



仔細分析評估數據，
回饋學校整體發展計劃；
善用電子學習促進學生的自主學習

聖保祿學校

2018年1月31日 下午2:30 – 5:00

學校校情檢視

學校「強弱機危」的分析

- 學生具多元化才華，英語表達能力高。
- 基於「一條龍」辦學模式，學生的多樣性增加。
- 學校設有不同的課程及學習活動，以照顧學生的多樣性。

訂定發展主題

- 學校持續創設一個互動的學習環境，善用不同的科技和教學方法，並透過促進學習的評估，以及作為學習的評估，提升學生學業成績和照顧學生的多樣性。

善用電子學習促進學生的自主學習

利用不同的學習工具或活動，如電子學習平台、虛擬實境的學習材料、「翻轉教室」，以及電子書製作，讓學生能因應個人的學習進度和需要，選取合適的學習資料，以鞏固或 / 及延展課堂學習，培養學生自主學習的能力。

ELMO 電子學習平台

- **ELMO : E-Learning Multi-subject Online**
多學科電子學習平台。
- 由學校自家開發。
- 題目由專人編寫。

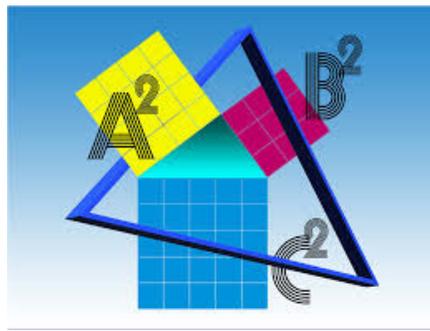


The screenshot shows the login interface for the ELMO platform. The background is a solid blue color. On the left side, the text "E-Learning Multi-subject Online (ELMO)" is displayed in white. Below this text is the school's crest, which is a shield with a cross and the letters "S" and "P" on it. To the right of the crest, the text "St. Paul's Convent School" is written in white. At the bottom center, the version information "Version: 0.6.1 (2016-12-09)" is visible. On the right side of the page, there are two white input fields: the top one is labeled "Username" and the bottom one is labeled "Password". Below the password field is a yellow "Sign In" button. Underneath the button are two links: "Forgot Password" and "Student User Guide".

ELMO涵蓋科目



英文



數學



會計



經濟



物理



化學



生物

ELMO特點

- 旨在建立一個有效的學習平台，讓學生可隨時隨地學習。
- 可用於一般電腦及平板電腦，甚至手機。
- 題目為學生度身訂造，以多項選擇題為主。
- 題目分為不同程度，以照顧學生的多樣性。
- 可安排學生自主學習或老師指定練習。
- 學生可按“**Ask Teacher**”按鈕與老師溝通或尋求協助。
- 學生亦可把值得關注的題目放在“**Revision Corner**”內，以便日後溫習。
- 由電腦自動批改，並顯示及詳細解釋答案。
- 定期輸出學生表現報告。



ELMO學生版介面

The screenshot displays the ELMO student interface. At the top, there is a dark blue navigation bar with icons for home, help, and a bar chart. Below this is a light blue 'Question Filter' section with a 'Template' link. The filter includes several input fields: 'Subject *', 'Topic *', 'Question ID' (with a placeholder 'Question ID'), 'Difficulty Level' (with a 'To' dropdown), 'Q Level' (with a 'To' dropdown), 'Tag' (with a placeholder 'Tag'), and 'Keyword' (with a placeholder 'Keyword'). There are 'Reset' and '+New Exercise' buttons at the bottom of the filter. Below the filter is a light blue box stating 'Question List - 0 items found'. On the right side, there is a user profile section with a silhouette icon, a name '(2A)', a row of owl icons, and a 'Sign Out' button. Below the profile is a 'News Feed' section with a refresh icon. At the bottom of the page, there is a footer with the text 'VERSION: 0.6.1 (2016-12-09)' on the left and 'COPYRIGHT© 2013 ST. PAUL'S CONVENT SCHOOL E-LEARNING MULTI-SUBJECT ONLINE (ELMO)' on the right.

