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# HKASME May-2023 Mail Pack

< A charitable institution since 15 May 2010 under the Section 88 of the IR Ordinance. >
< Serving ALL teachers since 1964 ... >



>>\* Marching towards our 60<sup>th</sup> Anniversary (since 1964).... Check new items in this mail pack

leading to 2024 – the Association  $60^{th}$  Anniversary (\*Esp. the " $\frac{60^{th}}{Corner}$ ")......

whether you are New or Old members – think what you would contribute to the celebration!!!

### \*\*\*\*\*



> Intn'l Year of 2023 :: >>

>>(\*)\* What are the global problems? .... Is Food & Health in your category? India's proposal to observe an International Year of Millets in 2023 was approved by the Food and Agriculture Organisation (FAO) in 2018 and the United Nations General Assembly has declared the year 2023 as

the International Year of Millets (IYOM-2023) .!!!

??- Millets? What are they? Why focus on that? How



Check for more at https://twitter.com/IYM2023 ... !!! You

could explore and get prepare for your OWN students in 2023 from such activities! >>....

Items in this pack:

- ◆ Council News ② Half-year to go ... &... Marching to 60<sup>th</sup> -2024 ... ② P.1-7
- \*\*60<sup>th</sup> Corner\*\* (60-7) Life-long Activities of HKASME <

  5: The Hong Kong Science Teachers Journal > .... P.8-11
- ◆ "STEM Corner" -- (ST-1) World Bee Day (20<sup>th</sup> May) (ST-2) about AI . P.12.
- ◆ <u>Science News</u> (S-1) <u>"Digi-Science" Video Competition</u> for HK Sec. Schools Theme:
- "Food Testing in Daily Life" (S-2) IYOM-2023 ... More... P.13-14
- ◆ (S-P1) Primary STEM Project Competition 2022-23 <u>(常識百搭)</u> *FINAL is COMING BACK*—with vast Exhibition for WHOLE DAY on 11-May,2023 at HK Central Public Library Hall!



of HKASME-60". SME\*60 : Batch-2 Results & Report released; (C2)

HKChO (Chemistry Olympiad) – Theme: "Waste – Second Life – Chemistry" – Final Round on 13/5/2023. (C3) Drawing helps understanding in Chemistry (C4) 2023 International Chemistry Quiz (ICQ) (H. K. Section) P.15-20

- ◆ <u>Biology News</u> (B-1) Further elaboration of the "World Bee Day" P.21
- **◆** <u>AGM News</u> − P.22-25
- ◆ <u>Journal News</u> P.26
- ◆ Physics News P.27

"Periodic Table items" ... P.29-30

- **◆** <u>ETV News</u> P.28
- ◆ <u>Resources Collection</u> -- Stock is LOW! ... "Element Cubes"! "Element Packs"! New



World BEE Day!? How important are

they to us??...

..... Check relevant details and prepare your students for the International Day of Bees & .... - 20<sup>th</sup> of MAY ...



> Living in a pandemic means we have had to accept changes to many aspects of our daily routines



AND ISSUES of POST-COVID19 – including learning & teaching!

# Council News

©©© Half-year to go... & Marching to 60<sup>th</sup> -2024 (7) ... ©©©



Though the relief of social gathering allow most activities to resume for months, there are still special tied impacts on different occasions. One of such is the recent upsurge of both COVID and FLU across the society. There are schools having groups of students being infected to different extent which affect some of our ongoing activities. 
Teachers and organizers need to prepare for more time slots or supplementary issues to keep the activity Otherwise, they have to give up !!! runnina.

Another more serious impact is the teacher who get infected. 

If the school can't find (or NOT prepare for substitute), the only way out is to abandon the activity. Anyway, that's the reality which we ALL need to face and be prepared for anything happen. The pandemic is NOT over YET!!!

Further, schools are still not ready to open up their venues to accommodate our activities

and we still find it difficult to ask for spaces for our coming activities. We hope this would gradually relieved more when situation becomes more stable. We could only say that teachers need to pay attention to grasp the registration / application earlier about their target activities in the coming months and year (2023-24).

As for new activities, that include two -the "Batch 2 Chemical Celebration for HKASME-60<sup>th</sup> Anniversary (Csme60)" and the "60<sup>th</sup> Corner" (60-7) in the mailpack. The batch-2 of the Csme60 has similar results as the batch-1 (Dec-2022) but the Winner has a more surprising design as its presentation is a 3D-object. This is the ONLY design in 3D that we have observed across all competitions. It's NOT just the 3D design that's eye-catching, the more important is that the winner had tried to use an expanded and extended platform to present the objects (6 faces) with suitable techniques!



2 faces of the 3D-object of the Batch-2 Winner of the

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"Chemical Celebration of HKASME-60".

As for the new 60<sup>th</sup> Corner (60-7), it's about our long-lasting (we hope) Science Teachers' Journal. This reminds us the importance about this sustained activity as a historical and academic record for Science and Maths Education. Without such record, new members and the Council could not help promoting the Association's AIMS (check details on WWW) and bring life to the Association.

One new activity just posted and got FULL registration is the Workshop offered by the Government Lab on 20<sup>th</sup> May. On top of that, we received overwhelming calls asking for potential places about the re-run of the activity. We could just reflect this to the organizers and teachers need to wait if there are re-runs!

