

# 牛津輕鬆樂滿FUN 工作坊系列

樂在牛津  
小學數學



## 設計以STEM為本的數學教室

講者：程志祥助理校長

福建中學附屬學校

2019-11-9



OXFORD

# 程志祥

福建中學附屬學校助理校長

兩屆行政長官卓越教學獎得獎人

獲親子天下選為教育創新100

IESA創新教育聯盟聯合創辦人

資訊科技領袖教育協會委員

香港教育局借調教師

五屆微軟Most Valued Teacher

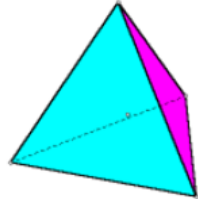
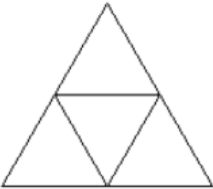
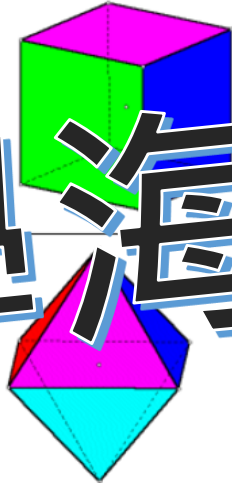

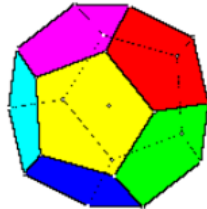
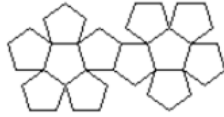

