#### 2012 Sep Mailing Pack

## HKASME (SEP-2012) Mail Pack

#### A charitable institution with effect from 1 May 2010 under the Section

#### 88 of the IR Ordinance >

Items in this pack:

- ♦ Council News 334/NSS/DSE-2013: A new start or .... ? P.1-3
- ♦ Science News The World's thinnest materials & electric cars? P.4
- ◆ Chemistry News Kavli Foundation & ACS launch lecture series in 2013 recognizing emerging scientific leaders P.5-7
- ♦ Physics News P.8
- ♦ Biology News P.9
- ♦ Flossing News P.10
- Maths News -- P. 11
- ♦ Chemistry News P.12-13
- ◆ <粤港中學科學學科教師交流(2012)-有效的學與教> 簡報 P.14-17

http://onlineli	brary.wiley.com/do	oi/10.1002/mi	nf.v31.8/issuetoc
Speciai issu	e: Open Innovatic	on in טרעם טוא	covery.



#### Council News

#### 334/NSS/DSE-2013 ... A new start or ... ?



Surely, many of you may already have a new start in your summer classes with your DSE-classes. After the first round of the NSS curriculum, there are numerous discussions around with lots of problems already raised in previous years. It is certainly the wish of both students and teachers to have

quick and relief from the authorities. However, no one could bear the responsibilities of having a great U-turn without any sound and proven digging and planning. So, do we have a new start in the 334/NSS/DSE?

As discussed in previous mailpack, the AGM and many other subject occasions, the 334-system implementation is just on the move -- from secondary to post-secondary. For teachers with careers' load, this summer could be a mess as students (and parents) with different qualifications and visions have to be handled. This is not just about the F.6 DSE results, but also linked to F.5 or even F.4 and below

planning --- if you want your students' study to be more smooth and meeting the "targets" (whether it be degree, sub-degree or even going abroad). Though we could have some experience from the results of DSE-2012 in handling such situation, it won't help much if the students and parents are not well-prepared -- both academically and psychologically. The only way out is to have things well-prepared years before F.6 (down to earth in F.2?)!

Following the track of students and parents expectation and visions, do we need a substantial change in thinking hard about the 334 structure? Years before, someone mentioned about 2-2-2 for the 6-year secondary stage: 2 years of junior secondary, 2-years of transitional studies (F.3 -F.4), and 2-years for the preparation of DSE. Now, there are more voices about having exit paths for F.5 students (and there are Government jobs that only requires F.4 standards -- what actually does that mean?). This is because students are dropping out throughout the NSS years. Many do not require to have to take the DSE as they don't have the ability to handle so many things in packed years. Yet, this need "thinking-out-of-the box" against the solid-block that the EDB enforce. Actually, this is one of the mentioned issue in the years-long discussed NSS curriculum since 2000. Have the people's voice heard?

At last, while there can't be any change in the DSE-2013 (minor streamlining had been done by the EA), we still need to prepare students for the same painful stress as in DSE-2012 with the only relief that teachers may have more experience in handling the multi-directives. Whether or not teachers or the schools could have new start depends on the particular situation -- what're the students and parents expecting?

Meanwhile, there are lots of questionnaires, consultation forums, etc for teachers. We can't see any light until all such have been thoroughly discussed. Hope you could find your way out with collective intelligence. May be the "transition year concept" could help (See \*RE.)

See you in the coming SBA Conferences and activities.

\*RE: http://www.csn.ul.ie/~sarah/ -- the "Transition Year Science" resource site is a "testing curriculum" developed by teachers to meet various changes! It could be a reference for school-based curriculum.

Update News at http://www.icaseonline.net/

(ICASE = "International Council of Associations for Science Education". HKASME is one of the founding member of ICASE.

Updates:-- "WorldSTE2013" ? ... Yes, 2013 -- The ICASE is organizing

the "World Conference on Science and Technology Education" in 2013 at Borneo .... "Live Education, Live Learning, Create Change" during 29/9 - 3/10/2013. The United Nation "Environmental Program Committee (ENEP) will also join the Conference.

Check for details at .... http://worldste2013.org/

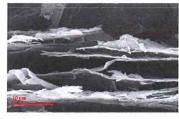


((========))

#### IMPORTANT NOTICE TO ALL MEMBERS !!!!!

Members who use autopay for membership fee payment are reminded to check for the sufficient fund in the designated bank account. The membership fee will be collected from the accounts for \$150. around 18th Oct, 2012 (Thu).