Again, we would like to thank our dedicated colleagues in helping and supporting different activities in the hard times (the past 3 years) and we hope the 60<sup>th</sup> Anniversary could come with something special in the coming year (2023-24).

Afterall, just to remind teachers about the ordering of references and tools from the Office. We must alert all teachers that delivery time for many orders will be much longer than before

due to the global viral impact on logistics. Hence, if you want to place orders for certain materials, please be patient.

For latest updates (including cancellation) of the SME activities, the usual channel is our web: <a href="https://www.hkasme.org">www.hkasme.org</a> or phone the Office (23330096, 23337602) – we still open as usual.



Stay safe and be prepared for further outburst

The Council May 2023

< The Office will stay operation EXCEPT for serious incidence! >

\* Thanks for all donations in the past 59 years that support the Association to this day.

Donations are welcome, either for specific event or for general support. The HKASME is a charitable organization under the section 88.





... Marching towards the 60th in 2024 ....

((=====))



Update News at <a href="http://www.icaseonline.net/">http://www.icaseonline.net/</a>

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

- >> NEW:: COVID-19 PHENOMENON-BASED LEARNING (PhBL) ENGINEERING CHALLENGE
- >> NEW resource can be downloaded at ... <a href="http://www.icaseonline.net/coronavirus.pdf">http://www.icaseonline.net/coronavirus.pdf</a>
  "GUIDANCE on active learning at HOME" !!! <>< Grasp your copy NOW!

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## \*\* Up-coming Events of HKASME .... \*\*

## HKASME Coming Issues ... due to Impact of Coronavirus Infection ... may be..

>> Always check updated news at www.hkasme.org

Activity / Issue	Current situation	Remarks
"60th Corner"	(60-7): Life-long activities	Members could contribute to
"60" Corner"	of HKASME <5: The Hong	this Column with notes, special
> a NEW Column to recap	Kong Science Teachers'	items, blessings, etc Just email
important events in the	Journal>	us: enquiry@hkasme.org
Association history leading to	{note: (60-1) to (60-6) in Sep	
2024 the 60 <sup>th</sup> Anniversary	to Apr-Pack	
"Chemical Celebration	Completed with results posted	Check details online and also
of HKASME-60" Batch-2	online & awards issued to all	Report for "Batch-2" on WWW
> a NEW competition	winners	(with results).
to celebrate our 60 <sup>th</sup>		
Anniversary		
Sales of equipment &	Office still operate within our	Phone (23330096, 23337602)
references	limits.	++ ONLINE data & order
ATEN -	Results posted online	Check WWW for details
Digi Science Video		newspaper interviews and
<u>Competition 2022/23</u> –		further comments later.
Theme: "Food Testing in		
daily life"		
<b>Chemistry Olympiad for Sec.</b>	finalists notified & Final	Check WWW for details about
Schools - Theme: "Waste -	Round on 13/5	the Final round competition
Second Life - Chemistry"		
HKBLA 2022-23 ALL	➤ ALL completed	Check results online
COMPLETED		
NEW arth -	Final Exhibition at Central	Final Round resumes this year
25 <sup>th</sup> <b>Primary</b>	Public .Library (11/5/2023	with AM and PM sessions.
<b>STEM</b> project	[THU]). Update news online	
Competition <u>(常識百搭)</u>	at hkedcity.net	
2022 Colones	Quiz ongoing, results	Check details online later about
2023 Science	processed & checking, etc.	the debriefing & results
Assessment Test (for S2		analysis
to S3)		



(previous ANCQ) by RACI, Australia.

#### Apply online due by 26/5.

Test date at your OWN school during Jun to July.

Mainly for F.3 to F.6. Student could take higher levels!!!

- >> Though the spread of Coronovirus is diminishing, no one is sure of anything in the future. case that the activities have to be cancelled, the most update information will be posted via our webpage: <a href="https://www.hkasme.org">www.hkasme.org</a>.
- >>> For some routine activities, regret that they have to be cancelled or delayed!!! If you have any suggestion that they could be handled safely, please forward to our managers for consideration in coming activities!!!
- → Resources for New Year (2022-23)- "Element cubes", "metal packages", New "Periodic Table" items !!! → Check details at end of this Mailpack. --- Ordering References / Materials -->> phone up the Office for order & enquiries. Check update catalogue at www.
- → Some books (Maths & Chem) are on sale .... about 50% OFF! -->> CHECK at office!

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## (60-7) Life-long Activities of HKASME-60 <5:\_The Hong Kong Science





#### Teachers' Journal (HKSTJ) > ......

- The "Hong Kong Science Teachers' Journal" is both a top-down and bottom-up activity of the Association. Since the first Journal began in 1972, there must be a Council member the Editor to handle this annual activity for the Association as historical and academic record. In the initial years, the Journal was published twice a year (Vol.X, No. 1 and No. 2). After 2006, the publication has switched to one volume per year and the time of publication would usually be September. Also, the Journal had missed from 1997 to 2002 due to the death of Dr. Linton, the then editor of the Association.
- The Association Journal is open to all teachers and educators -- not just limited to members! Other than the official parts which are drafted by our members or Council members (usually include reports of different activities or sub-committees), all other teachers or educators could share their findings or opinions about Science and Maths Education with the general education public. Without the systemic publication year by year, it would be difficult for new members to follow and support the continual development of the Association since 1960s. As observed from the past six "60<sup>th</sup> Corner" articles, some "old" photos and historical records about different activities were dig-ups from the past Journals. Of course, the sustainability and development of the Association needs a stable Council structure with professional support of our Honorary Legal and Finance Advisors.
- The first publication in 1972 had the following contents:
  - Editorial
  - Notes and Comments
  - Articles: 1. The Role of the Science Teacher in Prevocational Education.
     Investigation Acceleration with liquid accelerometers.
     Equipment Notes
  - A variable resistor from an electric fire element