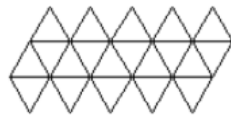
香港電子教科書協會顧問

iSTEM聯合創辦人



# 一個數學活動 的 啟發

# 貼了一張數學海報

正多面體名稱	圖示	展開圖
正四面體		
正六面體		
正十二面體		
正二十面體		

# Maths giant model

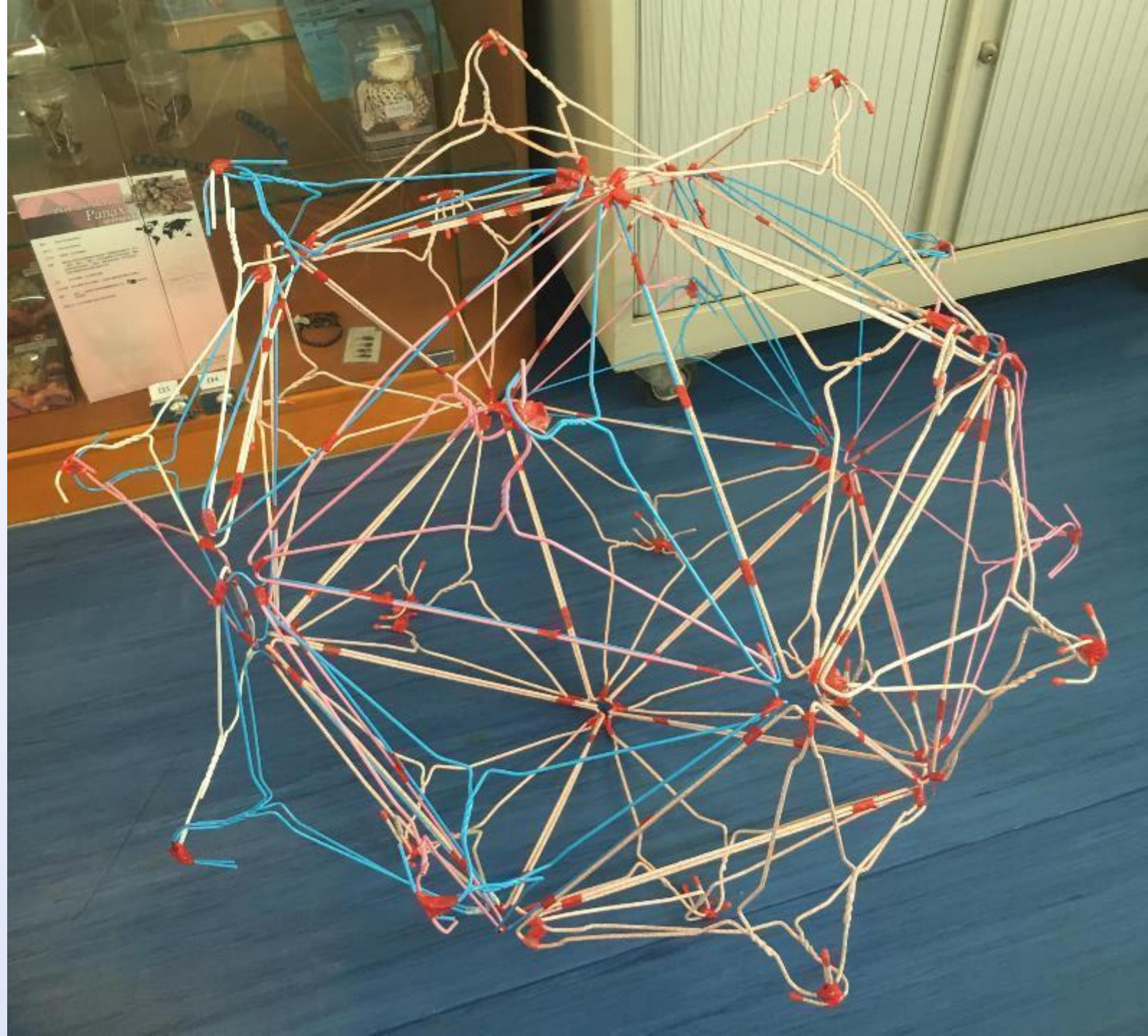
- Dodecahedron





# Hangers

- Icosahedron



# 塑造良好學習環境的要素

如何將教育設施塑造為

- 方便及舒適的學習環境

- 容易互動及溝通的學習環境

- 管理人性化的學習環境







# Phenakistoscope





Y班課表守則

一、每節課前請同學準時到課，上課時請將手機調至靜音或關機，上課期間請勿使用手機。  
二、上課時請同學專注聽講，不要交頭接耳或做小動作。  
三、同學如有任何疑問，請隨時向老師或同學查詢。  
四、同學如有任何意見，請隨時向老師或同學反映。  
五、同學如有任何建議，請隨時向老師或同學提出。



MTH







Fartions  
Zoo = Fun

COMMENT  
The project is a good one. It is very interesting and it is very useful. It is a good idea to have a project like this. It is a good idea to have a project like this. It is a good idea to have a project like this.

IN PROGRESS  
The project is a good one. It is very interesting and it is very useful. It is a good idea to have a project like this. It is a good idea to have a project like this. It is a good idea to have a project like this.

August 2019

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				


Chinese text on a red box, likely a book or educational material.



numerator  
denominator

The numerator tells us how many objects there are.

The denominator tells us how many parts the object is divided into.

