

善用創新科技・邁向教育新時代 Be Future-ready

香港教育城
發展部主管 洪婉玲
21/11/2020



香港特別行政區政府全資擁有公司



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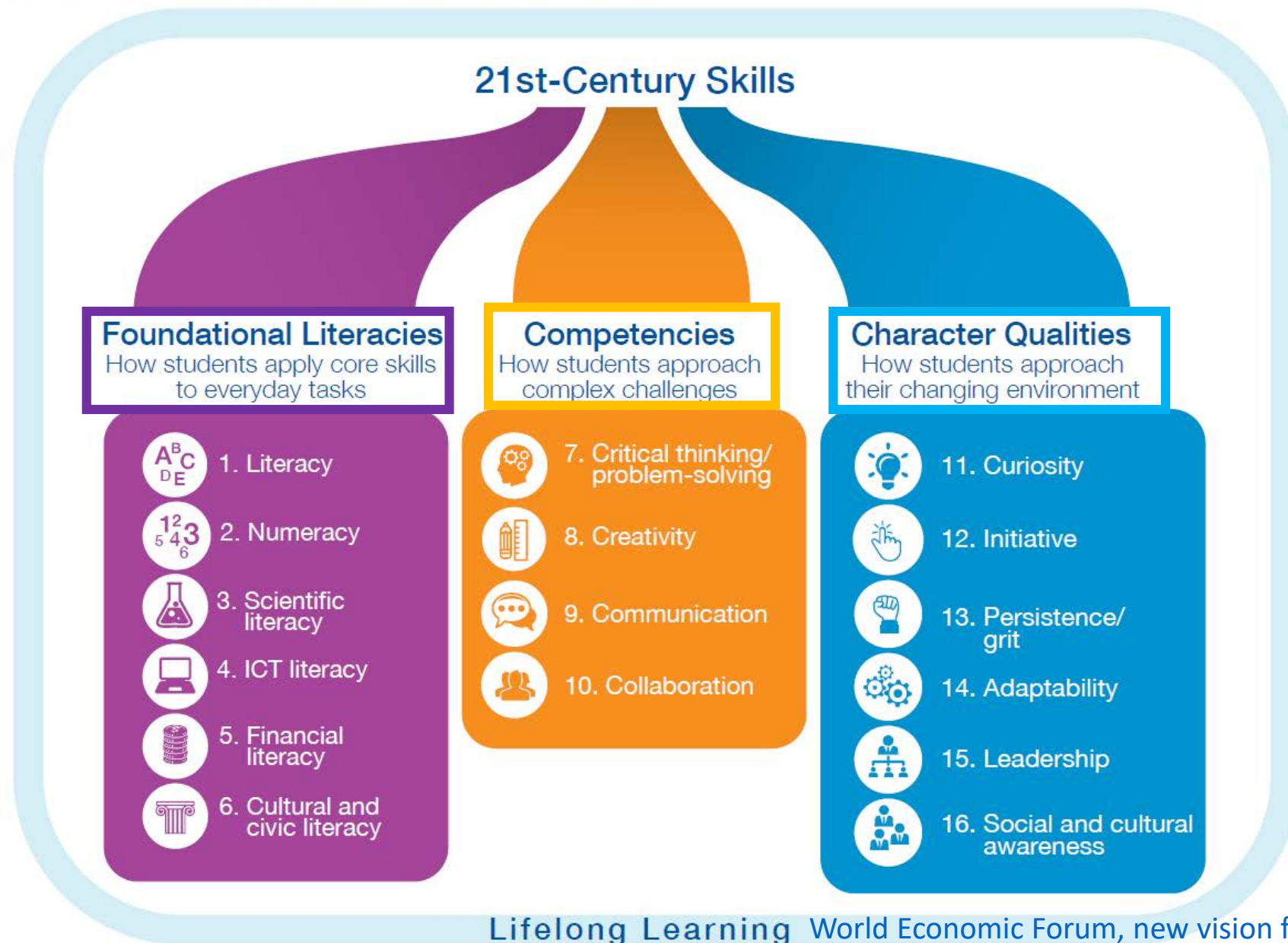
EdCity 20th Anniversary

