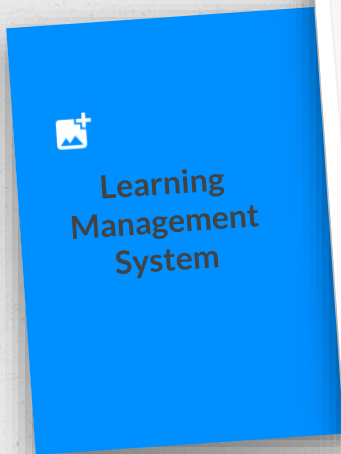


# e-Learning in Science classroom

12/10/2018

By Eva Lam, Henry Ha  
True Light Middle School of Hong Kong



**schoology** UPGRADE COURSES GROUPS RESOURCES

### 2018-19 S1 Integrated Science: Whole Year

True Light Middle School of Hong Kong

Add Materials Options

Course Options

Materials

- Updates
- Gradebook
- Grade Setup
- Badges
- Attendance
- Members

Access Code: 9NSZT-55429 Reset

Information

Grading periods: 18-19 Term 1, 18-19 Term2

- Science etv.xls 374 KB  
Unpublished
- Science(S1-3)\_supp\_e\_2017.pdf 3 MB  
Unpublished
- S1 IS TP 2018-2019.doc 165 KB  
Unpublished
- S1 IS TP 2018-2019 (19Sept2018).doc 234 KB  
Unpublished
- Dictation & Check Understanding
- Chapter 1 Introducing Science
- Chapter 2 Water
- Chapter 3 Looking at Living Things

Schoology



Course Options

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MGD8X-D2M9G

Reset

Information

Grading periods

18-19 Term1, 18-19 Term2

2018-19 S2 Integrated Science: Whole Year

7 Living things and air

Prev

Next

Add Materials Options

- > 7.1 Gases in the air ⚙
- > 7.2 Air and burning ⚙
- > 7.3 How human obtain energy ⚙
- > 7.4 How green plants obtain energy ⚙
- > 7.5 Gaseous exchange in animals and plants ⚙  
 Unpublished
- > 16-17 S2 IS 1st UT Question Paper.pdf 409 KB ⚙  
 Unpublished
- > 16-17 S2 IS 1st UT Marking Scheme.pdf 152 KB ⚙  
 Unpublished
- > 17-18 S2 IS 1st UT Question.pdf 879 KB ⚙  
 Unpublished
- > 17-18 S2 IS 1st UT Marking Scheme.pdf 16 KB ⚙  
 Unpublished
- > Study Journal ⚙



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Grading periods

18-19 Term1, 18-19 Term2

2018-19 52 Integrated Science: Whole Year ▶ 7 Living things and air

7.1 Gases in the air

◀ Prev

Next ▶

Add Materials Options ↩

7.1 Gases in the air.ppt 5 MB  
Unpublished

ETV - Air and Burning

The Periodic Table of Videos - University of ...

Laboratory 7.1

Laboratory 7.2

Laboratory 7.3

Laboratory 7.4

Laboratory 7.5

Carbon dioxide test with lime water

7.1 Gases in the air.pdf 4 MB

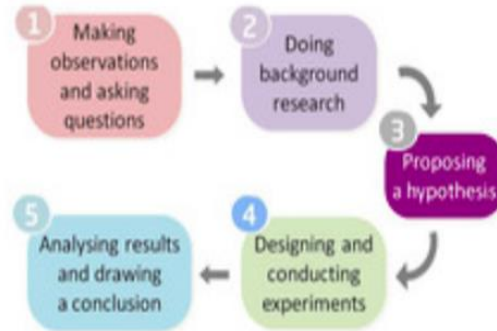


## 1.2 Working like a scien...

Eva Lam

Oct 7, 2018 - 1MB

### Basic steps of scientific investigation



Nearpod

An interactive classroom tool

# What Is Nearpod?

[https://youtu.be/g3GVkM\\_GVa4](https://youtu.be/g3GVkM_GVa4)



Drive and Docs



Docs



Sheets



Slides



Forms



Calendar



Google drive

The screenshot shows a Google Drive interface. At the top, there are two document thumbnails. The left one is a spreadsheet titled "18-19 S2C Lab7.8-7.9 Burning ..." with a green calendar icon and the text "You edited this week". The right one is a document titled "18-19 S2C Lab 7.10 Test for st..." with a purple icon and the text "Edited this month by 林紫慧LAM Tsz W...". Below these is a table with columns "Name" and "Owner".