 =  $\frac{2}{5}$

HYT

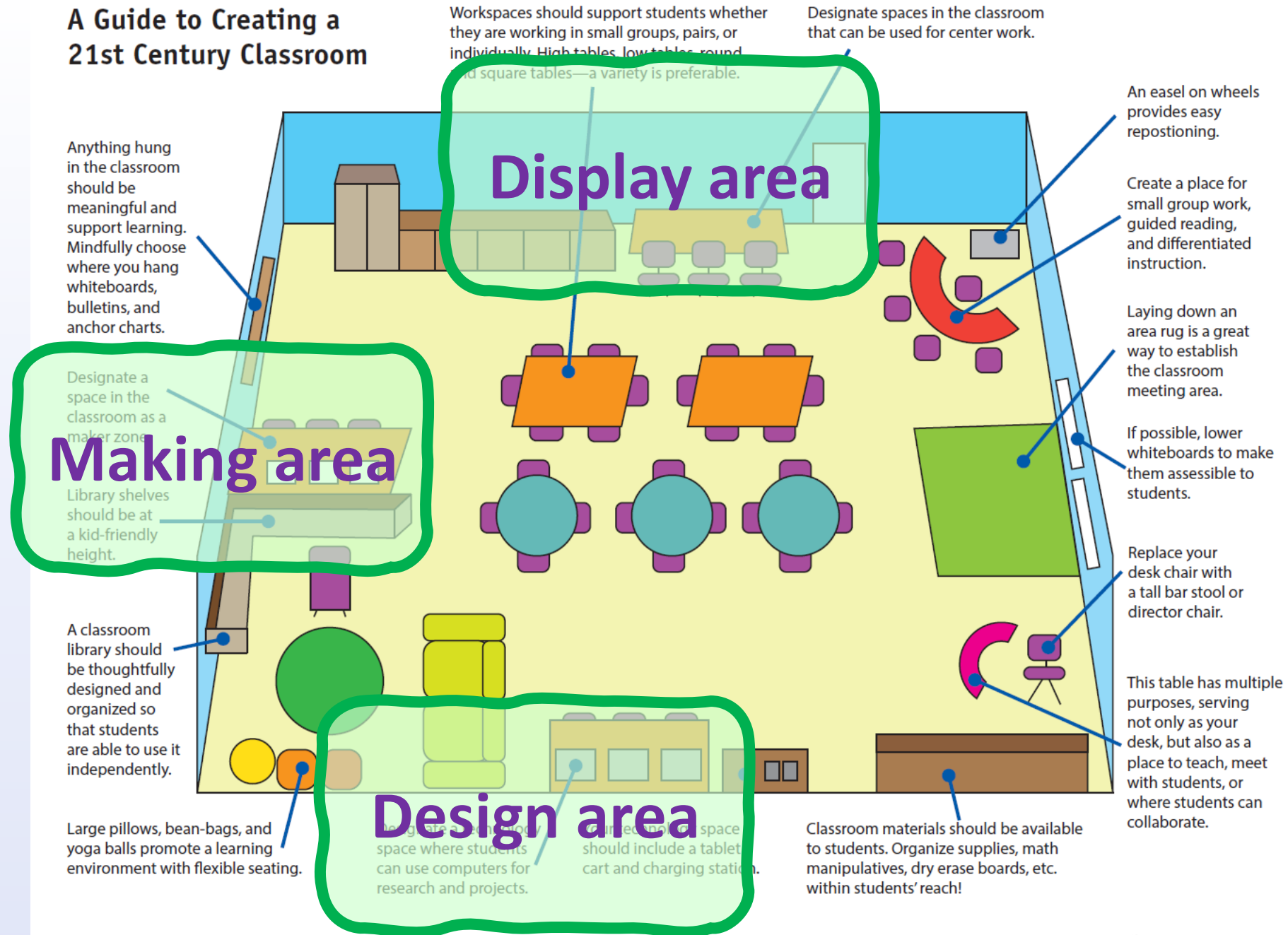
Citizens

Fair

10



# A Guide to Creating a 21st Century Classroom



Sadlier and Sadlier are registered trademarks of William H. Sadlier, Inc. All rights reserved. May be reproduced for education use (not commercial use).

# STEM Lab



Design corner

Make corner

Display corner







親子

新巴

小西灣 82

幼稚園老師  
自製教學道具



誇張！

港鐵車

香港大排

大排檔



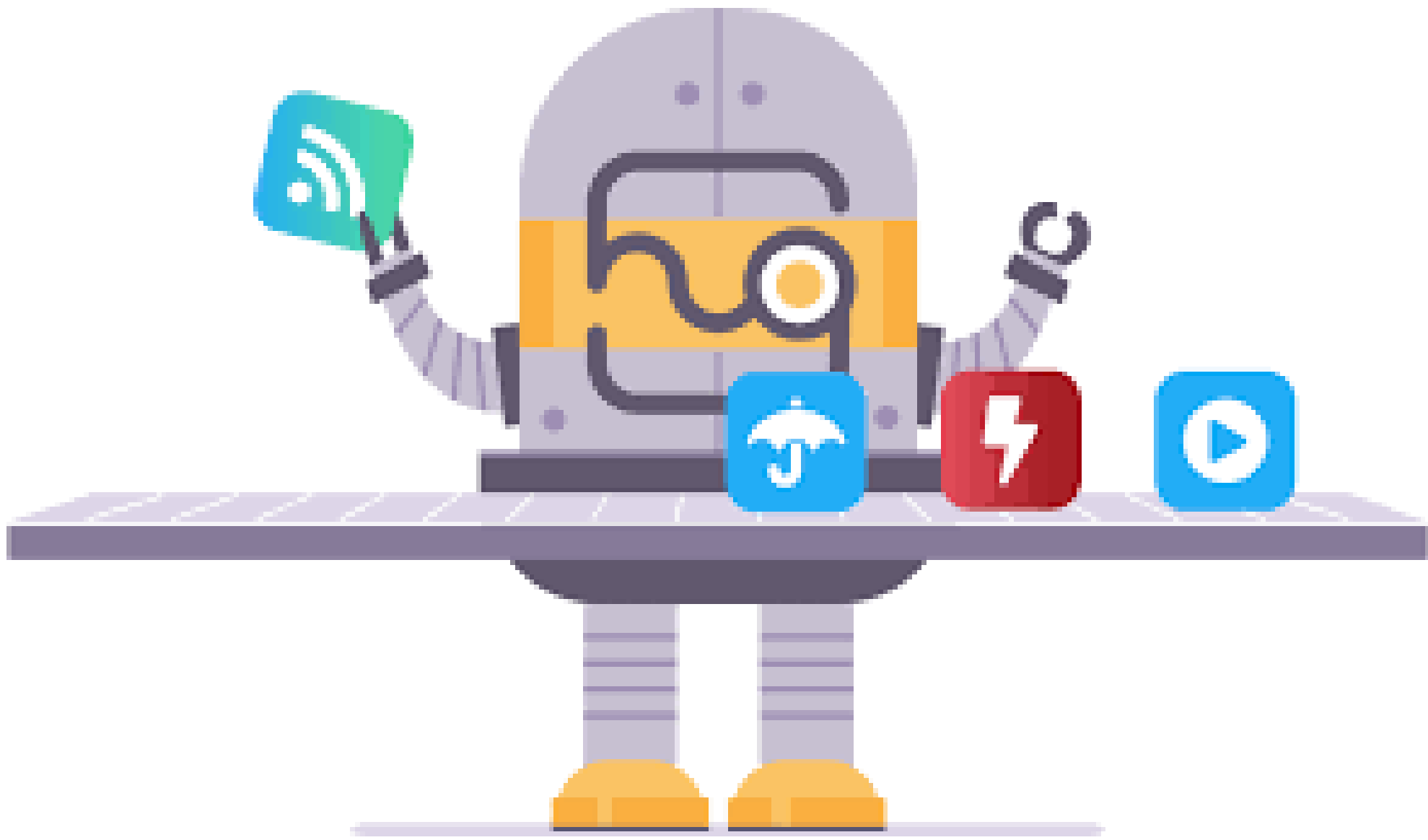
# Immersive education

- Immersive learning is the process of learning with the usage of a simulated or artificial environment. The environment enables the learners to completely get immersed in the learning and in a way that feels like experiencing an actual learning environment.