教育當下 · 立足未來

Actualising Future Ready Education

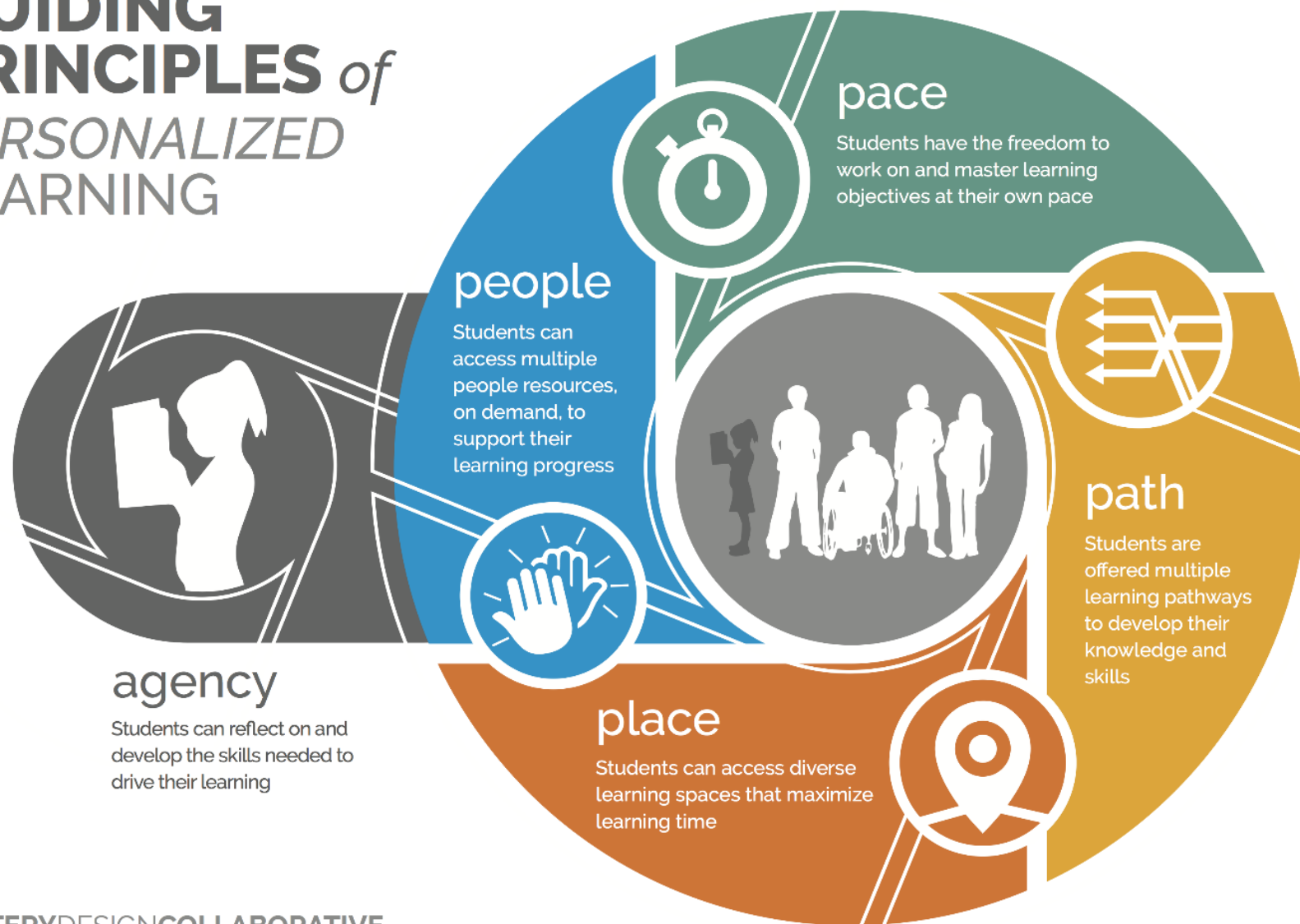
21世紀的學生學習

Exhibit 2: Students require 16 skills for the 21st century

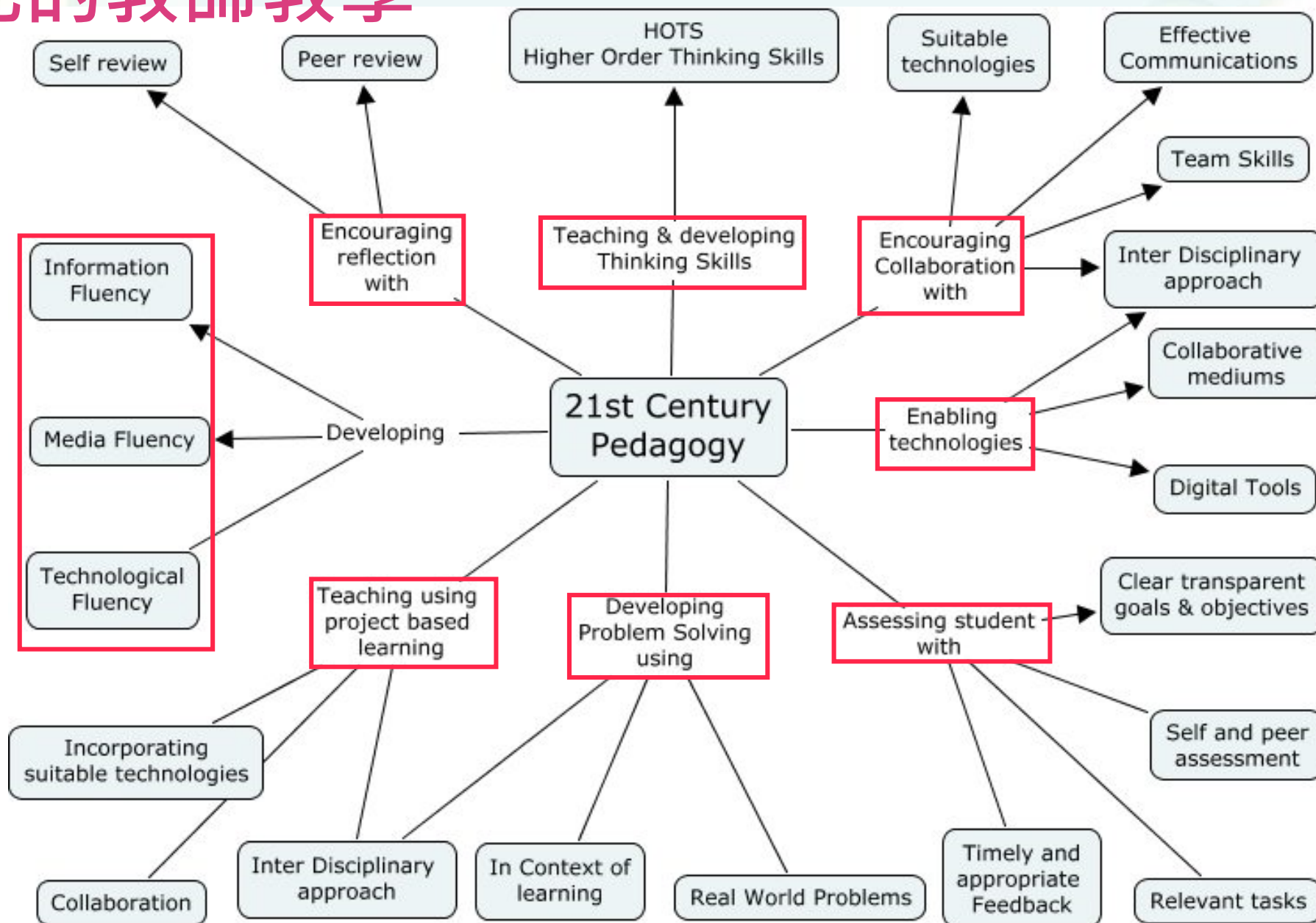


達致個人化學習

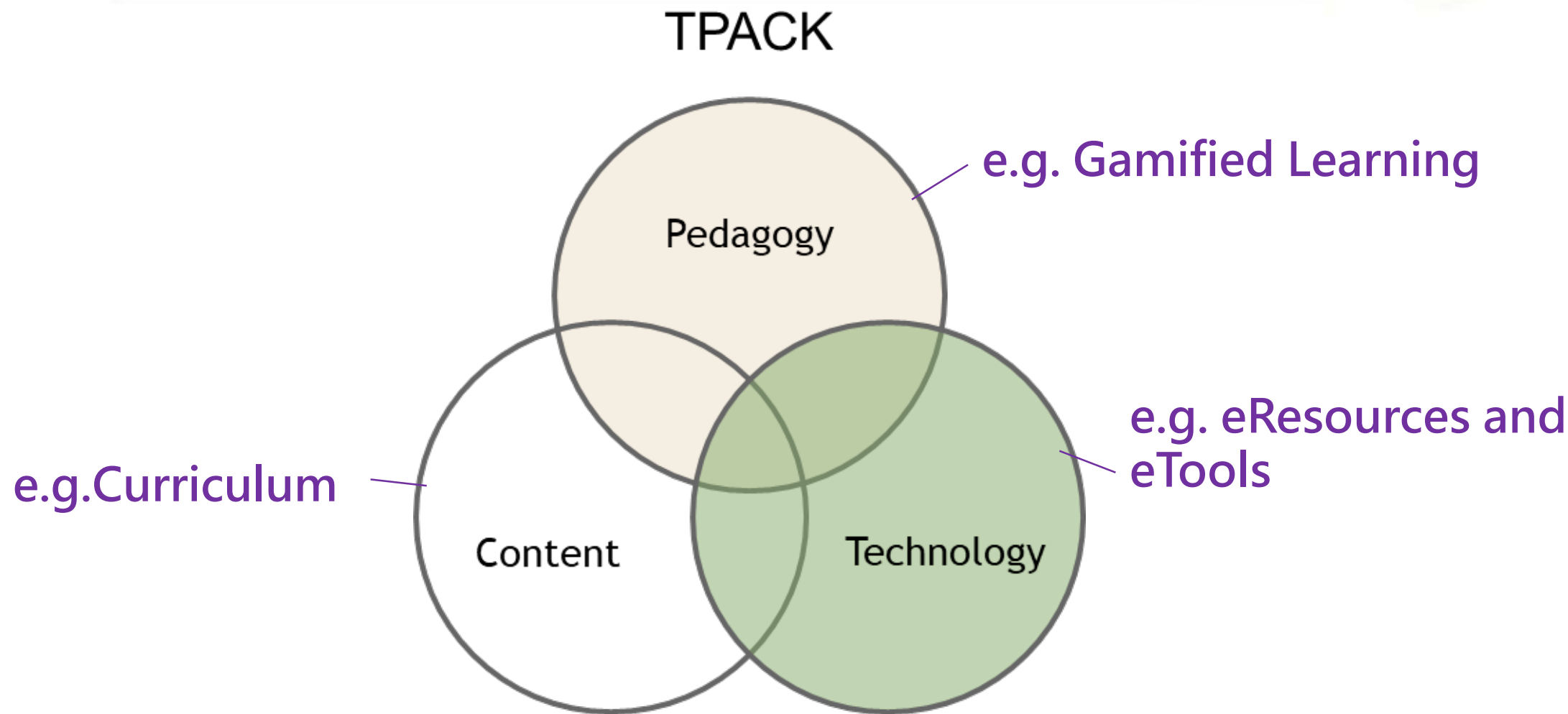
GUIDING PRINCIPLES of PERSONALIZED LEARNING



