









WWF-Hong Kong School Procurement Policy 2019



To encourage sustainable living in schools' daily operation, WWF-Hong Kong has designed a "School Procurement Policy" listing common procurement items, recommended green specifications and the importance behind.

Schools could integrate the recommendations in their environmental policy, and monitor continuously the usage of resources. Some partner school teachers have even used these green products as teaching materials, demonstrating the way to live sustainably in campus!





Procurement items	Recommended Green Specifications for Products	Importance	Additional Information
 <p>Cleansing products (Sanitary Detergent and soap, etc.)</p>	<ul style="list-style-type: none"> Products should not contain halogenated substance or solvents, [Alkylphenol ethoxylates (APEOs)], including reactive chlorine compounds [Ethylenediaminetetraacetic acid, (EDTA)] Purchase only products with the following product declarations: No chlorine compounds/ No phosphate or phosphonates / Biodegradable¹ 	<ul style="list-style-type: none"> APEOs are persistent in water. They tend to bioaccumulate and their toxicity have detrimental impact on aquatic organisms² EDTA might affect human health³ 	<ul style="list-style-type: none"> Refer to Hong Kong government green procurement by the Environmental Protection Department and learn about green specifications⁴ Some examples of products (for reference only) <ul style="list-style-type: none"> - Orange House⁵ - O'Farm⁶ - Panda Shop Good Natured⁷ - Homemade natural cleaning solution⁸
 <p>Plastic products</p>	<ul style="list-style-type: none"> Do not purchase and provide single-use plastic products (Examples at the tuck shop are plastic food bags, Styrofoam containers, cutlery and plastic bottled soft drinks from vending machines etc.) Use reusable containers and ideally encourage students to bring their own food containers and reusable cutlery 	<ul style="list-style-type: none"> Plastic is the third largest category of solid waste in Hong Kong, takes up nearly 20% of all waste⁹ 60-80% of waste collected from the coastline, coastal waters and underwater are plastic products. The ten most common categories are all disposable plastic products which cause serious threat to the marine habitat¹⁰ A plastic bottle requires one fourth of its volume of crude oil in its production. Crude oil is a type of non-renewable resources. The refinery process and transportation of crude oil always cause serious pollution to the surrounding environment¹¹ 	

Procurement items	Recommended Green Specifications for Products	Importance	Additional Information
 <p>Electrical appliances</p>	<ul style="list-style-type: none"> Appliances should be "Grade 1 energy labelled" by the Electrical and Mechanical Services Department under the "Mandatory Energy Efficiency Labelling Scheme" If such product category do not have any energy efficiency labels, it should fulfil requirement of an international energy efficiency standard such as Energy Star  	<ul style="list-style-type: none"> 7% of ecological footprint from individual, family and business is from the use of electricity¹² "Grade 1 energy label" is regarded as the most efficient while "Grade 5 energy label" is regarded as the least efficient. A split type conditioner with grade 1 energy label saves 61% more electricity than a grade 5 air conditioner¹³; A light bulb with grade 1 energy label saves 18% more electricity than a grade 5 light bulb¹⁴ 	<ul style="list-style-type: none"> Mandatory Energy Efficiency labelling scheme currently covers 5 types of prescribed products including air conditioners, refrigerating appliances, compact fluorescent lamps (CFLs), washing machines and dehumidifiers. The Voluntary Energy Efficiency Labelling Scheme covers 22 types of electrical appliances Refer to the Mandatory Energy Efficiency Labelling Scheme by the Electrical and Mechanical Services Department¹⁵
 <p>Wooden furniture and paper products (Paper for printing and photocopying, craft paper, toilet paper and paper towel)</p>	<ul style="list-style-type: none"> Purchase paper and wood products that are certified by the Forest Stewardship Council (FSC). Purchase second hand and upcycled wood furniture, products and paper  <ul style="list-style-type: none"> If there is a need to replace furniture, donate old furniture to organisations that receive used furniture for resale 	<ul style="list-style-type: none"> Paper is the second largest category of solid waste in Hong Kong, takes up more than 23%¹⁶ One million tonnes of paper is consumed around the world every day. Each second, an area of forest equivalent to the size of a football pitch is lost and one of the main reasons is the damage caused by deforestation¹⁷ Through certifying responsibly managed forests, FSC ensures the harvest of timber does not exceed the speed of forest restoration and recovery. Products with FSC labels fulfil the environmental and social standards of promoting sustainable forests 	<ul style="list-style-type: none"> Hong Kong government green procurement by the Environmental Protection Department¹⁸ Website of Forest Stewardship Council¹⁹ Refer to Hong Kong Waste Reduction Website for the list of organisations that offers furniture recycling program²⁰
 <p>Stationery and office supplies</p>	<ul style="list-style-type: none"> Preferred stationery made from or contained recycled materials (e.g. recycled paper) Purchase refillable stationery such as pen refills and correction tape refills Recycle books and stationery in school, collect used items from graduate students and donate them to students in need 	<ul style="list-style-type: none"> Refer to "Paper products" and "Wood products" 	<ul style="list-style-type: none"> Refer to Hong Kong Government Green Procurement by the Environmental Protection Department and learn about the green specification of different types of stationery such as file box, pen, pencil and preinked stamp²¹ Refer to the product list of environmentally friendly stationery on Panda Shop⁷

