

# 聖若瑟英文中學

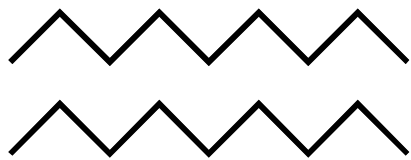
生物科

電子評估的運用及實踐，提升優質學與教

周志聰

助理副校長  
生物科主任

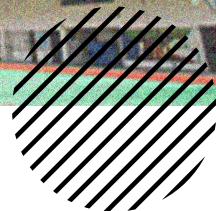


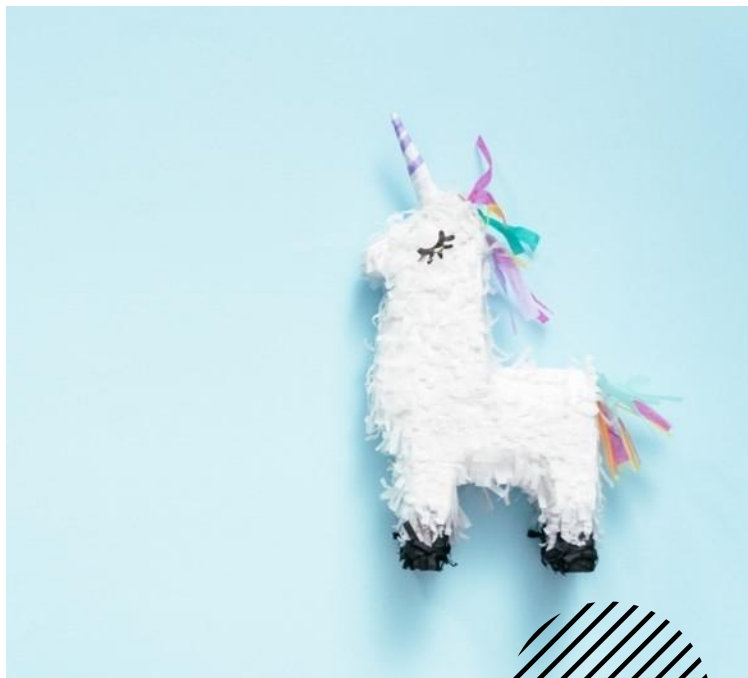
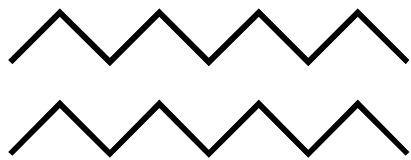