21世紀的教師教學



How eResources can help in 21st Century Learning and Teaching?



教城服務 HKEdCity Services



電子書



STAR



電子評估

eREAP



校本服務 School-based



學生服務 Student-based

Map in Learning

www.hkedcity.net

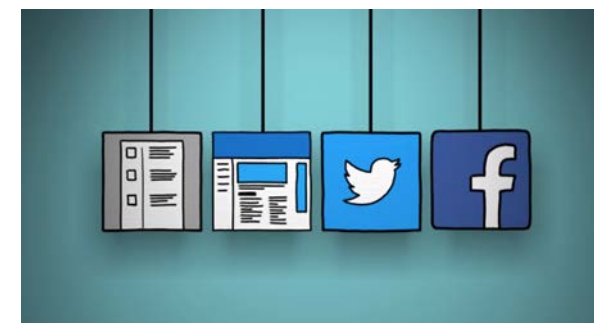
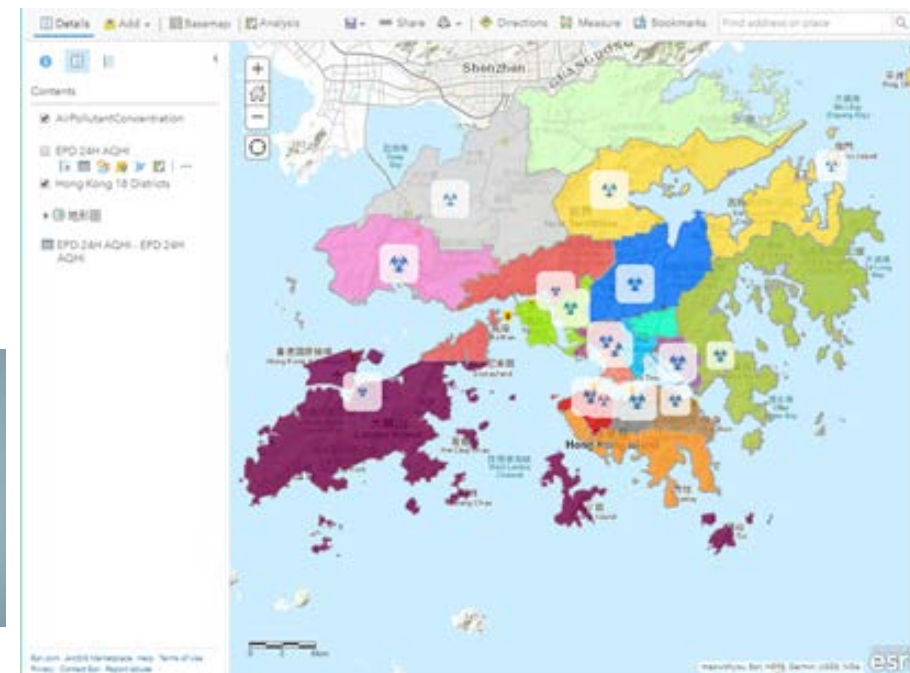




