2019/2020 Reading to Learn
English Articles for Senior Forms
Contents

* **Form teachers please remind the whole class:**

1. to read English articles on the last Thursday of Morning Reading Period every month -
   - 26 September 2019
   - 31 October 2019
   - 28 November 2019
   - 19 December 2019
   - 16 January 2020
   - 27 February 2020
   - 26 March 2020
   - 23 April 2020
   - 28 May 2020

2. to finish related questions after reading
3. to write down the reading record in the Student Handbook

2019-2020 Reading to Learn

1

Form	Junior	
	Senior	✓

Put a tick ☑ in the appropriate box（can be more than one）

Learning Area / Subject：English

Title：Student Opinion: Video gaming can be good for our minds

Related Core Values：

Truth [✓] Justice [ ] Love [ ] Life [✓] Family [ ]

Reading across the Curriculum (RaC) : Aims		**(✓)**
a	To arouse interest in studying a particular subject	✓
b	To provide more background information of a particular topic	✓
c	To enrich world knowledge	✓
d	To develop deeper level of appreciation towards art work	
e	To relate school learning with daily life experience	✓
f	To develop deeper understanding and appreciation towards Chinese Culture and its core values as well as universal core values	
g	To strengthen positive values and their daily application to analyse personal and social issues	✓

Student Opinion: Video gaming can be good for our minds

Video games aren't all bad. In fact, 11-year-old Cheney Wu argues that they can even be good for managing stress, increasing heart rate and making friends. Photo by: Getty Images

By, Cheney Wu, student contributor, adapted by Newsela staff

This opinion article by Cheney Wu was submitted to Newsela in response to an article titled "Student Opinion: Video games are rotting kids' brains" by Margaret Buckler that was published August 16, 2018.

Video Games Are Not Rotting Our Brains

Your article, "Student Opinion: Video games are rotting kids' brains," says that video games harm our minds. I think some parts of the article do not make sense.

I agree that too much video gaming is not a good thing. It leaves you with no time for your schoolwork. But what is wrong with 30 minutes to one hour of playing? I think playing video games can be helpful.

They Help Improve Eyesight, Reflexes

Playing games can help you learn. Some gamers are better at focusing on 3-D objects than non-gamers. Gaming can also lead to an improvement in math and other subjects.

Video games also improve eyesight. For example, in shooter games, you focus on a target and shoot. This improves your reflexes. It is an exercise for your eyes. Eyesight gets worse when we reach a certain age, but video games may improve it.

Many video games are very social. You talk to friends while you play. We make a huge amount of friends on them. If you are the only one who does not play video games in your school, then you do not know what's happening. You will feel left out. Video games allow you to have a shared interest with many people at school.

They Can Also Help With Learning

Video gaming may help to improve decision-making. When you play, your brain and hands need to work together. You need to think and then apply what you are thinking to your game. Over time, your hand and head work together without even thinking. This helps you make decisions quickly.

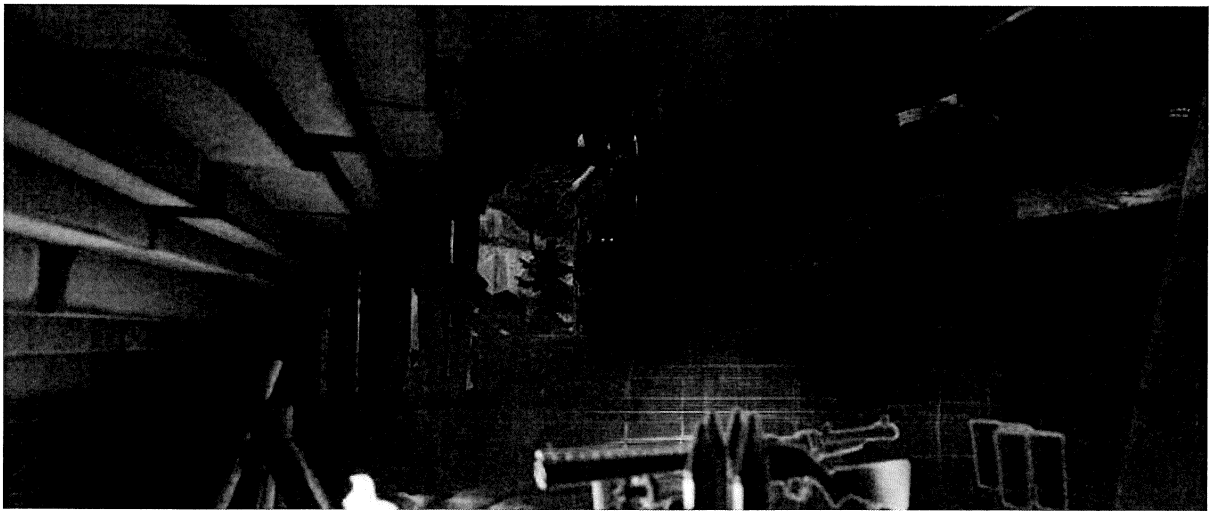


Image 2. A screengrab from the popular video game "Fortnite." Photo by: Anthony S/Pexels

You said in your article that learning is more important than gaming. I think video games improve focus and attention. You can focus more when a person is talking. People can get your attention faster. This is because video games have fast motion in them. It trains your mind to think quickly and focus so you won't make mistakes. It helps you stay focused in other areas of your life, like when a teacher is talking.

Active Gaming Can Be A Form Of Exercise

The American Academy of Pediatrics is a group of doctors who help children. They studied people who play active games. In these games, you move your body around. The doctors also studied people who walk on a treadmill. A treadmill is an exercise machine. They found that active gamers are as healthy as people who walk fast on the treadmill every day. This shows that active video games can be good for you.

Playing video games helps you learn from your mistakes faster. When you are playing video games, you often make mistakes. The mistakes stay in your head. You work hard not to make them again. You can apply those skills to your life and quickly learn from your mistakes in the real world.

There Are Many Upsides To Gaming

Finally, playing video games helps some people relax. Video games can help you calm down.

Video games have many upsides. Parents should take their time and study the information. Instead, they often just say, "Too many video games, kids." It is important to look at the many good parts of playing video games.

Cheney Wu is 11 years old and lives in Vancouver, Canada. He enjoys swimming and playing with friends. He likes reading and writing his own stories and comics. He codes and plays video games.

Reflection:

1. Do you agree with the statement that "the advantages of playing video games outweigh its disadvantages".
2. What should you do to benefit most from playing video games?

2019-2020 Reading to Learn 2

Form	Junior	✓
	Senior	✓

Put a tick ☑ in the appropriate box (can be more than one)

Learning Area / Subject : Mathematics

Title : Chinese Mathematics

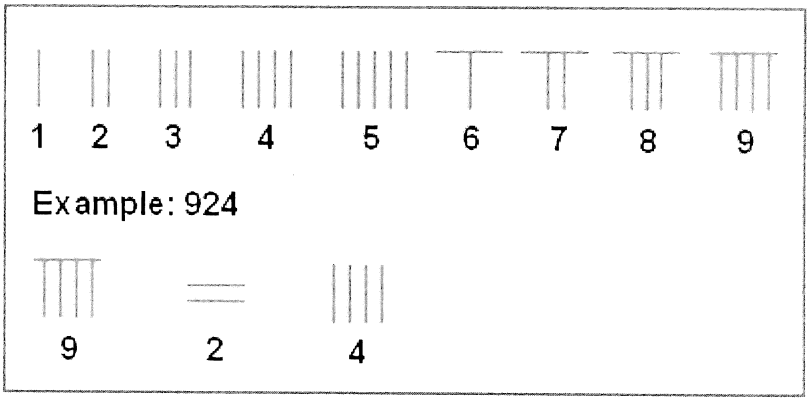
Related Core Values :

Truth [✓] Justice [ ] Love [ ] Life [ ] Family [ ]

Reading across the Curriculum (RaC) : Aims		(✓)
a	To arouse interest in studying a particular subject	✓
b	To provide more background information of a particular topic	✓
c	To enrich world knowledge	✓
d	To develop deeper level of appreciation towards art work	
e	To relate school learning with daily life experience	
f	To develop deeper understanding and appreciation towards Chinese Culture and its core values as well as universal core values	✓
g	To strengthen positive values and their daily application to analyse personal and social issues	✓

CHINESE MATHEMATICS

Even as mathematical developments in the ancient Greek world were beginning to falter during the final centuries BCE, the burgeoning trade empire of China was leading Chinese mathematics to ever greater heights.



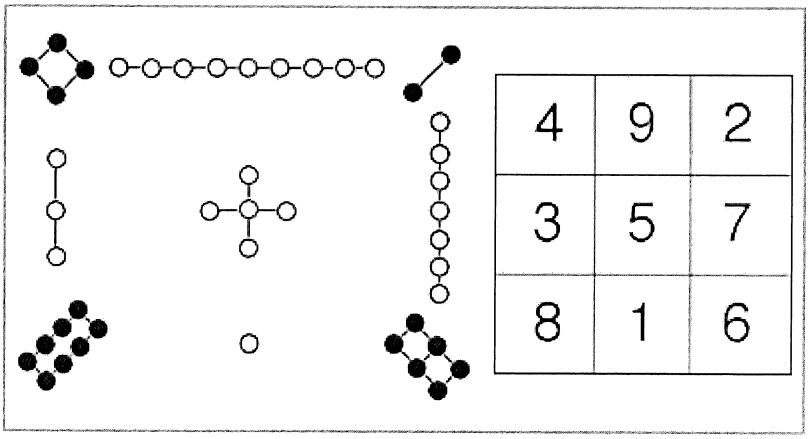
Ancient Chinese number system

The simple but efficient ancient Chinese numbering system, which dates back to at least the 2nd millennium BCE, used small bamboo rods arranged to represent the numbers 1 to 9, which were then places in columns representing units, tens, hundreds, thousands, etc. It was therefore a decimal place value system, very similar to the one we use today - indeed it was the first such number system, adopted by the Chinese over a thousand years before it was adopted in the West - and it made even quite complex calculations very quick and easy.

Written numbers, however, employed the slightly less efficient system of using a different symbol for tens, hundreds, thousands, etc. This was largely because there was no concept or symbol of zero, and it had the effect of limiting the usefulness of the written number in Chinese.

