



保良局唐乃勤初中書院

Po Leung Kuk Tong Nai Kan Junior Secondary College

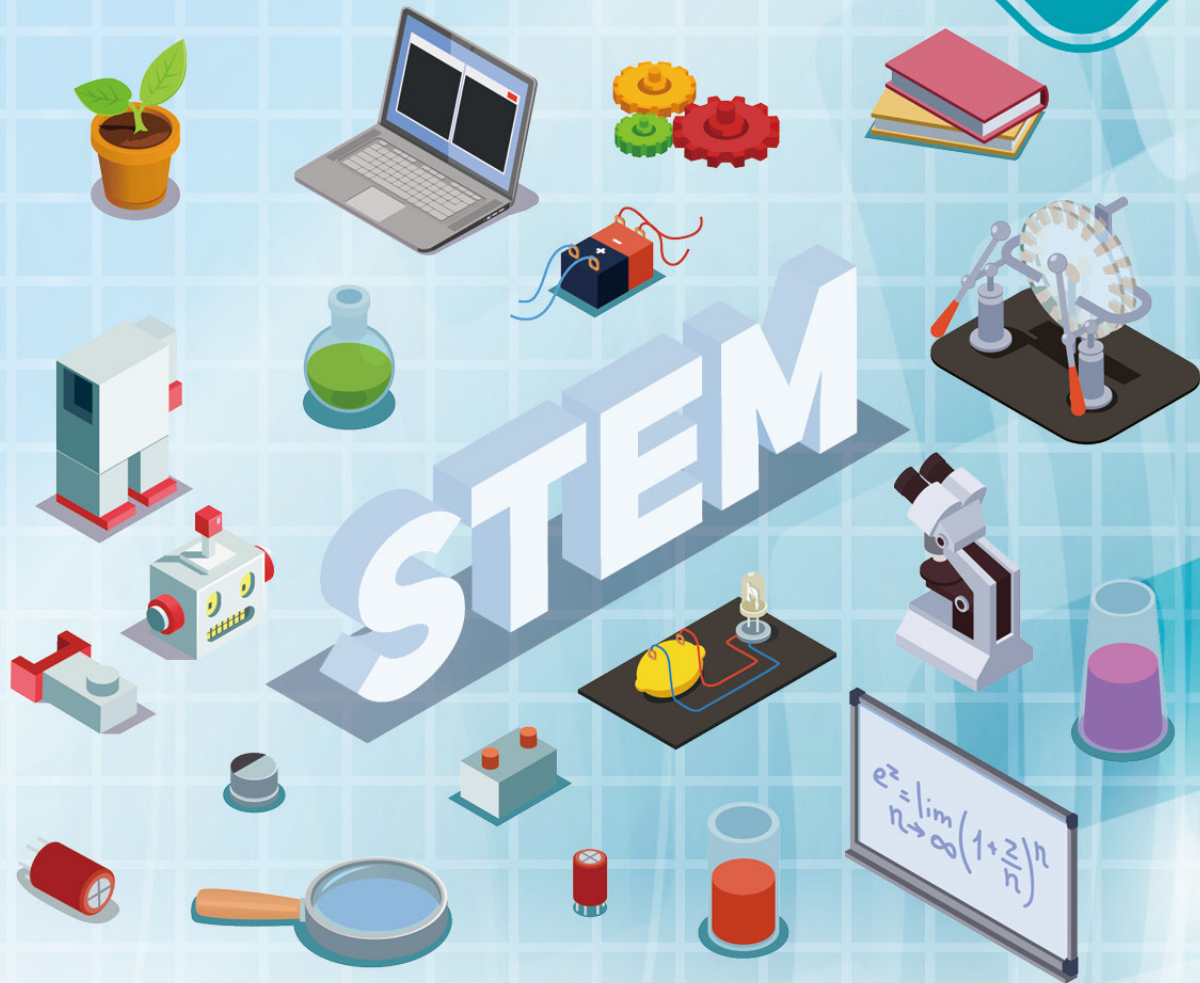
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First Semester Newsletter

2020-2021



Principal's Message

2020 is a very special year. Classes at school were suspended for nearly half a year as a coronavirus prevention. This has definitely posed a challenge for schools to perform learning and teaching effectively. On the bright side, this long school suspension has given us a paradigm shift of traditional teaching and learning to the use of Information Technology. E-learning has been adopted to students of all levels. A new mode of learning and teaching have emerged for both the school and students— real-time online lessons through video-communication software. This new mode of learning not only happening in schools but also in private and government sectors.