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- Felt Pen Spring Balance
- Physics of the "Goofy Bird"
- Electrolysis Cell for Collecting Gases
- Determining Molar volume
- Book reviews
- Visual aids reviews
- Endpiece publishing for Science in Hong Kong
- Other than the official yearly Journal, there were also some special publications for special events. For some years, the newsletter had been published as a routine contact with members. Other special events that led to special publication include the memorization of some important figures related to the Association, e.g. our important founder Dr. P.K.Tao, our long-serving officer Mrs. Cheng, our dedicated chairman Mr. Ng Chung Chun, ... Other important events go to the Association Special Celebrations of 40<sup>th</sup> and 50<sup>th</sup> Anniversary.
- For some years, the published Journal had been sent to ALL Schools in Hong Kong. However, due to financial burden, this could not be achieved for a long time.



Fig 1. Content page of the 2<sup>nd</sup> Journal HKSTJ

(1973)



Fig 2. The Maths Bulletin of 1987



Fig 3. 2003 40<sup>th</sup> Anniversary Newsletter of HKASME





Fig 4 a & b. 2012 and 2004\* HKSTJ

(2004\* includes special edition with issues of 40<sup>th</sup> Anniversary).



Hong Kong Science Association for Science and Mathematics Education

#### THE PRESIDENT

Dr. the Honourable I.EE Quo-wei, C.B.E., I.L.D., F.C.I.B., J.P.

"

#### MESSAGE FROM THE PRESIDENT

It has now been more than two years since I had the honour of becoming the heident of your Association. During this short period of time, I remain deeply impressed by your persistent dedication and hard work. These, as we all know, are in the time-honoured tradition of both scientists and educationists.

In the last two years, the Bong Kong economy performed very well thanks to the improved economic environment in our overess markets, and depreciation of the local currency which helped sharpen our product's price competitiveness. Both factors, however, are not within our control and may not always work in our favour. Consequently, they must not be relied upon for the long term success of the economy.

intend, we must look to ourselves for our future prosperity. We must strive hard to keep ahead of our competitors so as to secure, and expand into, overseas markets. To this end, we need a work force that is efficient, productive and, in this day and time, technology-minded. This is where your Association comes in.

In treats years, through the effort of the Hong Kong Government as well as eith argenties under a thick association, there has been greater awareness the importance of the role played by modern science and technology in further productivity improvement. Early this year, the Government appointed a Committee on Science and Technology, whose task is to seek out and develop new scientific floats and to advise Covernment departments on how they may be applied. Looking further ahead, Hong Kong's third university, the University of Science and Technology, is expected to admit its first sudents by 1919, soffetting a wider range of vocationally oriented degree courses, it will to some cutent help meet from Kong Kong's need for specialist managewer.

Nevertheless, much still needs to be done. I believe, therefore, that this Ausociation, by building on the gains of the past few years, can make further progress towards fostering greater science literacy in our work force. It is only though the education of science and mathematics, and eventually through meant had development, that our industries will be able to innovate. How, I believe this Association, has an indispensable role to play in maintaining the long stems prosperity of the Hoogs Rong economy.

Fig 5. 'Message from the President' by Sir LEE Quo Wei in 1988 Journal

((
>> Of course, the above are just a few of the life-long activities that the HKASME had held in the past
60 years. And, we would like to take the opportunity to thank all enthusiastic organizers in the past
and the participants in supporting the events.

In the coming 60<sup>th</sup> Corner, more different activities with different background will be mentioned. See you next round (60-8)!

{{.. Note: The first article of the "60<sup>th</sup> Corner" Series is (60-1) "1964? What happened? "-- in the HKASME September-2022 Mailpack.}}

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### (ST-1) World BEE Day:: 20-May of each year .... promoted by ...



Bees and other pollinators, such as butterflies, bats and hummingbirds, are increasingly under threat from human activities.

Pollination is a fundamental process for the survival of our ecosystems. *Nearly 90% of the world's wild flowering plant species depend, entirely, or at least in part, on animal pollination, along with more than 75% of the world's food crops and 35% of global agricultural land. Not only do pollinators contribute directly to food security, but they are key to conserving biodiversity.* 

- >> We all depend on pollinators and it is, therefore, crucial to monitor their decline and halt the loss of biodiversity.
- >> What would a world without bees look like? Listen to FAO's Abram Bicksler about the importance of pollinators for ensuring the world's food security. (Listen to a 6 minute talk at the website below.)
- >> Check for more at <a href="https://www.un.org/en/observances/bee-day">https://www.un.org/en/observances/bee-day</a>

### (ST-2) AI .... Have your school draft plans or rules for using such technology???

Have your students ask for advice in this aspect? You can't stay behind the curtain and must try to check for related issues & tasks wherever possible -- or at least start to discuss!