# 學校簡介



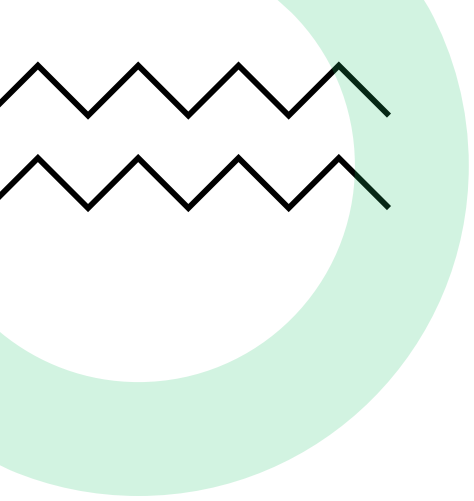
- 男校
- Band 1C – 2A
- 生物：中四、中五、中六均開兩班





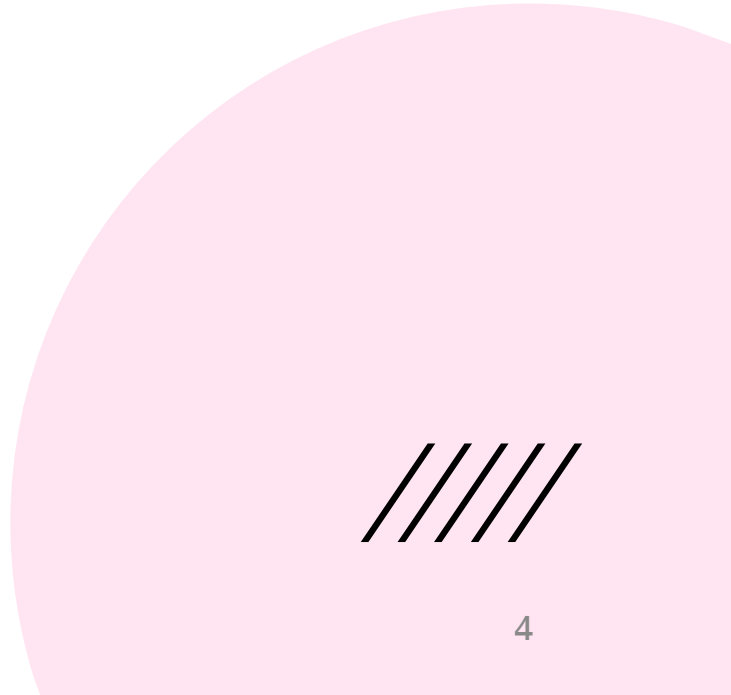
# 我們的學生

- Level 2 學生
  - 沒有學習動機
  - 長題目？有困難！
  - Level 1 or U？頂住啊！
- Level 4 學生
  - 欠缺主動學習素養
  - 長題目？勉強！
  - level 5？基本無望！



# 電子評估

簡單、量少、密集



# 評估比重 (上學期統一測驗)

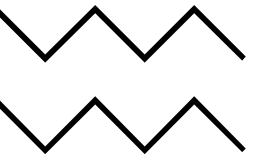


級別	測考階段	滿分	評估方式		
			考卷 (佔分)	其他 (佔分)	
4/5/6	上學期 統一測驗	100	40	總結性評估 (對學習的評估)	單元小測 10 跨單元小測 20 家課 (多項選擇題) OQB 10
				進展性評估 (作為學習的評估)	家課 (長題目) 05 家課 (多項選擇題) 10
				進展性評估 (促進學習的評估)	實驗 (口頭匯報) 閱讀報告：課外書+E2生態學課本 STEM設計 Bonus 05 Bonus

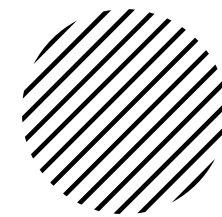
# 電子評估比重



	中四	中五	中六
上學期統一測驗	試卷40%、非電子評估35%、電子評估：25% + Bonus		
上學期統一考試	試卷60%、非電子評估30%、電子評估：10% + Bonus		試卷70%、非電子評估20%、電子評估：10% + Bonus
下學期統一測驗 / 中六Mock	試卷40%、非電子評估35%、電子評估：25% + Bonus		試卷100%
下學期統一考試	試卷70%、非電子評估20%、電子評估：10% + Bonus		



# 電子評估工具



Google  
Classroom



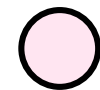
Google Form



Google Drive



OQB



# 閱讀報告

E2生態學課本  
課外書



1

Human impact on the environment





# Book Report



Book Report E2-1 Ch 1.3

Due Oct 3, 11:59 PM



Book Report E2-1 Ch 1.2

Due Sep 20, 11:59 PM



Book Report E2-1 Ch 1.1

Due Sep 10

Posted Sep 4 (Edited Sep 14)

Book Report E2-1 Ch 1.1 Human population growth and use of natural resources . P.1 - P.7 .

0

Turned in

0

Assigned

22

Graded

You can videotape , record your voice , draw picture , write any words or any ways to report that you understand the content of Ch 1.1 .

Deadline 10 - Sep -2021



E2-1 Human impact on th...  
PDF

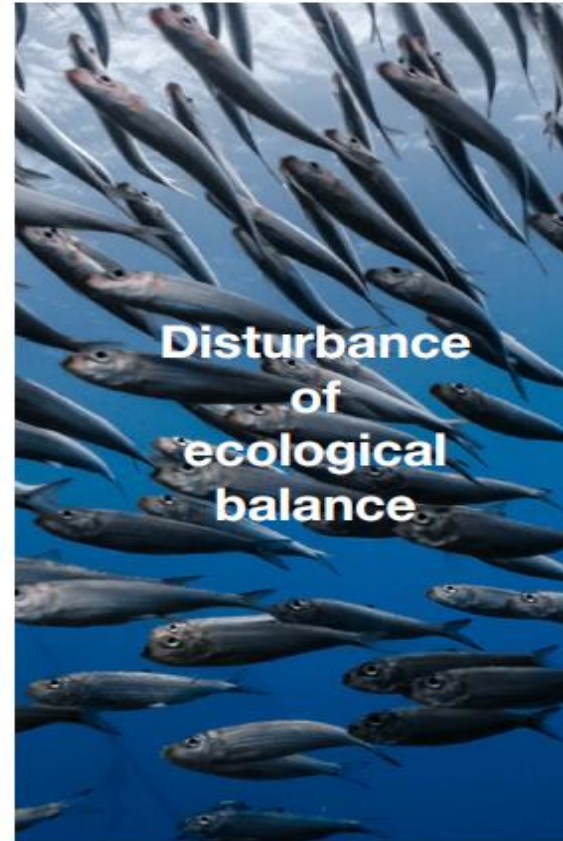
[View assignment](#)



