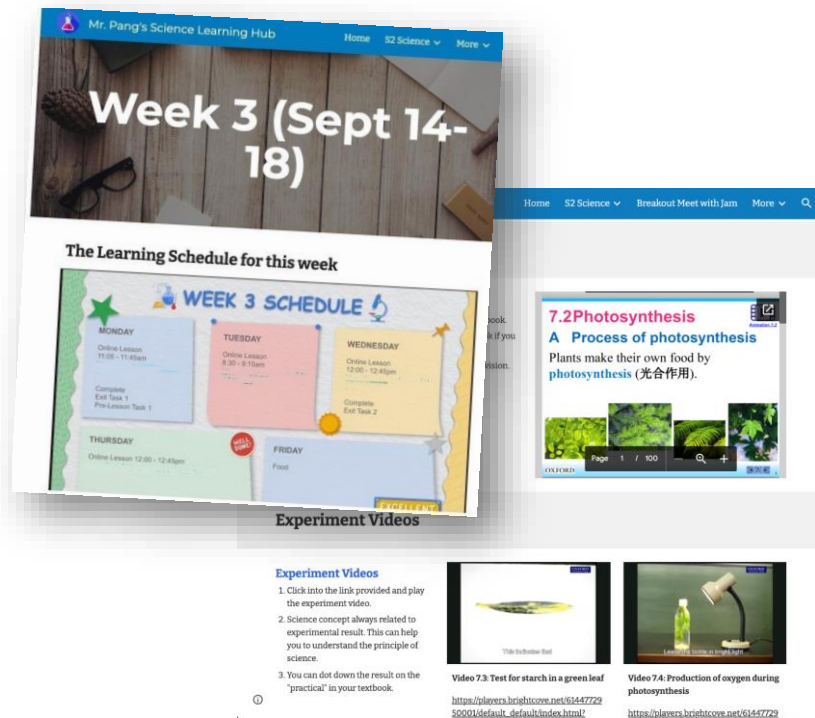
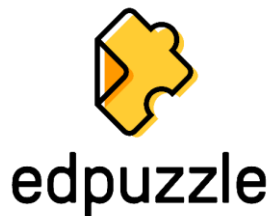


結合各教學平台的線上與線下學習 提高學習效能

獻主會聖母院書院 彭嘉煒老師

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「新」混合式學習 The “New” Blended Learning



Mr. Pang's Science Learning Hub

Home S2 Science More

Week 3 (Sept 14-18)

The Learning Schedule for this week

| DAY | ONLINE LESSON | COMPLETION |
|-----------|-------------------------------|--|
| MONDAY | Online Lesson 11:00 - 11:45am | Complete Exit Task 1 Pre-Lesson Task 1 |
| TUESDAY | Online Lesson 8:30 - 9:15am | Complete Exit Task 2 |
| WEDNESDAY | Online Lesson 12:00 - 12:45pm | Complete Exit Task 2 |
| THURSDAY | Online Lesson 12:00 - 12:45pm | |
| FRIDAY | Peer | |

7.2 Photosynthesis

A Process of photosynthesis
Plants make their own food by photosynthesis (光合作用).

Page 1 / 100

Experiment Videos

Experiment Videos

1. Click into the link provided and play the experiment video.
2. Science concept always related to experimental result. This can help you to understand the principle of science.
3. You can dot down the result on the "practical" in your textbook.

Video 7.3: Test for starch in a green leaf
https://players.brightcove.net/6144772950001/default_default/index.html

Video 7.4: Production of oxygen during photosynthesis
https://players.brightcove.net/6144772950001/default_default/index.html