## Science News



The World's thinnest materials & electric cars --Material & Environmental Science?

What is the thinnest material in the world? Graphene is one of such. It is actually an allotrope of carbon with one-atom-thick planar sheets of sp2-bonded carbon atoms, densely 2012 Sep Mailing Pack

packed in a honeycomb crystal lattice. (Why honeycomb? What other materials have similar structure? What's their differences?)

Damaged grapheme sheets can act as an anode in a rechargeable battery that take a fraction of the time to recharge compared to conventional lithium-ion batteries, according to research from Rensselaer Polytechnic Institute. Such "graphene paper" can replace the standard graphite anode in lithium battery and be used to power tomorrow's electric cars.

(http://news.rpi.edu/update.do)

- What are "electric cars"? What batteries do they use? How popular are they in China and HK?
- Check for recent "famous" accident about the "BYD electric taxi" (Youtube available) and discuss with students about the science involved in the accident and the consequences of such to the innovative environmental and technological plans of the China Government in coming years. Of course, you could discuss

many different aspects of science with the incidence (e.g. fire, metals, daily science issues, ...)

Ask students to search for issues related to environmental problems related to the use of "electric cars"



the burnt "e6 all-electric car" after traffic accident!

## **Chemistry News**



Kavli Foundation & ACS launch lecture series in 2013 recognizing emerging scientific leaders ...

The American Chemical Society (ACS) announced that the Kavli Foundation, an internationally recognized philanthropic organization known for its support of basic scientific research, will sponsor a series of lectures recognizing the work of outstanding young chemical scientists at the ACS national meetings beginning early next year. The innovations in Chemistry lecture addresses the urgent need for vigorous, new, "outside-the-box" thinking by scientists as they tackle many of the world's mounting challenges. In 2013-14, the ACS national meetings will focus on the chemistry of energy, food and other vital issues that have far-ranging implications for the Earth and its people.

4

Check for details at the www.acs.org later. Would you have something NEW for your students in the coming 2012-13 -- encouraging them to research on their own, in spite of the tight schedule of the new DSE?

(Aug-2012)

Gold - Au nanoparticles & Genetic Codes?





**Gold (Au),** a dense, soft, shiny, malleable and ductile metal often seen as a wonder metal for its jewelry and its monetary status. It is also one of the special coloured transition metal

- Do you know any similar metal / alloys that have similar gold appearance? (\* answer at end....)
- How would you introduce chemistry to your students at the beginning of the course -- F.3 or F.4? → Using special stories of elements could be a good trial.
  "Gold" is both attractive and wonderful to students when they find that it is used in many different ways other than as "gold coins"!

Researchers in China and US have demonstrated how gold nanoparticles can be controlled by DNA. They were able to use short stands of DNA to template the formation of well-defined nanoparticles. Without the DNA, their preparative steps simply led to agglomeration rather than crystalline products. What's the use of it? Nanoparticles with complex shapes and rough surfaces have recently been shown to have enhanced performance as catalytic components and support materials for analytical processes like Surface-enhanced Raman Spectroscopy (SERS). They are better absorbed by cells.

(http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1521-3773/homepage/press/201231press.html)

- What implications have this on our learning of "particles"?
- Search for more daily applications of nanoparticles.



-- Gold has a fcc crystal lattice.

(\* Answer -- "Dutch metal" -- a kind of alloy like brass but available in very thin films. It is wonderful for use to demonstrate that it is NOT gold by putting them inside chlorine gas! → check what reactions occur!)

# 2012/13 HK Mathematics Creative Problem Solving Competition

The competition aims at nurturing the talents of mathematically gifted students at senior primary and junior secondary levels, and providing them with training in mathematical problem solving skills as well as skills in collaboration, critical thinking, creative thinking and communication.

A briefing session for the Competition will be held on 15 Oct, 2012 (Monday). Teachers can refer to the "Teacher Training Calendar" for the registration. More information about the Competition will be available on next Newsletter or <a href="https://www.hkasme.org">www.hkasme.org</a>

#### 數理教育學會會員優惠: Babyboom Learning Co., Ltd。

2012-2013 年上學期教材推廣優惠:

- 常識及通識科 學習綠色環保概念系列
- ■課外活動 最新邏輯智力系列
- ■數學輔助教具推廣
- ■魔力橋數字牌遊戲推廣

詳情請瀏覽網址: http://edblog.hkedcity.net/asmemath/。

註:數理教育學會會員訂購 Babyboom 公司代理之品牌享有 20% 折扣,而分銷商之品牌享有 10% 折扣。

#### 香港數理教育學會會員:

為以身作則推動綠色生活,減少碳足印,本會擬用電子版本替代紙印版本,將定期出版之刊物會訊 "Newsletter" 發送給各會員,而本會會先作試行。在試行階段將雙線進行,紙印本及電子版同時送發到閣下,並歡迎閣下向本會提出改進的意見。試行期間,如閣下已十分滿意該電子版的質素,請覆電郵給本會,通知本會不再寄發紙印本給閣下.