The use of the abacus is often thought of as a Chinese idea, although some type of abacus was in use in Mesopotamia, Egypt and Greece, probably much earlier than in China.

There was a pervasive fascination with numbers and mathematical patterns in ancient China, and different numbers were believed to have cosmic significance. In particular, magic squares - squares of numbers where each row, column and diagonal added up to the same total - were regarded as having great spiritual and religious significance.



4	9	2
3	5	7
8	1	6

Lo Shu magic square, with its traditional graphical representation

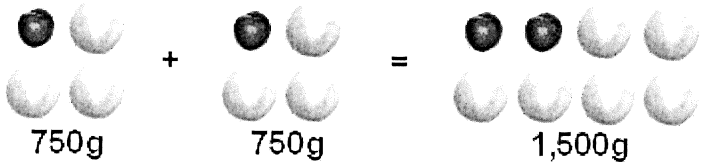
The Lo Shu Square, an order three square where each row, column and diagonal adds up to 15, is perhaps the earliest of these, dating back to around 650 BCE (the legend of Emperor Yu discovery of the the square on the back of a turtle is set as taking place in about 2800 BCE). But soon, bigger magic squares were being constructed, with even greater magical and mathematical powers, culminating in the elaborate magic squares, circles and triangles of Yang Hui in the 13th Century (Yang Hui also produced a trianglular representation of binomial coefficients identical to the later Pascals Triangle, and was perhaps the first to use decimal fractions in the modern form).

But the main thrust of Chinese mathematics developed in response to the empire growing need for mathematically competent administrators. A textbook called Nine Chapters on the Mathematical Art (written over a period of time from about 200 BCE onwards, probably by a variety of authors) became an important tool in the education of such a civil service, covering hundreds of problems in practical areas such as trade, taxation, engineering and the payment of wages.

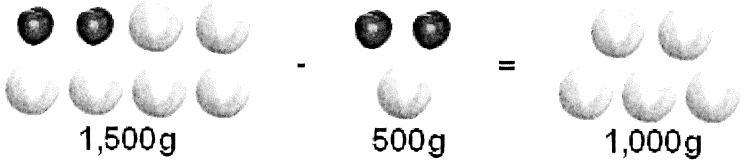
It was particularly important as a guide to how to solve equations - the deduction of an unknown number from other known information - using a sophisticated matrix-based method which did not appear in the West until Carl Friedrich Gauss re-discovered it at the beginning of the 19th Century (and which is now known as Gaussian elimination).

Problem:
If one plum and three peaches weigh a total of 750g, and two plums and one peach weigh a total of 500g, how much does a single peach and plum weigh?

First, double the contents of the first scale:



Subtract from this the contents of the second set of scales:



Therefore, a single peach must weigh 200g (1,000 ÷ 5).
Then, take the peach off the second scale:

Therefore, a single plum must weigh 150g (300 ÷ 2)

Early Chinese method of solving equations

Among the greatest mathematicians of ancient China was Liu Hui, who produced a detailed commentary on the Nine Chapters in 263 CE, was one of the first mathematicians known to leave roots unevaluated, giving more exact results instead of approximations. By an approximation using a regular polygon with 192 sides, he also formulated an algorithm which calculated the value of π as 3.14159 (correct to five decimal places), as well as developing a very early forms of both integral and differential calculus.

Question :

1. **Name a Chinese mathematician. What was his contribution in mathematics ?**

2. **Solve the problem of plum and peaches using your mathematics learnt.**

2019-2020 Reading to Learn 3

Form	Junior	
	Senior	✓

Put a tick ☑ in the appropriate box（can be more than one）

Learning Area / Subject：LS

Title：Working holiday deal for young signed with Italy

Related Core Values：

Truth	✓	Justice		Love	✓	Life	✓	Family	

Reading across the Curriculum (RaC) : Aims		(✓)
a	To arouse interest in studying a particular subject	✓
b	To provide more background information of a particular topic	✓
c	To enrich world knowledge	✓
d	To develop deeper level of appreciation towards art work	
e	To relate school learning with daily life experience	✓
f	To develop deeper understanding and appreciation towards Chinese Culture and its core values as well as universal core values	
g	To strengthen positive values and their daily application to analyse personal and social issues	✓

Young people from Hong Kong and Italy will have a new option for their working holiday after both governments signed an agreement on Friday.

The bilateral working holiday scheme agreement with Italy would allow young people aged between 18 and 30 to apply for a visa which would allow them to stay for up to 12 months.

During their stay, they could work or study short-term courses. The annual quota from each side for the scheme would be 500.

The agreement was signed by Secretary for Labour and Welfare Law Chi-kwong and Italy's undersecretary of state in the foreign ministry Manlio Di Stefano at Hong Kong's government headquarters in Admiralty.

Law said the scheme, which was similar to arrangements Hong Kong had with 13 other countries, was well received.

"The agreement will enable young people in Hong Kong and Italy to broaden their horizons and gain experience in a foreign culture, as well as further reinforce our bilateral ties," Law said. Di Stefano said: "We are glad to provide the Italian youth with this new and unique opportunity to experience living, studying and working in Hong Kong. We hope young people from Hong Kong will take advantage of the scheme to enjoy Italy as well."

Since 2001, Hong Kong has established similar arrangements with New Zealand, Australia, Ireland, Germany, Japan, Canada, South Korea, France, Britain, Austria, Hungary, Sweden and the Netherlands. About 90,000 Hongkongers have joined the scheme.

Details of visa application procedures for applicants from Hong Kong will be available on the website of the Italy's consulate general links.
https://www.scmp.com/print/news/hong-kong/education/article/3017484/hong-kong-and-italy-sign-agreement-allow-young-people

Danny Mok
Source: South China Morning Post

Question:

1. What can teenagers do during their working holiday?
2. 'The Working Holiday Scheme is beneficial to the personal growth of teenagers' To what extent do you agree with this view?

2019-2020 Reading to Learn

Put a tick ☑ in the appropriate box (can be more than one)

4

Form	Junior	
	Senior	✓

Learning Area / Subject : Physics

Related Core Values :

Title : The core of truth behind Sir Isaac Newton's apple

Truth		Justice		Love		Life	✓	Family	

Reading across the Curriculum (RaC) : Aims		(✓)
a	To arouse interest in studying a particular subject	✓
b	To provide more background information of a particular topic	✓
c	To enrich world knowledge	
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g	To strengthen positive values and their daily application to analyse personal and social issues	✓

The core of truth behind Sir Isaac Newton's apple

It is one of the most famous anecdotes in the history of science. The young Isaac Newton is sitting in his garden when an apple falls on his head and, in a stroke of brilliant insight, he suddenly comes up with his theory of gravity. The story is almost certainly embellished, both by Newton and the generations of storytellers who came after him. But from today anyone with access to the internet can see for themselves the first-hand account of how a falling apple inspired the understanding of gravitational force.

The Royal Society in London is making available in digital form the key original manuscript that describes how Newton devised his theory of gravity after witnessing an apple falling from a tree in his mother's garden in Lincolnshire, although there is no evidence to suggest that it hit him on the head.

It was 1666, and the plague had closed many public buildings and meetings. Newton had to abandon Cambridge for Woolsthorpe Manor, near Grantham in Lincolnshire, the modest house where he was born, to contemplate the stellar problems he had been pursuing at the university.

He was particularly obsessed by the orbit of the Moon around the Earth, and eventually reasoned that the influence of gravity must extend over vast distances. After seeing how apples always fall straight to the ground, he spent several years working on the mathematics showing that the force of gravity decreased as the inverse square of the distance.

But what evidence is there that Newton was really inspired by a falling apple? He left no written account suggesting this, although there were other documents suggesting that he had spoken to others about it when he was an old man.

Historians point to the one particular account written by one of Newton's younger contemporaries, an antiquarian and proto-archaeologist called William Stukeley, who also wrote the first biography of Britain's greatest scientist, entitled Memoirs of Sir Isaac Newton's Life.

Stukeley was also born in Lincolnshire, and used this connection to befriend the notoriously cantankerous Newton. Stukeley spent some time in conversation with the older man, and the pair met regularly as fellows of the Royal Society, and talked together. On one particular occasion in 1726, Stukeley and Newton spent the evening dining in London.

"After dinner, the weather being warm, we went into the garden & drank thea under the shade of some apple tree; only he & myself," Stukeley wrote in the meticulously handwritten manuscript released by the Royal Society.

"Amid other discourse, he told me, he was just in the same situation, as when formerly the notion of gravitation came into his mind. Why should that apple always descend perpendicularly to the ground, thought he to himself; occasion'd by the fall of an apple, as he sat in contemplative mood.

"Why should it not go sideways, or upwards? But constantly to the Earth's centre? Assuredly the reason is, that the Earth draws it. There must be a drawing power in matter. And the sum of the drawing power in the matter of the Earth must be in the Earth's centre, not in any side of the Earth.

"Therefore does this apple fall perpendicularly or towards the centre? If matter thus draws matter; it must be proportion of its quantity. Therefore the apple draws the Earth, as well as the Earth draws the apple."

This is the most detailed account of the apple anecdote, but it is not the only one from Newton's day. He had also used it to entertain John Conduitt, the husband of Newton's niece and his assistant at the Royal Mint, which Newton had run in his later years. Conduitt wrote: "In the year 1666 he retired again from Cambridge to his mother in Lincolnshire. Whilst he was pensively meandering in a garden it came into his thought that the power of gravity (which brought an apple from a tree to the ground) was not limited to a certain distance from Earth, but that this power must extend much further than was usually thought.

"Why not as high as the Moon said he to himself & if so, that must influence her motion & perhaps retain her orbit, whereupon he fell a calculating what would be the effect of that supposition."

Both accounts of the apple incident were recalled by Newton some 50 years later. Did it really happen, or was it a story that Newton embellished or even invented?

"Newton cleverly honed this anecdote over time," said Keith Moore, head of archives at the Royal Society. "The story was certainly true, but let's say it got better with the telling." The story of the apple fitted with the idea of an Earth-shaped object being attracted to the Earth. It also had a resonance with the Biblical account of the tree of knowledge, and Newton was known to have extreme religious views, Mr Moore said.