And, will you try to ignite your students' creativity via different Al-packages? :):):)



## Science News \*\* --

#### (S-1) "Digi-Science" Video Competition for Hong Kong Secondary Schools 2022-2023 Results

Junior Secondary Division

Champion: St. Paul's Secondary School

Title of Video: The X-Files: Bloody Tragedy:

Team Members: NIDIA HO, ATHENA LAI, SOPHIE LO

First runner-up: Cheung Sha Wan Catholic Secondary School

Title of Video: The Nitrite Mystery: Unveiling the Hidden Dangers in Leftovers Vegetables

Team Members: PANG CHUN SHING TAVIS, CHAN PAK HIN ANSON, PANG CHUN CHUNG

THOMAS

Second runner-up: Kowloon True Light School

Title of Video: Comparing the contents of caffeine in Chinese teas

Team Members: WONG YI LAM, CHAN ISABELLA, YONG THENG SIM

Merit: Christian Alliance S C Chan Memorial College

Title of Video: The Sugar Mystery

Team Members: LAM CHING SZE BETSY, CHAN YAN TUNG

Merit: Christian Alliance S C Chan Memorial College

Title of Video: Citric or Seek-trick?

Team Members: LU YAO, SZE NOK HIN

**Senior Secondary Division** 

Champion: Kowloon True Light School

Title of Video: The Content of Caffeine and Reducing Sugar in Energy Drinks

Team Members: YAU PUI KA, WONG TSZ LOK, TSE TSZ CHING

First runner-up: Diocesan Girls' School

Title of Video: Myth of Kidney Stones Caused by Spinach and Tofu debunked Team Members: LEUNG HOI YING LEIA, LIU TSZ YU, CHU LOK YI

Second runner-up: Shun Lee Catholic Secondary School

Title of Video: Stop "Hamming" Around - Avoid Ham (Processed Meat) in Your Diet

Team Members: SO YUK YAT, LAI TSIN TUNG, LIU CHING VINY

Merit: St. Paul's Convent School

Title of Video: Sulphur-ise in Chinese Yams?

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Team Members: CHOW SIN YU CINDY, CHU WING LAM ANNELIESE, LAW HO SUET HILARY

#### Merit: St. Paul's Co-educational College

Title of Video: An assay of the concentration of MSG in instant soup through an UV-Vis spectrophotometer

Team Members: CHAN WING YAN CANDY, LIN FONG YEE, SUEN MING TO



## (S-2) **IYOM-2023**

<-- Millets – ...... What are they? ...... Why so important?

Millets are a highly varied group of small-seeded grasses. They are widely grown on the globe as cereal crops or grains for food. They are important in the tropics of Asia and Africa (especially in India, Mali, and Nigeria). 97% millet production is in developing countries.

This crop is favoured due to its productivity and short growing season under dry, high-temperature conditions. They are highly tolerant of drought and other extreme weather conditions and have a similar nutrient content to other major cereals. It has been consumed by humans for about 7000 years and potentially had a pivotal role in the rise of multi-crop agriculture and settled farming societies.

The IYOM-2023 was supported by 72 countries principally to reverse the consumption decline of the nutrient-rich grain and open opportunities for the country's millet growers, accounting for 41% total world production since 2020. Could this be a solution for the food problem in this year of crisis??

Check for more online about IYOM-2023 and prepare for update activities to your students!!!

>> IYOM 2023 activities & results with photos & videos are posted also on TWITTER: .... https://twitter.com/IYM2023 ... Get the most from their various types of activities including all walks of people!!!

## \*\* Chemistry News \*\*



## Competition: "Chemical Celebration of HKASME-60".



## Batch-2 Submission had been screened with results posted

online at: www.hkasme.org >> Similar to previous submissions, there are some

good designs. And, the most astonishing design is a "3D object" (which could be 3D-printed as a real object) and this should be our first encounter of a 3D-submission amongst all different kinds of competitions.

The winners for the Batch-2 "Chemical Celebration of HKASME-60" is as follows:

Award	Student (Level)	School	Title / Message presented
Excellent Award	Chau Pui Ki	Diocesan Girls'	"SME-60" Exhibition – a 3D hexagon object with 6
	<u>(F3)</u>	School	faces showing features of 5 elements (10 to 14)
			relevant to SME60! ** [Note 1]
			Welcome a to Syllicity
Outstanding	Leung Ka Sing	POCA Wong Siu	Design based on structure of Arsole, C <sub>4</sub> H <sub>4</sub> AsH. Hoping
award	<u>(F5)</u>	Ching Secondary	HKASME to have a strong bond with students and can
		School	contribute more to science education and the society
			H As
Outstanding	Chau Fei (F4)	Buddhist Tai Hung	Poetic verses with elements related to "life": (6x8) +
award		College	(6x2x1) makes "SME60". "With the nourishing from
			carbon, we grow "
Merit award	Leung Cheuk	POCA Wong Siu	The three wizards: Ag, Na & He (47+11+2)
	Yin (F5)	Ching Secondary	related to "electric, fire and flying wizards"
		School	power of HKASME to further develop.