本會試行期為至 2012 年 7 月本屆理事會完結。如閣下堅持收取紙印版本,請給出理由,以便本會跟進。

亦歡迎閣下隨時登入本會網頁 http://www.hkasme.org 了解相關各科目的最新活動和消息。回覆電郵地址:enquiry@hkasme.org。

#### 香港數理教育學會

二0一二年九月五日

#### PHYSICS NEWS

Sub-comm list 2012-2013

Mr. Humphrey CH Lau (Convenor)	SKH Tang Shiu Kin Secondary School
Prof. Ng Pun Hon	CUHK
Mr. Lau Kwok Leung	TWGHS Wong Fung Ling College
Mr. Cheng Chi Leung	HKASME

#### Secret Message Pen -- Invisible Ink together with UV torch

- The Secret Message Pen is portable, can be taken anywhere.
- Reveal a secret message with the ultra-violet torch!
  Once you have written your secret message it remains invisible until you use the ultra-violet torch to read the message.



#### Exercise for Students

- (1) Explain why a message written with invisible ink is revealed when illuminated by the UV torch.
- (2) Examine a TWENTY, FIFTY and ONE HUNDRED HK Dollars bank note with the UV torch. State and explain what you observe.
- (3) Suggest two applications of the of the invisible ink pen.

#### Mini Desktop Vacuum Desk Dust Cleaner Application 迷你型便攜式桌面清潔器

#### Specifications

Voltage: DC 3.0V

• Power supply: 2x AA batteries

Size: 9.5x 9.5 x 9cm



LOCOMO - Mini Desktop Mushroom Vacuum Cleaner (TouTube) http://www.youtube.com/watch?v=2xYmKU-LMYc

#### Exercise for students

- (1) Examine a desktop dust cleaner and explain its working principle.
- (2) Suggest two uses of a desktop dust cleaner in daily life.

#### **Examples of Daily Life Uses:**

- (1) To remove the hair or dust on the garment.
- (2) To remove the dust on the surface of home appliance, computer keyboard or furniture;
- (3) To clean the cushion or interior of car;
- (4) To remove the cigarette ash or dust on the office table;
- (5) To remove the dirt caused by eraser.

#### **BIOLOGY NEWS**

Materials for September mailing pack LI Chi-man, Jimmy (Biology Convenor)

#### 1 Year Plan 2012-2013

- 1.1 Create a platform providing for information updates available in the local Biology teaching field.
- 1.2 Organize activities enriching teaching horizon
  - 1.2.1 Use of "Magic" in teaching of Biology
  - 1.2.2 Interesting field trip sites exploration
  - 1.2.3 Launching study groups to share teaching
- 1.3 Create an annual territory-wide competition for Biology students and teachers to foster learning interest in the discipline.

#### 2 Sub-comm list 2012-2013

2.1 Mr. Li Chi Man, Jimmy (Convenor)	YLPMSAA Tang Siu Tong Secondary School
2.2 Ms. Chan Wing Man, Idy	Fanling Rhenish Church Secondary school
2.3 Dr. Lai Ching	HKASME

2.4 Ms. Lee Hoi Man, Sarah
 2.5 Mr. Tong Ling Poon, Andrew
 Stewards Pooi Kei College
 Cheung Chuk Shan College

#### 3 Personal Introduction

I am a secondary teacher for nearly a couple of decades mainly teaching Biology and Junior Science. I have actively engaged in activities of HKASME for years. I have also been actively participating in research and professional development programs hosted by tertiary institutions and in the meantime shared my experiences in various professional seminars.

For me, there is certainly a need for us, as science teachers to come together, to support each other through various professional activities. In this way, we can act synergy to accomplish the goal of fostering scientific literacy for our young generation.