Procurement items	Recommended Green Specifications for Products	Importance	Additional Information
 <p>Textile materials and garment</p>	<ul style="list-style-type: none"> Purchase textile that are made from organic cotton or contain recycled fabric or material Recycle uniforms in school, collect unfit uniforms or team uniforms from students and donate them to those in need 	<ul style="list-style-type: none"> Growing cotton takes up only 2.4% of agricultural land in the world, and yet it takes up 24% and 11% of consumption of pesticides and chemical fertilisers around the world²² Producing 1 kilogram of cotton requires 20,000 litres of water and it is only enough for making one T-shirt and one pair of jeans²² 	<ul style="list-style-type: none"> Refer to Hong Kong Government Green Procurement by the Environmental Protection Department and learn more about the green specifications of textile materials and garment²³
 <p>Hiring of coaches (20-30 and 40-61 seater)</p>	<ul style="list-style-type: none"> Hire vehicles depending on the actual number of passengers, avoid hiring oversized vehicles Hire vehicles that are registered on or after 1 June 2012 which meet the Euro V Standard 	<ul style="list-style-type: none"> Large vehicles consume more gasoline and emit more air pollutant than small vehicles Diesel vehicles that meet the Euro V standard emit 95% less suspended particles in air than those pre-euro diesel cars produced before 1995 and effectively help clear the air at street level²⁴ 	<ul style="list-style-type: none"> Refer to Hong Kong Government Green Procurement by the Environmental Protection Department and learn more about the transportation services²⁵

Green Meals in School	Recommended Green Specifications for Products	Importance	Additional Information
 <p>Seafood</p>	<ul style="list-style-type: none"> Purchase seafood according to the WWF-Hong Kong "Seafood Guide"  <ul style="list-style-type: none"> Purchase seafood products that are certified by the Marine Stewardship Council (MSC) or Aquaculture Stewardship Council (ASC)  	<ul style="list-style-type: none"> Hong Kong ranks second in terms of seafood consumption in Asia If overexploitation continues, it might lead to extinction of some wild species and cause detrimental damage to the marine habitat. Choosing sustainable seafood could reduce destruction to the marine habitat and ensure sustainable development of the fishing industry 	<ul style="list-style-type: none"> Refer to the WWF "Seafood Guide"²⁶ "Seafood Guide" categorises more than 70 types of seafood available in Hong Kong into three categories: Recommended, Think Twice, Avoid, by determining how the kind of seafood is caught and farmed, as well as their impacts to the environment MSC and ASC offer certification program to identify seafood that comes from sustainably-managed fisheries List of restaurants that purchase sustainable seafood and promote ocean-friendly Menus²⁷