Merit award	Poon Yan Tung	Shau Kei Wan	Poster with NI3, Si and Li representing explosive nature
	(F4)	Government	and further development to 180 <sup>th</sup> year in future (NI3 + Si
		Secondary School	= 180)
Merit award	Liu Yilin (F5)	Concordia	Poster with elements (Mg, Al, N, Ni): 顯微鏡
		Lutheran School	表示舞台。燈光下的60(代表60週年)閃閃
		(North Point)	發光,與元素一起共舞,共同歡慶是次 60 週
			年活動
Merit award	Fu Wing Shing	Buddhist Tai	"Natural Bonding Homeland" - Based on NaBH4
	(F5)	Hung College	[ $(11+1) \times 5 = 60$ ]. Poetic expression with strong
			bonding of NaBH4.
Merit award	Lam Tsz Ki	YOT Chan	Poster with HKASME 60 and elements (Li, S,
	(F3)	Wong Suk Fong	O, Fe, C, H) embedded in "60" to emphasize
		Memorial	our development in future.
		Secondary	
		School	
Merit award	Lee Ching Yau	YOT Chan	Drawing with He, H2, CO2, O2, HCl (total 60)
	(F5)	Wong Suk Fong	showing different advancement of mankind in
		Memorial	relation to different usage.
		Secondary	

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Poster of "HKASME 60!" – with elements 1 + 3 + 9 + 11

[1] \*The excellent award design is actually a 3D object with 6 faces and could be moved on-screen. In this 2D-print report, we had captured some faces of the design to let you appreciate the object. The actual 3D object could be printed out as a 3D-model using a 3D-printer! Check for details of this design in the Last section.

+ 17 +19

[2] All other participants will have a certification of participation.

School

School

Diocesan Girls'

Wang Cindy Hing

Yu (F2)

Merit award

Notes:

[3] ALL participants' name will appear in the final report of this Chemical Celebration which will be published in the Association Journal (expected to be out by Sep-2023).

# Congratulations to all award winners and thanks all teachers and students in supporting the event.

As the activity is to encourage all teachers and students to participate in this meaningful and historical moment with 60<sup>th</sup> year of services to the Maths and Science Education, <u>all other participants</u> will also have "Certificates of Participation" and their names will appear in the Final Report of the "Chemical Celebration of HKASME-60" in the Association Journal (to be published in Aug/Sep-2023). The situation will be similar to the grand global celebration in IYC-2011 (IYC

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= International Year of Chemistry) in Hong Kong and around the World <a href="https://cen.acs.org/collections/iyc2011.html">https://cen.acs.org/collections/iyc2011.html</a>).

# \*\*\* A final report (including both Batch-1 and Batch 2) will be published with all participants in the Association Journal (expected to be out by Sep-2023).

## (C2) Hong Kong Chemistry Olympiad for Secondary Schools (2022-23)

Final Result of Hong Kong Chemistry Olympiad for Secondary Schools (2022-2023)

Theme of Year: Waste. Second Life. Chemistry (廢. 再生. 化學)

Final Competition cum Award Ceremony was completed on 13/5/2023 and below list out our 2022-2023HKChO Champion, 1st and 2nd Runner Ups and all those merited.

Award	School	Topic
Champion	7B-Carmel Pak U Secondary School	Anti-forma Chitogel
		滅醛蟲片
1st Runner-up	19-Maryknoll Convent School	Making biodegradable UV blocking
	(Secondary Section)	window film from food waste
		餐桌垃圾也能防曬? 打造綠色環保防
		紫外線窗膜
2nd Runner-up	14-Diocesan Girls' School	Microbial Fuel Cells: An Investigation
		on their potential in generating
		electricity for the Future
		「微生物燃料電池之發電潛力」

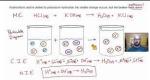
Hong Kong Chemistry Olympiad for Secondary Schools (2022-2023) Short-listed Schools for Final Round.

Sch	School	Title_Eng	Title_Chi
Code			
7A	Carmel Pak U	Anti-bacterial Non-allergic Bio-bandages	抗菌黑水虻膠布
	Secondary School	with Bio-dressing of Hydrogel of Chitosan	
		of Black Soldier Fly	
7B	Carmel Pak U		滅醛蟲片
	Secondary School	Anti-forma Chitogel	
12	TWGHS Kap Yan		活性碳再生
	Directors' College	Regeneration of Activated Carbon	
14	Diocesan Girls'	Microbial Fuel Cells: An Investigation on	「微生物燃料電池
	School	their potential in generating electricity for	之發電潛力」
		the Future	
15	St Paul's Convent	Fan'trash'tic Bagasse	「金」蔗渣
	School		

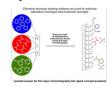
18	King's College	AgNPs and Natural dye-sensitized TiO <sub>2</sub> NPs	化廢為寶鈦容易
		-catalyzed photo-oxidation in food waste	
		treatment and its potential application in H2	
		production enhanced by Venturi effect	
19	Maryknoll Convent		餐桌垃圾也能防曬?
	School (Secondary	Making biodegradable UV blocking	打造綠色環保防紫
	Section)	window film from food waste	外線窗膜
20	Hong Kong Chinese		以環保方法合成納
	Women's Club	An Eco-friendly Way to Synthesize	米銀抗菌膜之研究
	College	Silver-nanoparticle Antibacterial Film	

### (C3) Drawing helps understanding in Chemistry ....





Many chemical concepts can be represented in more than one way, each providing different information. For example, the structure of a molecule can be represented as a formula, a 2D structural drawing, a ball-and-stick model or a space-filling model. These \*\*multiple representations\*\* are often a source of confusion for students. Could you figure out how many drawings could you present "NaCl" (the most common but important chemical in our daily life)?