#### **FLOSSIG NEWS**

#### The Way Forward in 2012 - 13

#### Our Mission - To promote Free and Open Information

As reported in previous years, mobile devices having a very short life cycle (usually about a year) are dominating the IT market. This makes it impossible for the Group to test and recommend Free/Open software available on such devices simply because we do not have the resources (like purchasing and testing new appliances year after year) to do so. To meet this challenge, we have to widen our scope and focus on the promotion of "Free and Open Information" instead. It is difficult to defend the notion of "information wants to be free" in a short paragraph. Suffice to say that the greatest benefit to the individual, and to the mankind as a whole, is the free access and use of information. It is under such climate that one can better comprehend the world; make more "educated" decisions; innovate and advance knowledge based upon the information that he gathers, .... The "fair use" provision in copyright laws is one evidence that governments all over the world recognize that some relaxation is needed while protecting the interest of the original author. Indeed, learning and teaching would be more efficient if we do not have to worry too much about copyright issues. This is not to say that we can simply "cut and paste" any material we come across and use it in our daily teaching. The source should always be cited, not only as a sign of courtesy but also as an attribution to the effort and work of the author.

## Our Main Focus in 2012-13 – To upgrade the IT infrastructure in the HKASME Office

Apart from publishing news conforming with our Mission via the Mailing Pack, we shall continue with our work in upgrading the IT infrastructure in the Office using Free (免費) and Open Source (開放源碼) software.

#### **FLOSSIG Membership**

The HKASME has adopted a "Go Green" policy this year and the "Mailing Pack" will be delivered via email to all HKASME members instead of going through the Post Office. While this policy helps to save a few trees every month and has gained across the board acceptance during the test phase, it also renders the emailing of "FLOSSIG News" to FLOSSIG members only obsolete. To cope with this change, we have decided that the present core of the Membership Database Development Team to be Group members automatically. For all other HKASME members who wish to be more involved in the Group, to give comments or simply wish to get more information, please contact Mr Lau Tak Chi (email: ias@hkasme.org) directly or through Ms Chu at the Office (phone: 23330096).

#### 2012 Sep Mailing Pack

<u>News</u>	on	<u>Free</u>	On-line	Courses

#### Free On-line Courses from edX Universities - https://www.edx.org

Top notch universities – MIT, Harvard and UC Berkeley have joined hands to offer free on-line courses. At the time of writing, courses available include "Introduction to Solid State Chemistry", "Circuits and Electronics", "Introduction to Computer Science and Programming", "Introduction to Computer Science I", "Health in Numbers: Quantitative Methods in Clinical and Public Health Research", "Software as a Service" and "Introduction to Artificial Intelligence". Visit their <a href="web site">web site</a> on news and other details if you are interested. As a side note, we are expecting our local institutions of higher learning to offer something similar.

#### Mathematics:

The year programmes include:

- Seminars/ Workshop for the professional development: equip our frontline teachers with professional knowledge and teaching skills for the new academic structure.
- Mathematics Pedagogy Study Group ( around 3 meetings in 2012-13) to provide platform for sharing between teachers on different teaching topics.

We also work with the Education Bureau and other associations in organizing activities for secondary Mathematics teachers as well as Mathematics competitions for students in Hong Kong. These activities include:

- Induction Programme for New teachers(already held on Aug 17,2012)
- The HK Youth Mathematical High Achievers Selection Contest
- Tuen Mun Inter-School Junior Secondary Mathematics Contest

#### Subcommittee members:

#### Honorable Advisor:

**Professor SIU Man Keung,** Honorary Professor, Dept of Mathematics, The University of HK

Name	School / organization
	HKSYCIA Wong Tai Shan Memorial
Ms. Tsui Kwan Yuk 徐崑玉 (Convenor)	Secondary School
	香港四邑商工總會黃棣珊紀念中學
Mr. Cheng Wing Kuen 鄭永權	St. Stephen's Girls' College

	聖士提反女子中學
Mr. Fung Tak Wah 馮德華	QESOSA Secondary School 伊利沙伯中學舊生會中學
Mr. Kwok Sze Chai 郭思齊	QESOSA Secondary School 伊利沙伯中學舊生會中學
Mr. Lee Arthur 李文生	The University of Hong Kong 香港大學
Mr. Lee Kwok Chu 李國柱	Pui Ching Middle School 培正中學
Mr. Lee Wing Yeong 李永楊	STFA Cheng Yu Tung Secondary School 順德聯誼總會鄭裕彤中學
Mr. Mak Kwok Cheung, John 麥國彰	La Salle College. 喇沙書院
Mr. Ng Tat Yeung 伍達洋	STFA Cheng Yu Tung Secondary School 順德聯誼總會鄭裕彤中學
Mr. TAM Chi Leung 譚志良	QAD, Education Department 教育局質素保證分部 視學組
Ms Tsui Fung Ming 徐鳳鳴	Hon Wah College 漢華中學

### **CHEMISTRY NEWS**

Dr. Bob Lui

Chemistry Convener and Council Member, HKASME

In 2006, having been training as a researcher for years, I applied for and was appointed as a local secondary school teacher till now. This was a difficult move to make as I loved my position and the relationships I had developed with my colleagues at the University. However, I felt ready for another challenging environment and this is certainly what I have gained over the past few years.

