



**A SENSE OF
ACHIEVEMENT**

成就感

給自己一盞燈

3N 張芷茵

有人說，人生就像走一條寬大無邊的路，路途好比遼寧濱海公路、短的可以幾步就走完，作為普普通通的人類，我們從來都不會知道屬於自己的路是長、是短、是暢通無阻，還是凹凸凸凸的佈滿了小石。因此，我們可能會因為看不清前路而跌倒，那何不給自己點一盞燈，讓它帶領我們安全地走過這條人生路呢？

我給自己點了一盞油燈，它是用希望、謹慎、自信和勤奮作為燃料的。只要有了這四種燃料，我的燈必定可以發光發亮，為我照清前路的危機，引領我有毅力走完我的人生路。

世界上有一種燃料叫「希望」，定可以令油燈發出最明亮的光。當你在路上走得累了、睏了，這種光的出現一定會令你眼前一亮、精神抖擻，它是支持你去完成路程的最大動力。

我那油燈的第二種燃料叫「謹慎」，它可以確保你的安全。當你在路途上遇上岔路，它會助你衡量各種利與弊，繼而選出正確的路；它亦會助你看清路上的凹凸和小石，令你不失足、不跌倒。

我那油燈的第三種燃料叫「自信」，它會讓你昂步向前。「自信」是成功的其中一個重要因素，只要你在油燈裡加入它，你將會在路途上接受無數的歡呼和掌聲，它一定會讓你十分享受整個路程的！

世界上有一種燃料叫「勤奮」，它是油燈裡不可缺少的燃料，因為只有加了它，那油燈才會造出你的影子，負責在你後面督促你不要懶惰，趕你繼續行程。

我生命中的燈是用這四種燃料來點燃的，你的燈又是怎樣的呢？無論你用任何的燃料，只希望你肯給自己點一盞燈，去照亮屬於你的路，讓你的燈一天比一天的光、一天比一天的亮，創造一天比一天美好的明天吧！

黃明珠老師評語：

我們的生活是多采多姿的，特別是年輕人的生活，因為青春能將無數平淡如水的事情都看成新奇趣怪的。只要我們願意為自己「加油」，只要我們能多多堅持、抱着毅力，人生的路就會更易走。芷茵的文章結構嚴謹、行文簡潔流暢，而且主題清晰，像是在提醒讀者要好好管理自己的「燈」，要好好為自己「加油」。

一步，一步，又一步

4N 陳凱翹

古代的讀書人，凡有雄心壯志，想進朝入宮有所作為者，都必須先經十年寒窗苦讀，千錘百鍊。他們持之以恆，堅持這十年的非人生活，深信百鍊終能成鋼，總有一天自己能脫穎而出，攀上人皆羨慕的高峰。

孟子也說過：「有能者，譬如掘井，掘井九仞，而不及泉，猶為棄井也。」此話假不了。

每個人做任何事都總希望能夠成功，不過困難總是擋在成功的前頭，老在高呼要考驗挑戰者。故此，若不想失敗，人便必須擁有一種明確的、堅定不移的心志——恆心。

先哲有云：「不經一番寒徹骨，怎得梅花撲鼻香？」很美的一句話，箇中所蘊含的道理有很多。古今中外，無一位偉大人物不是憑着恆心「白手興家」，他們的成就都在告訴我們——事情的成敗絕對取決於做事者的恆心。

春秋期間，越國君主勾踐臥薪嚐膽，十年來不斷提昇國力，終於擊敗吳國復國。若勾踐沒有恆心，中途放棄，恐怕這段歷史將要改寫！試想想，若甘地沒有堅定的恆心，沒有不怕困難的精神，最終怎能促使印度脫離英國的殖民統治而獨立呢？如國父孫中山沒有恆心，又怎可以成功推翻滿清統治，建立民國政府呢？

毛澤東先生曾說：「貴有恆，何必三更起五更眠；最無益，只怕一日曝十寒。只要有「恆心」，又豈用怕時間威迫呢？你們更可以控制時間呢！最怕的，莫過於被時間「反咬一口」，受制於它。

回顧今天的香港，這道理也一樣。香港「風之后」李麗珊自小接受訓練，經歷無數失敗、挫折，每天訓練多個小時，當中的艱苦實不足為外人道。若她一遇失敗便放棄，一面對險阻便退縮，一遇辛苦便卻步，怎有今日驕人的成就呢？恐怕我們現在還在等待奧運金牌的零的突破。