At Woolsthorpe Manor, now owned by the National Trust, the house steward, Margaret Winn, said that the same apple tree, a cooking variety known as Flower of Kent, still grows to the front of the house, in sight of Newton's bedroom window.

"He did tell the story as an old man but you do wonder whether it really happened," said Ms Winn, who has cooked with the apples. But even if the tale was the fanciful imaginings of an old man, the story of the falling apple has gone down in history as the second-greatest "eureka moment" in science, after Archimedes discovered how to work out the volume of objects while he was in the bath.

Reflective question:

1. Do you think that the apple incident really happened, or was it a story that Newton embellished or even invented?

2. The story of the apple had a resonance with the Biblical account of the tree of knowledge. Do you think religious was influential to idea from Newton?

3. But even if the tale was a fanciful imagining, the story of the falling apple has gone down in history. Do you think that the tale became fascinating to the world irrespective to the truth?

2019-2020 Reading to Learn 5

Form	Junior	
	Senior	✓

Put a tick ☑ in the appropriate box（can be more than one）

Learning Area / Subject：Chemistry

Title： Tiny bits of iron may explain why some icebergs are green.

Related Core Values：

Truth	✓	Justice		Love		Life	✓	Family	

Reading across the Curriculum (RaC) : Aims		(✓)
a	To arouse interest in studying a particular subject	✓
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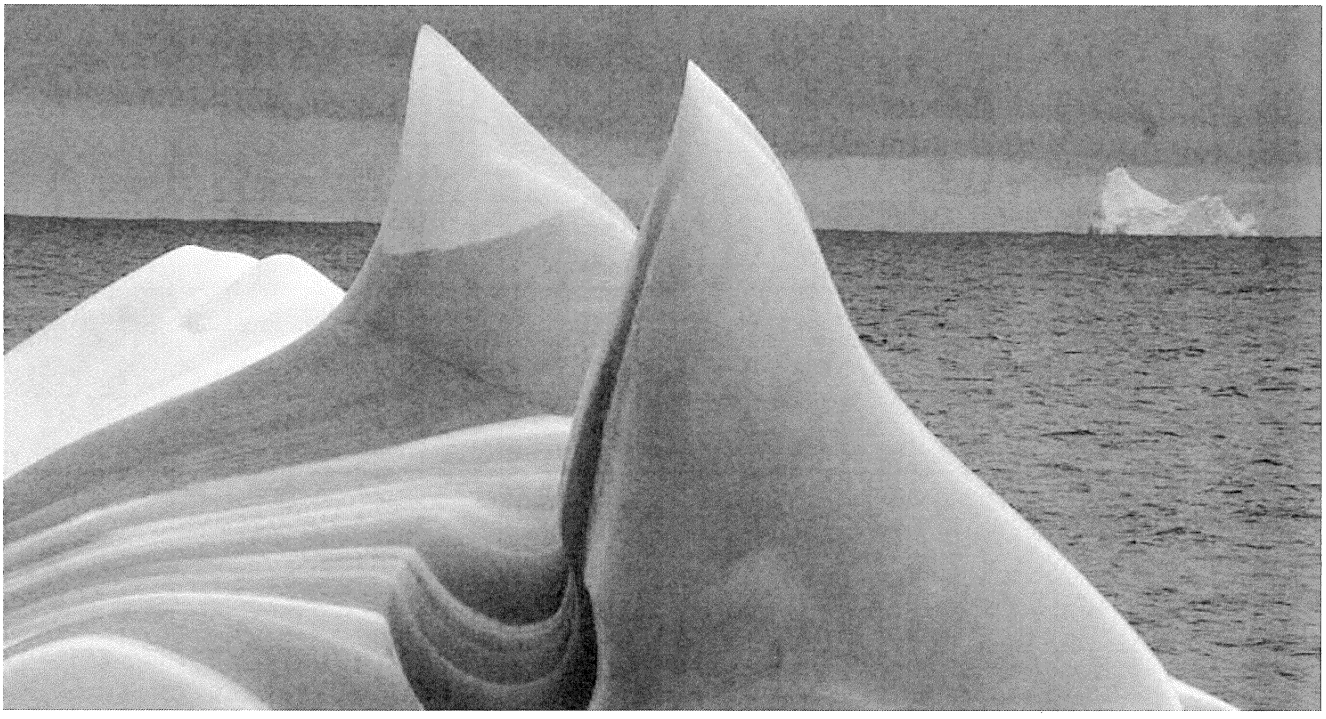
g	To strengthen positive values and their daily application to analyse personal and social issues	✓

Source: https://www.sciencenews.org/article/green-icebergs-antarctica-iron

By Jeremy Rehm MARCH 6, 2019 AT 12:00 PM



GREEN SCENE Maybe only 30 out of 1,000 icebergs have a green hue, earning them the nickname "jade bergs." Now scientists may know why the ice has this unusual color.
STEVE NICOL

Scientists may have finally figured out why some icebergs are green. Iron oxides could create the emerald hue.

Icebergs often appear mostly white because light bounces off air bubbles trapped inside the ice. But pure ice — ice without air bubbles that often forms on a berg's underside — appears blue because it absorbs longer light wavelengths (warm colors like red and orange) and reflects shorter ones (the cooler colors).

Since the 1930s, though, mysterious capsized icebergs with green undersides, nicknamed "jade bergs," have been spotted around Antarctica.

In the early 1990s, glaciologist Stephen Warren of the University of Washington in Seattle and his colleagues proposed that the green came from microscopic carbon particles from dead organisms. When integrated into ice, these yellow carbon particles would absorb blue light leaving green to be reflected. Later experiments, though, found that the amount of carbon in green icebergs was too low to create the emerald hue.

"So we were left with this disturbing result," Warren says.

Then in 2016, researchers discovered iron oxides in a decades-old preserved green ice sample taken from the Amery ice shelf in Antarctica. Iron oxides such as rust reflect reds and oranges but absorb blue light. If these particles, possibly picked up from rocks crushed by the weight and friction of glaciers flowing toward the ocean, get incorporated into ice forming underwater, the result would be a vibrant green, Warren and his colleagues report online February 7 in the *Journal of Geophysical Research: Oceans*.

Warren hopes to return to Antarctica to collect samples to see if jade bergs are rich in iron. If so, that could both solve a mystery and suggest a previously unknown role for this unusual ice: ferrying a scarce but essential nutrient to the microscopic plankton that the entire ocean food web relies on.

"I don't know how important [green icebergs] are," Warren says. "I guess we'll find out."

Question:

1. What is the chemical that makes the icebergs green?

2. Why the carbon particles can't make the icebergs green?

2019-2020 Reading to Learn

6

Form	Junior	
	Senior	✓

Put a tick ☑ in the appropriate box（can be more than one）

Learning Area / Subject：Biology

Title： Explainer: How heat kills

Related Core Values：

Truth [✓] Justice [ ] Love [ ] Life [✓] Family [ ]

Reading across the Curriculum (RaC) : Aims		(✓)
a	To arouse interest in studying a particular subject	✓
b	To provide more background information of a particular topic	✓
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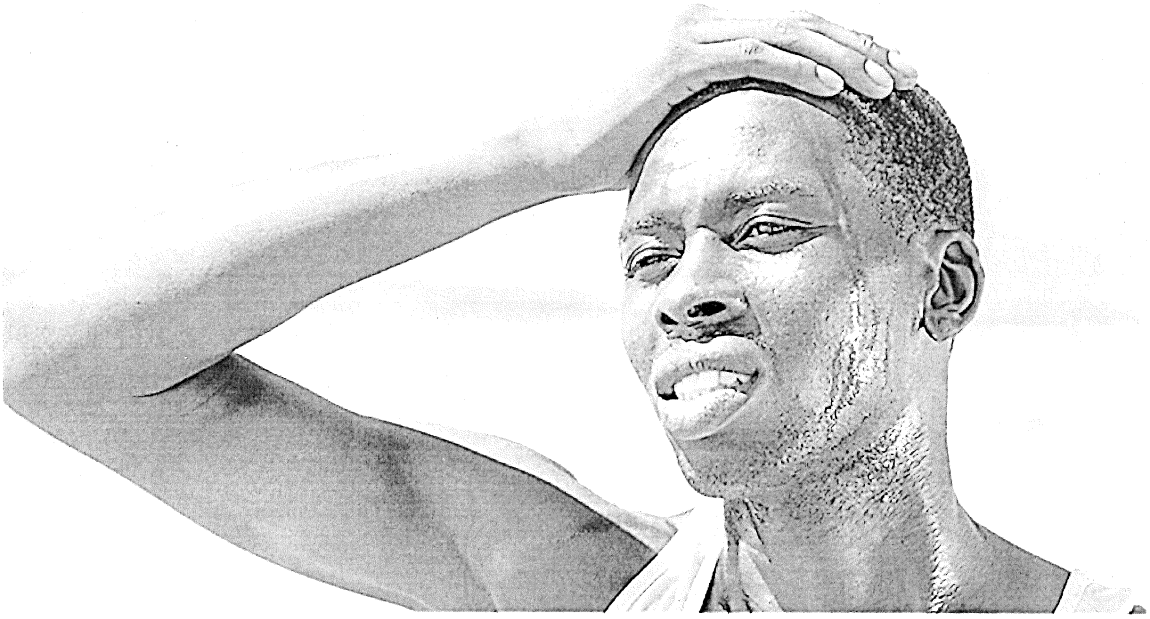
Explainer: How heat kills

By: AIMEE CUNNINGHAM



The human body can't handle excessive heat. The processes that keep us alive work best within a certain temperature window. That's generally between about 36° and 37° Celsius (96.8° to 98.6° Fahrenheit), depending on the person.

If someone's core body temperature goes higher, "the body's primary response to heat is to try and get rid of it," explains Jonathan Samet. He's the dean of the Colorado School of Public Health in Aurora. To get rid of excess heat, blood vessels in the skin dilate, or expand. At the same time, the heart begins beating faster. That pushes blood flow to the skin. There, the blood can release heat to cool down. Meanwhile, sweating kicks in to cool the skin.

When people experience high temperatures again and again, their bodies can get better at shedding excess heat. That's why someone can move from cold Minnesota to steamy Florida and get used to the higher heat and humidity.