自我介紹

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獻主會聖母院書院

彭嘉煒老師

化學、物理、初中科學科教師

Google認證創意家、Google認證講師

國際翻轉學習大使、翻轉學習一級講師

Edpuzzle 認證教練



Google for Education
Certified Innovator



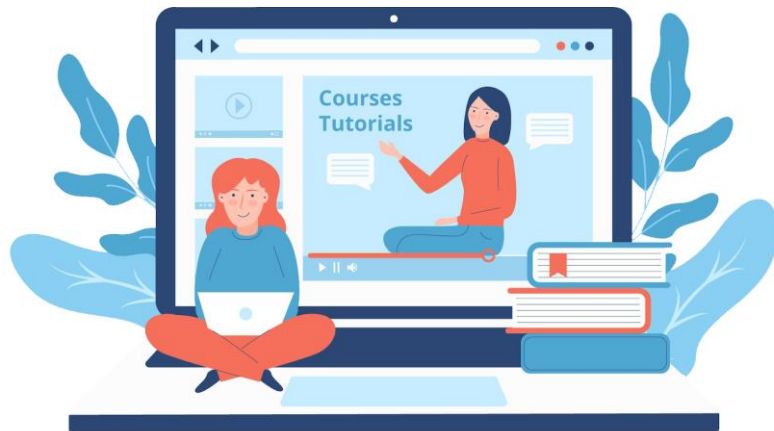
Google for Education
Certified Trainer



停課帶來的危與機...

我們的現況

- 停課讓我們面授教學出現限制
- 實時網課與實體課堂交替出現
- 教學安排隨時改變



混合式學習模式

Blended Learning Model

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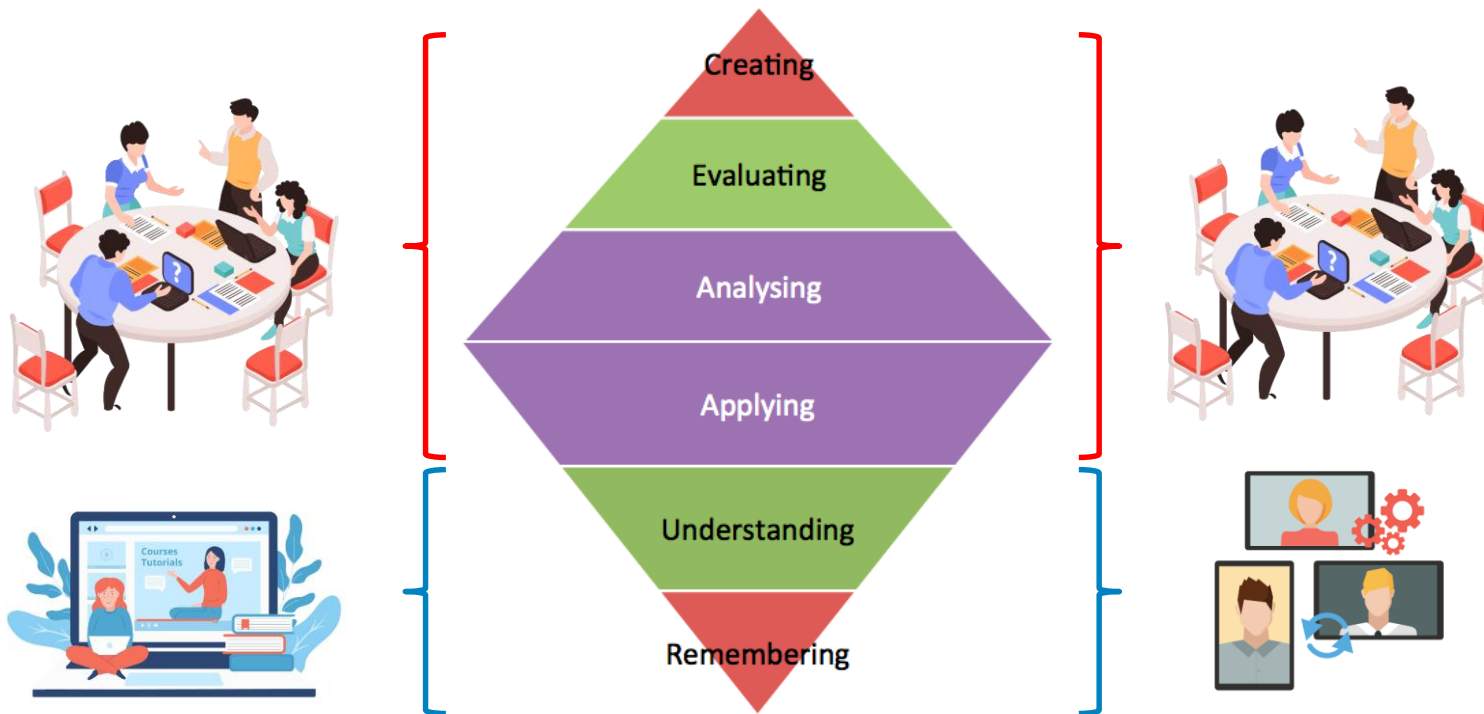