又例如香港首富李嘉誠先生，他在數十年前還只是一個寂寂無名的工人，後來因不甘於現狀，奮發圖強，繼而成為一間塑膠花廠的東主。但天意弄人，後來他生意失敗。他亦曾想過放棄事業，甚至自己，但就憑他那恆心、耐力戰勝一場又一場事業上的戰爭，終於成了人們心目中家財億萬、成就輝煌的「超人」。

無庸置疑，邁向成功的過程必然舉步維艱，然而只要懷着堅定的恆心，不怕險阻，勇敢地踏出每一步，成功的光環自然會降臨你身上。

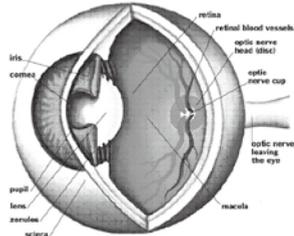
黃明珠老師評語：

凱翹的文章滿是哲理，能以不同的事例、語例帶出主題：只要我們能夠堅持，只要我們有恆心，多困難的事也能做到。是的，人生一定會充滿大大小小的挑戰，如果不放膽向前走，我們只能原地踏步，甚至往後退。這樣，我們何來成長呢？

A thousand-mile eye

3J Vincent Tse

Our eye is a fascinating organ. Although we can detect everything around us, we can only see so much and everything else is a blur. Therefore I have always wanted to look even further. I wish I had one of those thousand-mile eyes that I see on television.



Watching miles away

A thousand-mile eye as the name suggests can see objects a thousand mile away. Normally, we would be able to see objects far away by making lenses less convex, but there would still be a limit to the distance of sight. What if our eyes had two lenses and two pairs of strong ciliary muscles? Then wouldn't we be able to see distant objects like looking through a pair of binoculars! However, if we had two pairs of lenses, it would be difficult for light to reach our retina as some of the rays of light will be reflected. This makes it hard for our photoreceptors (light-sensitive cells) on our retina to detect and form sharp images. In order to support the two lenses, we would need more light-sensitive cone cells and rod cells.

Differentiating colours in the dark

One limitation for rod cells is that they can only form black and white images in dim light conditions; while cone cells can have colour vision only when stimulated by a stronger light intensity. By merging the two photoreceptors together, sensing colours would be possible even in dim light conditions. Miners would be safer and police officers could catch criminals easily

anytime. The dim-lighted haunted houses would be scarier with colours. There would be no need for street lamps, neon signs nor night lights, the moon light would be all we need.

Upgrading to broadband transmission of nerve impulses from 56K

If we had a pair of thousand-mile eyes, then our optic nerves must also be advanced. Our optic nerves transmit nerve impulses (signals) to our brain and let us 'see'. If we had more optic nerves, then the signals would be transmitted more efficiently. With improved transmission efficiency, we could see moving trains and formula 1 racing cars in slow motion or at any speed we desire. Maybe we could even rewind and trace back what we saw earlier.

What would life be with the thousand-mile eyes?

At first, we would find having thousand-mile eyes more convenient and interesting. However, after a short while would find out that nothing will be exciting as we would be able to see everything coming our way. There will be no privacy and surprises in our lives. Even worse, teachers would know if we really did our homework ourselves! Would you still want humans to have the thousand-mile eyes now?

Feedback from Mr. Wong Koon Kei:

Having a pair of thousand-mile eyes can be beneficial but that it does have some disadvantages as Vincent has mentioned. Human beings certainly have limited abilities but what is fascinating is that we have more potential in our abilities than we know.

Secret of Encryption

4J Lau Sin Pang

When we talk about security, many people may think of locks, codes and passwords. Not many people may think of cipher and encryption. Encryption is the process of translating plain text into cipher text. For example, 'PLAIN TEXT' can be encrypted into 'SODLQ YHAY'.

The encryption above is the additive cipher. An additive cipher is a method of shifting letters along. From the above example, all the letters are shifted by three places. The table below explains how this is done.

Plain Text	A	B	C	D	E	F	G	H	I	J	K	L	M
Cipher Text	D	E	F	G	H	I	J	K	L	M	N	O	P
Plain Text	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Cipher Text	Q	R	S	T	U	V	W	X	Y	Z	A	B	C

The letter 'P' is encrypted into 'S' and 'T' is encrypted into 'Y'. If we need to decrypt the text, do we need to draw the table every time? Actually, the table is just a tool for us to analyze the encryption used, and it will be useless for some complicated encryption.