>>>>

> For details, please check ...

 $\underline{https://edu.rsc.org/education-research/drawing-to-embed-complex-chemical-concepts/4}\\ \underline{016971.article}$ 

## (C4) 2023 International Chemistry Quiz (ICQ) (H. K. Section)

Form 5

## Application Form (Enquiry: Tel: 2333 0096 Fax: 2333 3355)

URL: http://www.hkasme.org

Quiz Date: June 20 - July 20, 2023

**Duration of Quiz:** 1 hour

Quiz Format: 30 M.C. questions (M.C. sheet will be supplied by HKASME)

Entry Fee Per Head<sup>(1)</sup>: HK\$100 (include administration fee, postage fee to and from Australia, students' result and appropriate grade, question paper and M.C. sheet)

**Application:** Return by post with the following documents/stuff to Rm 114, 1/F., Po On Court, 1 Po On Road, Sham Shui Po, Kln on or before 26May, 2023.

1. Application Form<sup>(2)</sup>

Form 1-2

- 2. Collection Form
- 3. Information of Applicants (Excel Form) (The blank form can be downloaded at www.hkasme.org.)
- 4. A cheque payable to "HKASME Ltd" to HKASME office

Material to be returned<sup>(3)</sup>: Answered M.C. Sheets & Question papers (Subject to the designated date of quiz, the quiz materials can be collected from HKASME office and

must be returned within the time specified.)

Form 3

Number of Applicants, Papers requested and Entry Fee<sup>(1)</sup>

**Applicants' information:** Fill in the information in the file "Information of Applicants".

Form 4

Year 7		Year 8		Year 10		Year 11		
Chi	Eng	Chi	Eng	Chi		Eng	Chi	Eng
\$	\$	\$	\$	\$		\$	\$	\$
		Total no. o applicants				Total Entr	y Fee:	\$
Teacher-in	n-charge:				Si	gn:		
Mobile no.	:							
Sch. Tel:				Er	nail <sup>(4)</sup> :			
Sch Fax no	no: School Name:							
Address				,				
NI - 4								<u> </u>

#### Note:

- (1) The entry fee is NOT refundable once the application fee is submitted.
- (2) Collection Form will be faxed back to the school within 1 week after the application form is received.
- (3) HKASME reserves the rights to reject any application / distribute the results if an applicant fails to fulfill or violate any ICQ regulations
- (4) Please provide an ACTIVE e-mail address for receiving the latest information.

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ICQ Order Form

Mail PackApr-2023/ P.18

Past Papers Order Form [HK\$20 / copy]								
	Form 1-3 Year 7/8		Form 4 Year 9/10		Form 5 Year 11		Form 6 Year 12	
	Chinese	English	Chinese	English	Chinese	English	Chinese	English
2012								
2013								
2014								
2015								
2016								
2017								
2018								
2019								
2021								
2022								
Total								
no. of								
Copies								
Past Paper [@ HK\$ 20]copy(ies) × \$20/copy						20/copy	= HK\$	
			Postage fee			= HK\$15		

Total HK\$:

Teacher-in-cha	ge:	Sign:
Mobile no.:		
Sch. Tel:		Email:
Sch Fax no:	School Nar	me:
Address	·	
Date:	Cheque	e no/cash:

Please make cheques payable to:

### HKASME Ltd.

Address: Room 114, 1/F., Po On Court, Po On Road, Shamshuipo, Kowloon \*From 2021 onwards, the organizer RACI change the name of Quiz from "ANCQ" to "ICQ".

## **Biology News**

# (B-1) Further elaboration of the "World Bee Day" .... - what's the importance of "biodiversity"?...









- >> What animals, other than BEES, help in pollination (what kind of animals can be potential pollinators? why?)? ...which helps to keep biodiversity!!
- >> The timeline development of the WORLD BEE DAY -- first in 1734 --- 20-May is the birthday of of Anton Janša, who came from a long line of beekeepers, became a pioneer of modern apiculture. Check for details at .... https://www.fao.org/world-bee-day/en





......

" Protecting Biodiversity, Protecting Life" ....

### **AGM NEWS**

## HKASME AGM Forum: "STEAM Education - Go ahead!"

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Date: 23 June, 2023 (Fri)

<u>Time:</u> 2:00 pm – 3:30 pm (3:30 to 4:30 – AGM)

<u>Venue:</u> LT4, Yeung Kim Man Building, City University of Hong Kong, Tat Chee Avenue,

Kowloon Tong, Kowloon. (Kowloon Tong MTR Station Exit C2)

#### Speakers:

Dr. LAM Wai Lim, William

Chief Curriculum Development Officer (Science), Education Bureau

Dr. CHEUNG Chak Chung Ray

Associate Professor, Department of Electrical Engineering, City University of HK

Mr. Carlos Tchiang

The Hong Kong Technology Education Association

Mr. CHU Ka Tim, Chairman, The Hong Kong Association for Computer Education

Mr. WONG Kin Wai, Albert, Chairman, Association of I.T. Leaders in Education

#### **Medium of Instruction:**

Cantonese, and English

#### Target audience:

Teachers of Science & Maths & STEAM, STEAM co-ordinators and assistants, Lab-technicians, Principals and other educators. All reflections and discussions will be summarized for teachers' reference.