Map in Learning (MiL) Programme

- Organised by **Esri China (HK)** and **Hong Kong Education City** (HKEdCity) with the support from the **Education Bureau** (EDB)
- Provide **'ArcGIS Online'** to all primary and secondary schools in Hong Kong and Macau **for free**
- Aim at enabling students to develop the **life-long learning capabilities** and **problem solving skills** that are needed in our ever-changing society

- Cloud-based mapping platform 'ArcGIS Online'
- Diverse functions such as Story Maps, Create maps etc.
- Suitable for **Inquiry-based learning**, Project-based learning etc.
- Suitable for **Geography, STEM, General Studies, Liberal Studies, History** etc.



「Map in Learning」 Programme

1. Kumamoto Earthquake affected population

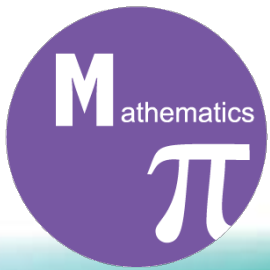
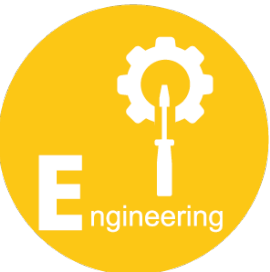
<http://arcg.is/1Nl1n8d>

2. The before and after of Kumamoto Earthquake

<http://arcg.is/1Sk9WNw>

Use Cases : Inter-school Cross-curricular Project Competition on Climate Change

How “Walled Building” causes microclimate changes in Hong Kong, submitted by Wah Yan College, Kowloon



How 'Walled Building' causes microclimate changes in Hong Kong, submitted by Wah Yan College, Kowloon

<https://wyk.maps.arcgis.com/apps/MapJournal/index.html?appid=b06037567289436eb098a473b084ee6c#>

0088 屏風樓如何導致香港微氣候變化

屏風樓如何導致香港微氣候變化

香港雖為沿海城市，但山多平地少，而適合用作住宅的土地少之又少。有樓宇發展商為了讓購買者有更佳的景色，令單位更為保值，於是在海旁建立一整排高聳入雲的樓宇。由於一排排的樓宇像屏風一樣擋掉由海吹入內陸的風，所以我們稱之為「屏風樓」。

於今次的報告內，我們將會跟大家討論一下香港「獨有」的屏風樓及為大家展出它們如何影響氣候變化。

圖片：荃灣西新發展區屏風樓群

0088 屏風樓如何導致香港微氣候變化

屏風樓如何導致香港微氣候變化

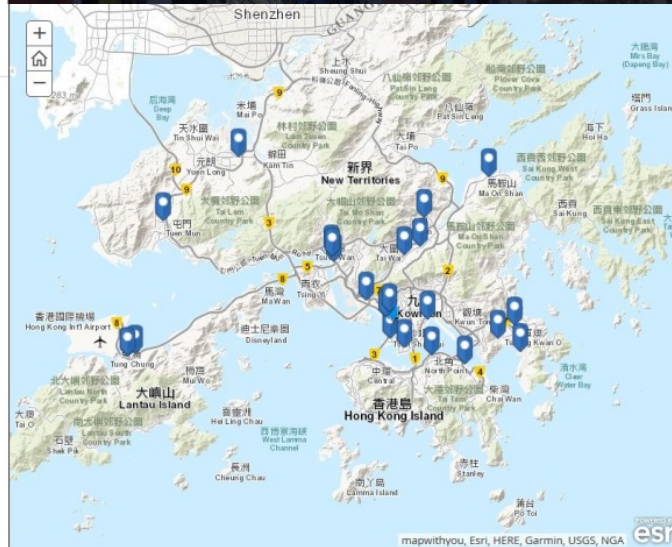
屏風樓例子

經過我們在地圖上的分析後，屏風樓多數出現在地價較高的地方，並通常出現在新市鎮。例如市中心區域，港鐵站上蓋，或是海邊。這樣我們便推論出屏風樓主要出現的原因是因為不同的發展商想「賺到盡」，令單位價值更高，銷售更佳。而且政府缺乏監管，令屏風樓像雨後春筍般出現。

地圖：根據環保觸覺對屏風樓的定義而評為「屏風樓」的屋苑

分析映灣園

項目位於海邊
項目位於港鐵站上蓋
發展項目內樓宇之間沒有足夠距離
項目之內的樓宇佈局是接近「一」字排開
項目內各樓宇的平均高度超過35層



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項目附近有比較低矮的樓宇

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屏風樓對溫度的影響

我們分別於荃灣和美孚量度了不同位置的溫度，發現在屏風樓前後的溫度差異甚為明顯，屏風樓前後的風速亦有分別，屏風樓的確促進了熱島效應。

屏風樓對該區環境的影響

屏風樓對香港環境的負面影響已逐步浮現，它們不但阻擋了其他樓宇的通風、採光和景觀，更造成熱島效應，密集的建築物會阻擋光線，受到日照的空間會縮減。狹窄的街道加上兩旁的屏風樓，令污染物被困而不能被吹散，加劇了空氣污染。市民如果吸收大量的懸浮粒子有可能會患上呼吸系統毛病及增加患上心血管疾病的機會。嚴重者更會導致哮喘、肺癌。所以屏風樓所造成的問題並非表面看起來那麼簡單，除了影響市民生活之外，更會增加市民患病的機會。此外，屏風樓也可能引致鄰近較矮樓宇接收的電視信號較差。