ELMO學生版介面

Home ? Bar Chart

1 2 3 4 5 6 7 8 9 10 No. of attempts: 0/10 Postpone

No. 1

In the figure, ABCDEF is a hexagon where $AB \parallel ED$, $AF \parallel BC$ and $FE \parallel CD$. $\angle FAB = 118^\circ$ and $\angle CDE = 78^\circ$. Find the reflex $\angle BCD$.

- 230°
- 220°
- 226°
- 236°

Ask Teacher

Information

Difficulty Level: 1
Correctness: 167/213 (78%)
Avg. Duration: 0

Previous Clear Save Next

VERSION: 0.6.1 (2016-12-09) COPYRIGHT© 2013 ST. PAUL'S CONVENT SCHOOL E-LEARNING MULTI-SUBJECT ONLINE (ELMO)

ELMO學生版介面

1 2 3 4 5 6 7 8 9 10

No. of attempts: 3/10

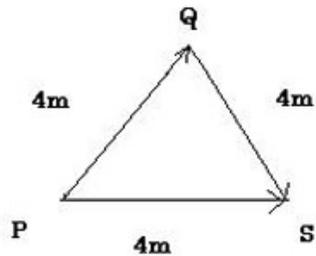
Postpone

Toolbox

Ask Teacher

No. 4

A boy takes 3 second to walk from point P to point Q, and then takes 5 seconds to walk from point Q to point S. If PQS is an equilateral triangle with side 4 m, find the magnitude of his average velocity from P to S.



- 0.5 m/s
- 1.5 m/s
- 0.8 m/s
- 1.0 m/s

← Previous

✕ Clear

✓ Save

Next →

Information

Difficulty Level: 2

Correctness: 30/69 (43%)

Avg. Duration: 0

ELMO學生版介面

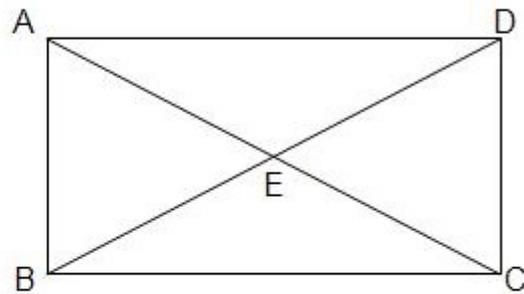


each other. The quadrilateral is best described as a

Your answer: kite

No. 2: ✘

Question:



In the figure, ABCD is a rectangle. AC and BD intersect at E. Which of the following are properties of the rectangle?

I. $EA = EB = EC = ED$

II. $\angle EAD = \angle EBC$

III. $\angle EDC = \angle ECD$

Your answer: I and III only

No. 3: ✘

Question:

A

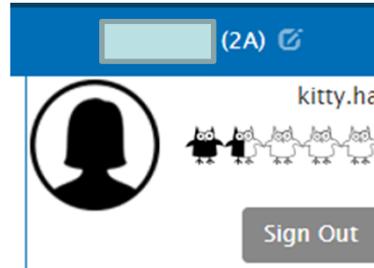
B

ELMO學生版介面

DOING	PENDING	  Sign Out
<i>Physics 201701130937</i>	<i>Mathematics 201701130936</i>	
SUBMITTED	EXPIRED	<i>Physics 201701130937</i> 20/01/2017 DOING
<i>Chemistry 201612232359</i> <i>Chemistry 201612251626</i> <i>Chemistry 201612251642</i> <i>English 201701031047</i>	<i>Chemistry 201612282144</i>	<i>Mathematics 201701130936</i> 20/01/2017 PENDING
		<i>English 201701031047</i> 10/01/2017 SUBMITTED
		<i>Chemistry 201612282144</i> 04/01/2017 PENDING
		<i>Chemistry 201612251642</i> 01/01/2017 SUBMITTED
		<i>Chemistry 201612251626</i> 01/01/2017 SUBMITTED
		<i>Chemistry 201612232359</i> 31/12/2016 SUBMITTED