# Features





Immersive projection



Surround sound system

---



Vibrators

Flash light





Wind (Cold / Hot)

# Interactive function – Scan to screen



# Interactive function – Touching



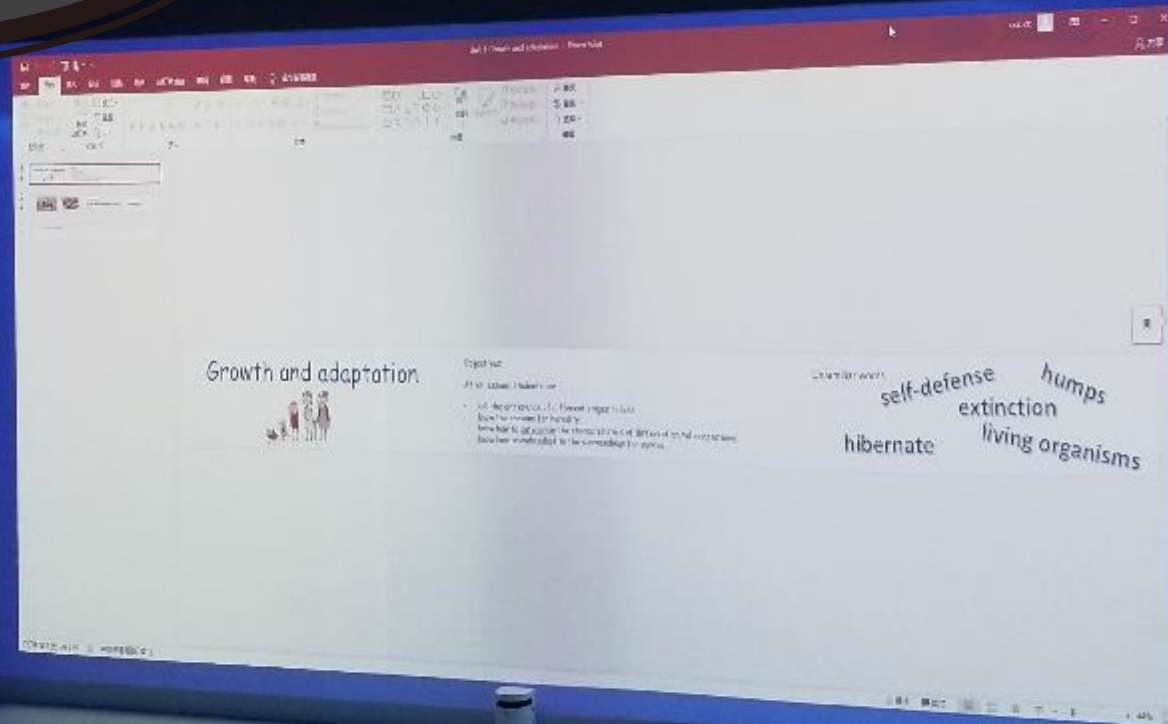


Professionally custom-made interactive learning materials



Teachers easily made teaching materials

# PowerPoint



# and adaptation



Objectives:

After lessons, students can

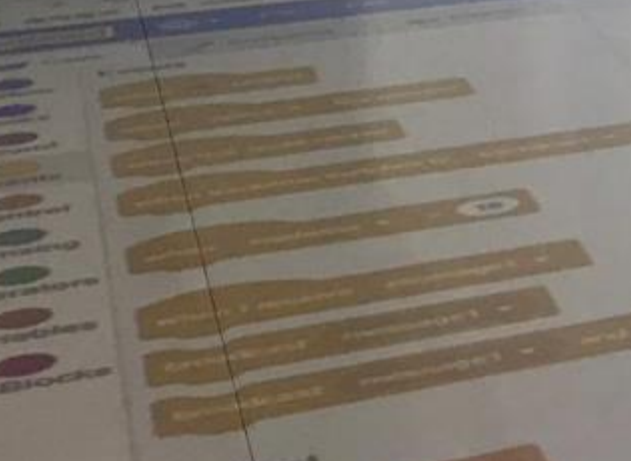
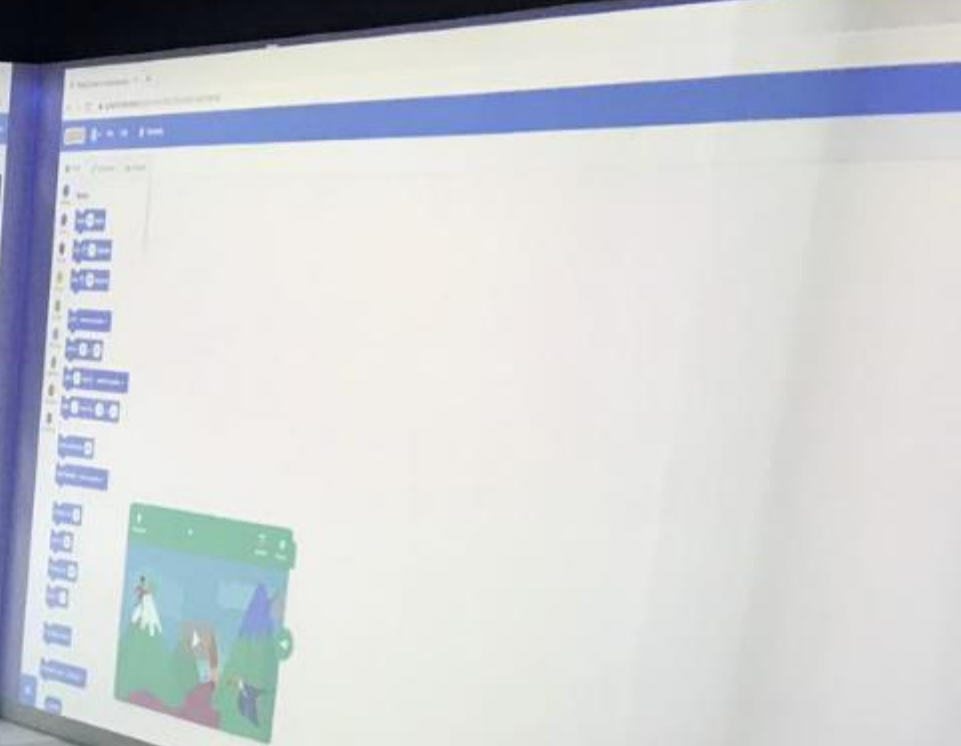
- tell the difference of different stages in lives
- know the reasons for heredity
- know how to categorise the characteristics of different animal adaptations.
- know how animals adapt to the surroundings for survival