例如右邊圖片中的九龍站自成一角的 Union Square 高密度



eResources Adoption Programme (eREAP)



eREAP Features



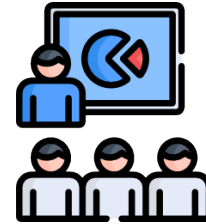
Support from HKEdCity



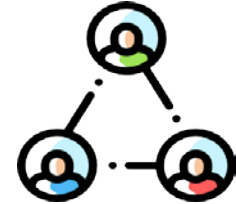
Website



Account provision



Training workshops



Community building



School cases



Newsletters



Student schemes



Long-term
adoption support



eResources Adoption Programme (eREAP)

- Covers different subjects in primary and secondary schools

Languages



Learning Tools

seppo^o



Multiple subjects



Maths & Science



Learnlex™



MATHSPACE





Languages



EnglishCentral

- over **10,000 videos** lessons and 50 video-based courses are available, each lesson with well-defined **learning goal, topic, difficulty level and feature words**
- **Speech recognition system** analyses and gives feedback on learners' pronunciation accuracy and fluency
- **Other features: Slow mode, Definition of every word in a video, Phonetics alphabet**

KLA

•English

Key Stage

•1 - 4

Support Platform



The screenshot displays the EnglishCentral interface. The main video player shows a video titled "The Great American Debt" with a subtitle "Your income or payroll taxes are revenue for the government." The video is at 00:25 / 00:47. The sidebar on the right offers interactive options: "Watch the video", "Learn the words", "Speak the lines", "Vocab Quiz", and "Lesson Plan". Below the video player, there are sections for "Business", "Media", "Social", and "Travel", each with a grid of video thumbnails and a "See All" link.



Interdisciplinary Learning



CODEMONKEY

KLA

• All

Key Stage

• 1 - 3

Support Platform



- Game-based online **coding platform**
- Teacher dashboard for teachers to **monitor students' performance** and convenient for scoring
- **Flexible lesson plan** for each coding courses, include both online and offline classroom activities



KLA

•English

•ICT

•Cross KLA

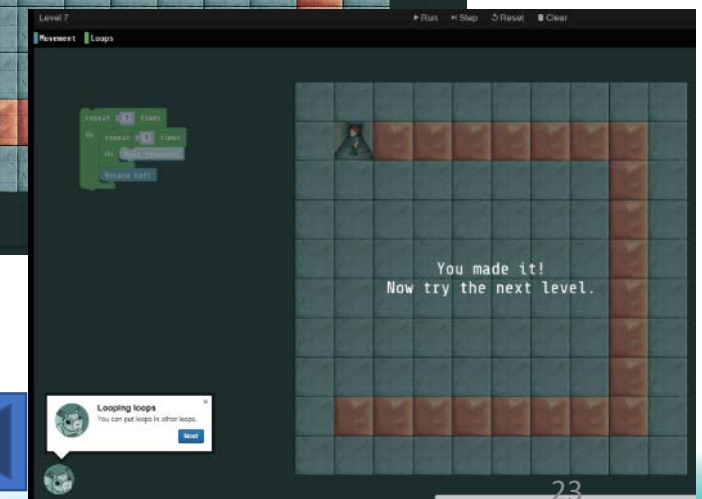
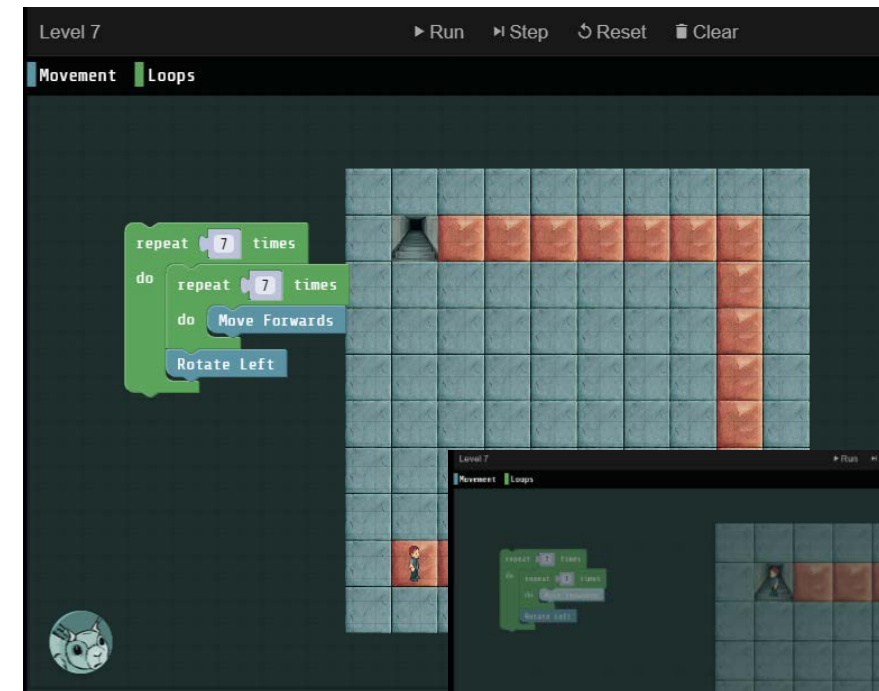
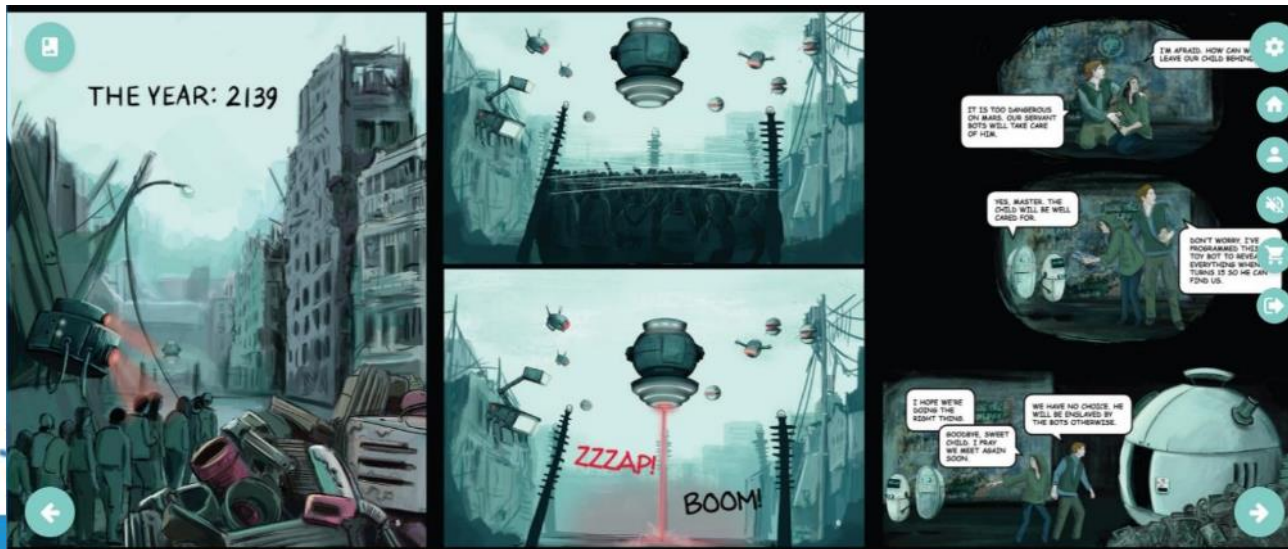
Key Stage