ELMO學生版介面

程度指標



Report A: By Exercise

studentNu	subject	topic	date	sco	fullma	percentag
170160	Mathematics	Form 1 Chapter 0 Basic Mathematics	2017-09-05 18:33:06	50	100	50
170194	Mathematics	Form 1 Chapter 0 Basic Mathematics	2017-09-24 21:26:55	50	100	50
170194	Mathematics	Form 1 Chapter 0 Basic Mathematics	2017-12-15 10:16:40	100	100	100
170194	Mathematics	Form 1 Chapter 0 Basic Mathematics	2017-12-15 10:33:10	90	100	90
170194	Mathematics	Form 1 Chapter 0 Basic Mathematics	2017-12-18 19:16:22	80	100	80
170194	Mathematics	Form 1 Chapter 0 Basic Mathematics	2017-12-19 20:00:52	80	100	80
170160	Mathematics	Form 1 Chapter 1 Directed Numbers	2017-09-18 11:33:21	30	100	30
170194	Mathematics	Form 1 Chapter 1 Directed Numbers	2017-09-25 09:29:13	60	100	60
170194	Mathematics	Form 1 Chapter 1 Directed Numbers	2017-12-19 09:59:18	40	100	40
170194	Mathematics	Form 1 Chapter 1 Directed Numbers	2017-12-19 11:19:49	60	100	60
170194	Mathematics	Form 1 Chapter 1 Directed Numbers	2017-12-22 21:21:31	30	100	30
170194	Mathematics	Form 1 Chapter 1 Directed Numbers	2018-01-02 15:39:35	50	100	50
170194	Mathematics	Form 1 Chapter 1 Directed Numbers	2018-01-02 17:02:36	30	100	30
170194	Mathematics	Form 1 Chapter 1 Directed Numbers	2018-01-02 18:00:41	20	100	20
170160	Mathematics	Form 1 Chapter 3 Percentage	2018-01-04 20:36:35	60	100	60
170160	Mathematics	Form 1 Chapter 3 Percentage	2018-01-07 15:54:54	100	100	100

Report B: By Chapter

studentNum	topic	numOfSubmitted	correctness	totalScore
170160	Form 1 Chapter 0 Basic Mathematics	6	75	450
170160	Form 1 Chapter 1 Directed Numbers	8	40	320
170160	Form 1 Chapter 3 Percentage	15	82.67	1240
170160	Form 1 Chapter 4 Algebra (II)	4	65	260
170160	Form 1 Chapter 6 Geometry	4	72.5	290
170194	Form 1 Chapter 0 Basic Mathematics	2	70	140
170194	Form 1 Chapter 6 Geometry	2	95	190

ELMO教師版介面

Subject:*
Mathematics

Topic:*
Form 2 Chapter 5 Linear Equation in Two Unknowns

Name:*
Chapter 5 Assignment

Description:*
ELMO Assignment on Linear Equation in Two Unknowns, due 8th February 2017

Start Date:*
2017-01-18

Due Date:*
2017-02-08

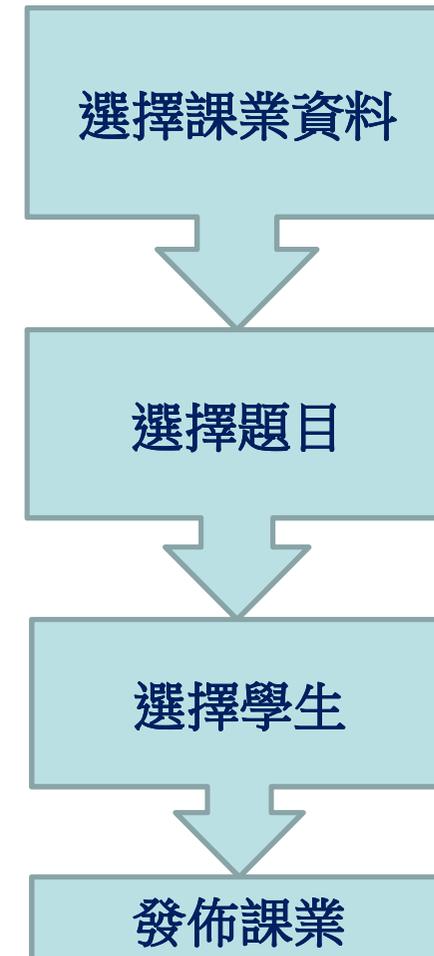
Closing Date:*
2017-02-08

Review Preference before Closing Date:
Score Only

Max. Number of attempt:
4

Publish:
 Yes No

Active:
 Yes No



ELMO教師版介面

Assignment Filter Template [+New Assignment](#)

