

Flood Prevention and Sewerage

Education Kit for Liberal Studies



渠務署

Drainage Services Department

For NSS Curriculum

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Foreword

Water underpins the very fabric of human life. Insufficient fresh water supply in Hong Kong is a matter of concern for people here; continual heavy rainfall should also deserve our attention. For example, heavy rainfall in the territory on 12 June 1966 caused serious flooding and landslips which claimed 64 lives, injured 29 others and left 48 missing. A large number of people were affected and considerable economic loss was incurred. The continual heavy rainfall on 18 June 1972 also brought flooding and landslips in many areas, resulting in many casualties. On 20 May 1989, flooding occurred in several areas when Typhoon Brenda hit Hong Kong. These flooding incidents may still be fresh in the memories of senior Hong Kong people, but have probably never been heard of by many secondary school students.

The Drainage Services Department (DSD), responsible for flood prevention and sewage treatment, was established in 1989 to give a proper response to the threat of flooding posed by continual heavy rainfall and to meet the increasing demand for flood prevention facilities and drainage development. The DSD has since its inception conducted various studies to raise the standards of stormwater drainage and sewage treatment services so as to improve people's quality of life. The technologies currently used in stormwater drainage and sewage treatment in Hong Kong have attained international standards after years of efforts.

The purpose of this education kit is to show students DSD's work and achievements in stormwater drainage and sewage treatment. Through activities such as observing, organising, analysing, comparing and mock writing, students can learn the pros and cons as well as limitations of adopting different flood prevention and sewage treatment methods, so as to have a better understanding of the constraints and difficulties faced by DSD officers in making decisions and implementing projects. Students can then explore further and reflect on what members of the public can do in order to help the DSD achieve optimum results.



This education kit can enhance students' understanding of the work of the DSD. Materials here also suit the curriculum of Liberal Studies, a core subject under the New Senior Secondary curriculum implemented since September 2009. Issues like 'Responsibilities of Adolescents', 'Quality of Life' and 'Science and Technology' match Liberal Studies modules on 'Personal Development and Interpersonal Relationships', 'Hong Kong Today' and 'Energy Technology and the Environment' respectively. These modules are organised in accordance with the *Liberal Studies Curriculum and Assessment Guide*, to enable students to understand the interrelationship among them, so that they can make connections across different knowledge areas and develop capabilities of analysing, critical thinking and master self-directed learning skills, which are the goals of Liberal Studies.

Moreover, Liberal Studies emphasises the cultivation of civic responsibilities and positive values in students. We hope that by analysing the efforts of the DSD in flood prevention and sewage treatment, the realisation that 'we all have a part in flood prevention and sewage treatment' can be strengthened, and students will be motivated to care about our society as a whole and bear their civic responsibilities.

DSD is planning to organise a variety of activities, like slogan design competitions, essay writing competitions and visits to flood prevention facilities and sewage treatment works, which will help teachers use this education kit, and provide better opportunities for teachers and students to know more about the work of our Department.

Drainage Services Department
January 2014

Features

The education kit covers two themes: **‘Flood Prevention Strategy’** and **‘Sewerage’**. A variety of different topics are provided under each theme to help teachers and students explore the work and role of the Drainage Services Department from different perspectives.

Both themes start with a **‘Concept Map’** which illustrates the contents and key learning points of each topic. Students are advised to browse the website of the DSD (<http://www.dsd.gov.hk>) to find answers to the questions in the Short Quiz. Remarks for getting different number of correct answers are given in the Assessment Guideline, e.g. getting 0–3 correct answers means ‘Room for improvement’ while 10 correct answers is ‘Excellent’. This serves to provide students with a brief understanding of the work of the DSD and enhances their interest in browsing the website of the DSD.

Case studies and media clips intermingled with data analysis in **‘Basic Knowledge’** will challenge students to think about the topics from different perspectives and help them construct knowledge for themselves. Some topics also include role-playing and field studies to interest students.

Worksheets are provided in each section for evaluating students’ learning progress and effectiveness, while questions under ‘foundation’ and ‘advanced’ sections are used to suit students with varying learning abilities. We have brought variety and diversity to the contents and formats of the Worksheets, e.g. data-response questions and writing a reply letter to a complaint are included, to inspire students to think from a variety of perspectives.

In particular, **‘Extension’** and **‘Let’s think’** are provided at the end of each theme. Depending on students’ learning capabilities, teachers may make use of the suggested activities to guide students to apply what they have learned and carry out comparison and analysis at a much detailed level. This is, in fact, the ultimate goal of Liberal Studies.





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