**Links & Questions:** During this lengthy pandemic period, everyone has tried different methods of teaching & learning! Have you tried any new technology and platforms? How could you or your school deal with a wide spectrum of novices to experts (both teachers & students) in such areas if they are to be included in school routines? .... All could have good practices to share and / or problems to discuss (question could be drafted in the online application form).

Application deadline: 14 June 2023(Wed)

- This activity is FREE.
- After application, CityU will issue a QR code for you to enter CityU. Please check email for later instructions.

#### Online application:

https://docs.google.com/forms/d/14Hzhbtmp4UnJNCo3pBo-ZIoTNkulyhDk8aF 93nOzyg/edit

Membership application: If you want to join the Association, please click:

 $\label{lem:http://www.hkasme.org/Common/Reader/Channel/ShowPage.jsp?Cid=9&Pid=6&Version=0&Charset=iso-8859-1&page=0\\$ 

Enquiry Tel: 2333-0096 Related News & Updates: www.hkasme.org

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(Signature of Appointer)

## REPLY SLIP: Annual General Meeting (AGM) 2023

To: Hong Kong Association for Science and Mathematics Education (HKASME)
Office 14, 1/F, Po On Court, 1-15 Po On Road, Kowloon.
(Fax no. +852 2333 3355)

I \*shall / shall not (\* Delete as inappropriate) attend the following programs (free of charge) on 23<sup>rd</sup> June, 2023 (Fri) at LT4, Yeung Kim Man Building, City University of Hong Kong, Tat Chee Avenue, Kowloon Tong Kowloon (Kowloon Tong MTR Station Exit C2)

Option#	Progra	m	Time
	AGM Forum		2:00 pm - 3:30 pm
	" STEAM Education - Go	ahead !"	
B	HKASME Annual General	Meeting (AGM)	3:30 pm - 4:30 pm
# pleas	se put a 'V' in each of the appro	priate boxes.	
Jame:		Membership	No
(plea	ase print, surname first)	_	
igned:		_ Date:	
If you cannot atter below on or before	nd the AGM, please ask your represe 19 <sup>th</sup> June, 2023. Thank you.)	sentative to attend on you	ur behalf and send in the Proxy Form
	PRO	XY FORM	
o: Hong Kon	g Association for Science and	l Mathematics Educ	ation (HKASME)
`	,	on. Secretary <u>at least 3 days</u>	s before the scheduled time of the AGM
(N.B. This Pro i.e. 19 <sup>th</sup> Jun	,	on. Secretary <u>at least 3 days</u>	s before the scheduled time of the AGN
i.e. 19 <sup>th</sup> Jur	ne, 2023.)		
i.e. 19 <sup>th</sup> Jur	,		
i.e. 19 <sup>th</sup> Jur	ne, 2023.)	, Membership No.:	of
i.e. 19 <sup>th</sup> Jur	(Name of Appointer, surname first)	, Membership No.:	
i.e. 19 <sup>th</sup> Jun	(Name of Appointer, surname first)  (Address of	, Membership No.:, being	of a member of HKASME,
i.e. 19 <sup>th</sup> Jur	(Name of Appointer, surname first)  (Address of	, Membership No.:, being of Appointer), Membe	of a member of HKASME, ership No.: of
i.e. 19 <sup>th</sup> Jun	(Name of Appointer, surname first)  (Address of	, Membership No.:, being	of a member of HKASME, ership No.: of
i.e. 19 <sup>th</sup> Jun	(Name of Appointer, surname first)  (Address of	, Membership No.:, being of Appointer), Membe  (Name of Appointee, su	of a member of HKASME, crship No.: of rname first)
i.e. 19 <sup>th</sup> Jun	(Name of Appointer, surname first)  (Address of the control of the	, Membership No.:, being of Appointer), Membe  (Name of Appointee, su	of a member of HKASME, ership No.: of
i.e. 19 <sup>th</sup> Jun  I,	(Name of Appointer, surname first)  (Address of the control of the	, Membership No.: , being of Appointer) , Membe (Name of Appointee, su, as m ress of Appointee)	of a member of HKASME, ership No.: of rname first)  y proxy to vote for me on
i.e. 19 <sup>th</sup> Jun  I,	(Address of the AGM of the HKASME to	, Membership No.: , being of Appointer) , Membe (Name of Appointee, su, as m ress of Appointee)	of a member of HKASME, ership No.: of rname first)  y proxy to vote for me on

## **NOMINATION FORM**

To: Hong Kong Association for Science and Mathematics Education Office 14, 1/F, Po On Court, 1-15 Po On Road, Kowloon.