Name	Owner
S2 Integrated Science	me
S1 Integrated Science	me
Photos & Videos	me
IS Panel	me

Lab 7.3 6a. In which jar does the burning splint burn for a longer time? \*

- Breathed air
- Unbreathed air

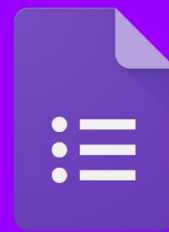
Lab 7.3 6b. What does this result show? \*

Short-answer text

Lab 7.3 7. Put some hydrogencarbonate indicator into a jar of breathed air. What happens to the colour of the indicator? \*

Short-answer text

Lab 7.3 8a. Put some hydrogencarbonate indicator into a jar of unbreathed air. What happens to the colour of the indicator? \*



Google Forms



# 18-19 S2C Lab 7.3-7.5 Differences between breathed air and unbreathed air (Responses)

File Edit View Insert Format Data Tools Form Add-ons Help [All changes saved in Drive](#)

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	A	B	C	D	E	F	G	H	I
1	Times	Class	Class No	Lab	Lab 7.3 6b. What does this result show?	Lab 7.3 7. Put some hydrogencarbonate	Lab 7.3 8a. Put some hydr	Lab 7.3 8b. What does the above result show?	
2	24/09/	S2C	9 19	Cl	Unbr	Breathed air contains less oxygen	It changes from red to yellow	There is no colour change	Breathed air contains more carbon dioxide than unbreathed air
3	24/09/	2C	5, 15	Gi	Unbr	Oxygen in unbreathed air is more than that in breathed a	It turns to yellow	It turns to purple	Carbon dioxide in breathed air is more than that in unbreathed a
4	24/09/	2c	3,13,	Ja	Unbr	Unbreathed air have more oxygen	Turned into yellow colour	Turn to a little bit yellow	Breathed air have more carbon dioxide
5	24/09/	S2C	8, 18	Cl	Unbr	Breathed air contains less oxygen than unbreathed air	Yellow	Red	Breathed air contains more Carbon dioxide than unbreathed air
6	24/09/	2C	10,2C	Ra	Unbr	Breathed air contains less oxygen than unbreathed air	Turns yellow	Remains red	Breathed air contains more carbon dioxide than unbreathed air
7	24/09/	S2C	6, 16	Al	Unbr	There are more oxygen in unbreathed air	Yellow	Red	There are more carbonate dioxide in breathed air
8	24/09/	S2C	1, 11,	Cl	Unbr	Unbreathed air contains more oxygen than breathed air.	The indicator turned from red to yellow.	The indicator stayed in red.	Breathed air contains more carbon dioxide than unbreathed air.
9	24/09/	2c	4 14	Ar	Unbr	Breathed air contains less oxygen than breathed air	Yellow	Red	Breathed air contains more carbon dioxide than unbreathed air
10	24/09/	2C	2 12	C:	Unbr	There are more oxygen in the unbreathed air	It turns yellow from red	Remains red	There are more carbon dioxide in breathed air
11	24/09/	2C	7 17	C:	Unbr	Unbreathed air have more oxygen	It turns to yellow	Remain unchange	Breathed air have more carbon dioxide
12									
13									



Google Sheets



## 18-19 S2C Lab7.8-7.9 Burning of food

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Group 1

	A	B	C	D	E
2	Type of snack	Mass of snack(g)	Initial water temp.	Final water temp. after the snack	Rise in temp. per gram of the snack
3	Peanut	0.4	25	37	30
4	Potato chips	0.5	25	42	34
5	Biscuits	0.4	25	50	62
6	Dry meat	0.5	25	46	42
7					
8	Group 2				
9	Type of snack	Mass of snack(g)	Initial water temp.	Final water temp. after the snack	Rise in temp. per gram of the snack
10	Peanut	0.5	25	42	34
11	Potato chips	0.5	25	30	10
12	Biscuits	0.5	25	28	6
13	Dry meat				
14					
15	Group 3				
16	Type of snack	Mass of snack(g)	Initial water temp.	Final water temp. after the snack	Rise in temp. per gram of the snack
17	Peanut	0.4	25	48	57.5
18	Potato chips	0.4	26	49	57.5
19	Biscuits	0.5	26	41	30
20	Dry meat	0.4	26	43	42.5
21					
22	Group 4				
23	Type of snack	Mass of snack(g)	Initial water temp.	Final water temp. after the snack	Rise in temp. per gram of the snack
24	Peanut	0.4	25	54	29