This coronavirus crisis has created a new norm for the educators and schools globally, revolutionizing the online learning landscape and digitalization. Our school initially estimate a one to two year implementation time for the BYOD Program. However, under the coronavirus pandemic, the e-learning and teaching mode have been used in a regular basis. After this half a year online learning routine, most of our staff and students have already familiarized with this new mode of learning and teaching. This is definitely a good start for our implementation of BYOD.

The school will continue to enhance and fine-tune our new learning and teaching platform so as to fit in with this new norm of education. I am confident that under the ceaseless effort of all our stakeholders, the school can be further upgraded to provide quality education to our young generation.

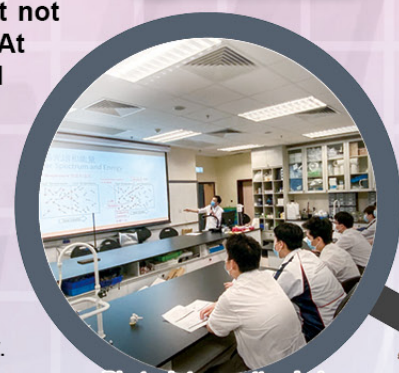


Bio-tech research team – Degradation of plastic using worms

By Dr. KY Chan

Plastic is one of the biggest environmental problems in the world. Not only is it not biodegradable, it will breakdown into nano plastic and get into the food chain. At present, the only solution is to use less plastic and to recycle them. Unless we find an alternate solution to the problem, plastic will continue to be degraded.

The bio-tech team which include student Chan Wai Sum, student Lam Tsz Kit, student Ng Ho Him, student Leung Tin Long, student Fung Wing To and student Chan Cheong Chun decided to investigate on ways to tackle this environmental problem. A study by using meal worms to degrade plastic polyethylene was published in 2017 (Zhang et al.) . With reference to that study, the bio-tech team decided to investigate the possibility of using worms to degrade plastic. During the study, the students discovered that the meal worms would easily turn into pupae, which in turn affected the experiment's accuracy. Therefore we decided to use a different type of worms to continue the study. Eventually, we went for the superworm larva.



Bio-tech team attended the lecture at HKEdU.

Superworm larva is commonly sold as pet food in shop. They feed on vegetable, fruit and can absorb the moisture from food without the supply of water. They undergo a complete metamorphosis which involved 4 stages: egg, larva, pupae and beetle. The strong biting force of a superworm can increase the mechanical breakdown of plastic in which it is desirable to use for biodegradation of plastic. Previous studies indicated that showed superworms can decompose polystyrene (Yang et al. 2020). In this study, their ability to decompose another commonly used plastic polyethylene was investigated.

The following are the reflections from the bio-tech team students about this research project.

Student Chan Wai Sum: "During the past years, our team has carried out a research on the use of "Worm to Biodegrade Plastic", we have gained some fruitful experiences, mainly in research processes and how to solve problems during the research. Being positive, we see all the problems as 'challenges' for us."

Student Lam Tsz Kit: "In talking about the first challenge, all of the members in the team have no experience in keeping worms, therefore we have to handle everything in care and we need to ensure the right temperature and humidity for the worms. Besides, we need to keep the worms in a hygienic condition and we need to check their activities on a regular basis."

Student Ng Ho Him: "In the beginning of the study, we used meal worms for the research but there were errors on the data. After we assessed the situation, we decided to abandon that species of worms. Instead, we chose another species called "Superworms".

Student Leung Tin Long: "The outbreak of the COVID-19 has affected our research. Since classes were suspended and school was closed, our research has to be temporarily suspended. This not only caused unexpected delays but I was worried about the life of the Superworms (being kept in the laboratory). Fortunately the worms are strong enough to make it through those tough days. We make adjustments to carry out the research in stages and not to give up. Finally we were able to achieve success."