# Human Impact On The Environment



## Report highlights



## Killing of non-target species

When harvesting fish by bottom trawling or drift net fishing, many non-target species are caught by accident. Examples of such bycatch\* include juvenile fish with no market value, sharks, dolphins, sea turtles and seabirds. Most of them are discarded dead into the sea. Using cyanide and dynamite in fishing also kill non-target species in the affected area, in addition to the target species.



## Depletion of fish stock

Overfishing occurs when fish are caught faster than the population can replace themselves through natural reproduction. According to the United Nations, of the world's fish stock,

- about 60% is fully exploited, i.e. being exploited up to the rate that the fish stock can recover;
- about 33% is overexploited, i.e. being exploited beyond the rate that the fish stock can recover.

Some scientists predict that by mid-21st century, all commercial fish and seafood species will collapse\* (having a 90% drop in the yield).



Ch1.2 Environmental impact of malpractices in fisheries

**A) Problems from capture fishery**

Destructive fishing methods are used in capture fishery to meet the heavy demand for fish.

- Cyanide fishing: Toxic chemical used to stun fish, making them easier to caught



- Dynamite fishing: Using explosives to kill fish which can be collect easily



- Bottom trawling: A trawl net is dragged along the seabed to catch fish



ft to move with water currents. Fish are held in the



Problem cause by capture fishing

- Destruction of marine habits  
Cyanide and dynamite fishing can kill coral which used to provide food and shelters for organisms away from their predators.
- Killing of non-target species  
When harvesting fish by bottom trawling or drift net fishing, many non-target species are caught by accident.
- Depletion of fish stock  
Overfishing occurs when fish are caught faster than the population can replace themselves through natural reproduction.
- Disturbance of ecological balance  
Overexploitation of fish resources cause
  1. large decline in the number of fish in the oceans threatens the food supply of their predators
  2. an increase in numbers of marine animals at lower trophic levels

**B) Problems from aquaculture**

Aquaculture can help reduce the burden of wild fisheries. However, it may bring undesirable impact on the environment when it is not well-managed:

- Turning coastal habitats into aquaculture farms destroys natural habitats and reduces biodiversity.
- Excess nutrients and chemicals used to raise the organisms, as well as waste produced by the organisms, will diffuse into the open water. These substances change the chemical composition of the water, affecting the organisms in the wild.
- Farmed organisms may escape to the wild. They can disturb the food chains in marine ecosystems. If the escaped farmed organisms cross-breed with the wild species, this will modify the population genetics of the wild stock.
- Parasites and diseases may spread from the farmed organisms to the wild species.



# 家課 (MC)

每課書後的MC



16.2

1

The diagram below shows the structure of a neurone.

Which of the following combinations of the structures of the neurone and their functions is *incorrect*?

Structure	Function
A W	controls the activities of the neurone
B X	transmits nerve impulses away from the cell body
C Y	insulates the nerve fibre
D Z	releases neurotransmitter

2

The electron micrographs below show the cross sections of nerve fibres X and Y.

i Name layer P. (1 mark)

ii State *two* functions of P. (2 marks)

iii Suggest how the speed of nerve impulse transmission may differ between nerve fibres X and Y. Explain briefly. (2 marks)

3 AL Bio 2009 I Q1

The following electron micrograph shows a synapse between two neurones A and B.

a Give a label for X in the box provided above. (1 mark)

b With reference to *one* observable feature shown in the electron micrograph, deduce the direction of signal transmission between the two neurones. (3 marks)

Level 2

4 DSE Bio 2012 1A Q4

Which of the following gives the correct direction of impulse transmission in a neurone?

A axon → cell body → dendrites  
 B dendrites → cell body → axon  
 C cell body → axon → dendrites  
 D dendrites → axon → cell body

5 DSE Bio 2017 1A Q29

The diagram below shows a motor neurone:

Which of the following statements correctly describes the motor neurone?