Unfamiliar w

hibern



360 photos



The image shows a Scratch workspace with a script area containing two blocks: a 'say' block and a 'wait' block. The 'say' block is a yellow block with the text 'say Hello! for 2 secs' and a 'say' button. The 'wait' block is a yellow block with the text 'wait 2 secs' and a 'wait' button. The 'say' block is connected to the 'wait' block. The 'say' block has a 'say' button and the text 'say Hello! for 2 secs'. The 'wait' block has a 'wait' button and the text 'wait 2 secs'.

# Problems



Vibrators are too loud



Blur image

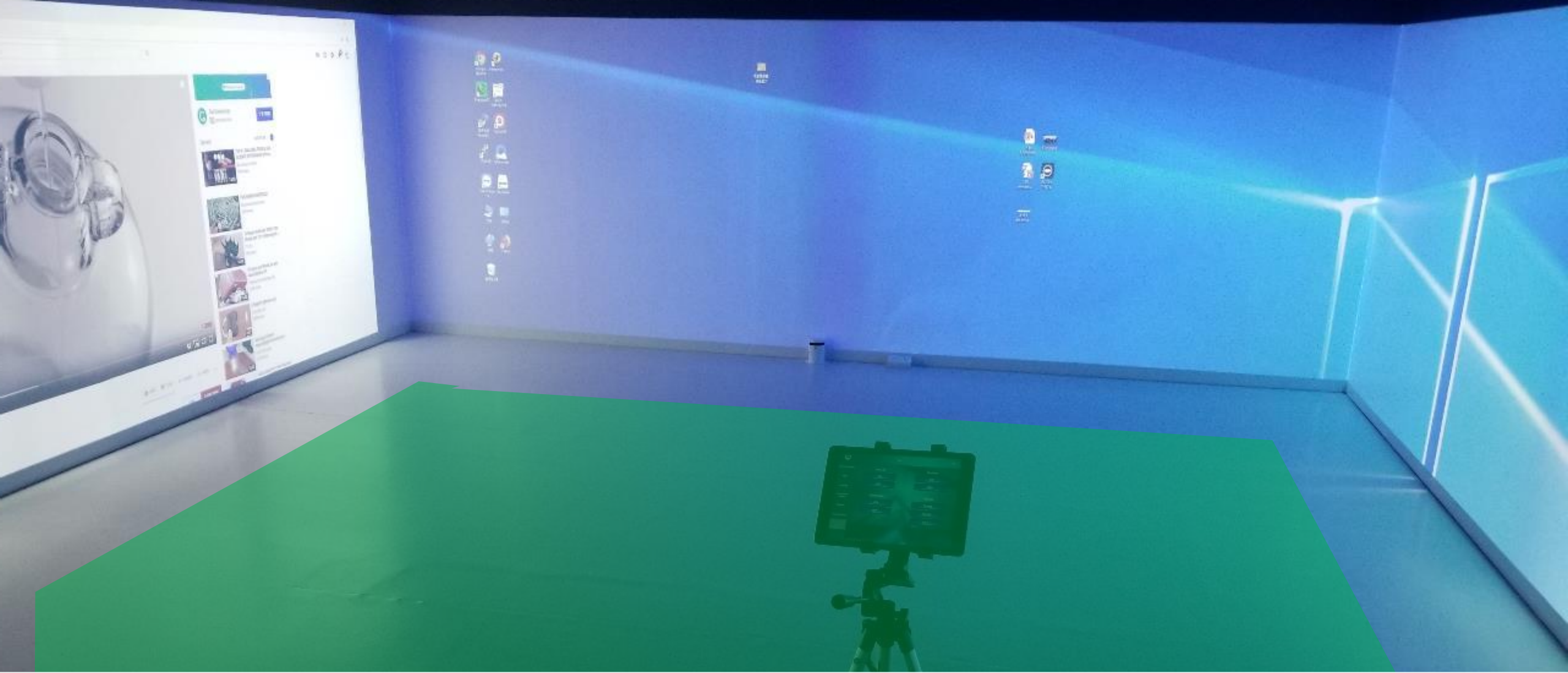


Not used to control using iPad  