Subject

Name

Description Reset Search

■ PENDING ■ DOING ■ LATE ■ CLOSED ■ COMPLETED

Assignment List – 6 items found

Name: Linear Eqns in 2 Unknowns Progress: DOING Submitted/ Total Assigned: 7/56	   
Subject: Mathematics Description: e-Learning Assessment due 08/02/2017 Dates: 2017-01-10 / 2017-02-08 / 2017-02-08	
Name: Percentages Progress: DOING Submitted/ Total Assigned: 23/30	   
Subject: Mathematics Description: e-Learning Assessment due 16/01/2016 Dates: 2017-01-05 / 2017-01-16 / 2017-01-16	
Name: NCM Chapter 4: Basic Knowledge of Functions Progress: DOING Submitted/ Total Assigned: 36/55	   
Subject: Mathematics Description: Please complete this e-Learning assignment by 30/10/15. Dates: 2015-10-15 / 2015-10-30 / 2015-10-31	
Name: NCM Chapter 3: Quadratic Equations in One Unknown Progress: DOING Submitted/ Total Assigned: 42/55	   
Subject: Mathematics Description: e-Learning Assessment due 20/10/15	

ELMO教師版介面

Report A: By student

name	classname	classNum	studentNum	subject	topic	date	score	fullmark	percentage	isPublish
	2A	99		Biology	1A. Molecules of Life	2016-11-30 15:13:13	10	100	10	TRUE
	2A	99		Chemistry	Chapter 12: The Periodic Table	2016-12-25 16:42:58	90	100	90	TRUE
	2A	99		Chemistry	Chapter 27: Laboratory Safety	2016-12-25 16:26:30	60	90	66.66666667	TRUE
	2A	99		Chemistry	Chapter 6: Rates of Reaction	2016-12-23 23:22:11	100	100	100	FALSE
	2A	99		Chemistry	Chapter 6: Rates of Reaction	2016-12-24 00:00:00	100	100	100	TRUE
	2A	99		English	Agreement	2016-11-30 15:15:01	70	100	70	TRUE
	2A	99		English	Agreement	2017-01-03 10:47:45	10	100	10	TRUE