But there is a limit to how much the body can adjust. That limit depends on an individual's health, as well as the temperature and humidity outside. If the outside temps are hotter than the body, blood at the skin won't release heat. And where humidity is high, sweating won't cool the skin. That's because the sweat can't evaporate. In 2008, two scientists suggested that humans can't cool off well if they spend extended time at a wet-bulb temperature over 35° C, or 95° F. (Wet-bulb temperatures are measurements that combine heat, humidity and other factors.)

If the body has to keep dealing with heat without a break, it gets worn out. People can experience heat exhaustion, which causes weakness, dizziness and nausea. If a person still doesn't cool off, heat stroke may occur. This signals that the body's ability to regulate heat has broken down. This can allow core body temperature to climb as high as 40° C (104° F). Heat stroke can trigger seizures, convulsions or a coma. Without treatment, death may follow.

No one is immune to heat. But it hits some groups harder than others. The elderly are considered the most vulnerable. One reason: They have fewer sweat glands. But their bodies also respond more slowly to rising temperatures. Children, too, are at risk because they haven't fully developed the ability to regulate heat. And pregnant women can struggle because of the demands that the fetus puts on the body.

People with chronic diseases such as diabetes, heart disease and obesity also can have trouble cooling their bodies. And people living in poverty often lack air conditioning and other resources to help them beat the heat.

Many people see heat as more of an annoyance than a threat. But climate change, extreme heat and human health are all connected. As Earth's temperatures climb, extreme heat waves will probably become more common, endangering more people.

Power Words

blood vessel A tubular structure that carries blood through the tissues and organs.

heat exhaustion An illness that can result from prolonged heat exposure. Symptoms include extreme sweating, fast breathing and a weak pulse. Without treatment, heat exhaustion can turn into heat stroke.

heat stroke A dangerous illness that can result from prolonged heat exposure. Symptoms tend to include dry skin and a fast heartbeat. Sufferers also may feel dizzy, nauseated and confused. Heat stroke can be fatal.

humidity A measure of the amount of water vapor in the atmosphere. (Air with a lot of water vapor in it is known as humid.)

immune (v.) Able to ward off a particular infection. Alternatively, this term can be used to mean an organism shows no impacts from exposure to a particular poison, environmental condition or process.

nausea A condition that leaves someone feeling to one's stomach, as though one could vomit.

nauseated The term for feeling as if one might soon vomit.

obesity (adj. obese) Extreme overweight. Obesity is associated with a wide range of health problems, including type 2 diabetes and high blood pressure.

primary An adjective meaning major, first or most important.

Questions:

1. State one way that our body get rid of heat.

2019-2020 Reading to Learn

7

Form	Junior	
	Senior	✓

Put a tick ☑ in the appropriate box（can be more than one）

Learning Area / Subject：Science

Title： Scientists Say: Mineral

Related Core Values：

Truth [✓] Justice [ ] Love [ ] Life [✓] Family [ ]

Reading across the Curriculum (RaC) : Aims		(✓)
a	To arouse interest in studying a particular subject	✓
b	To provide more background information of a particular topic	✓
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These are solid elements or compounds that form a crystal structure and occur naturally in the Earth

Mineral (noun, "MIN-er-all")

Minerals are elements or compounds with a crystal structure, such as diamonds or table salt. They occur naturally in the Earth. Minerals are solid at room temperature.

Minerals can be made of just one element. A bar of gold, for example, is made of many atoms of the element gold. But minerals can also be chemical compounds. This means they are made two or more elements. Quartz is one example. This mineral is made from one silicon atom and two oxygen atoms. The atoms that make up a mineral form a repeating, three-dimensional pattern — a crystal. People encounter these crystals whenever they pick up a piece of quartz, for example. Or when they put salt on their food.

Most rocks are made of minerals, often several types of minerals smashed together. But not all rocks. Coal, for example, is a rock. But it's not a mineral. It's not made up of identical repeating chemicals and the repeating crystal structure of a mineral can't form.

In a sentence

Scientists can measure radioactive elements in minerals to find out how much time has passed since that mineral formed.

Kew words:

atom The basic unit of a chemical element. Atoms are made up of a dense nucleus that contains positively charged protons and uncharged neutrons. The nucleus is orbited by a cloud of negatively charged electrons.

compound (often used as a synonym for chemical) A compound is a substance formed when two or more chemical elements unite (bond) in fixed proportions. For example, water is a compound made of two hydrogen atoms bonded to one oxygen atom. Its chemical symbol is H2O.

crystal (adj. crystalline) A solid consisting of a symmetrical, ordered, three-dimensional arrangement of atoms or molecules. It's the organized structure taken by most minerals. Apatite, for example, forms six-sided crystals. The mineral crystals that make up rock are usually too small to be seen with the unaided eye.

element A building block of some larger structure. (in chemistry) Each of more than one hundred substances for which the smallest unit of each is a single atom. Examples include hydrogen, oxygen, carbon, lithium and uranium.

mineral Crystal-forming substances that make up rock, such as quartz, apatite or various carbonates. Most rocks contain several different minerals mish-mashed together. A mineral usually is solid and stable at room temperatures and has a specific formula, or recipe (with atoms occurring in certain proportions) and a specific crystalline structure (meaning that its atoms are organized in regular three-dimensional patterns). (in physiology) The same chemicals that are needed by the body to make and feed tissues to maintain health.

quartz A type of mineral made from silicon dioxide. The most common mineral on Earth, it can occur in any rock type: igneous, metamorphic or sedimentary.

radioactive An adjective that describes unstable elements, such as certain forms (isotopes) of uranium and plutonium. Such elements are said to be unstable because their nucleus sheds energy that is carried away by photons and/or and often one or more subatomic particles. This emission of energy is by a process known as radioactive decay.

salt A compound made by combining an acid with a base (in a reaction that also creates water). The ocean contains many different salts — collectively called "sea salt." Common table salt is a made of sodium and chlorine.

silicon A nonmetal, semiconducting element used in making electronic circuits. Pure silicon exists in a shiny, dark-gray crystalline form and as a shapeless powder.

Question:

1. Are minerals an important material in the world?
2. How can we conserve minerals in our daily lives?

2019-2020 Reading to Learn

Put a tick ☑ in the appropriate box (can be more than one)

8

Form	Junior	
	Senior	✓

Learning Area / Subject : Computer

Title : What is Big Data?

Related Core Values :

Truth [ ] Justice [✓] Love [ ] Life [✓] Family [ ]

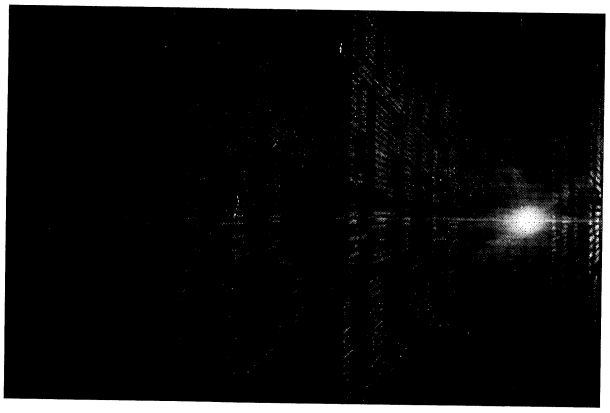
Reading across the Curriculum (RaC) : Aims		(✓)
a	To arouse interest in studying a particular subject	✓
b	To provide more background information of a particular topic	✓
c	To enrich world knowledge	✓
d	To develop deeper level of appreciation towards art work	
e	To relate school learning with daily life experience	✓
f	To develop deeper understanding and appreciation towards Chinese Culture and its core values as well as universal core values	
g	To strengthen positive values and their daily application to analyse personal and social issues	✓

Source of information: https://www.bernardmarr.com/default.asp?contentID=766

What is Big Data?

bernardmarr.com

The term "Big Data" may have been around for some time now, but there is still quite a lot of confusion about what it actually means. In truth, the concept is continually evolving and being reconsidered, as it remains the driving force behind many ongoing waves of digital transformation, including artificial intelligence, data science and the Internet of Things. But what exactly is Big Data and how is it changing our world?



The astonishing growth of Big Data

It all starts with the explosion in the amount of data we have generated since the dawn of the digital age. This is largely due to the rise of computers, the Internet and technology capable of capturing data from the world we live in. Data in itself isn't a new invention. Going back even before computers and databases, we had paper transaction records, customer records and archive files – all of which are data. Computers, and

- Predicting and responding to natural and man-made disasters – Sensor data can be analysed to predict where earthquakes are likely to strike next, and patterns of human behaviour give clues that help organisations give relief to survivors. Big Data technology is also used to monitor and safeguard the flow of refugees away from war zones around the world.
- Preventing crime – Police forces are increasingly adopting data-driven strategies based on their own intelligence and public data sets in order to deploy resources more efficiently and act as a deterrent where one is needed.

Big Data concerns

Big Data gives us unprecedented insights and opportunities, but it also raises concerns and questions that must be addressed:

- Data privacy – The Big Data we now generate contains a lot of information about our personal lives, much of which we have a right to keep private. Increasingly, we are asked to strike a balance between the amount of personal data we divulge, and the convenience that Big Data-powered apps and services offer.
- Data security – Even if we decide we are happy for someone to have our data for a particular purpose, can we trust them to keep it safe?
- Data discrimination – When everything is known, will it become acceptable to discriminate against people based on data we have on their lives? We already use credit scoring to decide who can borrow money, and insurance is heavily data-driven. We can expect to be analysed and assessed in greater detail, and care must be taken that this isn't done in a way that contributes to making life more difficult for those who already have fewer resources and access to information.

Facing up to these challenges is an important part of Big Data, and they must be addressed by organisations who want to take advantage of data. Failure to do so can leave businesses vulnerable, not just in terms of their reputation, but also legally and financially.

Looking to the future

Data is changing our world and the way we live at an unprecedented rate. If Big Data is capable of all this today – just imagine what it will be capable of tomorrow. The amount of data available to us is only going to increase, and analytics technology will become more advanced.

For businesses, the ability to leverage Big Data is going to become increasingly critical in the coming years. Those companies that view data as a strategic asset are the ones that will survive and thrive. Those that ignore this revolution risk being left behind.