and wireless keyboard





Lesson setting



Setting 1

## Setting 2



## Setting 3



## 第 4 題

共 8 題

長方形是特殊的（ ）。

- A、正方形
- B、平行四邊形
- C、梯形





# Design your 4D Immersive teaching resources

Subject:\_\_\_\_\_ Level:\_\_\_\_\_ Topic:\_\_\_\_\_

**Activity:**

Teachers  
development

# Design your 4D Immersive teaching resources

Subject: Maths

Level: 6

Topic: Speeds

Mr Alex

## Activity:

Students wear sensors, run and record their speed.  
→ Measure students' speed.

→ Car / Real toy car Record the speed.

→ Compare Earth / Stars' moving speed.

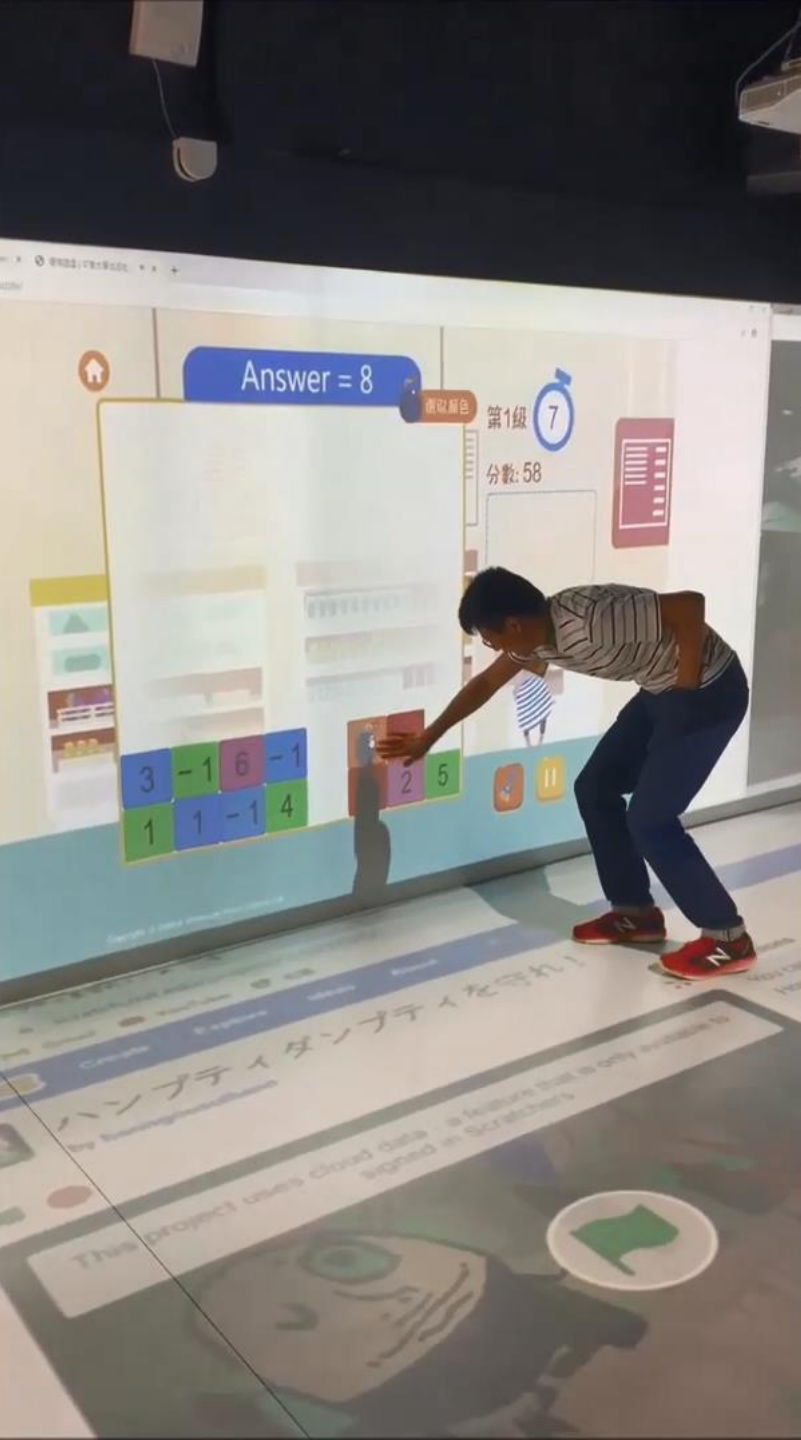
☆ → 第一身過山車, 速度 speed, what is km/h.