A X is connected to a muscle fibre.  
 B Electrical impulses are transmitted from X to Y.  
 C Synapses can be found at the end of X and Y.  
 D Electrical impulses are sent out from Y to the next neurone.



# 16 Coordination in humans



lived with MND for 55 years

about...

are rare and found in a few types of neurones in the brain. Why are the senses usually unaffected in people with MND? (Answers on p. 30)

## II Organisms and Environment

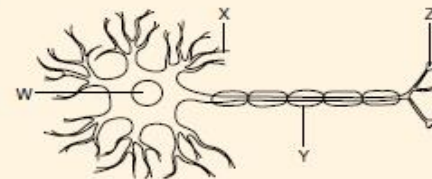
### Exercise

#### Section 16.2

#### Level 1

MC

1 The diagram below shows the structure of a neurone.

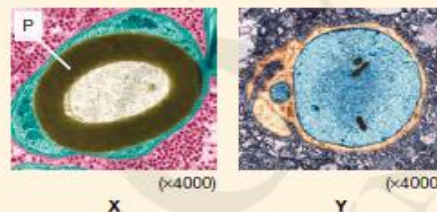


Which of the following combinations of the structures of the neurone and their functions is *incorrect*?

	Structure	Function
A	W	controls the activities of the neurone
B	X	transmits nerve impulses away from the cell body
C	Y	insulates the nerve fibre
D	Z	releases neurotransmitter

← p. 3, 4

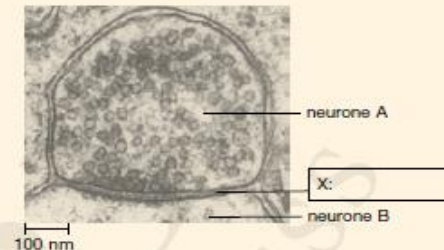
2 The electron micrographs below show the cross sections of nerve fibres X and Y.



- a i Name layer P. (1 mark)  
ii State **two** functions of P. (2 marks)
- b Suggest how the speed of nerve impulse transmission may differ between nerve fibres X and Y. Explain briefly. (2 marks)
- ← p. 4

3 AL Bio 2009 I Q1

The following electron micrograph shows the junction between two neurones A and B:



- a Give a label for X in the box provided above. (1 mark)
- b With reference to **one** observable feature shown in the electron micrograph, deduce the direction of signal transmission between the two neurones. (3 marks)
- ← p. 6

#### Level 2

MC

4 DSE Bio 2012 IA Q4

- 1 Which of the following gives the correct direction of impulse transmission in a neurone?
- A axon → cell body → dendrites  
B dendrites → cell body → axon  
C cell body → axon → dendrites  
D dendrites → axon → cell body
- ← p. 3

MC

5 DSE Bio 2017 IA Q29

The diagram below shows a motor neurone:



Which of the following statements correctly describes the motor neurone?

- A X is connected to a muscle fibre.  
B Electrical impulses are transmitted from Y to X.  
C Synapses can be found at the end of both X and Y.  
D Electrical impulses are sent out at Y to the next neurone.
- ← p. 3-6

[+ Create](#)[Google Calendar](#)[Class Drive folder](#)[All topics](#)[Homework : Book MC](#)[Book Report](#)[Material](#)

## Homework : Book MC



[MC] E1-2 Regulation of body temperature

Due Oct 21, 11:59 PM



[MC] E1-1 Regulation of water content

Due Oct 21, 11:59 PM



[MC] Cross-topic exercise 10 (Ch28-Ch30)

Due Oct 11, 11:59 PM



[MC] Ch28 Biodiversity

Due Oct 5, 11:59 PM



[MC] Ch29 Evolution I

Due Oct 1, 11:59 PM



[MC] Ch30 Evolution II

Due Sep 23, 11:59 PM



[MC] Ch27 Biotechnology

Due Sep 17



Return



22 points




Import Grades
















### [MC] Ch16 Coordination in humans

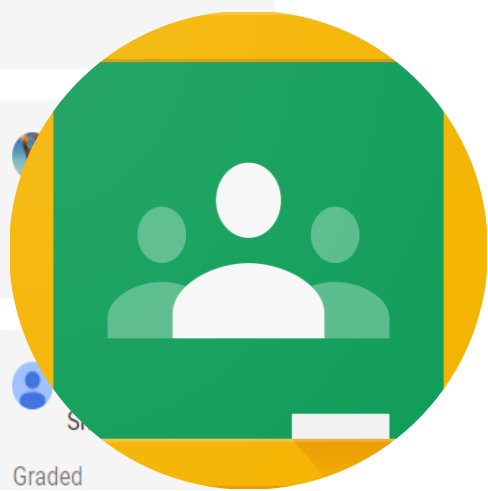
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0 Turned in | 0 Assigned | 22 Graded