網上學習
(促進學生自主學習)



實體教學
(支援學生學習)

混合式學習與翻轉學習



新混合式學習模式

The New Blended Learning Model

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網上學習
(促進學生自主學習)



網上實時教學
(支援學生學習)

停課與復課的無縫切換

實時網課



網上學習



網上實時教學

面授課堂



網上學習

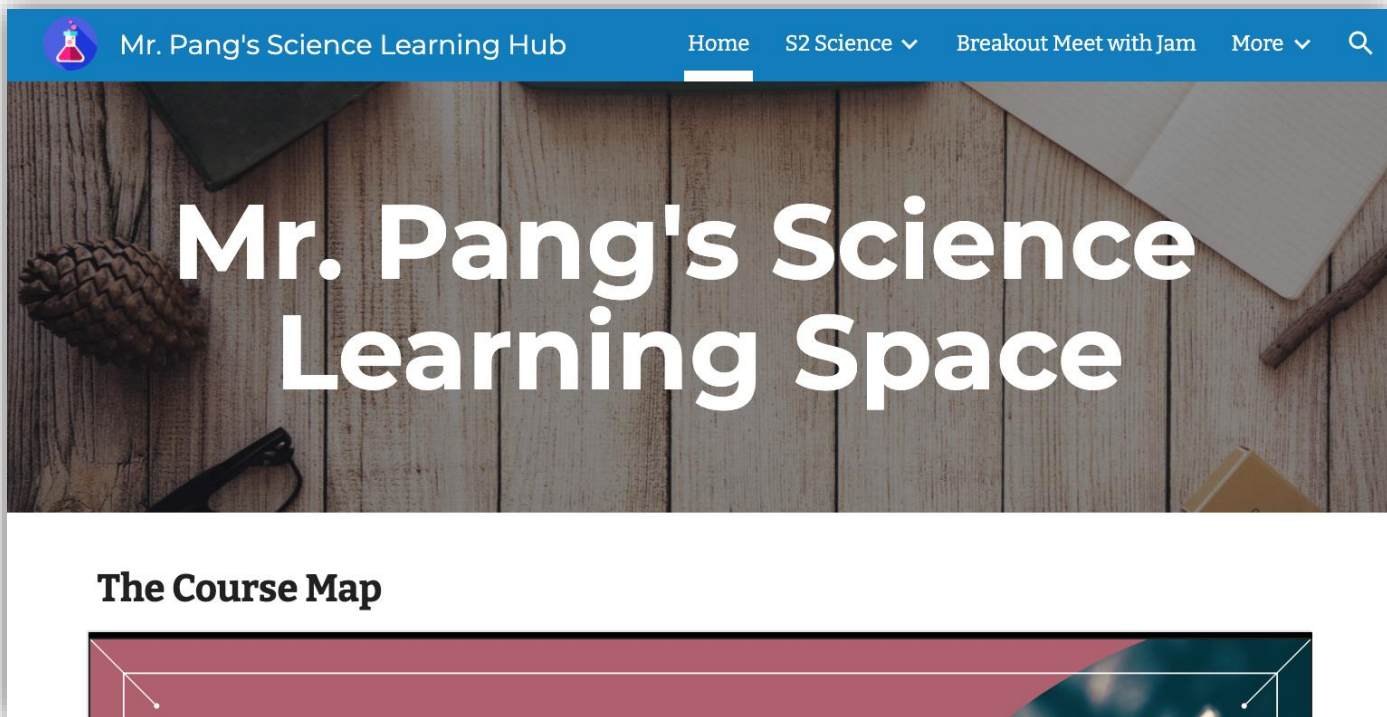


實體教學

「網上學習」示範

整理學生的學習目標

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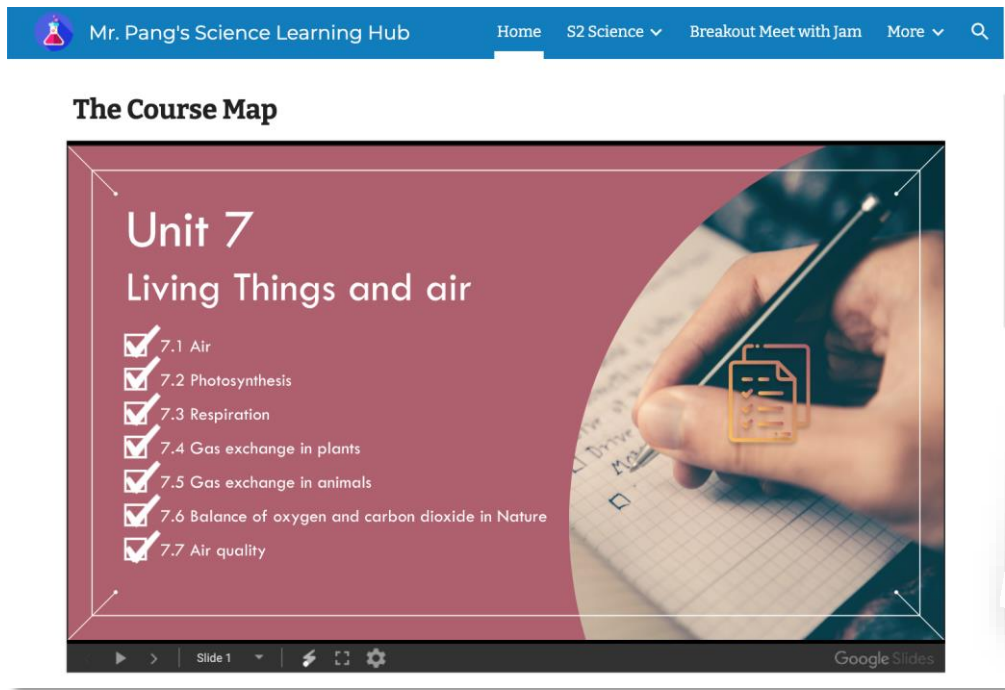


The screenshot shows the homepage of 'Mr. Pang's Science Learning Hub'. The navigation bar is blue and contains a logo of a flask, the text 'Mr. Pang's Science Learning Hub', and menu items: 'Home', 'S2 Science', 'Breakout Meet with Jam', and 'More'. A search icon is on the right. The main banner features a wooden background with science-related items (pinecone, glasses, notebook) and the text 'Mr. Pang's Science Learning Space'. Below the banner is a section titled 'The Course Map' with a partially visible graphic.