So, what should we do? We could use a formula to represent the encryption. For example, the formula of the encryption mentioned above is:

$$C = (P + 3) \bmod 26$$

where C is cipher text, P is plain text, and **mod** is modulo arithmetic (i.e. the answer of $x \bmod y$ is the remainder of $x \div y$).

Before we use the formula, we have to translate the letters like this:

Letters	A	B	C	D	E	F	G	H	I	J	K	L	M
Numbers	1	2	3	4	5	6	7	8	9	10	11	12	13
Letters	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Numbers	14	15	16	17	18	19	20	21	22	23	24	25	26

Assume 1 represents 'A', 2 represents 'B' and so on, you can substitute the plain text you wish to encrypt into the formula to get the cipher text. Here, I use 'P' as an example:

$$C = (P + 3) \bmod 26$$

$$C = (16 + 3) \bmod 26$$

$$C = 19 \bmod 26$$

$$C = 19$$

That's why 'P' will be encrypted as 'S', and this is the basic cryptography.

Now, let's try to answer the following questions:

1. Encrypt the message 'CRYPTOGRAPHY' by shifting 12 letters forward.
2. Given that the message was encrypted by shifting 7 letters forward, decrypt the message 'TLZZHNL KLJYFWALK'.

But are there any other methods for encryption? Now I will introduce the encryption method using matrix multiplication.

Matrix is an array of numbers, like $\begin{pmatrix} a & b \\ c & d \end{pmatrix}$ and $\begin{pmatrix} e \\ f \end{pmatrix}$ etc. and

they multiply in a different way, for example:

$$\begin{pmatrix} a & b \\ c & d \end{pmatrix} \times \begin{pmatrix} e & f \\ g & h \end{pmatrix} \text{ means } \begin{pmatrix} a & b \\ c & d \end{pmatrix} \begin{pmatrix} e & f \\ g & h \\ a \times e + b \times g & a \times f + b \times h \\ c \times e + d \times g & c \times f + d \times h \end{pmatrix}$$

But how does this method encrypt a message? For example, you are going to use the matrix $A \begin{pmatrix} 2 & 4 \\ 6 & 8 \end{pmatrix}$ to encrypt the message 'MATRICES'.

First, you should translate the message into numbers as mentioned. After the translation, 'MATRICES' becomes 13, 1, 20, 18, 9, 3, 5 and 19. Then, you can group the numbers together according to your need.

In this example, I grouped them two by two like this $\begin{pmatrix} 13 \\ 1 \end{pmatrix} \begin{pmatrix} 20 \\ 18 \end{pmatrix} \begin{pmatrix} 9 \\ 3 \end{pmatrix} \begin{pmatrix} 5 \\ 19 \end{pmatrix}$

Next, you can multiply them using the matrix A:

$$\begin{pmatrix} 2 & 4 \\ 6 & 8 \end{pmatrix} \begin{pmatrix} 13 \\ 1 \end{pmatrix} \quad \begin{pmatrix} 2 & 4 \\ 6 & 8 \end{pmatrix} \begin{pmatrix} 20 \\ 18 \end{pmatrix}$$

$$\begin{pmatrix} 2 \times 13 + 4 \times 1 \\ 6 \times 13 + 8 \times 1 \end{pmatrix} \quad \begin{pmatrix} 2 \times 20 + 4 \times 18 \\ 6 \times 20 + 8 \times 18 \end{pmatrix}$$

$$\begin{pmatrix} 2 & 4 \\ 6 & 8 \end{pmatrix} \begin{pmatrix} 9 \\ 3 \end{pmatrix} \quad \begin{pmatrix} 2 & 4 \\ 6 & 8 \end{pmatrix} \begin{pmatrix} 5 \\ 19 \end{pmatrix}$$

$$\begin{pmatrix} 2 \times 9 + 4 \times 3 \\ 6 \times 9 + 8 \times 3 \end{pmatrix} \quad \begin{pmatrix} 2 \times 5 + 4 \times 19 \\ 6 \times 5 + 8 \times 19 \end{pmatrix}$$

Now you will get the encrypted matrices $\begin{pmatrix} 30 \\ 86 \end{pmatrix} \begin{pmatrix} 112 \\ 264 \end{pmatrix} \begin{pmatrix} 30 \\ 78 \end{pmatrix} \begin{pmatrix} 86 \\ 182 \end{pmatrix}$.