 **[MC] Ch16 Coordination in humans**  
Google Forms

Graded








 5202 周浩龍 Chow Ho Lung Graded	 5211 林裕華 Lam Yu Wa Graded	 5301 陳紀程 Chan Kei Ching Graded	 5303 詹學賢 Chim Hok Yin Edison Graded	 5307 Khan Saeed Graded
 5308 高震洋 Ko Chun Yeung Graded	 5315 莫朗睿 Mok Long Yui Graded	 5318 岑律靈 Sum Lut Ting Graded	 5319 戴為 Tai Wai Graded	 [Redacted] Graded
 5324 黃嘉希 Wong Ka Hei Graded	 5327 胡君卓 Wu Kwan Cheuk Graded	 5404 陳彥廷 Chan Yin Ting Terry Graded	 5411 李卓熙 Lee Cheuk Hei Graded	 [Redacted] Graded



All students

Sort by status

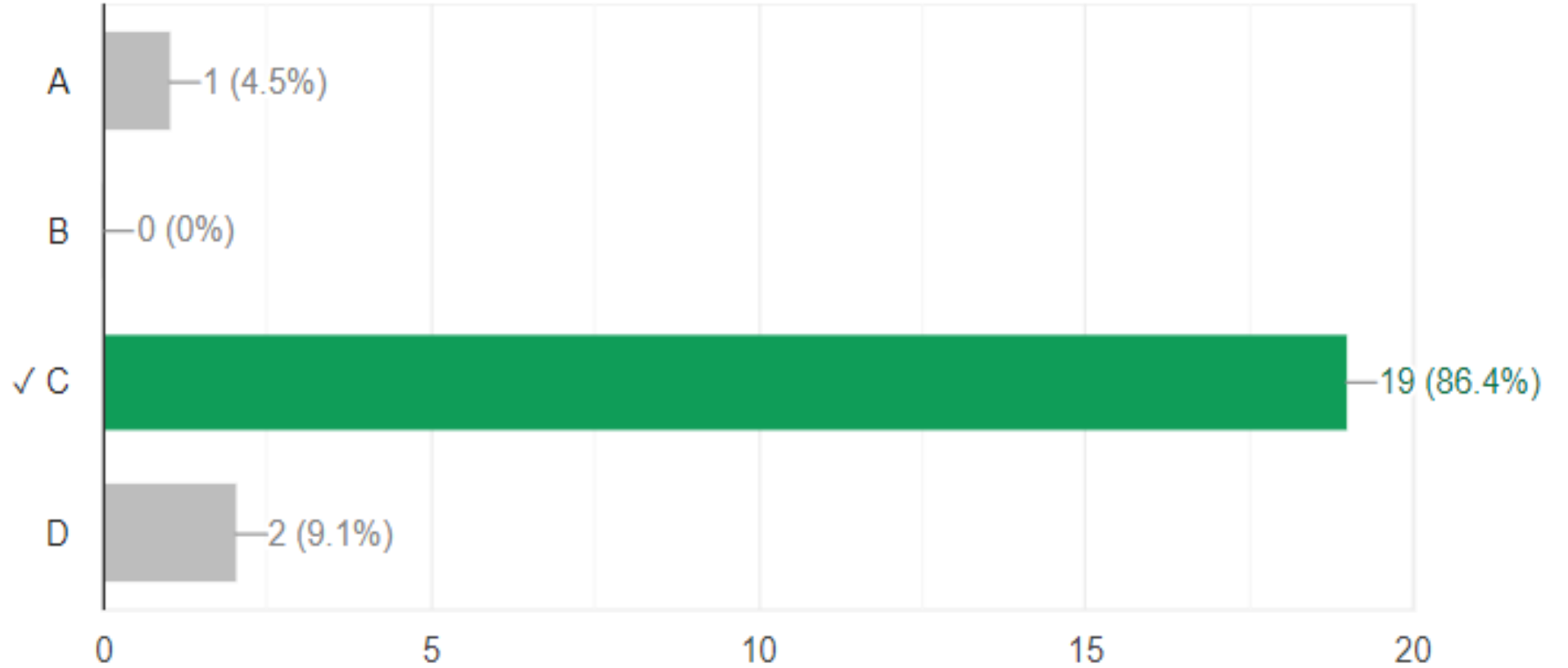
Graded

<input type="checkbox"/>		5202 周浩龍 Chow Ho Lung	22
<input type="checkbox"/>		5211 林裕華 Lam Yu Wa	20
<input type="checkbox"/>		5301 陳紀程 Chan Kei Ching	18
<input type="checkbox"/>		5303 詹學賢 Chim Hok Yin ...	22
<input type="checkbox"/>		5307 Khan Saeed	21
<input type="checkbox"/>		5308 高震洋 Ko Chun Yeung	20
<input type="checkbox"/>		[Redacted]	[Redacted]




P.32

19 / 22 correct responses



Row 3: 5