Thinking:

1. Can you find more examples of how the use of big data can change our life?

2019-2020 Reading to Learn

9

Form	Junior	
	Senior	✓

Put a tick ☑ in the appropriate box（can be more than one）

Learning Area / Subject：BAFS

Title： How to Develop a Business Plan

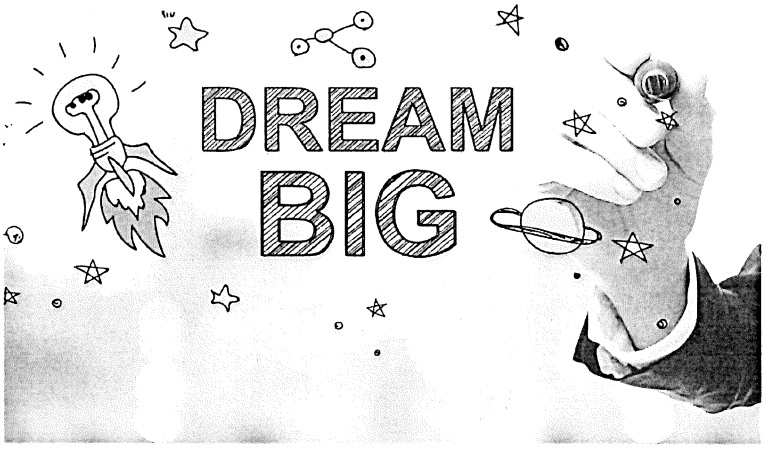
Related Core Values：

Truth [ ] Justice [ ] Love [ ] Life [✓] Family [ ]

Reading across the Curriculum (RaC) : Aims		(✓)
a	To arouse interest in studying a particular subject	✓
b	To provide more background information of a particular topic	✓
c	To enrich world knowledge	✓
d	To develop deeper level of appreciation towards art work	
e	To relate school learning with daily life experience	✓
f	To develop deeper understanding and appreciation towards Chinese Culture and its core values as well as universal core values	
g	To strengthen positive values and their daily application to analyse personal and social issues	✓

Source of information: https://www.wikihow.com/Start-a-Business-(for-Kids)

How to Develop a Business Plan



1. **Write down a list of things you're passionate about.** If you don't already have a business in mind, brainstorm some ideas. Make a list of the things you're really interested in.

2. **Come up with a product or service to sell.** Look at the list of things you enjoy and think of things you could make or do based on those things. This will be your business idea. For example, if you love kids, start a babysitting service.

3. **Gather the materials and training you'll need.** Make a list of all the equipment you'll need and ask an adult to help you get them. For example, if you want to start a babysitting business, you should probably take first aid and childcare classes.

4. **Run you business in person if you like working directly with customers.** If you choose to sell your product or market your services in person, find a location such as a booth or stall.

5. **Create an online presence to help people find your business.** Even if you're selling a service, it's a good idea to **have a website** so people can contact you, read reviews, and see what services you offer.

6. **Create a budget and look for investors.** Make a list of all the supplies you'll have to buy, as well as things that will cost money once the business is going, such as advertising.

7. **Set realistic goals for your business.** While it's a good idea to have a few financial goals, such as making money after a month or two, keep in mind that there are other ways to succeed in business.

Reflective Questions:

1. *If you could run a business, what kind of business will you run?*

2. *What is the major obstacle for writing a business plan?*

2019-2020 Reading to Learn

10

Form	Junior	
	Senior	✓

Put a tick ☑ in the appropriate box（can be more than one）

Learning Area / Subject：History

Title：Changes in Europe after World War II

Related Core Values：

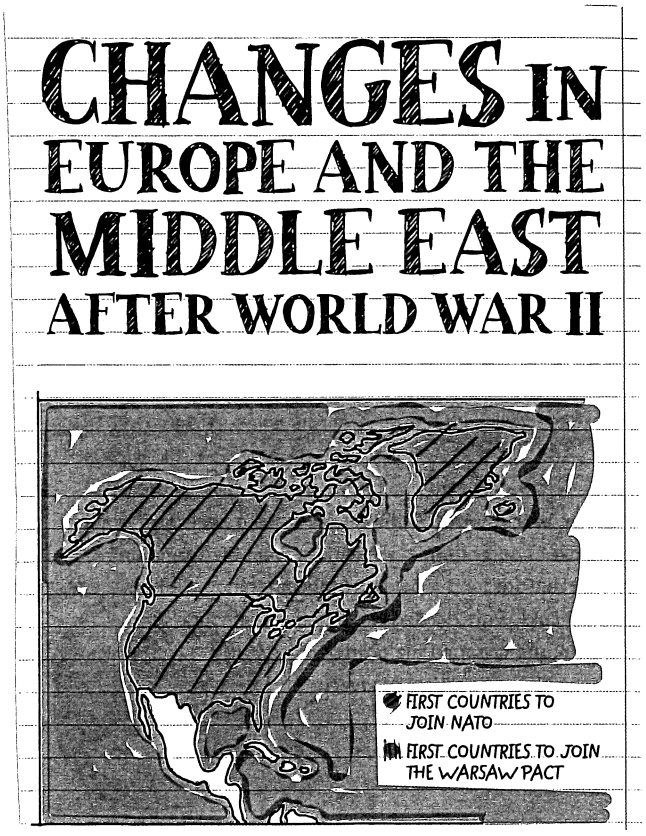
Truth [✓] Justice [ ] Love [ ] Life [✓] Family [ ]

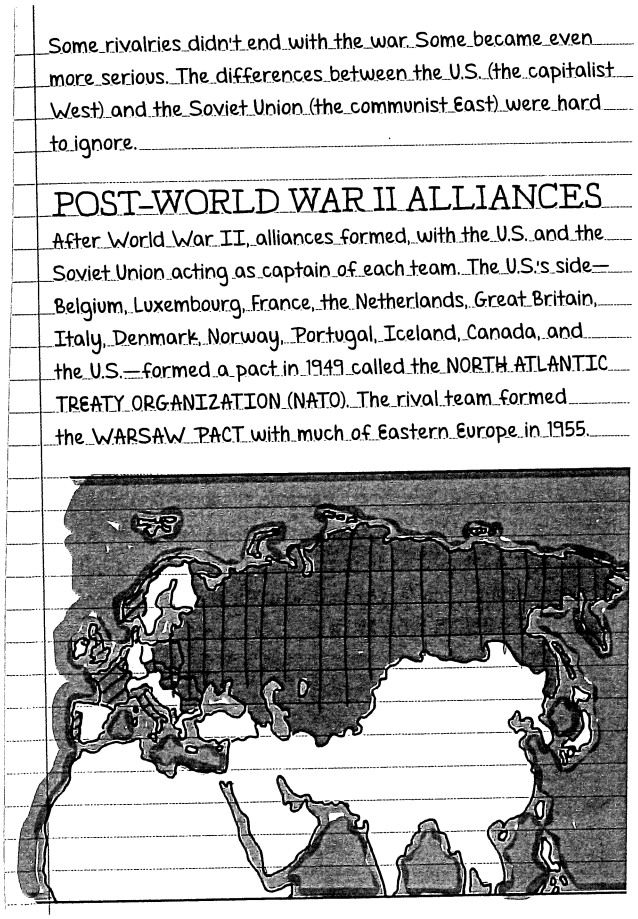
Reading across the Curriculum (RaC) : Aims		(✓)
a	To arouse interest in studying a particular subject	✓
b	To provide more background information of a particular topic	✓
c	To enrich world knowledge	✓
d	To develop deeper level of appreciation towards art work	
e	To relate school learning with daily life experience	
f	To develop deeper understanding and appreciation towards Chinese Culture and its core values as well as universal core values	
g	To strengthen positive values and their daily application to analyse personal and social issues	✓

Source of article: Lindblad, Michael. (2016) Everything You Need to Ace: World History in One Big Fat Notebook. New York: Workman.

Reflective Question:

Can you make a very short summary of the changes in Europe and the Middle East after WWII?





These pacts were military alliances that countries joined for security. Sort of a "you scratch my back, I'll scratch your back." (Only, scratching with diplomacy and/or guns and bombs.)

STOPPING the SPREAD of COMMUNISM

The U.S. and Great Britain thought newly liberated nations in Eastern Europe should form their own governments. The Soviets feared that these new nations would be anti-Soviet—especially Greece, which was in the middle of a civil war. Great Britain provided financial support to Greek anticommunist forces until it ran out of money. U.S. president Harry S. Truman feared that Britain's withdrawal would lead to the creation of a Greek communist country, so he asked Congress for aid for Greece as well as Turkey in 1947. It was a lot of cash to spend on another country, but President Truman made a strong case for it in what is now called the **TRUMAN DOCTRINE**.

The **TRUMAN DOCTRINE** said that the U.S. should always support free people resisting **SUBJUGATION** by armed minorities or outside pressures. The U.S. would also provide aid to countries threatened by communism.

SUBJUGATION
the act of bringing under complete control

That same year, U.S. SECRETARY OF STATE GENERAL GEORGE MARSHALL came up with the MARSHALL PLAN. Marshall believed communism took hold in countries with economic problems, so he wanted to give impoverished countries money in the hope that communism would fail. The Marshall Plan provided $13 billion to rebuild Europe after the war.

The EEC FORMS

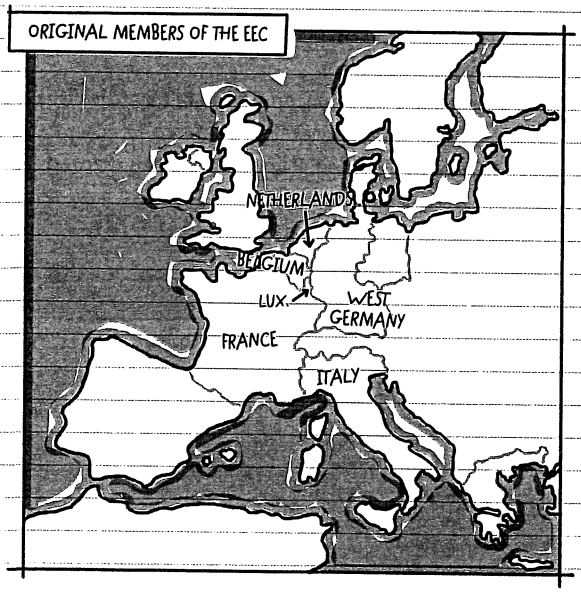
The Soviet Union and its European **SATELLITE** states (the states dependent on the Soviet Union) refused to accept any funds from the Marshall Plan. In 1949, they created the Council for Mutual Economic Assistance (COMECON) to provide financial aid, but they didn't quite have enough cash to make it work.

