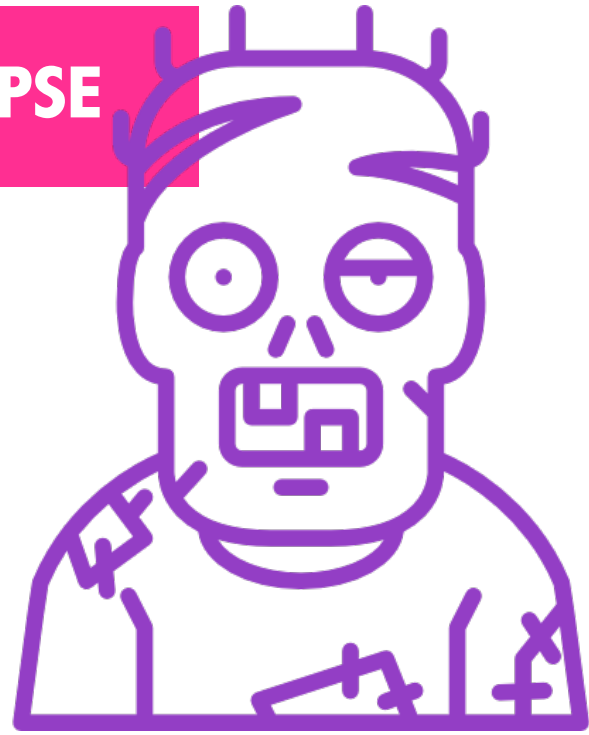
The final day will again consist of skiing and collecting data. Upon returning to school, students will use their data to learn about the ways to present, interpret and analyze their work.

ZOMBIE APOCALYPSE

MAJOR: Human Technologies, Crafts and Making, Anthropology, Agriculture

MINOR: Big History, Agriculture, Zombie Mythology, Medicine, Sustainability

Will you be prepared should things go terribly wrong, and civilization break down? This unit imagines that we are overrun by zombies...how will you respond? It comprises 4 sections modelled on the narrative of a Zombie Apocalypse



Day 1

Based at school, we will look at what pandemics are. How do they spread? How can they affect society? You will choose a particular disease outbreak such as SARS, Ebola or Zika and carefully model what happened in the outbreak and how it was tackled. We will play a game which gets you thinking about how to prevent and manage major global outbreaks.

Day 2

What happens when civilisation collapses? During this day at school, you will consider what you would do in answer to that question. What would you save? What are your priorities? What would you save to help you survive the Zombie Apocalypse? You will design a survival kit which you will then use for the next part of the unit.

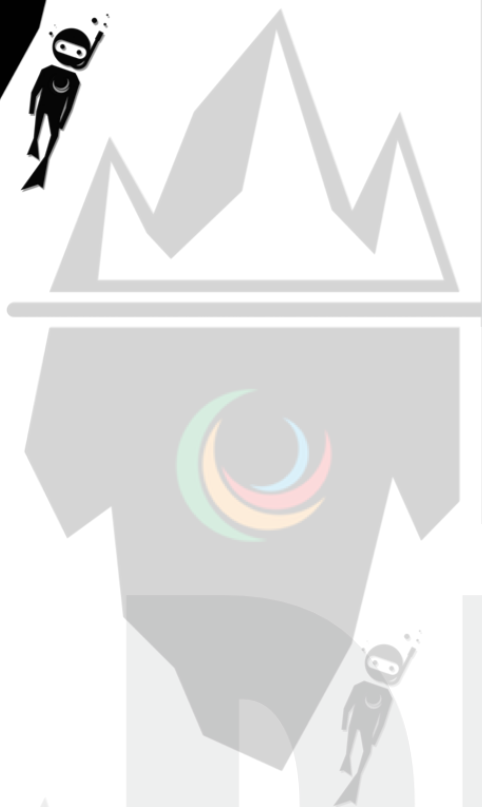
Day 3

This day will be based in an outdoor area outside of school. How will you choose a place to live? You will travel to an outdoor area and establish camp using the salvaged materials we can find. You will prepare a meal based on the food you bring and are given. You may find that you have tins with no label and need to use items we find!

Day 4

How can we provide our own food, medicine and technology? This day is set one year on and asks what would you want to preserve of modern life? What could you preserve? Where does your food and medicine come from? You will explore the local flora to find out what foods can be eaten and you will plant a small garden. You will have a go dismantling and trying to repair or understand simple electronic or mechanical equipment or to make a simple machine- e.g. pulley, threshing machine. You will learn and practice some simple first aid techniques and to consider replacements for modern tools of medicine.

WORLD DEEP LEARNING



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