☆ → 100 m/s vs 100 km/h. or other units. 速度

# 樂在牛津 小學數學

## 豐富的電子教學資源

### 小遊戲

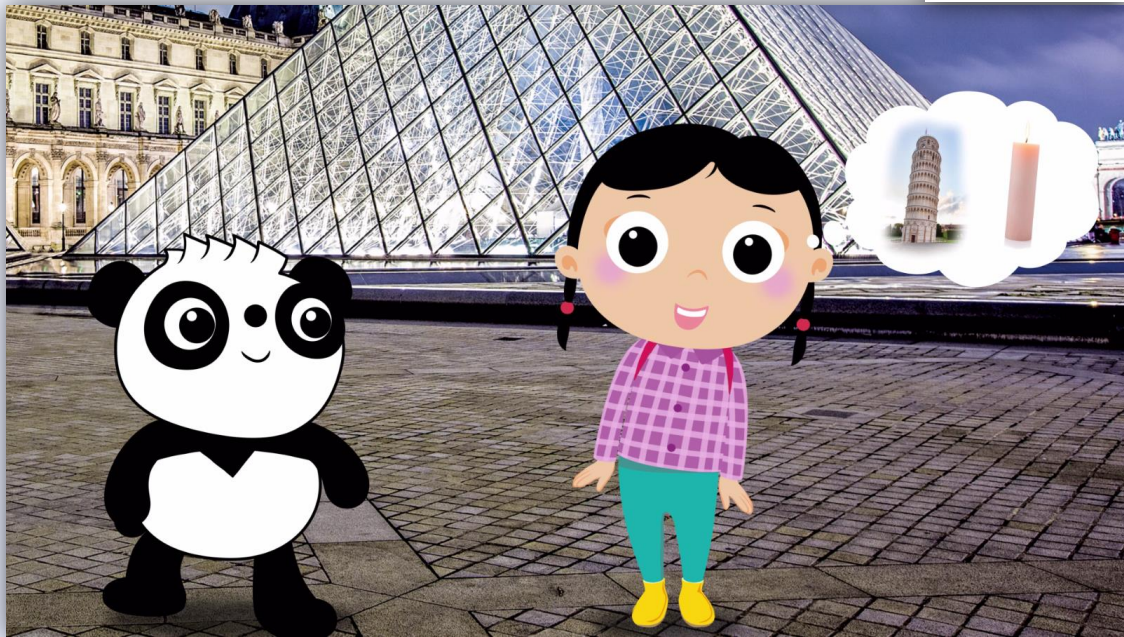


硬幣 ( 1下D 單元四 香港流通的貨幣 )



# 豐富的電子教學資源

## 情境動畫



建築物的形狀 (1上B 單元四 立體圖形)

## 教學程式

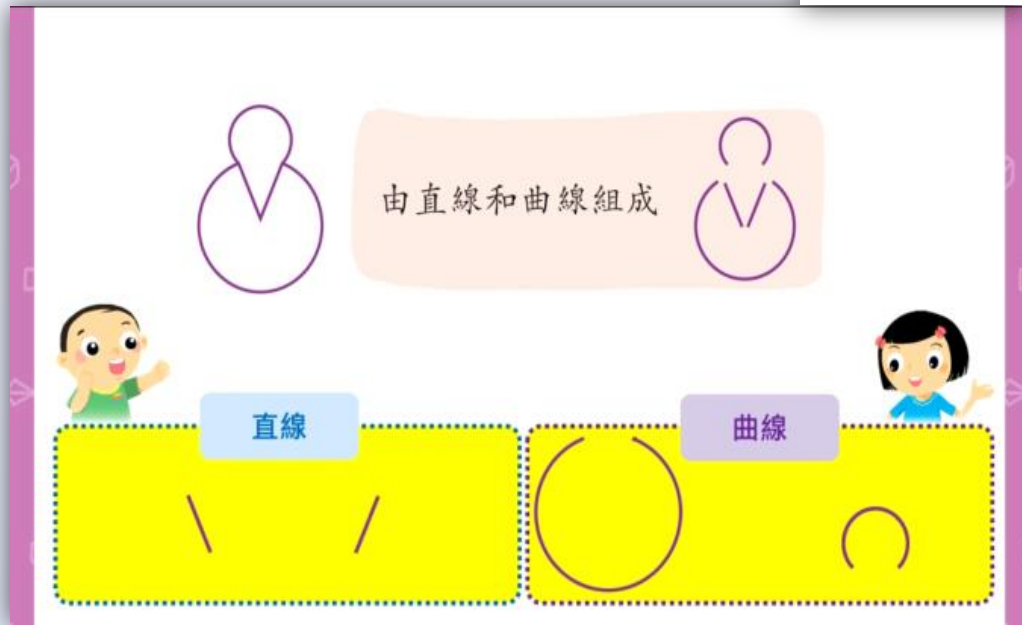


行程圖 (6下D 單元六 速率)