Report B: By subject, By topic

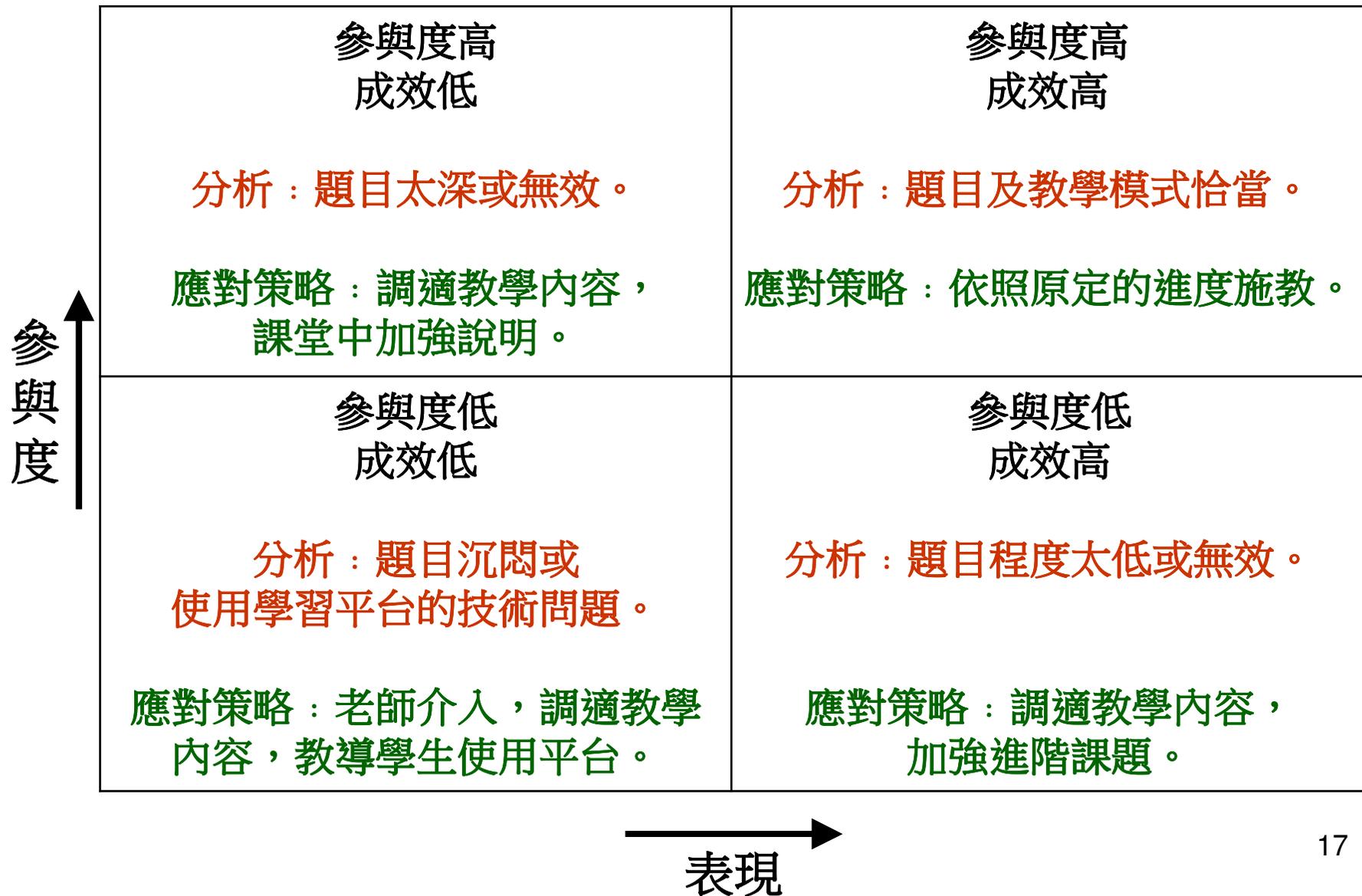
name	classnam	classNu	studentNu	subject	topic	sco	fullma	percentag	isPubli
Student 1	1S	2	170204	Mathematics	F.1 Bridging Program: Angle	100	100	100	TRUE
Student 2	1S	2	170204	Mathematics	F.1 Bridging Program: Angle	100	100	100	TRUE
Student 3	1S	24	170059	Mathematics	F.1 Bridging Program: Angle	100	100	100	TRUE
Student 4	1S	30	170169	Mathematics	F.1 Bridging Program: Angle	60	100	60	TRUE
Student 5	1S	38	170187	Mathematics	F.1 Bridging Program: Angle	100	100	100	TRUE
					Average:	66.8			

ELMO數據的運用

- 分析數據，並歸納以下重點：
 - 學生有沒有參與學習？
 - 學生怎樣學習？
 - 教學/學習成效如何？
 - 拔尖保底的需要。
- 教師從學生在每條題目的作答時間，判斷學生是否憑猜測臆度而答對題目。
- 學生完成課業的日期及時間。
- 每條題目的合格率。
- 教師根據個別學生和整體學生可能遇到的困難，適當調適教學方法。
- 教師分析學生在個人練習的表現，區分學生的學習行為模式及了解整體學生學習行為模式的分布情況，並據此找出適合不同學生的學習模式。



ELMO數據的運用



香港中文大學EduVenture 創建戶外考察電子學習教材平台

EduVenture® Composer



EduVenture® eXplorer



下載 iPad 版

下載 iPhone 版

EduVenture® Retriever



- 協助教師以低成本和簡易方式製作具互動功能的戶外考察視頻。
- 平台軟件包括：
 - EduVenture Composer 教材設計工具
 - EduVenture eXplorer 探索工具
 - EduVenture Retriever教材提取工具