SATELLITE
describes something that is subordinate to another authority

In Western Europe, an economic plan called the EUROPEAN ECONOMIC COMMUNITY (EEC) was formed in 1957. Also known as the COMMON MARKET (and later called simply the European Community, or EC), the EEC consisted of France,

THE EC LATER GAVE RISE TO THE EUROPEAN UNION (EU), AND IT WAS DISSOLVED INTO THE EU IN 2009.

West Germany (Germany was divided after World War II), Belgium, the Netherlands, Luxembourg, and Italy. The EEC encouraged economic cooperation among member nations. Britain, Denmark, and Ireland joined the EEC in the 1970s, and Greece, Spain, and Portugal joined in the 1980s.



The UNITED NATIONS

The League of Nations was ineffective, but it laid the groundwork for the UNITED NATIONS, or UN, which was officially formed in October 1945 to work for peace and human dignity. The original UN charter was signed by 50 countries, and today nearly 200 countries are members.

2019-2020 Reading to Learn

11

Form	Junior	
	Senior	✓

Put a tick ☑ in the appropriate box（can be more than one）

Learning Area / Subject：GEOGRAPHY

Title： Climate change will alter waves along half the world's coast

Related Core Values：

Truth	✓	Justice		Love		Life	✓	Family	

Reading across the Curriculum (RaC) : Aims		**(✓)**
a	To arouse interest in studying a particular subject	✓
b	To provide more background information of a particular topic	✓
c	To enrich world knowledge	✓
d	To develop deeper level of appreciation towards art work	
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g	To strengthen positive values and their daily application to analyse personal and social issues	✓

Climate change will alter waves along half the world's coast

Date: August 22, 2019

Source: National Oceanography Centre, UK

Summary: New research finds that a warming planet will also alter ocean waves along more than 50% of the world's coastlines. This research has significant implications for coastal flooding and erosion.

New research finds that a warming planet will also alter ocean waves along more than 50% of the world's coastlines. This research, published in *Nature Climate Change*, has significant implications for coastal flooding and erosion.

As part of the Coordinated Ocean Wave Climate Project, ten research organisations, including the National Oceanography Centre (NOC), combined to look at a range of different global wave models in a variety of future climate scenarios, to determine how waves might change in the future.

While they identified some differences between different models, they found if the 2 degrees Paris agreement target is kept, changes in wave patterns are likely to stay inside natural climate variability.

However, in a business-as-usual climate, where warming continues in line with current trends, the models agreed the planet is likely to see significant changes in wave conditions along 50% of the world's coasts, although these changes varied by region.

For example, if the climate warms by more than 2 degrees beyond pre-industrial levels, southern Australia is likely to see longer, more southerly waves that could alter the stability of the coastline. For the UK coast the mean wave height is projected to decrease by about 10% by the end of the century under the most extreme global warming scenario.

Some areas will see the height of waves remain the same, but their wavelength or frequency will change. This can result in changes in the force exerted on the coast and any infrastructure there, and in some cases lead to increased wave-driven flooding.

Similarly, climate change induced alterations to the direction of waves can change how much sand they move along the coast. Infrastructure built on the coast, or offshore, is sensitive to these different characteristics of waves.

NOC scientist Professor Judith Wolf, also a co-author of the study, said "It is important to understand changes in the wave climate under climate change scenarios because waves are what cause damage to coastal defences and infrastructure, and erosion of natural coasts, beaches and ecosystems. They also contribute to increasing flood levels through wave setup, run-up and overtopping."

The overarching pattern emerging from this study is that robust changes in projected mean wave heights are seen in some areas, with increases in the Southern Ocean and the tropical eastern Pacific, but decreases in the North Atlantic Ocean and portions of the northern Pacific Ocean. These changes are consistent with a relatively uniform decrease in projected surface wind speeds over the northern hemisphere extra-tropical storm belt, partly driven by the polar amplification of climate change.

Previous research has looked at the way waves have shaped our coasts through the past, which is used as a guide to understanding past sea levels. However, this research has often assumed that while sea levels might change, wave conditions have stayed the same. This same assumption is used when considering how climate change will influence future coastlines. Although, importantly, climate change can alter waves both through changing wind patterns, and through changes to the water depth at the coast through sea-level rise.

Reflective question:

1. Do you think human beings are responsible for the coastal flooding and erosion?

2019-2020 Reading to Learn

Form	Junior	
	Senior	✓

Put a tick ☑ in the appropriate box (can be more than one) 12

Learning Area / Subject : THS

Title : Rainforest ecotourism

Related Core Values :

Truth [ ] Justice [✓] Love [ ] Life [✓] Family [ ]

Reading across the Curriculum (RaC) : Aims		(✓)
a	To arouse interest in studying a particular subject	✓
b	To provide more background information of a particular topic	✓
c	To enrich world knowledge	✓
d	To develop deeper level of appreciation towards art work	
e	To relate school learning with daily life experience	✓
f	To develop deeper understanding and appreciation towards Chinese Culture and its core values as well as universal core values	
g	To strengthen positive values and their daily application to analyse personal and social issues	✓

RAINFOREST ECOTOURISM

Increasing awareness of the problems of mass tourism is leading many holidaymakers to seek more responsible and sustainable forms of tourism.

One of the most common forms of sustainable tourism is ecotourism, the term most commonly used to describe any form of holiday or recreation in natural surroundings. The Ecotourism Society also adds the concept of social responsibility in its definition of ecotourism as:

Purposeful travel to natural areas to understand the culture and natural history of the environment, taking care not to alter the integrity of the ecosystem, while producing economic opportunities that make the conservation of natural resources beneficial to local people.

One of the major attractions in ecotourism is the rainforest. The benefits and problems of ecotourism can be analysed through case studies of rainforest ecotourism in Rwanda and Brazil.

DO RAINFORESTS BENEFIT FROM ECOTOURISM?

Income from tourism must reach the people who will ultimately decide the forest's future if ecotourism is going to be influential in saving rainforests. Unfortunately, too often the money generated does not benefit these people.

All to often it goes to the North, where the tourists originated, giving little economic protection to the forests. Profits leak back to the North through tour companies, plane tickets, foreign-owned accommodation and use of non-local supplies. As a result, the World Bank estimates that only 45% of worldwide revenues from tourism remains in the host country.

The percentage is often lower in the South. A study of the Annapurna region of Nepal, a popular ecotourism destination, found that only 10 cents of every dollar spent stayed in the local economy – and that much of that small amount ended up in the large cities or in the hands of the wealthy elite.

Tourist dollars should help to improve management of conservation areas on which the tourism is based. However, the money from tourism often does not end up with the agencies that manage these areas. In Costa Rica, for example, the park service does not earn enough money from its entrance fees to manage and protect its numerous parks. Only 25% of its budget comes from fees. The other three quarters must come from donations.

Tourists often resent paying large sums of money on entrance fees. Although these fees are only a small portion of the money spent on a trip they can be the most important dollars spent in protecting the resource because they go directly toward protecting the site.

CAN ECOTOURISM HARM THE RAINFOREST?

Despite many scientific advances, we know very little about rainforest ecology. Thus, it is difficult to know how many people can visit a rainforest in a day without disrupting the forest ecology. There is some evidence that just the presence of travellers walking on trails through the forest changes the behaviour of animals in the forest.

A major impact on the forest are the pressures caused by accommodating the physical needs and comforts of tourists; impacts of providing wood for fuel, accommodation and access routes, together with the problems caused by tourists' rubbish, put a large stress on the environment. For example, litter has been strewn along the trails of popular Himalayan tourist routes, and the alpine forest decimated by trekkers looking for fuel to heat their food and bath water.

OTHER FORMS OF ALTERNATIVE TOURISM

As the rainforest case studies illustrate, ecotourism can have positive and negative effects. This is also true of other forms of alternative tourism such as cultural and historical tourism.

Cultural tourism tends to focus on the indigenous people of an area and their traditional customs, arts, crafts, ceremonies, architecture, religion and lifestyles (e.g., visits to hill tribes in Thailand or a Masai village in Kenya) or on visits to art galleries, cathedrals and temples (e.g., St. Petersburg in Russia, Kyoto in Japan or the Louvre in Paris, France).

Historical tourism tends to focus on the 'glories of the past' in the form of monuments, museums, and historical sites (e.g., Pompeii in Italy, Angkor Wat in Cambodia, Borobadur in Indonesia, or the Great Wall of China).

Reflection:

Identify some possible benefits and problems of these two forms of alternative tourism.

Form	Junior	
	Senior	✓

2019-2020 Reading to Learn

13

Put a tick ☑ in the appropriate box (can be more than one)

Learning Area / Subject : Religious and Moral Education

Related Core Values :

Title : What is a Mass?

Truth [✓] Justice [ ] Love [✓] Life [✓] Family [ ]

Reading across the Curriculum (RaC) : Aims		(✓)
a	To arouse interest in studying a particular subject	✓
b	To provide more background information of a particular topic	✓
c	To enrich world knowledge	✓
d	To develop deeper level of appreciation towards art work	
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g	To strengthen positive values and their daily application to analyse personal and social issues	

Source of article: https://olg-church.org/pray/what-catholic-mass

What is a Mass?

Mass is the central act of worship in the life of a Catholic. Going to Mass is about spending time with God, but also receiving his graces (inner strength to live the Christian life). The name 'Mass' comes from the final blessing said by the priest in Latin 'Ite missa es' meaning "to send out" as Jesus Christ sent his disciples out to the world to take his teaching to them.