Student Chan Cheong Chun: "Throughout the research, there were many challenges such as in data collection and analysis. There were inconsistencies in the research findings that we need to repeat the experiments repeatedly and find out the cause. After discussion with our research team leader, we eliminated those unreliable findings and we were able to make conclusion."



Bio-tech team members were performing worms.



Bio-tech team visited HKEdU and used the FTIR to analyze the plastics.



Bio-tech team were dissecting worms.



Bio-tech team were reporting the research output.



Press conference of Bio-tech team.

Reference

Yang, Yu, Wang, Jialei & Xia, Mengli, 2020. Biodegradation and mineralization of polystyrene by plastic-eating superworms *Zophobas atratus*. *The Science of the total environment*, 708, p.135-233.

Zhang et al. 2017. Degradation of Plastic Film Containing Polyethylene (PE) by Yellow Worms. *Chemistry & Bioengineering*. 34(4), pp47-49.





Life-Wide Learning Day



The Life-Wide Learning Day was held on 20th November. The aim of the day was to provide an opportunity for different classes to explore and to learn with their schoolmates and teachers outside their classrooms. However, due to Covid-19 epidemic, each subject and department had prepared virtual reality or real scene videos for students to experience those workshops in school.

The activities included National Education Activity, Exploration of Chinese New Business and Economic Development, Exploration of Hong Kong Aviation, Ecological & Cultural Exploration (Lantau Island), Boxing, Percussion & Chinese Writing Workshop and Public Speaking Workshop, which were co-organized by different subjects and departments across curricula.

National Education Day Activity-- 「思·MOVIE」“Walking to School” Movie watching and sharing activity (MCNEC):



Students attentively watching the “Walking to school” movie in the activity.

Exploration of Hong Kong Aviation (Liberal and Social Studies and Integrated Science):



Students attentively watching the introduction of the Hong Kong International airport.



Students were concentrated in watching for some useful information.

Exploration of Chinese New Business and Economic Development (Chinese History and Information Technology Studies):



New Design and High technology model was introduced and was promoted in the market.

Students watched the movie, which depicted the advanced production process of a car in terms of automatic manufacturing system.



Teachers and students watched the video together to learn more about the stories of some successful Chinese technology companies, such as Alibaba.



CAD Education Path in the Hong Kong International Airport.

Common Aircraft models in Hong Kong.



Ecological & Cultural Exploration (Lantau Island) (Geography and History):



Through the instruction of the teacher, students were able to learn more about the relief of Lantau Island.



Students showed their talents in poster drawing.



Students enjoyed the Ecological & Cultural Exploration activity.



Students were watching video about the history of Tai O.



Student was drawing a picture related to Tai O.

Boxing, Percussion & Chinese Writing Workshop (Physical Education, Music and Chinese):



Students have had a lot of fun in this Thai boxing experience event. They all had a very pleasant morning.



Mr. Li taught our students some simple Thai boxing exercises.



Our students tried Thai boxing and kicking.



For the Chinese writing workshop, students showed that they could do well in both sports and language.



Public Speaking Workshop (English):



Some students were invited to demonstrate the speaking skills that they had learnt in the video.



Students took turns to present a topic in English in two minutes while the others observed attentively to their speeches.

Together, we fight the virus!

By Mr. C K Sze & Ms. H Ng

Students' personal safety is always the top priority of every school. In order to prevent the spread of Covid-19 and other diseases, our school has introduced certain preventive measures to ensure the safety of our students.

First and foremost, thermometers and hand sanitizers are placed at the school entrance. Students are required to check their body temperatures before they enter the school every day. If students' body temperature exceeds 37.2°C, parents will be informed and they will need to consult doctors as soon as possible. Besides, students must clean their hands with alcohol-based hand sanitizers.

Transparent protective panels were purchased for students. The panels are used as partition between students to provide distancing in the classroom during lessons. Before school starts and ends, students need to clean their protective panels thoroughly. To reduce the risk of viral transmission, students are told to bring their own disinfectant wipes.

In order to raise students' awareness of the pandemic and give students a chance to learn about the importance of maintaining good personal hygiene, in collective efforts. The school had introduced an inter-class board decoration competition. The theme was 'Together, we fight the virus!'

Last but not least, there are other measures to provide students a safe environment. To reduce the chance of infection, an alcohol-based hand sanitizer is prepared for every student. Surgical masks can be obtained in the General Office if needed. By having all these measures, our school hopes to provide students a safe and hygienic environment.

