

# ISSUE 4 December 2016

### NEWSLETTER

G.T. (Ellen Yeung) College - Secondary Section



This issue highlights the Approaches to Teaching and Learning (ATL) in IBDP and demonstrates how to implement different ideas and strategies in the classroom. The pedagogical team of GTC is working on preparing curriculum materials and handbooks for various subjects and core like CAS. A parents' forum on the selection of study streams will be held on 9 December, 2016.

### Approaches to Teaching and Learning (ATL) in the IBDP

ATL can be planned strategies and acquired skills that permeate a teaching and learning environment in which students are encouraged to be more engaged in the process of learning. They learn "how to learn" such that students can initiate the learning process starting with their curiosity and desire to acquire more knowledge, skills and experience, which will benefit themselves in further learning throughout life, developing the whole person.

Five learning skills are being emphasised in the International Baccalaureate Diploma Programme (IB) teaching and learning practices, as shown in the diagram below:



Thinking Skills Communication Skills

Self Management Skills

Research Skills Social Skills

The IBDP approaches to teaching skills are ......

based on Inquiry

focused on conceptual understanding

developed in local and global contexts

focused on effective teamwork and collaboration

differentiated to meet the needs of all learners

informed by formative and summative assessment



IBDP teachers use specially designed unit planners for lesson planning. The concepts and practices of ATL are incorporated and reflected in these unit planners.

### **Unit planner**

The pedagogical leadership team oversees the planning of the IBDP curriculum. Through the writing of unit planner, the IBDP teachers reflect on the teaching and learning of their specialized subjects. Below is an example taken from Physics to show the interconnectedness between the concepts:

#### International mindedness

Nuclear weapon is a major threat to humanity and factor affecting geopolitics



#### **Transfer goals**

Compare nuclear fission with nuclear fusion



## **Essential** understandings

Mass defect and binding energy

#### Assessment

Student leading lecture: renewable energy

## CAS connections: Creativity

Decorate the Physics board with the title: "Discovery of Higgs boson"

#### Misunderstandings

Nuclear binding energy is electrostatic in nature

# Language and learning: Activating background knowledge

Ancient Chinese particle physics: "model of Yin and Yang"

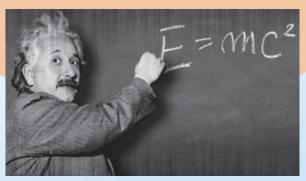
### Nuclear Reaction

### **Inquiry questions**

Where is the missing mass in mass defect?

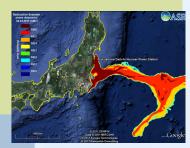
## TOK connections: Areas of knowledge

The unification of energy and mass by  $E = mc^2$  is a major paradigm shift in physics



## **Approaches to learning:** Thinking skills

How to solve the radioactive leakage in Fukushima internationally?



## Differentiation strategies: Scaffold learning

"International Thermonuclear Experimental Reactor"

### **G9** students experiencing IB

On 17 November 2016, our Grade 9A students had a wonderful experience in a mini science fair named "How much energy is required to melt an ice cube?" Students formed groups to have a scientific investigation on the problem. After that, they designed their own experiment and made a poster presentation. During the poster presentation, students walked around to look at other groups' posters and left comments on the poster with sticky labels. The comments are very encouraging, like "good work", "beautiful drawing", "excellent". At the end, the subject teacher rounded up the lesson by pointing out the key points in a science fair. We look forward for these students to joining a real science fair during their senior secondary life, giving them a valuable chance to broaden their horizons.



Fruitful discussion among students



Students preparing the poster presentation



Students giving comments with sticky labels



Teacher rounding up the lecture

### **CAS Done**

Congraduations! The preparation of documents for one of the core components: Creativity, Activity and Service (CAS) is now completed. Three important documents (over 32000 words) are issued: *CAS Handbook* is for students and parents to understand CAS, *CAS Adviser Guidelines* is for teachers to teach CAS and *CAS Student Workbook* contains all the student materials for the two-year CAS study.



Elderly IT workshop

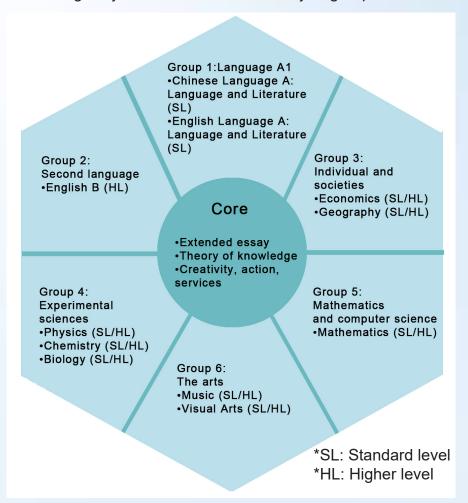
# Coming up briefing forum on the curriculum choices: HKDSE vs IBDP

There will be a parents' night on 9 December 2016 focusing on the introduction of the curriculum choices of students when promoting from Grade 9 to Grade 10. Since the school is expecting to offer IBDP Year 1 in 2018/2019 school year, Grade 10 students of 2017/2018 can join the IBDP preparatory classes if they have shown their intention to join the IBDP curriculum in their Grade 11



and Grade 12 years. Therefore, at the curriculum choices briefing session, all parents will join the Hong Kong Diploma of Secondary Education (HKDSE)streaming at the first session. Parents who would like to know more about the IBDP curriculum will stay for the second session, so that they can get a deeper understanding of the IBDP.

The IBDP is a balanced, all-round curriculum with both science and humanity subjects. GT College (GTC) will offer the following subjects in each of the six subject groups:



### IBDP resource office is now open on the 3<sup>rd</sup> floor

Starting from the second school term, there is an IBDP resource office located on the 3<sup>rd</sup> floor inside room 300 right next to the elevator. Teachers, parents and students are welcome to stop by if you need information or if you have any questions regarding the IBDP at GTC. You are all very welcome.



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