The Mass has four basic parts or 'rites'. The beginning is called the 'Introductory Rite'. At the beginning, the priest processes in, accompanied by altar servers, (usually boys and girls who help the priest by carrying things, giving him things). Often the congregation (all those who are there) sing a hymn. Once the priest reaches the sanctuary (the part of the Church where the altar table is) he begins Mass by saying the sign of the cross; 'In the name of the Father, and of the Son and of the Holy Spirit, Amen.' This short prayer means that everyone is reminded that they are baptised into the One God in three persons, and so puts themselves into his protection. Then the congregation are given a few moments to reflect upon the things they have done or not done which hurt other people, and are invited to repent, or say sorry to God. This is because not being sorry for sins (when we have hurt other people or disobeyed God,) can be a barrier to being given the graces God wants to give us.

The second part of Mass is called the 'Liturgy of the Word.' Liturgy is an ancient word, which came from the ancient Greeks meaning 'official work,' so Mass is part of the official prayer of the Church. In the liturgy of the Word, everyone listens to readings from the Bible; first, a story from the Old Testament which is completed by what Jesus Christ did, e.g. the story of the Israelites being fed on manna in the desert (Exodus chapter 16), is completed when Jesus Christ said 'I am the bread of life'

(John chapter 6). Then a psalm is prayed or sung on the same theme. The second reading is usually a letter from St Paul and then everyone stands to listen to a reading from the Gospel, the story

of Jesus. This reading will show how the Old Testament is completed by Jesus. After the readings everyone sits and listens to the homily, or sermon preached by the priest. To complete this part of the Mass, on Sundays, everyone recites the Creed, which is the statement of faith in God, and then each parish has its own set of 'intercessions' that is, a set of prayers for local issues and people.

The third part of the Mass is called the liturgy of the Eucharist. 'Eucharist' means to give thanks, so it begins by the 'offertory' when we offer ourselves to God. This is symbolised by taking up the bread and wine which will become the Body and Blood of Jesus Christ, and the collection. During the Eucharistic prayer everyone kneels as to worship Jesus Christ who becomes present under the appearance of bread and wine when the priest says the 'consecration'. The change is not 'done' by the priest, but by Christ, and whilst visible, nothing appears to have changed, the change is one of substance, of what it is. Those who are able to receive 'Holy Communion' then process up to receive, either in one kind (just the host, the Body) or in two kinds (from the cup as well). Those unable to receive Holy Communion, either because they are not Catholics, or because as Catholics they have disobeyed a serious law of the Church and have not been reconciled to the Church, are invited to come forward and receive a blessing, which can be called a spiritual communion.

The final part of Mass, the concluding rite is quite short – after some time to reflect on the Eucharist (Holy Communion) everyone stands and the priest says a final short prayer, asking God for help to use the graces we have received in Mass to help us in our daily lives. He then blesses everyone in the name of the Father and the Son and the Holy Spirit, so we all leave knowing we have worshipped the Triune God, and strengthened by him to live our lives in the world. To the priest's final words, 'The Mass is ended. Go in the peace of Christ, to love and serve the Lord' the congregation reply 'Thanks be to God.'

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1. Why do the Catholic go to Mass?

2. In the third part of Mass, what do bread and wine represent?

3. What does the Priest say at the end of the Mass?

2019-2020 Reading to Learn

Put a tick ☑ in the appropriate box (can be more than one) 14

Form	Junior	
	Senior	✓

Learning Area / Subject : Visual Arts

Related Core Values :

Title : Ways to Rewire Your Brain for Creativity

Truth [✓] Justice [ ] Love [ ] Life [✓] Family [ ]

Reading across the Curriculum (RaC) : Aims		(✓)
a	To arouse interest in studying a particular subject	✓
b	To provide more background information of a particular topic	✓
c	To enrich world knowledge	✓
d	To develop deeper level of appreciation towards art work	
e	To relate school learning with daily life experience	✓
f	To develop deeper understanding and appreciation towards Chinese Culture and its core values as well as universal core values	
g	To strengthen positive values and their daily application to analyse personal and social issues	✓

Ways to Rewire Your Brain for Creativity

Creativity isn't necessarily a characteristic you're born with; it's a trait that can be honed through habit. With the right practice and persistence, you can rewire your brain to make the most of your inherent ability to generate original ideas.

The best way build your creative mind is through practice. Pick your favorite creative pursuits and do them regularly -- daily if you can. The more you flex your creative muscle, the more your mind will naturally innovate. Research shows that creative practice reduces stress and improves problem-solving.

Mindful observation.

Our ability to create begins with observing the world around us. How we perceive our surroundings and our environment fuels our creativity. This begins with mindful observation, or noticing and appreciating the details of your surroundings.

By improving your observation skills, you'll tap into your creative energy and discover nuances and details you hadn't noticed before. This will open your mind to new possibilities and help you build a repertoire of experiences that can ignite innovation. Being observant means paying close attention to the world around you.

It's easy to become overwhelmed by the staggering amount of visual information that surrounds us. Start by focusing on areas where you want to make improvements. The world is full of interesting patterns and connections. Try to spot the relationships between things. Look for how things form or "click" together, and how people and things affect one another. These connections can be fuel for ideas and spark your creative process.

Recharge your curiosity.

Creativity thrives on curiosity. Our ability to wonder, to dig into something and search for answers, ignites our creativity and fuels our innovative thoughts. But our thirst for knowledge can dwindle over time. We stop asking and begin accepting. Try sparking your imagination and creativity by asking questions.

Start living a curiosity-driven life. What piques your interest? Delve into it; examine and research it. See where your line of thinking takes you. You may discover that you thrive on the process of discovery. The more you know, the more your mind is awakened, and the more you want to learn. This will open your mind to new possibilities others simply cannot see.

(Source: https://www.entrepreneur.com/article/322792)

Reflection:

How will you rewire your brain for creativity in different subjects?

2019-2020 Reading to Learn

15

Form	Junior	
	Senior	✓

Put a tick ☑ in the appropriate box (can be more than one)

Learning Area / Subject : Music

Title : Harmonica

Related Core Values :

Truth [ ] Justice [ ] Love [✓] Life [ ] Family [ ]

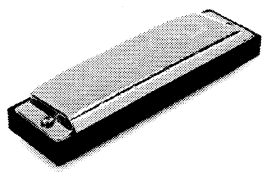
Reading across the Curriculum (RaC) : Aims		(✓)
a	To arouse interest in studying a particular subject	✓
b	To provide more background information of a particular topic	✓
c	To enrich world knowledge	✓
d	To develop deeper level of appreciation towards art work	
e	To relate school learning with daily life experience	✓
f	To develop deeper understanding and appreciation towards Chinese Culture and its core values as well as universal core values	
g	To strengthen positive values and their daily application to analyse personal and social issues	✓

The **harmonica**, also known as a **French harp** or **mouth organ**, is a free reed wind instrument used worldwide in many musical genres, notably in blues, American folk music, classical music, jazz, country, rock. There are many types of harmonica, including diatonic, chromatic, tremolo, octave, orchestral, and bass versions. A harmonica is played by using the mouth (lips and tongue) to direct air into or out of one or more holes along a mouthpiece. Behind each hole is a chamber containing at least one reed. A harmonica reed is a flat elongated spring typically made of brass, stainless steel, or bronze, which is secured at one end over a slot that serves as an airway. When the free end is made to vibrate by the player's air, it alternately blocks and unblocks the airway to produce sound.

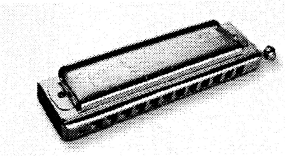
Reeds are pre-tuned to individual pitches. Tuning may involve changing a reed's length, the weight near its free end, or the stiffness near its fixed end. Longer, heavier and springier reeds produce deeper, lower sounds; shorter, lighter and stiffer reeds make higher-pitched sounds. If, as on most modern harmonicas, a reed is affixed above or below its slot rather than in the plane of the slot, it responds more easily to air flowing in the direction that initially would push it into the slot, i.e., as a *closing reed*. This difference in response to air direction makes it possible to include both a *blow reed* and a *draw reed* in the same air chamber and to play them separately without relying on flaps of plastic or leather (valves, wind-savers) to block the non-playing reed.

An important technique in performance is bending: causing a drop in pitch by making embouchure adjustments. It is possible to bend isolated reeds, as on chromatic and other harmonica models with wind-savers, but also to both lower, and raise (*overbend*, *overblow*, *overdraw*) the pitch produced by pairs of reeds in the same chamber, as on a diatonic or other unvalved harmonica. Such two-reed pitch changes actually involve sound production by the normally silent reed, the *opening reed* (for instance, the blow reed while the player is drawing).

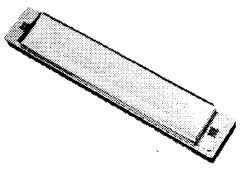
Source : https://en.wikipedia.org/wiki/Harmonica



Diatonic harmonica



Chromatic harmonica



Tremolo harmonica

Question : How can you learn to play harmonica ?

_____

_____

2019-2020 Reading to Learn

16

Form	Junior	
	Senior	✓

Put a tick ☑ in the appropriate box（can be more than one）

Learning Area / Subject：Physical Eduaction

Title：Tokyo Olympics 2020

Related Core Values：

Truth [✓] Justice [✓] Love [ ] Life [✓] Family [ ]

Reading across the Curriculum (RaC) : Aims		(✓)
a	To arouse interest in studying a particular subject	✓
b	To provide more background information of a particular topic	✓
c	To enrich world knowledge	✓
d	To develop deeper level of appreciation towards art work	✓
e	To relate school learning with daily life experience	✓
f	To develop deeper understanding and appreciation towards Chinese Culture and its core values as well as universal core values	
g	To strengthen positive values and their daily application to analyse personal and social issues	✓

Source: https://tokyo2020.org/en/

The official programme for the 2020 Summer Olympics was approved by the IOC executive board on 9 June 2017. The president of the IOC, Thomas Bach, stated that the goal for the Tokyo Games was to make them more "youthful" and "urban", and to increase the number of female participants.

The games will feature 339 events in 33 different sports, encompassing 50 disciplines. Alongside the five new sports that will be introduced in Tokyo, there will be fifteen new events within existing sports, including 3x3 basketball, freestyle BMX and Madison cycling, and new mixed events in several sports.

In the list below, the number of events in each discipline is noted in parentheses.