Green Meals in School	Recommended Green Specifications for Products	Importance	Additional Information
 <p>Beef</p>	<ul style="list-style-type: none"> • Avoid ordering beef or beef-related products (e.g. beef bolognese, meatballs, cheese hamburgers) for events • Teachers and students go meatless once a week to reduce carbon dioxide emission 	<ul style="list-style-type: none"> • Livestock industries around the world has been consuming massive amount of resources and increasing greenhouse gases emission. It has been one of the main causes of climate change • Consuming meat doubles the emission of carbon dioxide than a vegetarian diet. Having a meatless diet lessens the impact on earth²⁸ 	<ul style="list-style-type: none"> • Green Monday School Program²⁹
 <p>Lunch Caterer</p>	<ul style="list-style-type: none"> • Choosing lunch caterer based on the following principles: <ul style="list-style-type: none"> - Provide sustainable seafood - Provide no beef /only a small amount of beef - Only use and provide reusable containers and cutlery - Avoid giving out a new set of container and cutlery to students every year. Ask students if they need a set and give out sets to only new comers - Collect food waste properly for further treatments such as recycling and composting 	<ul style="list-style-type: none"> • In 2017, Hong Kong people produced 3,662 tonnes of food waste in average, took up 34% of the municipal solid waste³⁰ • In 2015, only 282 schools provided on-site meal portioning, 400 schools hired suppliers that used disposable food containers and produced a lot of plastic waste each week.³¹ In the same year, the amount of disposed plastic cutlery and Styrofoam container were 166 tonnes and 39 tonnes respectively³² 	<ul style="list-style-type: none"> • "Guideline on How to Promote Green Lunch in Schools" by the Environmental Protection Department (EPD)³³ • List of school lunch caterers with information such as whether they use reusable food container or offer onsite meal portioning³⁴ • Some lunch caterers offer food waste recycling: Sailing Boat Catering Management Ltd, Tastee Gourmet Asia Co. Ltd, LSG Catering China Ltd and Danny Catering Service Ltd (for reference only)

Raw Materials of Product	Recommended Green Specifications for Products	Importance	Additional Information
 <p>Palm oil</p>	<ul style="list-style-type: none"> • Avoid purchasing products that contain palm oil • Replace snacks that contain palm oil such as biscuits, chocolate, ice cream, pre-packaged bread with natural healthy snacks such as unprocessed nuts and fruits • If product label states the following words, it means that product contains or might contain palm oil: Vegetable Oil, Vegetable Fat, Palm Kernel, Palm Kernel Oil, Palm Fruit Oil, Palmate, Palmitate, Palmolein, Glyceryl, Stearate, Stearic Acid, Elaeis Guineensis, Palmitic Acid, Palm Stearine, Palmitoyl Oxostearamide, Palmitoyl Tetrapeptide-3, Sodium Laureth Sulfate, Sodium Lauryl Sulfate, Sodium Kernelate, Sodium Palm Kernelate, Sodium Lauryl Lactylate/Sulphate, Hydrated Palm Glycerides, Etyl Palmitate, Octyl Palmitate, Palmityl Alcohol 	<ul style="list-style-type: none"> • Palm oil is added in many common processed food for a better taste and appearance. Some cleaning detergents also contain palm oil³⁵ • Inappropriate plantation of palm trees causes destruction to forests and threatens habitat of species such as orangutans, and life of local inhabitants 	<ul style="list-style-type: none"> • Refer to Palm Oil Free list by the Ethical Consumer³⁶ • Refer to website "8 things to know about palm oil"³⁷



Frequently Asked Questions

1. When buying food or drinks, shall I prefer paper, plastic or aluminium packaging?

Most of the beverage cartons are made from paper, aluminium and plastics. While other regions (such as North America, Europe, Japan and Taiwan) advance in having the technique to separate and recycle different materials, Hong Kong is yet to recycle beverage cartons. In 2017, although the recycling rate of metal reached 90%, only 13% of plastics were recycled. Hong Kong recycling industry mainly relies on export values, the price of materials is always subject to market demand. From the perspective of recycling need, aluminium should be our priority out of the three kinds of materials. Meanwhile, we should adopt "reduction at source", therefore bring our own bottle; refuse to use disposable plastic straws; avoid over-packaging when buying food.

