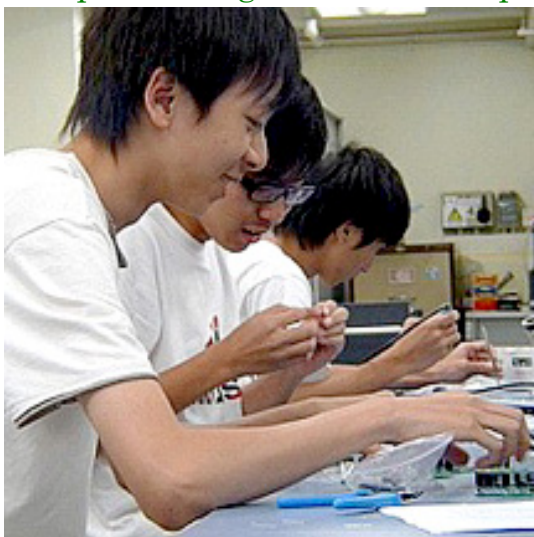


HK PolyU Gifted Programs for NSS students

The Department of Electronic and Information Engineering and the Department of Mechanical Engineering are amongst the hosting departments of the first gifted programme launched by the Hong Kong Polytechnic University in 2010 jointly with the Hong Kong Academy for Gifted Education. The programme aims to address gifted students' educational needs whilst developing their potentials, and runs from April 2010 to the summer of 2012. The Gifted Programme is well received by some 30 local secondary schools with around 150 talented New Senior Secondary (NSS) students.

The programme by the Department of Mechanical Engineering under the theme of "**Serving Community with Design and Technology**" guided students to develop a design project to address the environmental problems in an underprivileged community. A 4-day visit to the Chinese mainland was organised in July 2010 after a series of engineering workshop held during Easter. Students had the opportunities to meet teachers and students from two primary schools in a less developed area of Guangzhou and they are required to develop a design project to help improve the school environment by applying renewable energy, environmental protection solutions and engineering knowledge. Students have finalised their conceptual design and are now proceeding to the manufacturing stage.



The Department of Electronic and Information Engineering organised the gifted programme under the theme of "**Solar Energy - Light the World Up**". Since the launch of the programme in April 2010, students have attended various activities including plant visits, lectures, and guided hands-on projects. During the summer, they also gained hands-on experience assembling solar-powered LED lamps and have made some "garden lamps" which will be used in selected Guangdong towns to help light up roads at night.



Serving Community with Design and Technology (Lam Chak Cheung, 6E, 2011-2012)

Happiness lies in contentment. When I visited Huai Ji, a place with low living standard, I realized that although the students there may not be capable of affording the school fees or even the basic living expenses, they still wore a broad smile on their faces. The mission of this visit is to help the students build up a water supply system and this program is organized by the Hong Kong Polytechnic University.

Availing myself of this chance, I have got acquainted with more friends who come from various schools and through our friendships have been enhanced with the progress of this program. More importantly, my scientific knowledge about the mechanical engineering has been boosted with this program. Before participating in this program, I only had a nodding acquaintance with the knowledge about this aspect, however, after attending a series of seminars organized by the mechanical engineering department, I now can deal with the construction of some small-size machines as I am equipped with the knowledge about how to choose the correct materials, how to use solar cells and wind power to generate electricity, etc.



Actually, my feeling after this visit was that technology can improve the living standard of people and this is apparently what the scientists want to achieve. By inventing more useful machines can we live in a more comfortable and relaxing environment, whenever I glanced at the children in mainland China, they always smiled happily and they expressed their gratitude to us by saluting at the entrance of the school. I was really thankful to their welcomes and I hope I will have another

chance to visit there. Instead of saying that joining this scientific program provides me with a lot of knowledge, I want to say that we should embrace the opportunities to visit different places so that we can adopt a positive outlook on our lives. Remember, happiness lies in contentment!

Solar Energy - Light the World Up (Chung Siu Kei, 6E, 2011-2012)

The program was an activity that also revealed my real personal qualities. Joining this program, I thought it was not only an experience to give but also an experience to learn. The trip to Qingyuan and deliver the lamps to the poor and organized some lessons and carnivals for the poor students in there. In this activity, I have to cooperate with other students from different schools. This gave me a great opportunity to broaden my horizons and being awarded as the best leader in one of the preparation process, I have noticed I am a potential strong leader and have distinctive management skills.



I have also developed an ability to communicate with strangers confidently. Therefore, my communication skills are greatly improved and I have acquired great soft skills. In the past, I have only considered how to gain benefits from all the activities I joined but this solar energy changed me. I have acquired much more things than fulfilling the required hours of my OLE. For instances, I have changed my attitude in joining activities. In the past, I do considered how I would win the tasks I have and I only want to get honors in the tasks. However, the visits to the poor and giving lectures taught me what is the most important in life. That is love, love to the poor and to the needed.