香港中文大學EduVenture 創建戶外考察電子學習教材平台

戶外考察前



戶外考察中



戶外考察後



雲端儲存

香港中文大學EduVenture VR 創建戶外考察電子學習教材平台

EduVenture® Composer



EduVenture® Retriever

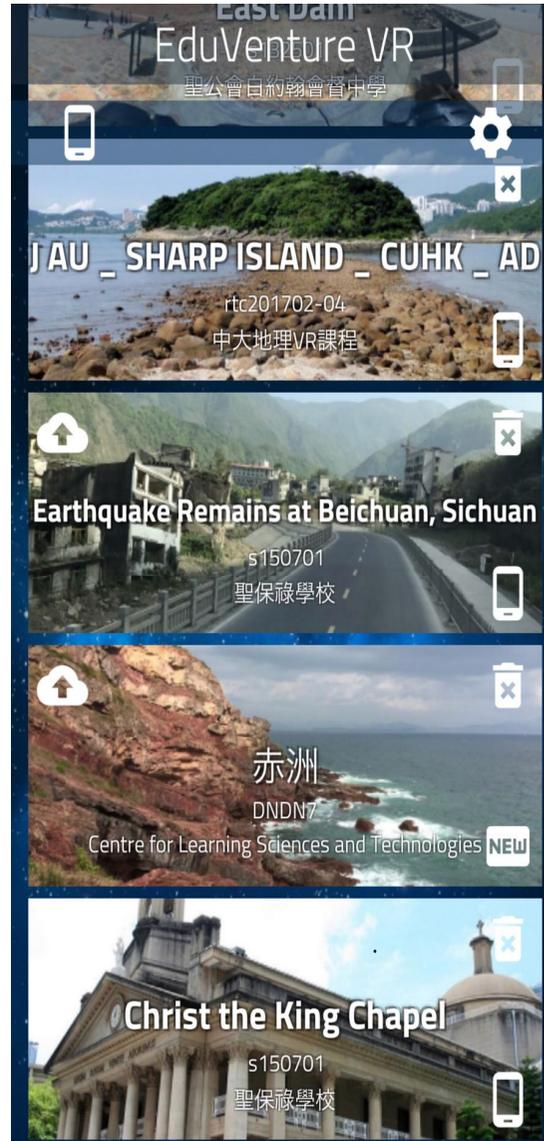


- 協助教師以低成本和簡易方式製作具虛擬實境(Virtual Reality)及互動功能的戶外考察視頻。
- 學生可以足不出戶進行戶外和境外考察活動。
- 讓經濟能力不足或有特殊需要的學生皆有機會體驗真實環境中較難實行的戶外考察活動。
- 平台軟件包括：
 - EduVenture Composer 教材設計工具
 - EduVenture Retriever教材提取工具

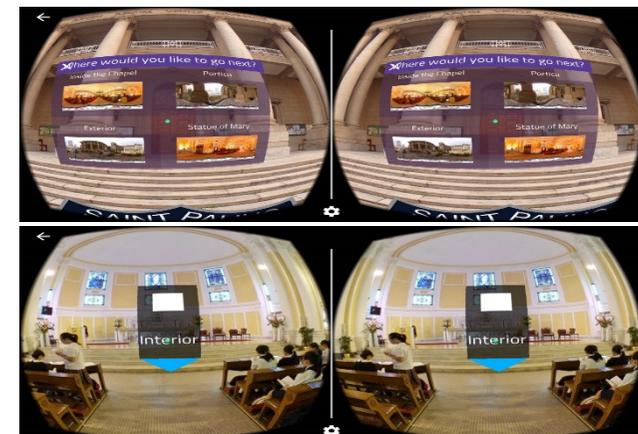
香港中文大學EduVenture VR 創建戶外考察電子學習教材平台



2008年512汶川地震遺址



- 聖保祿學校內基督君王小堂
- 一級歷史建築保育文物
- 不開放予公眾參觀，
難於置身其中實地考察



翻轉教室 Twig-World

- 網上視頻教育資源。
- 可向教育城申請eReap免費使用。
- 提供超過2000段短片，包含數學、理科、地理等科目。
- 學生可於電腦或平板裝置上觀看。
- 教師可與學生在課堂上一同觀看，或請學生回家觀看指定短片，亦可讓同學自行探索，並於課堂上分享。
- 與 YouTube比較：