Reference:

- Green power- Drink Carton Recycling Q&As for Dummies: https://www.greenpower.org.hk/html5/eng/job_waste_01a.shtml
- Monitoring of Solid Waste in Hong Kong Waste Statistics for 2017: <https://www.wastereduction.gov.hk/sites/default/files/msw2017.pdf>

2. Is it more environmentally friendly to use paper bags than plastic bags when buying food from tuck shop?

No. Dirty paper bags cannot be recycled. They will end up being disposed in the landfill and just as the plastic bags, they are non-biodegradable. Creating paper requires a lot of resources. Statistics show the carbon dioxide emission of paper bags is higher than that of plastic bags. Ideally, we should use reusable cutlery and containers or to encourage students to bring their utensils.

Reference: Mike Berners-Lee (2011). How Bad are Bananas? The Carbon Footprint of Everything. Greystone Books.

3. How to practice green procurement in school?

According to the current government green procurement by the Environmental Protection Department, green procurement means purchasing products and services that have minimal impacts on human health and environmental concerns. When procuring products, schools should weigh in the following environmentally friendly elements without compromising the functionality of the products and economic principle: with improved recyclability, high recycled content, reduced packaging and greater durability; with greater energy efficiency and which result in reduced water consumption; utilizing clean technology and/or clean fuels; emit fewer irritating or toxic substances during installation or use.

Reference: Environmental Protection Department - Green Procurement leaflet:

https://www.epd.gov.hk/epd/sites/default/files/epd/english/how_help/green_procure/files/EPD_green_procurement_leaflet_e-version.pdf