•2 - 3

Support Platform



- Integrates **coding** and **reading**
- Encourages problem-solving skills, creativity and abstract thinking.





Maths & Science



KLA

•Science

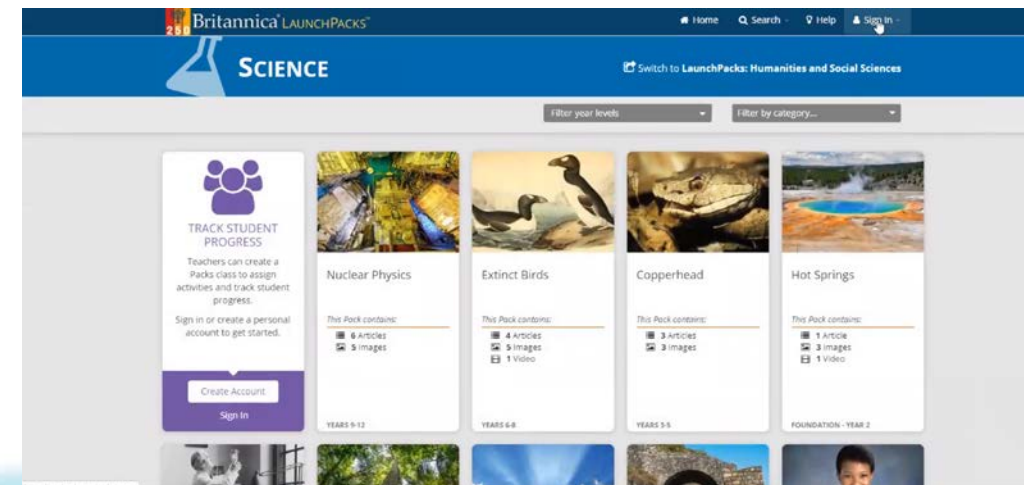
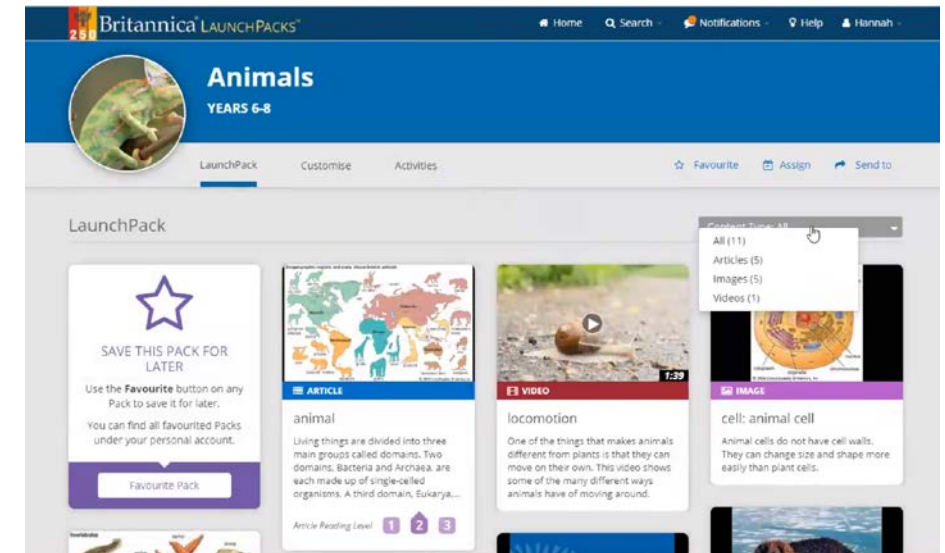
Key Stage

•1 - 4

Support Platform



- Over **1,700 Packs** with diverse **multimedia resources** such as: Articles, Images, Videos, Primary Sources and Websites
- Organised and **customisable resources**
- **Differentiated levels** of contents
- Build critical-thinking skills and enhance student literacy skills





KLA

• Mathematics

Key Stage

• 2 - 4

Support Platform



- Matches with the curriculum in Hong Kong
- Adaptive mode task types, hints and timely feedback
- Handwriting recognition
- **Hints and videos** to assist students' learning. Each step will be recorded and evaluated.

Number sentences are a way of describing a situation using mathematics. Like written sentences, number sentences have some specific structure. Specifically they must have an equal sign and the value on either side of the equal sign must be the same.

In maths, we also call number sentences equations.

We can think of number sentences like scales. The equals sign is the middle of the scales



However, different combinations of numbers can add up to the same amount. For example, $6 + 4$ adds up to 10 but $5 + 5$ also equals 10.