Science Society 2011-2012:

Chairperson: MAK SHUN KI 麥順淇 4E

Committee Member: LAU WAI NIM 劉威念 4A, LEE KA HANG 李嘉恒 4A, TANG PUI KEI 鄧珮琦 4A, LAM HO LIM 林皓廉 4D, WONG CHUN FUNG 黃進鋒 4D, CHAU IRIS 周雅詩 4E & CHIK CHUNG YIN 植頌然 4E

Website: <http://210.3.43.253/~lck/science/spt1112/spt1112.htm>

科學天文電影

香港科學館演講廳 (英語旁白, 配以中文字幕) 免費活動, 即場入座, 座位先到先得

電影名稱	日期	時間
科學新發現:時光機器	11.9.2011 (星期日)	下午 2:15-3:15 或 3:45-4:45
時間旅行過往只流於科幻小說或電影; 可是今日已有許多科學家相信時間旅行不僅可能, 更是無可避免的。在這一小時的節目中, 物理學家霍金和加來, 會討論時間旅行的可能性, 認為將來可能出現時間旅行, 因為科學家相信當物體運動接近光速時, 它經歷的時間會相對減慢。另外, 有些物理學家正構想如何回到過去, 他們提出嘗試利用重力來扭曲時空; 但回到過去的時間旅行又會引發新的疑問: 時間旅行者可改變歷史嗎?		
科學新發現: 宇宙大爆炸	25.9.2011 (星期日)	下午 2:15-3:15 或 3:45-4:45
約一百四十億年前, 空間、時間和物質都不存在, 突然發生了大爆炸。《科學新發現: 宇宙大爆炸》闡釋從宇宙誕生的第一秒, 由一個小小的光點從無到有, 跟著以無法想像的速度擴張, 並創造了現今的宇宙。		
香港太空館演講廳 (英語旁白, 配以中文字幕) 免費活動, 即場入座, 座位先到先得		
時間與空間及接觸外星人	4.9.2010 (星期日)	下午 5 時至 6 時

太空館天文活動 (粵語講解) 如天氣欠佳, 觀測活動會以室內活動代替

有興趣人士可於每次活動開始前, 於太空館地下大堂輪候參加, 費用全免。

活動名稱	日期	時間	地點
天文嘉年華	9月6日(星期二)	晚上7時至9時	何鴻燊天象廳、宇宙劇場及天台
神秘的星空, 帶給人無限的遐想, 正因如此它每每令人著迷。天空中閃爍的星體看似遙不可及, 原來也可以近在咫尺。香港太空館舉辦的「天文嘉年華」活動正好讓大家在鬧市中近距離接觸神秘的星空。你可以透過「星空巡禮」在模擬的星空中穿梭宇宙; 「魔幻行星」帶你認識太陽系八大行星的特色和面貌; 而「鏡中星空」則讓你親眼窺探月球、行星及其他天體的廬山真貌。			
天文快樂時光	9月14日(星期三)	晚上7時30分至9時	太空館天台
你有否想過在夜幕低垂時, 與三五知己在繁華鬧市中, 仍然可以仰觀天象, 享受觀星的樂趣? 香港太空館特別為未親嘗觀星樂的人士舉辦了一個名為「天文快樂時光」的觀星活動。在資深天文愛好者的引領下, 參加者可以在本館天台輕輕鬆鬆地去辨認市區中可見的天體, 享受一段快樂的時光。			

專題講座 免費活動, 即場入座, 座位先到先得。

9月4日(日)	下午 3:00 - 4:30	旋轉的蜂蜜	太空館演講廳	高子翔先生 (星匯點委員)
2004年4月20日, 美國太空總署發射引力探測器 - B (Gravity Probe B), 利用精確的陀螺儀量度地球周圍的引力場。2011年5月31日, 研究員發表是次測量計劃的最終結果, 正式證實一世紀前愛因斯坦廣義相對論中的預言: 地球的自轉會牽引並扭曲地球周圍的時空, 就像沾在地球周圍的蜂蜜被一併帶動旋轉, 出現測地線效應(geodetic effect)和參考系拖曳(frame dragging)兩個奇怪的現象。這兩個現象揭示了廣義相對論中深刻的一面- 萬有引力的本質原來比牛頓最初所想的更為豐富奇妙。本講座將為聽眾簡介廣義相對論、回顧百年來科學家對廣義相對論所作的幾個經典驗證, 及討論引力探測器 B 的發現如何為人類對引力的理解寫下新的一頁。				
9月24日(六)	下午 2:30 - 4:00	以「疫」制「疫」— 神奇疫苗	科學館演講廳	趙長成醫生 (英國皇家兒科醫學院榮授院士)
疫苗是根據我們體內天然的自身免疫原理而製成, 可有效地預防疫症: 自從疫苗出現後, 歷史上曾殺害 3-5 億人的天花已絕跡、小兒麻痺也消聲匿跡, 而麻疹、結核、乙型肝炎、肺炎鏈球菌、白喉、百日咳、破傷風等殺人傳染病也大受控制。然而疫苗是怎樣預防疫症? 安全嗎? 有甚麼副作用? 絕對有效嗎? 疫苗對敏感症、風濕症、癌症或腦退化症有幫助嗎? 將來的發展有甚麼突破? 可以不用打針嗎? 以上種種疑團, 將會在是次講座為你們一一解答。				

Lunch Time Video Shows: 12:20 p.m. @ Chem. Lab. (Room 512)

天際之旅

Date	Name of Program	Language / Subtitle	Area
20/9 (Tue)	Asteroid Impact 小行星撞地球 (Part I)	English / Chinese	Astronomy 天文學
23/9 (Fri)	Asteroid Impact 小行星撞地球 (Part II)	English / Chinese	
27/9 (Tue)	Alien Worlds 外星世界 (Part I)	English / Chinese	
30/9 (Fri)	Alien Worlds 外星世界 (Part II)	English / Chinese	