References

- (1) Environmental Protection Department. (2015). Cleansing Products. https://www.epd.gov.hk/epd/sites/default/files/epd/english/how_help/green_procure/files/C01_tips.pdf
- (2) U.S. Environmental Protection Agency (2010). Nonylphenol (NP) and Nonylphenol Ethoxylates (NPEs) Action Plan. https://www.epa.gov/sites/production/files/2015-09/documents/rin2070-za09_np-npes_action_plan_final_2010-08-09.pdf
- (3) UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (2004). Recommendation for Tolerance Reassessment. <https://www.epa.gov/sites/production/files/2015-04/documents/edta.pdf>
- (4) Environmental Protection Department. (2014). Cleansing Products. https://www.epd.gov.hk/epd/sites/default/files/epd/english/how_help/green_procure/files/cleansing_products.pdf
- (5) Orange House (Chinese only) <http://www.orangehouse.com.tw/Home>
- (6) O'Farm (Chinese only) <http://www.ofarmhk.com/Product-CM1.htm>
- (7) Panda Shop https://apps2.wwf.org.hk/pandashop/?_store=zh&_from_store=default
- (8) Kadoorie Farm and Botanic Garden. (2019). <http://www.lowcarbonliving.hk>. <http://www.lowcarbonliving.hk/eng/GreenLiving-householdcleaning.aspx>
- (9) Environmental Protection Department. (2018). Monitoring of Solid Waste in Hong Kong 2017. <https://www.wastereduction.gov.hk/sites/default/files/msw2017.pdf>
- (10) WWF-Hong Kong. (2016). Coastal Watch Releases its Latest Ecological and Marine Litter Survey Report. https://www.wwf.org.hk/en/news/press_release/?uNewsID=16863
- (11) WWF-Hong Kong. (2009). Plastic Not Fantastic. <http://www.wwf.org.hk/en/?5764/Plastic-Not-Fantastic>
- (12) WWF-Hong Kong. (2019). Ecological Footprint. https://www.wwf.org.hk/en/whatwedo/biodiversity_and_sustainability_in_hong_kong/ecological_footprint_2019/
- (13) Electrical and Mechanical Services Department. (2018). Understand Energy Labels - Room Air Conditioners. https://www.emsd.gov.hk/energylabel/en/label/label_ac.html
- (14) Electrical and Mechanical Services Department. (2018). Understand Energy Labels - Compact Fluorescent Lamp. https://www.emsd.gov.hk/energylabel/tc/label/label_cfl.html
- (15) Electrical and Mechanical Services Department. (2018). About Mandatory Energy Efficiency Labelling Scheme. <https://www.emsd.gov.hk/energylabel/en/about/background2.html>
- (16) Environmental Protection Department. (2018). Monitoring of Solid Waste in Hong Kong 2017. <https://www.wastereduction.gov.hk/sites/default/files/msw2017.pdf>
- (17) WWF-Hong Kong. (2014). We are losing an area of forest the size of a football field every 1.2 seconds. How can we stop deforestation? <https://www.wwf.org.hk/en/news/?11280/12>
- (18) Environmental Protection Department. (2014). Wooden Furniture. https://www.epd.gov.hk/epd/sites/default/files/epd/english/how_help/green_procure/files/H08.pdf
- (19) The Forest Stewardship Council. <https://us.fsc.org/en-us>
- (20) Environmental Protection Department. (2018). What can be recycled and Collection Points. https://www.wastereduction.gov.hk/en/assistancewizard/recyc_note.htm
- (21) Environmental Protection Department. (2015). Stationery and Office Supplies. https://www.epd.gov.hk/epd/sites/default/files/epd/english/how_help/green_procure/files/stationery_and_office_supplies.pdf
- (22) WWF. (2019). Cotton. <https://www.worldwildlife.org/industries/cotton>
- (23) Environmental Protection Department. (2014). Textile Materials and Garment. https://www.epd.gov.hk/epd/sites/default/files/epd/english/how_help/green_procure/files/textile_materials_and_garment.pdf
- (24) Environmental Protection Department. (2017). Cleaning the Air at Street Level. https://www.epd.gov.hk/epd/english/environmentinhk/air/prob_solutions/cleaning_air_atroad.html
- (25) Environmental Protection Department. (2015). Transportation Services. https://www.epd.gov.hk/epd/sites/default/files/epd/english/how_help/green_procure/files/U04.pdf
- (26) WWF-Hong Kong. (2018). Seafood Guide. https://d3q9070b7kewus.cloudfront.net/downloads/seafood_guide_2017_1.pdf
- (27) WWF-HK. (2018). Who is already sourcing sustainable seafood and providing an “Ocean Friendly Menu”? https://apps.wwf.org.hk/file/Seafood-2018/OFM_list_eng.pdf
- (28) Scarborough, P., Appleby, P.N., Mizdrak, A. et al . (2014). Dietary greenhouse gas emissions of meat-eaters, fish-eaters, vegetarians and vegans in the UK. *Climatic Change*, 125(2), 17-192. <https://link.springer.com/article/10.1007%2Fs10584-014-1169-1>
- (29) Green Monday School Programme. (2016). http://greenmonday.org/school_program/?lang=zh-hant
- (30) Environmental Protection Department. (2018). Monitoring of Solid Waste in Hong Kong 2017. <https://www.wastereduction.gov.hk/sites/default/files/msw2017.pdf>
- (31) Press release of Hong Kong Government. (2017). LCQ2: On-site Meal Portioning Funding Scheme. <https://www.info.gov.hk/gia/general/201705/10/P2017051000304.htm?fontSize=1>
- (32) Environmental Protection Department. (2018). Monitoring of Solid Waste in Hong Kong 2017. <https://www.wastereduction.gov.hk/sites/default/files/msw2017.pdf>
- (33) Environmental Protection Department. (2018). Guideline on How to Promote Green Lunch in Schools. https://www.wastereduction.gov.hk/en/schools/green_lunch.htm#5
- (34) Environmental Protection Department. (2019). List of School Lunch Suppliers. https://www.wastereduction.gov.hk/sites/default/files/en/materials/school/school_green_lunch_guideline_appA.pdf
- (35) WWF (2017). Which Everyday Products Contain Palm Oil? <https://www.worldwildlife.org/pages/which-everyday-products-contain-palm-oil>
- (36) Ethical Consumer (2018). Palm Oil Free Products. <http://www.ethicalconsumer.org/shoppingethically/palmoilfreelist.aspx>
- (37) WWF-United Kingdom.(2019). 8 things to know about palm oil. <https://www.wwf.org.uk/updates/8-things-know-about-palm-oil>