The law of transitivity states that if $a = b$ and $a = c$, then $b = c$.

Using our example, we can say that if $6 + 4 = 10$ and $5 + 5 = 10$, then $6 + 4 = 5 + 5$.

Examples

QUESTION 1

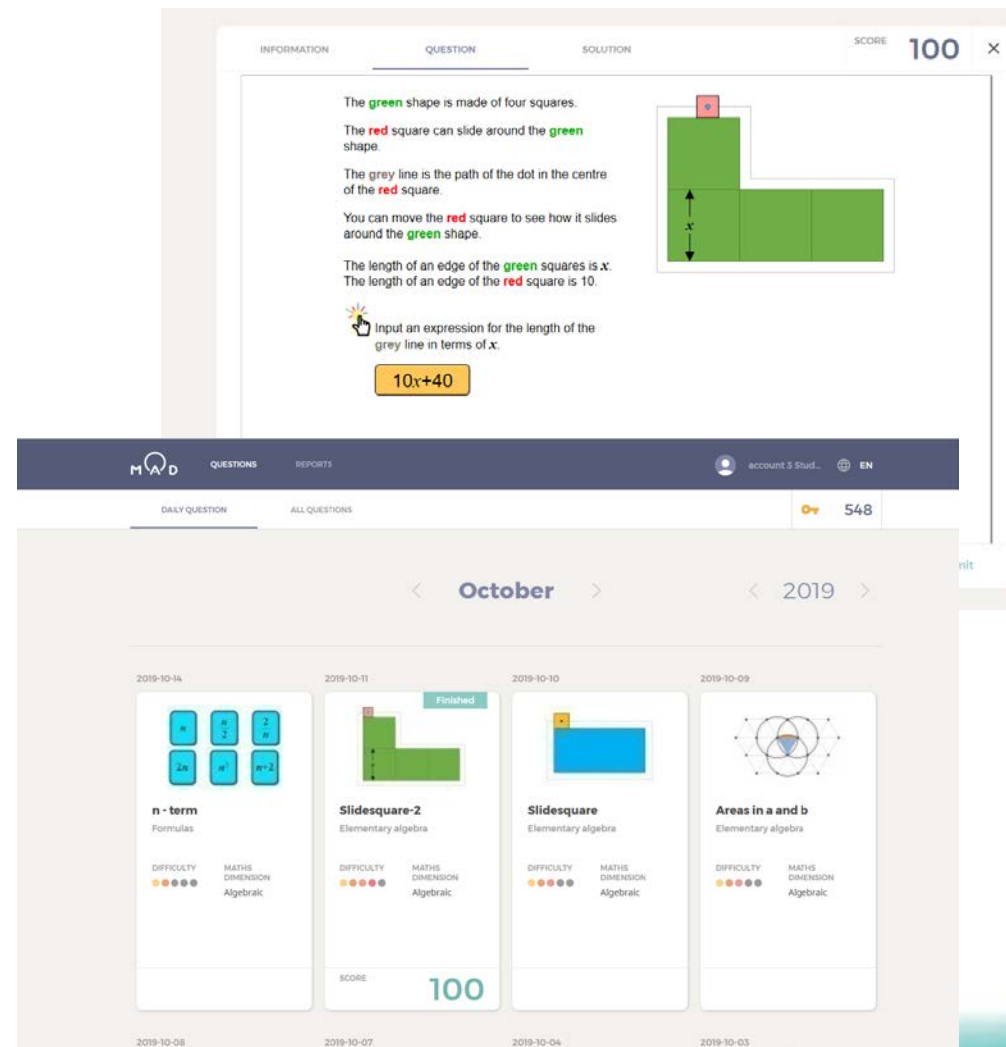
Which of the following is a correct number sentence?

A) $8 + 19 = 34 + 7$ B) $8 + 19 = 20 + 7$ C) $8 + 19 = 23 + 7$ D) $8 + 19 = -20 + 7$

QUESTION 3

Complete the following number sentence: $4 \times 7 + 13 = 60 - \square$

- Interactive Mathematics learning platform enhances young learners' logical thinking and problem-solving
- Questions are compatible to the **World Class Tests**
- Arrange question order to fit learners' needs
- **Performance Summary** helps learners understand their strengths



The screenshot displays the Learnlex platform interface. The top section shows a question about a green shape made of four squares and a red square, with a solution section. The bottom section shows a performance summary grid for October 2019, with columns for different dates and rows for different topics like 'n-term', 'Slidesquare-2', 'Slidesquare', and 'Areas in a and b'. The grid includes difficulty levels, math dimensions, and scores.



- Suitable for Hong Kong students to understand abstract science concepts through films.
- Over **1700** 3-minute films
- **Interactive quizzes** for each topic
- Thousands of downloadable images, diagrams, and other digital materials
- **Bilingual captioning**
- Tracking learners' progress through 'MyTwig'

KLA

• Science

Key Stage

• 3 - 4

Support Platform



Films and learning materials



- Adaptation and Evolution
- Animal Kingdom
- Being Human
- Cells and DNA
- Ecosystems
- Healthy Living
- Human Body
- Plants



- Atoms and Bonding
- Chemical Industries
- Periodic Table
- Reactions



- Earth's Resources
- Geology
- Human Impacts
- Weather



- Biology
- Chemistry
- Physics



- A Changing World
- Orientation and Settlements



- Accuracy and Proof
- Algebra
- History of Maths
- Measurement
- Number
- Shape
- Space
- Statistics and Probability



- Electricity and Circuits
- Energy and Radioactivity
- Forces
- Our Solar System
- Universe
- Waves