不含廣告。

片長較短，只有三至五分鐘。

配合初中及高中文憑試課程。

部份短片附有中英文字幕。

附有簡短說明、工作紙及延伸閱讀。

老師可查看同學的觀看記錄。

但欠內容更新。

表達方法比較單一。



翻轉教室 Twig-World

Properties of Gases

Instructions:

- I. Log on the site <https://www.twig-world.com/>
username: your 6-digit student number
password: XXXXXXXXXX
- II. Watch the following films on twig-world.com.
Video 1 "FactPack: Atmospheric Gases" (1:20)
<https://www.twig-world.com/film/factpack-atmospheric-gases-1422/>
Video 2 "The Noble Gases" (3:04)
<https://www.twig-world.com/film/the-noble-gases-1421/>
Video 3 "Carbon Monoxide Poisoning" (2:22)
<https://www.twig-world.com/film/carbon-monoxide-poisoning-1364/>
Video 4 "The Elements: Hydrogen" (2:00)
<https://www.twig-world.com/film/the-elements-hydrogen-1408/>
- III. While watching the films, attempt the questions in this worksheet.
(Note: In case of technical problems, use a desktop computer instead of your ipad.)

Video 2 "The Noble Gases" (3:04)

<https://www.twig-world.com/film/the-noble-gases-1421/>



1. Which scientist invented the Periodic Table?
A. Marie Curie C. Albert Einstein
B. William Ramsay D. Dmitri Mendeleev
Answer: _____
2. Write down a **physical** property and a **chemical** property of noble gases respectively.
physical property: _____
chemical property: _____
3. Based on the content of the film, which of the following can be deduced to be denser than air?
Place a tick (✓) where appropriate. There may be one or more answers.
() krypton () argon () helium () radon

F.3 Biology-Twig World Video Worksheet 1

Name: _____ Class: _____ () Mark: /15

Relevant Topic: Movement of substances across membrane

Fill in all the blanks and delete options as appropriate.

Clip 1: Agar Cube Diffusion (7 marks)

The experiment studies how cell _____ affects diffusion. The agar cube and agar slab used in the experiment have the same _____ but different _____.

It took longer/shorter time for the cube to lose colour completely because:

1. The cube has a larger/smaller surface area than the slab.
2. Centre of the cube is closer to/further away from the surface.

The experiment shows that diffusion completes faster/slower in cells with a higher surface area to volume ratio.

電子書製作

- 自**2011/12** 學年開始推行。
- 教師指導高年班學生製作電子書。
- 將優秀作品儲存於圖書館的平板裝置，供其他同學借閱。
- 發展後期更可直接下載在個人平板上。
- 製作或閱讀的同學均可得益。

照顧學生成長上的不同需要

基於「一條龍」辦學模式，
學生的多樣性增加。



推行不同的計劃，如大姐姐、多元智能能力培育計劃，幫助學生適應中學生活，支援學生成長上的需要，以及發展個人興趣及延展潛能。

藉大姐姐計劃照顧學生的多樣性

- 從配對入手
 - 共同志願和興趣
 - 相類的學習模式
 - 參與的學會及課外活動
- 按照大姐姐的定期滙報及分享安排作出跟進
 - 學校層面
 - 小班教學
 - 課後補課 (拔尖保底班)
 - 課程層面
 - 課程調適
 - 多元評估方式 (多元課程)
 - 教學層面
 - 個人化學習 (電子學習平台)
 - 分組協作學習 (配對不同能力學生)
 - 教授學習技巧
 - 生涯規劃



Diversified Interest Programme

多元智能能力培育計劃

- 安排於星期三下午舉行。(壓縮課時、騰出空間)
- 培育學生的多元智能。
- 內容為正規課程中未曾涵蓋的學習經歷。
- 讓學生發揮各項潛能。
- 內容涵蓋不同範疇，包括體育、科技、語文、文化、藝術、工藝、學術等。
- 聘請校外專業導師。
- 與其他學術及專業機構合作。
- 可發揮同學在非學術範圍的能力，或提升對傳統科目的學習興趣。

謝謝！