I have been a chemistry and class teacher now for 6 years — which I love! I have to manage classroom discipline, deal with day to day issues within the school and ensure that the lesson and experiment run smoothly. Most importantly though, I am also the teacher-in-charge in promoting gifted education at my school, and I have a great chemistry research team of senior form students which won numerous awards in local and international competitions. In addition, I was also appointed by the Gifted Education Section of EDB and take a lead in providing accelerated chemistry courses for the science gifted students in the past two years — something that I have always felt is important but not adequate for young man in Hong Kong.

Today, we are all facing a rapidly changing education system and teaching now is becoming more difficult than ever. I hope that we could work it out together and contribute our experience in Hong Kong Science education.

12

Timeline of coming / proposed chemistry activities in 2012-2013

Activity	Time
Chemistry Photo Shooting Competition	Oct, 2012
2012 Chemistry Paper Review (Proposed)	Mid Oct – Late Oct
2012 SBA Conference – New products and books	Oct 27, 2012
introduction (To be confirmed)	
NSS Chemistry Assessment (F.5 & F.6)	Late Nov, 2012
Structural questions and M.C.	Early Jan, 2012
DigiChem 『數碼化學短片』 for Junior & senior Students	Late Feb, 2013
Australian National Chemistry Quiz	May, 2013
NSS Chemistry Assessment (F.4 & F.5)	May – July, 2013
Structural questions (Proposed) and M.C.	

Chemistry Sub-committees

Chemistry Sub-committees	
Name	Office
Dr. Bob Lui (Convenor)	King's College
Mr. Ben Ng	HKASME
Ms. Chuang Yung Ping	Chinese Foundation Secondary School
Mr. Fung Wing Kei	St. Paul's Co-educational College
Mr. Ho Ping Kuen	Heung To Middle School
Ms. Lam Siu Yan, Tara	St. Paul's Convent School
Mr. Lee Kam Chuen, Andy	TWGHS Wong Fut Nam College
Mr. Lee Wai Hon, Chris	PLK Celine Ho Yam Tong College
Mr. Leung Pang	Tsuen Wan Public Ho Chuen College
Mr. Lo Wai Cheong	SKH Li Ping Secondary School
Mr. Mok Ming Wai, Michael	Wah Yan College, Kowloon
Mr. Or Choi Kuen	Sai Kung Sung Tsun Catholic School (Sec. Section)
Mr. Poon Chan Kwok	HKASME
Mr. Tang Siu Lung	DMHC Siu Ming Catholic Secondary School
Mr. Wong Chi Kong, Alex	STFA Lee Shau Kee College
Dr. Wong Chi Kit, Cement	Cheung Sha Wan Catholic Secondary School
Mr. Wong Chun Yin, Roi	Ho Lap College (Sponsored by Sik Sik Yuen)
Ms. Wong King Lok, Victoria	Marymount Secondary School

#### <粤港中學科學學科教師交流會(2012)—有效的學與教>簡報

舉辦機構: 香港數理教育學會及田家炳基金會合辦

出席:約80人(本會代表10人,田家炳基金會代表2人;國內教育局領導、校長和教師約70人)

統計各科的教師: 數學: 11人; 物理: 16人; 化學: 14人; 生物: 12人; 其他: 11人

#### 本會代表行程:

2012年2月23日2:30pm 落馬洲→ 福田□岸→ 深圳北→ 廣州 → 韶關 6:00pm 2012年2月25日4:30pm 韶關 → 廣州 → 深圳北→福田□岸→落馬洲 7:30pm