Learning Tools



KLA

•All

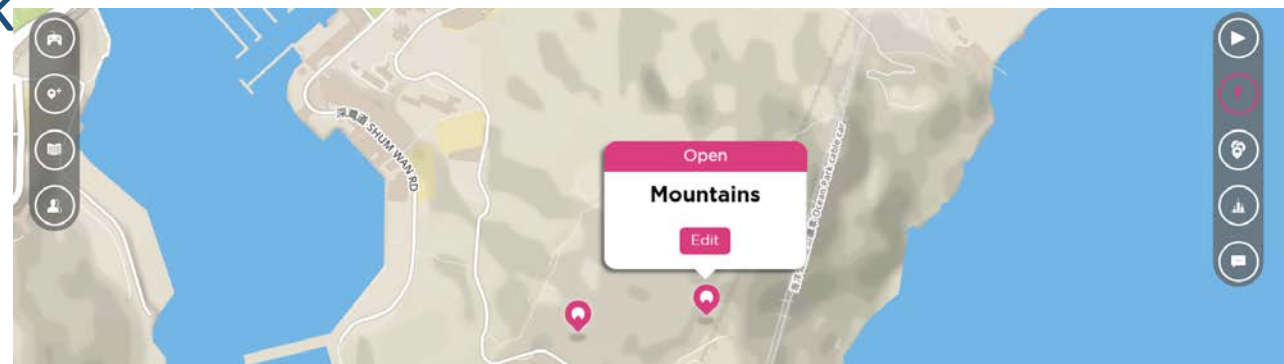
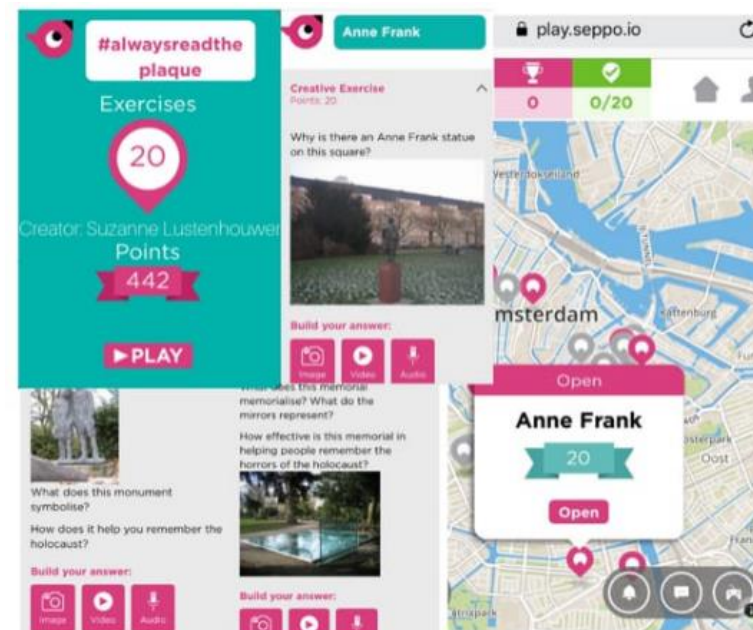
Key Stage

•1 - 4

Support Platform



- Gamified Learning
- Create educational orientation games for learning outdoors or indoors
- Diverse question types with instant feedbacks
- Collaborate with teams
- Immersive Learning
- Use mobile devices online and offline
- Real-time monitoring and feedback





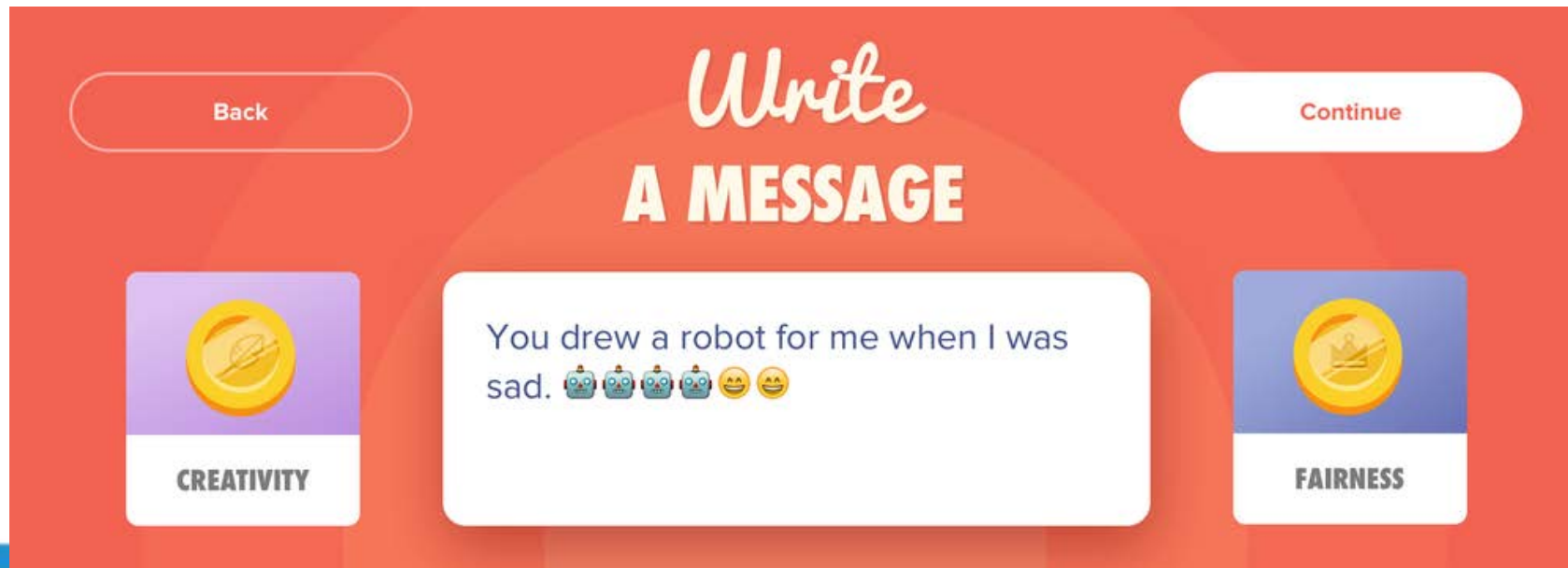
KLA
• All

Key Stage
• 1 - 2

Support Platform



- ▶ Tool for **social and emotional education**
- ▶ Activities to build **27 Character Strength**
- ▶ A Measure to classroom's social well-being






Thank
You




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