To sum up, health is always the top priority of Tong Nai Kan Junior Secondary College. All staff members will strive to their best to serve students with love and care!



For the board of Class 1A, the design is both informative and attractive! That's why it is the best board in Form 1!

For the board of Class 2E, the design is about a tug of war between the virus and humans!



For the board of Class 3A, the design is about how students do their best to fight against the virus!

Transparent protective panels serve as barriers to students under the pandemic.





Student Achievements



The 5th Fuzi Chamber Public Speaking Contest

Our students, 1C Lo Pei Ying and 2D Du Qianru received the Merit Awards in the 5th Fuzi Chamber Public Speaking Contest organized by Fuzi Chamber.



The 10th Hong Kong Secondary School Conservation Culture Writing Competition (Junior Group)

Our students Wu Bailun, Ku Cheuk Man, He Anqi and Chan Cheong Chun won prizes in The 10th Hong Kong Secondary School Conservation Culture Writing Competition (Junior Group).

3C Wu Bailun (Champion)
S4 Ku Cheuk Man (2nd Runner up)
S4 He Anqi (Merit Award)
3C Chan Cheong Chun (Merit Award)



Tai Kung Po 'Long Epidemic' Writing Competition for Primary and Secondary Schools in Hong Kong

Our students He Anqi and Tam Wai Yan won the Excellent prizes in Tai Kung Po 'Long Epidemic' Writing Competition for Primary and Secondary Schools in Hong Kong.



The 6th 'Two Generations Love' Essay Competition

Our students 2A Lam Jun Wing, 2A Lo Ko Fung, 2C Ko Yung Ching, 3A Fung Wing To, 3B Lu Wenqian, S4 Ku Cheuk Man, S4 He Anqi, S4 Wong Kin Fung and S4 Tam Wai Yan won the Merit prizes in The 6th 'Two Generations Love' Essay Competition (Junior Group).

2020 Joint School Music Competition (Chinese Ensemble)

Our Chinese Ensemble received Gold Award in 2020 Joint School Music Competition (Chinese Ensemble).



School Directors and Managers Visit

On 24 November 2020, we were honoured to have the directors and managers of Po Leung Kuk visiting our school. Our Principal, Mr. Wong Chung Ki, extended his warm welcome to our honourable guests and showed them around the school campus. Our teachers and students were delighted to introduce to our honourable guests the recent developments of our school, including the Irene Yu Library, the Tony Tong Biotechnology Laboratory, the Fabrication Laboratory, the new LED wall, TVs, and the sound and lighting systems in our newly renovated School Hall. The school tour lasted for an hour and ended with a group photo taken by Mr. Cheung at the Tian Teck Building.



A student representative was presenting some reading activities to our honourable guests at the LED wall outside our Irene Yu Library.



Our honourable guests were exploring the new bio-tech equipment of our Tony Tong Biotechnology Laboratory.



Our Principal, Mr. Wong Chung Ki, was introducing to our honourable guests our recently published bio-tech research project (Superworms).



Our Principal, Mr. Wong Chung Ki, and a student representative were introducing to our honourable guests the IT equipment in the Fabrication Laboratory.

天德大樓
Tian Teck Building
朱李月華題



A group photo with our honourable guests was taken at the end of the tour.



The Kuk's Spirit

Mutual Respect
United Effort
Benevolence
Charitable
Gratefulness and Recognition

Dedication to Serving
the Community





Vision

Children are nurtured, Youngsters are educated
Adults are supported to contribute
Elderly are cared for
The less fortunate are lightened with hope.

Mission

To be the most prominent and committed charitable organisation.
In the Kuk's Spirit to do good deeds with benevolence.
Dedicated in protecting the young and the innocent,
caring for the elderly and the underprivileged,
aiding the poor and healing the sick,
educating the young and nurturing their morality,
providing recreation to the public, caring for the environment,
passing on the cultural inheritance and
bringing goodness to the community

Values

Fine traditions, Accommodate the current needs
People-oriented, Care and appreciation
Sound governance, Pragmatism and innovative
Integrity, Vigilance
Optimal use of resources, Cost-effectiveness
Professional team, Service with heart