「網上學習」的原則

整理學生的學習目標



Mr. Pang's Science Learning Hub

Home S2 Science ▾ Breakout Meet with Jam More ▾

The Course Map

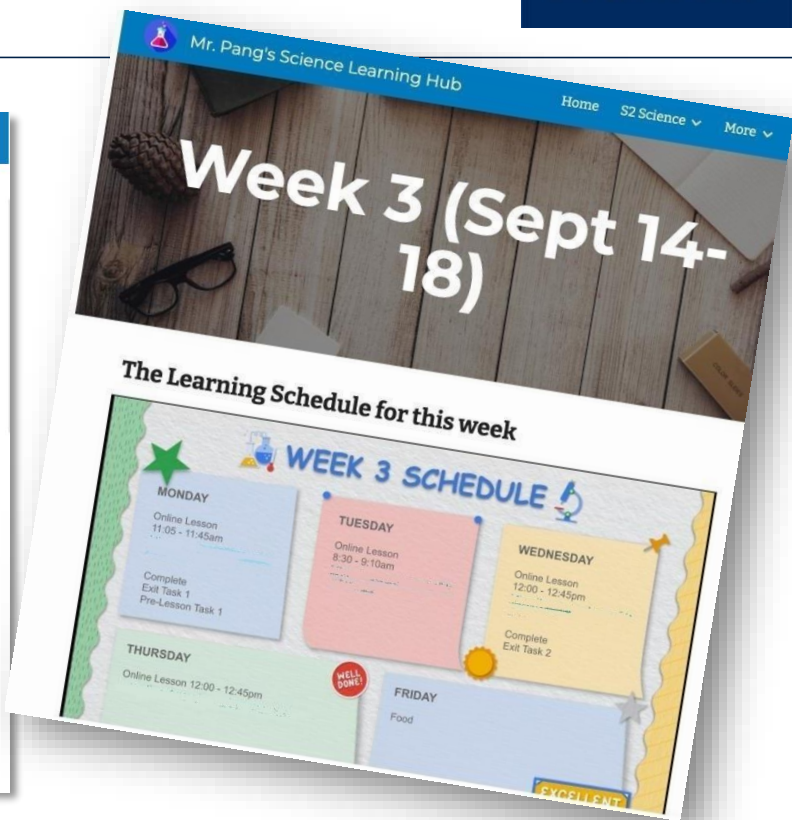
Unit 7

Living Things and air

- 7.1 Air
- 7.2 Photosynthesis
- 7.3 Respiration
- 7.4 Gas exchange in plants
- 7.5 Gas exchange in animals
- 7.6 Balance of oxygen and carbon dioxide in Nature
- 7.7 Air quality

Slide 1

Google Slides



Mr. Pang's Science Learning Hub

Home S2 Science ▾ More ▾

Week 3 (Sept 14-18)

The Learning Schedule for this week

WEEK 3 SCHEDULE

| Day | Lesson/Task | Time | Notes |
|-----------|---------------|-----------------|---|
| MONDAY | Online Lesson | 11:05 - 11:45am | Complete Exit Task 1 Pre-Lesson Task 1 |
| TUESDAY | Online Lesson | 8:30 - 9:10am | |
| WEDNESDAY | Online Lesson | 12:00 - 12:45pm | Complete Exit Task 2 |
| THURSDAY | Online Lesson | 12:00 - 12:45pm | |
| FRIDAY | Food | | |

WELL DONE!

EXCELLENT!

「網上學習」的原則

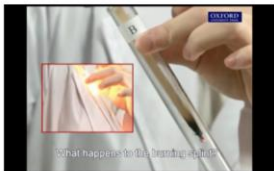
全方位學習設計 (UDL): 多元教材照顧學生的不同需要

Exit Task 1

This is an exit task.

Please pick up **ONE** of the following task:

1. Read Textbook 2A p.4-11 and complete p.9 and 12 **OR**
2. Watch the video shown below and complete p.9 and 12.



Video 7.1: Tests for oxygen, carbon dioxide and nitrogen

https://vms.oupchina.com.hk/streaming.php?b=nms_pract0701_e



Video 7.2: Test for water (water vapour)

https://vms.oupchina.com.hk/streaming.php?b=nms_pract0702_e

Pre-Lesson Task 1

This is a pre-lesson task.

Please pick up **ONE** of the following task:

1. Read textbook p.13-14 and complete the yellow boxes on p.14 **OR**
2. Complete the EDpuzzle activity shown below.

EDpuzzle Activity

1. Login your school Google account (@ndc.edu.hk).
2. Play the video by press the play logo.
3. Answer the question in between of the video.

edpuzzle KA WAI PANG Log ou

chloroplast

Photosynthesis 01:32

Get started

「網上學習」的原則

整合過往的電子學習材料

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How to use the Bunsen burner (Our School Version)

How to use the Bunsen burner (Our School Version)

Our school bunsen burners are different from what you see in the textbook. Please take a look of it and make sure you know how to use it!