Fax no.: +852 2333 3355

This is to n	nominate *Dr./Mr./Mrs./Ms		
	1)	please print, surname first)	
Membership No	o.: for a post of o	council member in the Council of S	ession
2023-2024.			
	Nominator	Seconder	
Name			
(please print)			
Membership No.			
School/			
33113311			
Organization			
Signature			
Consent of the N	ominee to stand for election:		
Date:	Signed:		
* Delete as a			
Note: The number	er of council members in the Counci	of Session 2023-2024 is 15, one of which	ch is the
Immediate	Past Chairman. The number of vac	ancies for open nomination is 14.	
(For office use)			
Received by Hor	n. Secretary on :		

## Journal News

#### Calling for Articles of HKASME Journal (Volume 39)

Dear all members,

The latest HKASME Journal (Volume 38) had been issued before. I hope you enjoy reading it and your teaching ideas can be inspired.



Meanwhile, please notice that the next HKASME Journal (<u>Volume 39</u>) will be published and issued in **September 2023**, as what we scheduled before.

We are now calling for articles from authors. Would all 'potential authors' grasp the valuable chance of sharing your research findings, teaching ideas, views or experiences on any aspects of the education sector? The following ideas are provided for your own thoughts for sharing:

- ♦ Sharing ideas / difficulties in STEM / STEAM education / implementation
- ♦ Difficulties encountered and techniques to overcome in NSS implementation
- ♦ Experiences on handling SBA tasks concerning Science subjects and Liberal Studies
- ♦ Issues concerning the HKDSE examination
- ♦ Teaching ideas on certain topics of Mathematics, Science subjects and Liberal Studies
- ♦ Experiences in organizing teaching and learning activities
- ♦ Book review / Website recommendation

The deadline for submission of articles is 30<sup>th</sup> June 2023

Articles, photos or any other stuff concerned can be sent through email to me (boasc6218@gmail.com) or Miss Chu (enquiry@hkasme.org). Thank you for your help in advance. Thank you for your support to the HKASME Journal for years.

Best regards, Dr. AU Siu Chung

Journal Editor, HKASME

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## **Physics News**



## **ETV News**







## Resources Collection --- Continue Celebrating the IYPT-2019 (International Year of Periodic Table) ... -

(A-1) \*\* New \*\* -- "Element Cubes" - IYPT resources ... Could

ALSO be used as tools for your students to plan their "Experience Package" for the NEW competition "My experience with the Periodic Table" for IYPT-2019(HK). --- check Chem News (C1) above....

Element CUBES of (1 cm x 1 cm x 1 cm) – 4 elements available





Element / Symbol (At.No.)	<u>Purity</u>	Density	Price (Member / Non-member)
Carbon / C (6)	999 (= 99.9 %)	1.82	\$ 30 / 40
Nickel / Ni (27)	995 (= 99.5%)	8.9	\$ 50 / 60
Titanium / Ti (22)	995 (= 99.5%)	4.506	\$ 30 / 40
Molybdenum/ Mo (42)	9995 (= 99.95%)	10.22	\$ 60 / 70
Gold / Au (79) in tube	999	19.3	\$ 30 / 40

## "More" How to use the "Element Cubes" ?? - check April mailpack for different uses ... and ...use your imagination & creativity for the followings: ...

- 1/ Use waste cardboard and papers to make "paper element cubes" with element info on the 6 sides.
- 2/ How to use the above depend on your imagination ... e.g. as a gift, ... as detective chess, .. as a conversational tool to inspire students
- 3/ Using the "real cubes" (bought as above) and the "paper cubes" together for different activities ...

#### (A-2) Sets of elemental package for comparison / metallic investigations...



various metal combination packs are available with metals Mn, Bi, W,

Zn, Ti, Cr, Sb, Pb, Mo, ... Some mixed packs with 5 random metals at (\$30) and 3 metals at (\$20). ....  $\rightarrow$  Ask for more updates at the Office (2333-0096)!

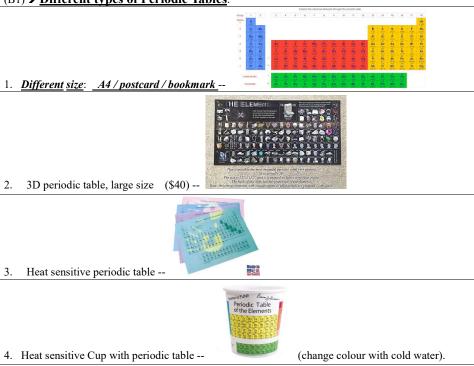
## (B) Periodic Table items for IYPT-2019 >> & Still extending into 2021! ...

>> YES, check Chem News Section!

\*\* The IYPT-2019 (International Year of Periodic Table) will have global and local activities until the end of the year. Hence, it is not late for you to initiate activities for your school or class or students to join the grand celebration around the World. For updates and our new competition ("My Experience with the Periodic Table" - a continuation of the 2018-19 competition "Element of the Month"), please go to www.hkasme.org > Subject Comm > Chemistry > IYPT or email your questions or message to ivpt2019@hkasme.org

For details of the competition "Element of the Month for IYPT-2019(HK)", please refer to the final report in this Journal or check at www.hkasme.org > Chemistry > iypt2019.

### (B1)→ Different types of Periodic Tables:



- Ask Office for updates at 2333-0096.

Check for more at the SME Office ...  $\leftarrow \rightarrow$  STEM nourishment needs experiential learning !!!