# 家課 (QOB)

DSE的MC



網上試題  
學習平台

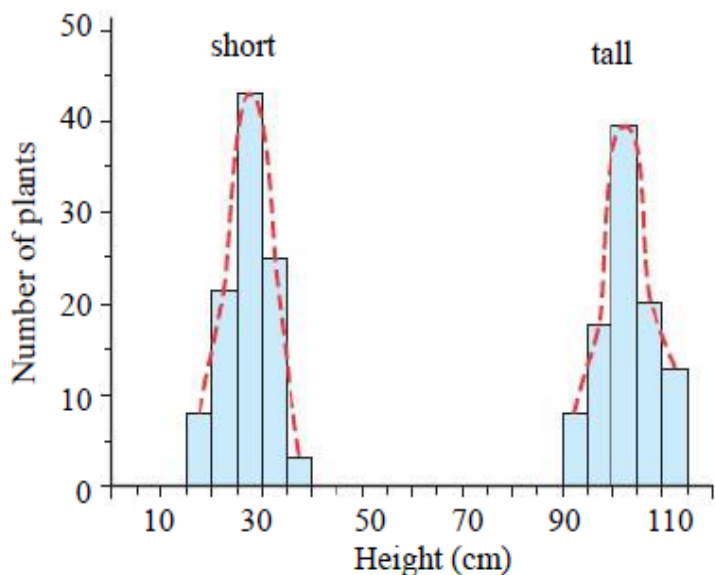
Online Question Bank



評估題號	學生答對率	考評局合格率	作者	試題套件	年份	題號	課題	程度	類型
28	47	57	考評局	考評局生物歷屆公開試試題 (會考及文憑試)	2020	34	遺傳與進化：基礎遺傳學；分子遺傳學	容易	選擇題
33	47	41	考評局	考評局生物歷屆公開試試題 (會考及文憑試)	2020	36	遺傳與進化：基礎遺傳學；分子遺傳學	普通	選擇題
3	52	43	考評局	考評局生物歷屆公開試試題 (會考及文憑試)	2020	33	遺傳與進化：基礎遺傳學；分子遺傳學	普通	選擇題
10	57	55	考評局	考評局生物歷屆公開試試題 (會考及文憑試)	2013	16	遺傳與進化：基礎遺傳學；分子遺傳學	普通	選擇題
17	57	63	考評局	考評局生物歷屆公開試試題 (會考及文憑試)	2018	28	遺傳與進化：基礎遺傳學；分子遺傳學	容易	選擇題
4	61	42	考評局	考評局生物歷屆公開試試題 (會考及文憑試)	2015	26	遺傳與進化：基礎遺傳學；分子遺傳學	容易	選擇題
6	61	32	考評局	考評局生物歷屆公開試試題 (會考及文憑試)	2013	18	遺傳與進化：基礎遺傳學；分子遺傳學	普通	選擇題
22	61	31	考評局	考評局生物歷屆公開試試題 (會考及文憑試)	2012	19	遺傳與進化：基礎遺傳學；分子遺傳學	普通	選擇題
23	61	31	考評局	考評局生物歷屆公開試試題 (會考及文憑試)	2014	11	遺傳與進化：基礎遺傳學；分子遺傳學	普通	選擇題
31	61	35	考評局	考評局生物歷屆公開試試題 (會考及文憑試)	2013	11	遺傳與進化：基礎遺傳學；分子遺傳學	普通	選擇題



**Directions:** The following graph shows the variations in the height of a certain type of plant



Which of the following factors contributes *least* to the variations shown?