[Click here to try the flipped learning worksheet](#)



How to use a microscope

How to use microscope

In Science, we always use microscope to observe tiny living thing. However, it is not easy to focus on a species with optical microscope. You can learn how to use microscope in this video.

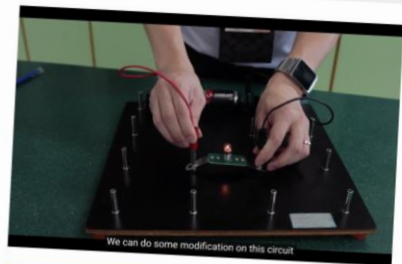
[Click here to try the flipped learning worksheet](#)



How to construct an electric circuit

How to construct an electric circuit

Electricity is a common topic in science. You will learn about how to construct a simple circuit in Laboratory. You learn this by watch the video playlist. Also you can review the skill before practical exam.



[Click here to watch video](#)

「網上學習」的原則

增加網上學習歸屬感

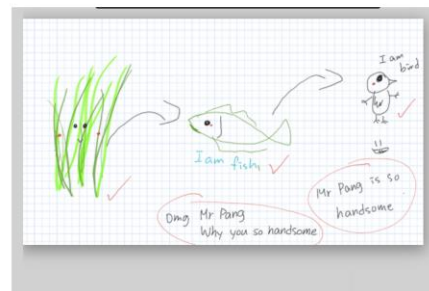
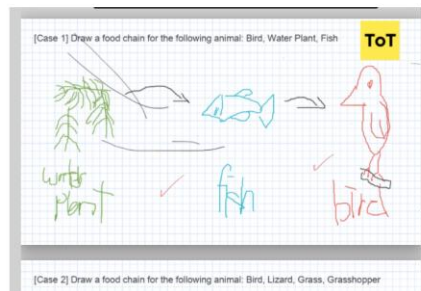
Participation Award

| SEPT PARTICIPATION | | | | | | |
|--------------------|------------|-----------------|------------|-----------|-----------------|------------|
| VIVIAN | HELL DONE! | DON'T STOP NOW! | KEEP UP! | CONGRATS! | | |
| HOLLY | GOOD JOB! | | | | | |
| OWEN | EXCELLENT! | HELL DONE! | KEEP UP! | CONGRATS! | DON'T STOP NOW! | |
| DICKY | KEEP UP! | HELL DONE! | CONGRATS! | GOOD JOB! | | |
| ANJA | EXCELLENT! | HELL DONE! | KEEP UP! | CONGRATS! | DON'T STOP NOW! | |
| DICKSON | KEEP UP! | HELL DONE! | CONGRATS! | GOOD JOB! | EXCELLENT! | HELL DONE! |
| CHRISTINE | HELL DONE! | KEEP UP! | HELL DONE! | CONGRATS! | GOOD! | |
| DON | EXCELLENT! | | | | | |

Learning Activity 2

Draw a food chain

1. Divided in 4 groups.
2. Think carefully with the animal below, arrange them in a food chain and draw it out by using jamboard:
 - Case 1: Bird, Water Plant, Fish
 - Case 2: Bird, Lizard, Grass, Grasshopper



「網上實時教學/實體教學」的原則

跟進網上學習內容

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The screenshot shows the Quizizz dashboard for a quiz titled "Unit 7 - Quiz 2 - Photosynthesis". The quiz was assigned on March 3rd, 2021, at 11:34 AM. The interface displays a 70% accuracy rate and 2/2 students completed. Below this, there are two participant rows:

| Participant | Score | Accuracy | Score | Action |
|----------------------|-------|----------|-------|--------|
| NDC STEM (NDC S...) | 5 | 100% | 4770 | Email |
| stem ndc (stem n...) | 2 | 40% | 1840 | Email |