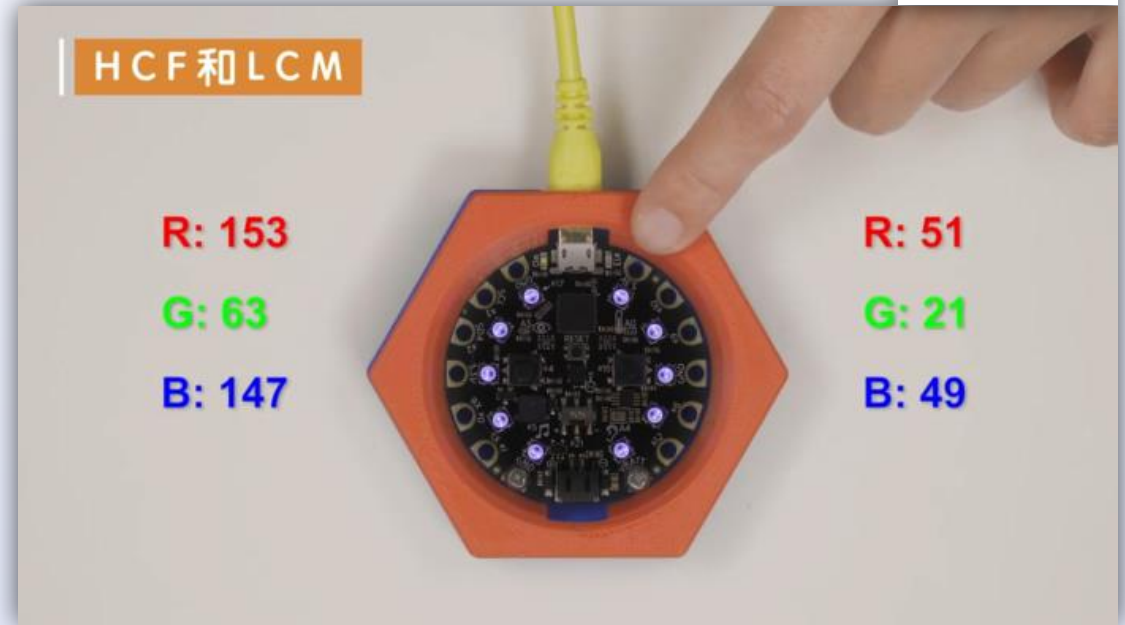
# 豐富的電子教學資源

## 講解影片



直線和曲線  
( 1上B 單元五 平面圖形 )

## 生活化影片



H.C.F. 和 L.C.M. 的應用  
( 4上B 單元四 倍數和因數 )



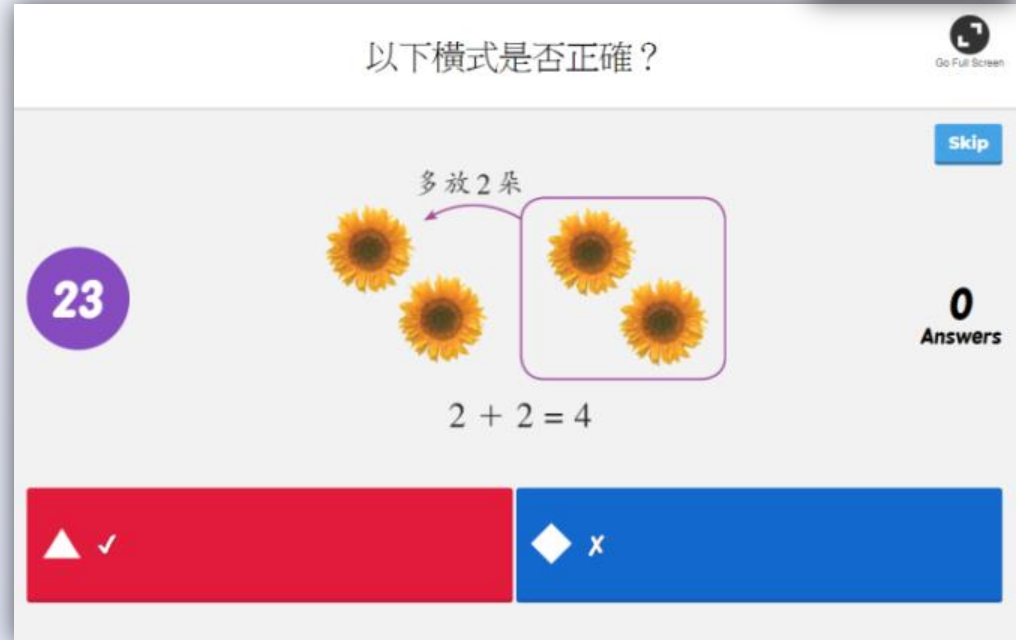
# 豐富的電子教學資源

## 示範影片



剪出四邊形 (一)  
( 3上B 單元七 四邊形 )

## Kahoot! 遊戲



概念檢測站  
( 1上A 單元二 基本加法和減法(一) )



Sharing





# Thank you!

Contact info :

- WhatsApp: 90222772
- Email:
  - [ccching@fssas.edu.hk](mailto:ccching@fssas.edu.hk)
  - [edwinccc718@gmail.com](mailto:edwinccc718@gmail.com)
- Facebook:  
[https://www.facebook.com/  
edwin.ching.98](https://www.facebook.com/edwin.ching.98)



Thank  
You

A blue, cloud-shaped tag with the words "Thank You" in white, hanging from a string. The tag has a soft, bubbly outline and a small hole at the top for a string. The text is in a clean, sans-serif font. The tag is set against a white background, which is itself centered within a larger light blue gradient frame.