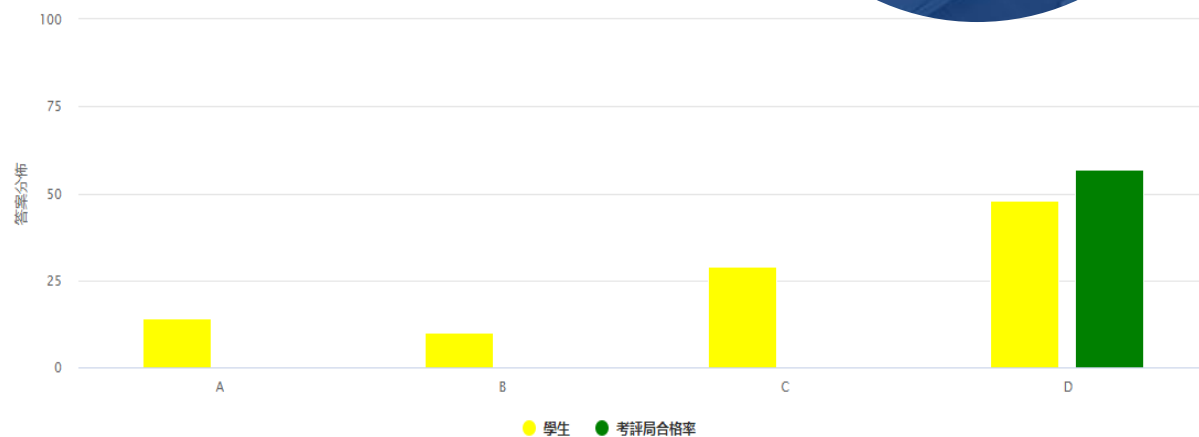
- A  the height of the parental plants
- B  the light intensity in the environment
- C  the independent assortment of chromosomes
- D  the oxygen concentration in the environment

**解題**

The question assessed candidates' understanding of the variations. Options A and C are genetic factors which contribute the least to the variations shown in the graph. The normal distribution curve is dependent on genetic factors. The normal distribution curve is the influence of environmental factors. Of the two environmental factors, the oxygen concentration had a lesser effect on the growth of the plants.

網上試題  
學習平台  
Online Question Bank

答案分佈



班級	班號	學生姓名	排名	總分(%)	選擇
S6D	15	馬啟諺	1	100	D
S6D	21	蘇偉傑	2	97.1	D
S6D	17	伍頌賢	3	97.1	D
S6C	8	林諾賢	4	91.2	D
S6D	27	甄泓量	5	91.2	A
S6D	7	郭少豪	6	88.2	B
S6D	31	阮嘉俊	7	85.3	D
S6D	20	彭嘉濤	8	85.3	D
S6D	12	羅子軒	9	79.4	D
S6D	8	林偉利	10	79.4	D
S6D	4	鍾曉峯	11	76.5	C
S6D	29	楊煒楠	12	73.5	C
S6D	6	高譽軒	13	70.6	D



# 電子評估

- 閱讀報告 (E2生態學課本+課外書)
- 家課(每課書後的MC)
- 家課(QOB, DSE的MC)



# 中四

Date	Contents	Marks	Signature
	Ch.3 Question 19ai	3/3	
16/9	Ch.3 Question 17	3/3	
17/9	Ch.3 Question 17 Q	3/3	
21/9	Ch.3 Question 18bii ⊕	2/4	
24/9	Ch.3 Question 23bi	3/3	
28/9	Ch.3 Question 16a ⊕	4/4	
30/9	Ch.3 Question 6a	4/4	
1/10	Ch.3 Question 23bii Q	1/3	
18/10	Cross Topic Ex. 1 CQ	1/2, 1/4	
20/10	Cross Topic Ex		

10次

# 中五

Date	Contents	Marks	Signature
6/9/2021	CF Bio 2010 1 & 2b	2/2	
15/9/2021	Ph 14 Q20 ⊕	6/10	
17/9/2021	Ch 14 Q15a ii	Q 3/3	
23/9/2021	Ch 15 Q12b	4/4	
29/9/2021	Ch 14 Q9	Q 4/4	
5/10/2021	Ch 15 Q8a ii	Q 4/5	
12/10/2021	Ch 16 Q22 ⊕	1/2 ✓	
14/10/2021	Ch 16 Q17b	CQ 2/4	
18/10/2021	Ch 15 Q13a	CQ 1/3	
21/10/2021	Ch 15 Q30		
21/10/2021	Ch 16 Q13a		