Finally, arrange them back properly like this: 30, 86, 112, 264, 30, 78, 86, 182. So the message becomes 'DHHDDZHZ'. This is how the message is encrypted by using matrices.

There are many types of encryption ranging from simple methods used in daily security systems to complex encryptions used in computers that are irreversible without the key. The world of cryptography is fun if you enjoy the time cracking the code and decipher the message.

Have you done the questions? These are the answers.

Q1 : 'ODKBFASDMBTK'

Q2 : 'MESSAGE DECRYPTED'

Feedback from Mr. Ip Wing Chung:

Nowadays, computer communication is an essential element for information exchange. However, it is extremely insecure if the information is transferred through the cables or wireless media. Therefore, encryption becomes vital for a secure data transfer. Even though encryption is necessary in the information age, it is found that very few youngsters would like to talk about the concept of encryption as it is too complex and can be boring. I appreciate Lau Sin Pang for having such an interest and he used clear and simple examples to illustrate the idea of encryption.

A Competition Fact

4J Wong Hok Yan

Competitions are everywhere,
There is nowhere people don't compare.
It is undoubtedly a strong fact,
People compare this and that.

Parents always make you feel tired,
As they always tell you what to desire.
'You need to be the best of your bunch,
Or you'll never have your lunch!'

Competitors, of course, is a factor,
You always feel stressed because of the predators.
A challenge comes one by one,
But no rescue team will always come.

Now, ladies and gentlemen,
You watch the competitors' commencement.
You only need to watch and that's all,
If you think too much, you will fall.

What do you think of what you have read?
Do you feel amazed or think you are mad?
Ladies and gentlemen, believe it or not,
This is the fact of this whole lot.

Feedback from 4S Fatima Zahra Arshad:

Competitions can be exciting and stressful at the same time. But, what would life be without competitions? Life will be dull and uncreative. Competitions are there to challenge us and push us to strive for success.

Don't Kill the Earth!

4J Wong Hok Yan

Science relates to almost everything around us. Lifts let us reach higher levels, planes and trains facilitate global exchanges and electricity brightens the world at night. Moreover, researches and inventions contribute to the advancement of technologies which have made a great improvement to the benefit of all human beings.

However, have you ever wondered what life would be like without science?

Without science, communication and global exchange would become very difficult. We would not be able to chat with our friends on the phone, nor watch various programmes on television. We would not be able to travel to different countries conveniently. We would have great difficulty having access to the globe and exchange knowledge.

Without science, the standard of living would decrease dramatically. There would be no refrigerators to keep our food fresh. There would be no fans and air-conditioners to keep us cool in summer, nor heaters to keep us warm in winter. No bulbs would brighten the world at night.

Without science, the problems around the world become worse. With no computers, everything would become inefficient. People would take much more time to finish their tasks. Without the technological advancement of farming, more people in the world would starve. People would become ill or even die easily as there would be a lack of knowledge that would teach us how to cure new viruses or diseases.

But it is also true that, without science, some problems around the world would not have occurred. For example, atomic bombs would not have been created to destroy Hiroshima and Nagasaki. Wars might have caused fewer casualties. Some extinct animals might have still been alive today....

Indeed science has brought many benefits to our lives but we should learn not to rely too much on it and abuse the knowledge that science has given us. Together, we can live in a wonderful world if we learn to appreciate science and use the knowledge we gain wisely.



Feedback from Ms. Hung Chiu Lan:

It's definitely unquestionable that science and technology enhance our living standard. But what does it mean by "enhancement"? When the internet connects people around the globe, we say technology improves communication. On the other hand, when we get used to spending long hours browsing Facebook or using I-phone, we may feel uneasy. It seems that science and technology has reshaped or even controlled our mode of life. What do you think? Is it an enhancement?

Is Technology a Hindrance?

5M Chan Chung Ho

In this information age, advanced technology has become a handy assistant for most of us. People may claim that it's a hindrance for students. Unquestionably, technology is affecting us in both good and bad ways but students can indubitably get benefits from it.