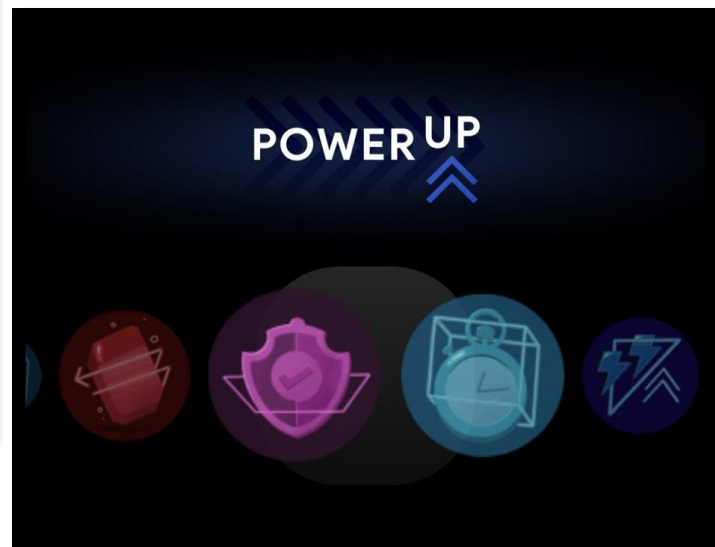
Quizizz
Unit 7 - Quiz 2 - Photosynthesis
Date: Wed Mar 03 2021 - 11:34 am

| | | |
|---------------------------------|---------------------|-------------------|
| 70 | 5 | 2 |
| Accuracy % (correct / total) | Number of Questions | Number of Players |

「網上實時教學/實體教學」的原則

引起學習興趣

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「網上實時教學/實體教學」的原則

引發學習交流

The screenshot displays the Edpuzzle classroom interface. At the top, a navigation bar shows the Edpuzzle logo, a search bar, and a list of students. Below this, a video player shows a chemistry experiment with the text: "What is the colour of the iodine solution after it is added to distilled water?". To the right of the video, a table lists student progress:

| Students | Questions | Score | Time |
|----------------|----------------|--------|---------------|
| [Student Name] | [Progress Bar] | 70/100 | 2 minutes ago |
| [Student Name] | [Progress Bar] | 75/100 | an hour ago |
| [Student Name] | [Progress Bar] | 100% | 7 minutes ago |
| [Student Name] | [Progress Bar] | 75/100 | 3 minutes ago |
| [Student Name] | [Progress Bar] | 75/100 | 7 minutes ago |
| [Student Name] | [Progress Bar] | 88/100 | 2 hours ago |

Below the table, a list of students is shown with their progress bars and scores. The interface also includes a sidebar with options like "Prevent Skipping", "Turn on CCs", and "Update on Google Classroom". At the bottom, a control bar shows "Mr. Pang's Classroom (2C)", a microphone icon, a red phone icon, a camera icon, and the text "Ka Wai Jason Pang is presenting".

「網上實時教學/實體教學」的原則

功課輔導

iSolution SCIENCE LEVEL

8.1A-C

- 互動課堂活動 (教師版) 1B
- Mastering Science Book 2A (Teacher's Edition)
- 基礎科學 課本2A (教師用書)
- Mastering Science Workbook (Teacher's Edition)

8.1D-E

- Interactive class activities (Teacher's Edition) 2A
- 互動課堂活動 2A
- STEM e-Classroom Unit 8 Gift card
- STEM 互動電子 第8課 實卡

8.2

8.3

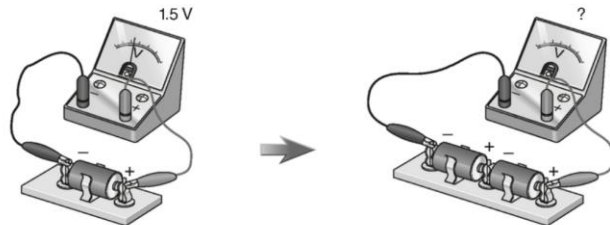
8.4

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Level 2

I Multiple-choice questions (1 mark each)

- 1 The voltmeter reading across one dry cell is 1.5 V. What will be the reading if it is connected across two such dry cells as shown below?



A 0 V

C 3.0 V

B 1.5 V

D Cannot be determined.