11次

# 中六

Date	Contents	Marks	Signature
1/8	Q13b Q127	4/4 ✓	
31/8	Differt QS Q1 Q127 Q	1/3 ✓	
2/9	E8 Ch1 Q60	3/4	
4/9	E4 Ch2 Q7b	1/4	
8/9	E4 Ch1 Q1	Q 4/5	
10/9	Ch27 Q12c CQ	2/4	
13/9	E4 Ch2 Q13b ii	3/3	
14/9	E4 Ch2 Q12	Q 1/8	
20/9	Q10 Q1	3/4	
27/9	Ch28 Q12	4/4	
1/10	Q12 Q14	3/6	
1/10	Q12 Q16	Q 1/2	
1/10	Q12 Q16	1/5	
1/10	Q12 Q16	CQ 4/5, 3/6	

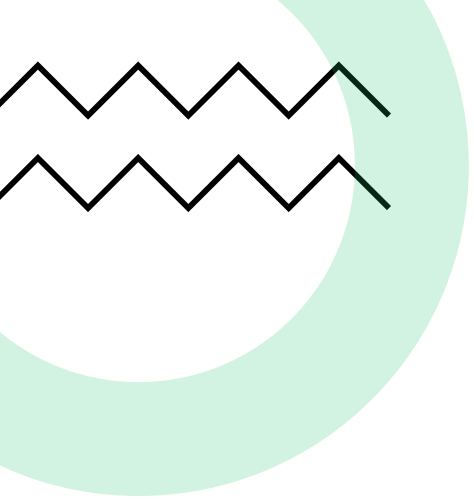
15次

9月1日 – 10月21日



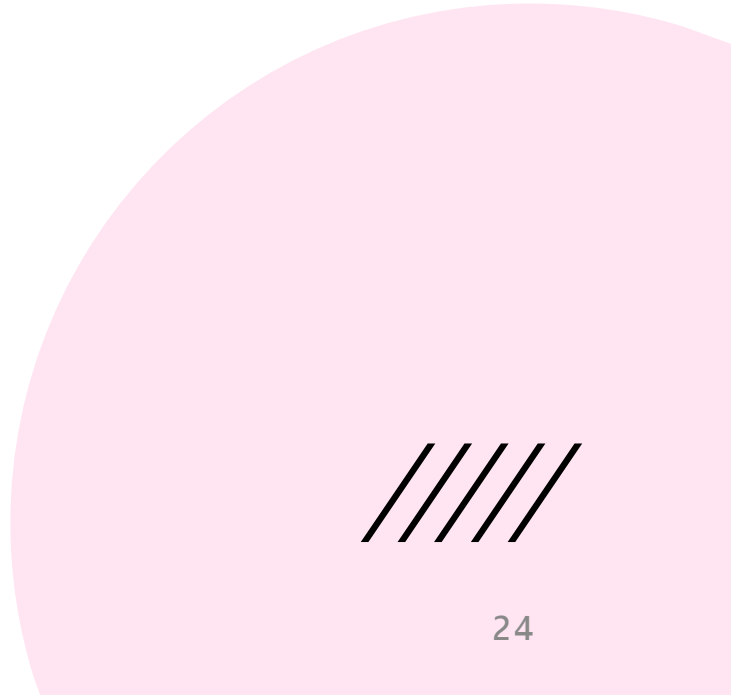
共51日

	中四	中五	中六
	19	19	30
單元小測 跨單元小測	2 4	3 4	4 5
家課 (長題目)	5	4	8
家課 (多項選擇題) OQB	2 (共32題)	2 (共34題)	3 (共49題)
家課 (多項選擇題) Google Classroom	3 (所有課後MC)	3 (所有課後MC)	7 (所有課後MC)
閱讀報告：課外書籍+E2生態學書籍	3	3	3
實驗 (口頭匯報) STEM設計	5 0	5 0	5 0

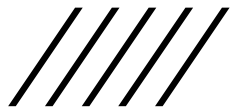
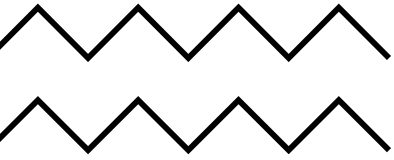


# 電子評估

簡單、量少、密集







# 感謝您

周志聰  
聖若瑟英文中學

助理副校長

生物科主任

ccc@sjacs.edu.hk