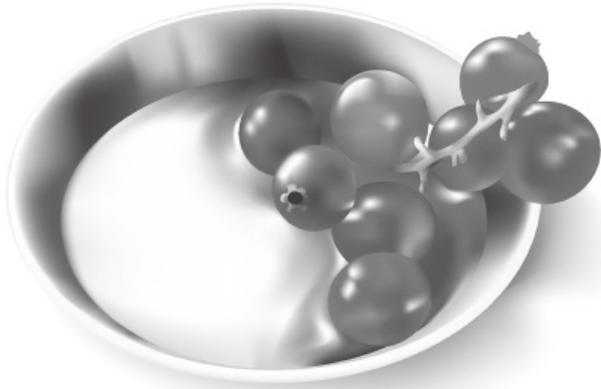
To begin with, using technology properly can make communication easier with a click of a mouse. When surfing the internet, varied communication platforms can be found easily, for instance, discussion forums, Xanga, Facebook, etc. Students can seek help and ask for advice. Ultimately, the certain issues can be solved and new knowledge can be acquired which enhance the efficiency of learning.

Additionally, students can also amuse themselves while being immersed in a repetitious routine of a school day. Technology can help us relax with a variety of gadgets such as Ipod, computer games, television, etc. If they spend a suitable amount of time on these exquisite contraptions, their stress can be relieved easily.

On the contrary, when students indulge in technology, they will inevitably become unsociable since a forum may just fit their needs and human interaction will be lessened. As time goes by, their speaking and social skills may even be diminished. These directly affect their entire life when they grow up.

Besides, entertainment will always fill up our time when students lose their control over it. The time may just vanish as they cannot get rid of the excitement from the gadgets. Finally, the time will not be enough for them to study. As a consequence, their academic results may seriously worsen which is utterly worthless.

In brief, if students know how to make good use of technology and manage their time, technology will be undoubtedly beneficial to them since it makes communication easier for learning and releases our stress which outweighs the side-effects.



Feedback from Ms. Tang Sheung Yin:

Technology has brought lots of convenience to our lives and has changed our ways of communication. Roy Chan has explained it in two sides to show its pros and cons.

Make a Difference!

6V Leung Hoi Laam

The New Senior Secondary (NSS) Curriculum was implemented in Hong Kong in 2009. One of the differences between the new and the old systems is the Other Learning Experiences (OLE). It is one of the most important and essential components of the NSS Curriculum.

OLE is used to develop students' social responsibility and interest in studying. It also helps them to adapt to the real world. There are five areas in OLE, namely moral and civic education, community service, career-related experience, aesthetic development and physical development. After the OLE was implemented for a period of time, we found that students did not show a great interest in practising social services.

The above phenomenon is not surprising since most of the students did not know what social service is and what the relationship between social service and their studies is. Therefore, I would like to take this opportunity to tell you that serving the community is one of our social responsibilities. It can help us learn and make a difference in our lives.

There are lots of people who need help. They include the elderly, the underprivileged, new immigrants, etc. Although we cannot provide financial support to them, we can join more voluntary services to help them and make them feel loved and cared for.



There are many kinds of voluntary work we can do. For example, we can help the elderly who live alone with their household chores. We can organize games and activities for the newly-arrived children. We can also visit old people and talk with them. Such voluntary work is very meaningful and beneficial to us.

First, you will feel happy when you can help people and you will feel lucky to have a chance to help people, too. When you are helping people, you will realize how lucky you are. When you finish the voluntary work, we will feel grateful looking at the smiles of the elderly and the children.

Secondly, we can develop good communication skills. During the services, you need to talk with others such as, chat with the elderly and play with young kids. This skill can help us in the future as it is one of the important skills in working or studying with others.

Thirdly, we can learn develop our leadership skills. Sometimes, some voluntary work requires us to organize activities and lots of positions will be offered such as the supervisor, labour manager, material manager, etc. When we play different roles, we gain various skills and build confidence in ourselves. The experience can make our lives more colourful and meaningful.

Last but not the least, we can develop friendship. During the service, we can meet many people – older or younger than us. Our social network would not only be in our school, but also around the world. We can work with different people and widen our horizon. This can help us grow and become a more mature person.

In conclusion, social service is a very meaningful experience. It can show our love and develop our skills. We can find happiness, meet new friends, learn how to communicate with others and become a leader. I have already participated in many different kinds of social services and it has changed me and taught me a lot. Do you want your life to be different and meaningful? If so, join more voluntary work. You will be able to make a difference.

Feedback from Mr. Tang Ho Man:

It's always better to give than to receive. We are blessed with everything we have in life. With the Hong Kong hustling and bustling lifestyle, city people often have a tendency to forget about the less fortunate minority in the society. By actively participating in local charities or social services, we can bring some hope and love to those poor souls of our community. I agree with Leung Hoi Laam that when we put our hearts out to help those needed, we often gain something more valuable in return. I would strongly encourage other students of our school to follow our senior students' footsteps and join in this rewarding road trip.