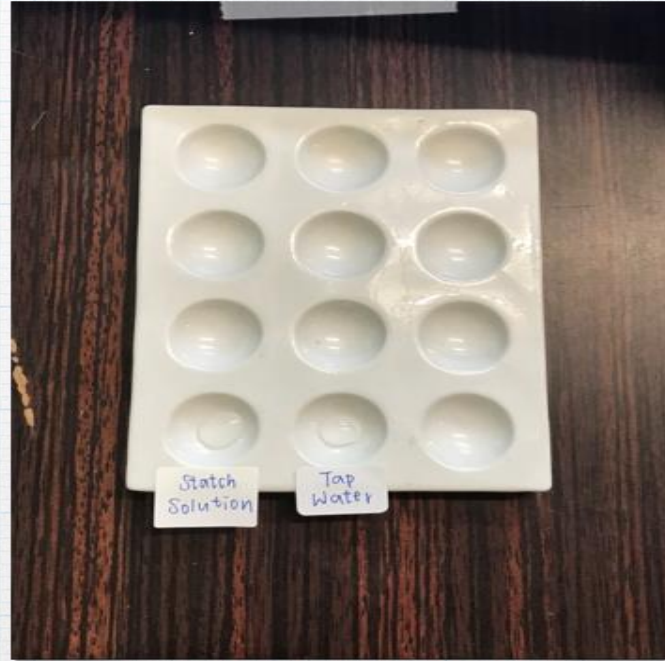


Google Sheets

# I. IODINE TEST

TRANSFER A FEW DROPS OF DISTILLED WATER AND STARCH WATER TO A WELL ON A SPOT PLATE RESPECTIVELY.

LABEL THE LIQUID ON THE SPOT PLATE AND TAKE A PHOTO.



# I. IODINE TEST

ADD A DROP OF IODINE SOLUTION TO THE WELL OF DISTILLED WATER AND STARCH WATER RESPECTIVELY. OBSERVE THE COLOUR CHANGE.

-THE IODINE SOLUTION TURNS BROWN WHEN WE ADDED IT INTO DISTILLED WATER.

THE IODINE SOLUTION TURNS BLUE-BLACK WHEN WE ADDED IT INTO STARCH WATER.



# I. IODINE TEST

## CONCLUSION

- IODINE SOLUTION CHANGES FROM BROWN TO BLUE-BLACK IN COLOUR WHEN STARCH IS PRESENT.

## II. TEST FOR STARCH IN GREEN LEAVES

- REMOVE A GREEN LEAF FROM A POTTED PLANT. TAKE A PHOTO OF THE LEAF BEFORE IODINE TEST.



# 1. BOIL THE LEAF IN WATER

- BOIL 150 ML WATER. PUT THE LEAF INTO THE BEAKER OF BOILING WATER FOR 4 MINUTES.
- WHAT IS THE PURPOSE OF PUTTING THE LEAF INTO THE BOILING WATER?
- TO DESTROY THE CELL MEMBRANES OF THE LEAF CELLS.



## 2. SOAK THE LEAF IN HOT ALCOHOL

- WHAT HAPPEN TO THE COLOURS OF THE LEAF AND THE ALCOHOL?
- IT TURNS TO PALE YELLOW .
- WHAT IS THE PURPOSE OF PUTTING THE LEAF INTO ALCOHOL?
- TO REMOVE THE CHLOROPHYLL FROM THE LEAF.





### 3. WASH THE LEAF IN HOT WATER

- OBSERVE THE COLOUR OF THE LEAF. TAKE A PHOTO OF IT.
- WHAT IS THE PURPOSE OF PUTTING THE LEAF IN HOT WATER AGAIN?
- TO WASH AWAY THE ALCOHOL AND SOFTEN THE LEAF.



## 4. ADD IODINE SOLUTION TO THE LEAF

- SPREAD THE LEAF ON A WHITE TILE. ADD A FEW DROPS OF IODINE SOLUTION TO THE LEAF.
- WHAT HAPPENS TO THE COLOUR OF THE LEAF?
- IT TURNS TO BLUE-BLACK.
- WHAT DOES THIS RESULT SHOW?
- THERE IS STARCH IN THE LEAF.



## Apps/ Websites/ LMS used in Science, Maths, and STEM activities

<a href="#">Edmodo</a>	LMS	<a href="#">Nearpod</a>	<a href="#">Scratch</a>
<a href="#">Schoology</a>		<a href="#">Quizizz</a>	<a href="#">Micro:bit</a>
<a href="#">Google Docs</a>		<a href="#">Kahoot!</a>	Mainly for STEM
<a href="#">Google Drive</a>		<a href="#">Socrative</a>	
<a href="#">Google Sheets</a>		<a href="#">Notability</a>	
<a href="#">Google form</a>		<a href="#">iMovie</a>	
<a href="#">Keynote</a>	Record learning progress	<a href="#">Explain Everything</a>	Mainly for Maths
<a href="#">Numbers</a>		<a href="#">Skitch</a>	
<a href="#">Pages</a>		<a href="#">Edpuzzle</a>	