#### 研討會的流程:

2月24日8:30am-11:00am

開幕式致辭: 韶關田家炳中學校長、基金會代表、韶關教育局

#### 本會代表主講:

- 主題介紹 [彭志泉]...Al
- 活的教學、愉快學習,有效評估[藍郁平]...A2
- 玩具在科學學習的功能 [梁家猷]...A3
- 2月24日11:20-12:00 noon 課堂觀摩 (韶關田家炳中學教師教學示範)
- (1)物理課課題 探究電阻的電流與兩端電壓的關係 [田中老師唐華峷示範教學] 本會陳天生、鄭自良、何志強參與觀課並提供意見。

(2) 化學課課題 - 常見的碱 [田中老師歐陽晴示範教學]

本會彭志泉、黃兆湛、藍郁平、洪燕雲參與觀課並提供意見。

(3) 生物課課題 - 究澱粉在口腔内的消化 [田中老師陳黎明示範教學]

本會洪燕雲、劉德志參與觀課並提供意見。

2月24日2:00-3:50pm 觀課後分組討論及意見交流(本會代表及各田家炳中學老師

和校長)

本會意見綜合如下

-讚賞教師細緻的備課,有條理地安排學生向全班講解;

-欣賞學生的專注、自信心和良好的學習基礎;

-建議匯集學生在課堂上的疑問成為專題研習課題。

2月24日4:05-6:00pm

- 各田家炳中學介紹學校的科學教學特色[韶關、廣西玉林]

- 本會代表主講: 運用教育電視節目輔助教學 [黎文傑]....A4

2月25日8:30-10:00am

以下各田家炳中學介紹學校的科學教學特色 [清遠、惠州、汕尾、肇慶]

本會代表主講: 香港數理教育學會介紹[劉德志]...A5

2月25日10:15-12:00noon

本會代表主講: 課堂外的學與教

-化學奧林匹克與數理遊踪[黃兆湛]...A6

2012 Sep Mailing Pack

-趣味科學比賽 [鄭自良]...A7

-校内數理遊踪[洪燕雲]...A8

-科學鐵人賽之校內趣味科學活動 [陳天生]...A9

#### 活動反思:

#### 1. 事前預備

- 1.1 本會的事前統籌工作很好,是順利成行關鍵。
- 1.2 田中的準備很好,使會議能順暢進行。
- 1.3 田中的論文集及協助本會印發的會議文件適時。
- 1.4 本會代表在 2 月 23 日晚上的短暫聚會,有助其後兩天的研討會順利進行。

#### 2. 各田中介紹學校的科學教學特色

- 2.1 可考慮把講稿附於論文集,減少口頭報告的學校數目(例如由 6 間降至 2 間);又 或以研討會形式,由各中學代表回應參加者的提問和意見。
- 2.2 可考慮在論文集(21 篇)中選取一些較貼近出席者興趣的論文,由作者做報告, 然後由台下發問及討論。
- 2.3 總體而言, 宜多一點學科教師的投入及參與, 促進學科教學的交流。

#### 3. 香港數理教育學會介紹

- 3.1 PowerPoint 詳細而清晰,是一個好的開始。
- 3.2 建議做一個面向本港準教師的版本,到有關的教育學院介紹,招收新會員。

#### 4. 四個主題演講 [A1—A4]

- 4.1「玩具教學」方面,如果以工作坊的方式進行,效果會更好。(這需要較多的人力)
- 4.2 「香港數理教育學會介紹」和「活的教學、愉快學習、有效評估」方面,可考慮在本港推廣,凝聚人力,日後可採用工作坊的方式進行。
- 4.3 跟進了解未來國內各田家炳中學用本港教育電視節目輔助教學的個案,在將來 的研討會中介紹。
- 4.4 可考慮激請國內田中組隊參加來年的化學活動和「趣味科學比賽」等活動。
- 4.5 了解國內田中在未來會否舉辦校際或校內的數理遊踪活動,有需要時本會或可 給與意見。

#### 5. 回到根本—需要考慮配合本會未來的發展 [立足香港]

- 5.0 加強通過相關的數理活動,凝聚香港前線教師的力量,及把經驗介紹到國內。
- 5.1 本會現時是否可以有人力派員指導和協助在本港學校舉辦「數理遊踪」?
- 5.2 建議考慮多投一點人力完善及籌辦「化學奧林匹克」。
- 5.3 建議考慮多投一點人力完善「趣味科學比賽」,以提高參賽者的基礎理論,多 給機會參賽者實地試驗。

#### 報告者: 黃兆湛, 彭志泉, 劉德志



左起: 蕭開庭、何志強、陳天生、藍郁平、 黃兆湛、劉德志、鄭志良、梁家猷、黎文 傑、洪燕雲



韶關教育局頒贈紀念品