Aquatics

- Artistic swimming (2)
- Diving (8)
- Swimming (37)
- Water polo (2)

- Archery (5)
- Athletics (48)
- Badminton (5)
- Baseball (1)
- Softball (1)

- Basketball
  - Basketball (2)
  - 3x3 basketball (2)
- Boxing (13)
- Canoeing
  - Slalom (4)
  - Sprint (12)
- Cycling
  - BMX freestyle (2)
  - BMX racing (2)
  - Mountain biking (2)
  - Road cycling (4)

Track cycling (12)

Equestrian

Dressage (2)

Eventing (2)

Jumping (2)

Fencing (12)

Field hockey (2)

Football (2)

Golf (2)

Gymnastics

Artistic (14)

Rhythmic (2)

Trampoline (2)

Handball (2)

Judo (15)

Karate

Kata (2)

Kumite (6)

Modern pentathlon (2)

Rowing (14)

Rugby sevens (2)

Sailing (10)

Shooting (15)

Skateboarding (4)

Sport climbing (2)

Surfing (2)

Table tennis (5)

Taekwondo (8)

Tennis (5)

Triathlon (3)

Volleyball

Volleyball (2)

Beach volleyball (2)

Weightlifting (14)

Wrestling

Freestyle (12)

Greco-Roman (6)

Question: Would you state one new sports event to be introduced in 2020 Tokyo Olympics?

2019-2020 Reading to Learn

Form	Junior	
	Senior	✓

Put a tick ☑ in the appropriate box (can be more than one) 17

Learning Area / Subject : Religious Committee

Title : FOLLOW IN THE FOOTPRINTS OF CHRIST

Related Core Values :

Truth	✓	Justice		Love		Life	✓	Family	

Reading across the Curriculum (RaC) : Aims		(✓)
a	To arouse interest in studying a particular subject	✓
b	To provide more background information of a particular topic	✓
c	To enrich world knowledge	✓
d	To develop deeper level of appreciation towards art work	
e	To relate school learning with daily life experience	✓
f	To develop deeper understanding and appreciation towards Chinese Culture and its core values as well as universal core values	
g	To strengthen positive values and their daily application to analyse personal and social issues	✓

The very first phrase in the Franciscan Rule reads, "The Rule and life of the Friars Minor is this, namely, to observe the holy Gospel of our Lord Jesus Christ." Discover Christ in the Gospels and all of Scripture and in a prayerful way get deeper and deeper into his mind and heart, and then you can, as Francis liked to say, "follow the footprints of our Lord Jesus Christ." That is what Francis himself wanted to do and wanted his followers to do as well. He was not satisfied simply with knowing what Scripture said or being in awe of the wonderful God that he found there, but he had to give his whole self to follow Christ and through that give his whole self to God.

Lord I often pray with many words.
Now I offer you my prayer of listening
silence in your holy presence...
Amen.

If we can love those people who are not really enemies, we can even be led to love those who really hate us, who persecute us, who blame us. In our world today, there are a lot of people like that; maybe some of them even hate us because they have good reason to. Many of us have a way of life that a lot of people can't--people who hardly have enough to eat, who don't have the material things that we do, who don't have the freedom we have in our lives.

They have reason to hate us. Maybe instead of getting all upset when some people in those circumstances rebel and get mean, we might try to understand that they're simply rebelling from a situation that is oppressing and demeaning and dehumanizing them.

As we look at the world today, for example, we see people who own companies in other countries. The owners are wealthy, yet they give the workers less than a living wage, sometimes making their employees work in oppressive conditions, simply to be profitable at the expense of the workers.

Here we can't only love the people being oppressed, but we must love their their oppressors. These are the people Jesus tells us to love. Can I love them into a new vision of the world in which they see the most important thing is not profit, but human beings?

Litanies to God

When navigating our way through life, prayer is the most effective way of keeping God close. Litanies are a great place to start. Why not send our petitions skyward? Some may find in litanies a helpful source of prayer. Not only can we pray a litany straight through, but we can just pick out one or the other invocation to open our hearts to God. In the litany of the Sacred Heart, for instance, we might pick out "Burning furnace of charity."

The image of Jesus' heart as a burning furnace of charity can lead us to a deep relationship with him. It's a marvelous reminder that Jesus' love for us is beyond measure. We might keep this image in mind as we read the Gospels. It could be like a title to every episode we read. Think of the burning furnace of charity as our Lord heals the blind, the deaf, the woman suffering from the flow of blood, Jairus and his dead daughter brought to life, and so on throughout the Gospels. Or use the invocation as a mantra for centering prayer.

Or again, "King and center of all hearts." This is true of every human being whether they know it or not. It may be obvious in the case of those we love and respect, but it's true of all. The image may help us to accept even those who are different from us, even those who hate us. These and other images can help us pray and live lives of love in the way that Francis did.

Question:
Where is God's footprint leading us to?

2019-2020 Reading to Learn

Form	Junior	
	Senior	✓

Put a tick ☑ in the appropriate box（can be more than one） 18

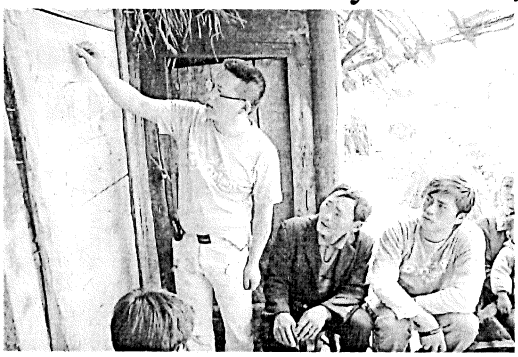
Learning Area / Subject:Moral and Civil Education　Related Core Values：

Title：A love letter to myself　Truth [✓] Justice [ ] Love [ ] Life [✓] Family [ ]

Reading across the Curriculum (RaC) : Aims		(✓)
a	To arouse interest in studying a particular subject	
b	To provide more background information of a particular topic	✓
c	To enrich world knowledge	✓
d	To develop deeper level of appreciation towards art work	
e	To relate school learning with daily life experience	✓
f	To develop deeper understanding and appreciation towards Chinese Culture and its core values as well as universal core values	
g	To strengthen positive values and their daily application to analyse personal and social issues	✓

A love letter to myself

By Brenda Lee, Senior Donor Communications Officer



Why do you want to run a marathon?

If you ask 100 people, you will hear 100 different reasons and their stories.

Here is Lei Guangqing's story.

In 2015, at 44, Guangqing started running. At that time, he had been working at Oxfam for 10 years. Prior to that, he had worked as a clinician for nine years, and had engaged in drug research at Fudan University for another five years prior.

Why did he give up being a clinician to become a development worker? I didn't ask. All I know is that he enjoys his work of helping people help themselves, and he is happy to be able to contribute his medical knowledge in his development work.

Guangqing visited Oxfam's rural livelihood and health projects in Shibanhe Village, Hezhang County, Guizhou Province with Oxfam Ambassador Sammy Leung a few years ago.

Life is a marathon

We all hope to live a happy and fulfilling life. However, the older you get, the more fragile you understand life is. The past few years were very tough for Guangqing – dealing with challenges and setbacks at work, taking care of his wife who was battling cancer, and his son who was preparing for the National College Entrance Examination. In 2016, he ran his first marathon. He ran for his ailing wife. He wanted to encourage her not to give up. He also ran for himself as he was becoming overweight.

Keep running!

In a marathon, if you want to win, you must outrun other runners on the track.

In your life journey, if you want to succeed, you just need to beat yourself!

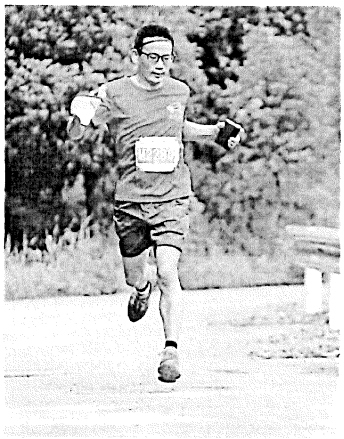
Marathon running offers physical and mental health benefits.

'For me, running marathons train me to become more resilient and more able to cope with adversity,' said Guangqing. He explained, 'Marathons let you communicate with your body. When you are running, you are also entering a state of meditation in which your mind that is clear and focused. Many runners drop out in the middle of the race when they hit the wall. I have learnt not to give up easily and this spirit which I've learnt through running marathons has enabled me to overcome the hurdles in my life over the past few years.'

Marathon running has changed Guangqing's life for the better

Achieving your personal best is much like achieving happiness – it can only be obtained by hard work and continued efforts.

In July 2016, Guangqing finished his first marathon in 5 hours 27 minutes. Over the next two years, he ran 13 marathons and four ultramarathons. In the 2018 Chongqing Marathon, he finished at 3 hours 30 minutes 36 seconds; his personal best continued to improve by almost one hour every year.



We may be able to beat physical limits and achieve something great, but no matter how hard we try, we cannot beat death. Guangqing's wife passed away last year. His son also moved to Beijing to study.

He suddenly felt the unbearable lightness of being…

Life must go on

He works very hard at his job.

He continued to run every day and took part in many marathons in different cities in China. Whenever he gets home now, tired from work and exercise, there is no one to greet him or comfort him.

Life is a journey people need to take alone sometimes

His marathon journey is not one he needs to take alone though. He has inspired and encouraged some colleagues at Oxfam's Guiyang office to start running. In May this year, I was on a work trip in Guizhou with Guangqing and two colleagues. We visited women of the Miao ethnic minority in Danzhai County to see how Oxfam's project is empowering them to earn an income, enhancing their confidence to take part in the development of their community, and encouraging them to learn and share their traditions through Miao batik handicraft. I remember seeing Guangqing and our colleagues jog early in the morning and after work at night every day during the six-day trip. They have also registered to join the 2018 Oxfam Trailwalker which will be held in November.

Guangqing and colleagues at the Oxfam Guiyang office at the 2018 Huangguoshu Marathon. His passion for running has inspired and encouraged our colleagues, who now jog with him every day.

Guangqing said, 'I will keep running, as this is a responsibility of mine. I hope to inspire more people to run, and let more people know, if you want to experience a different life, run a marathon.

'There is one thing in common between development work, marathons and the Oxfam Trailwalker: If you set a goal and work hard to achieve it, you will achieve it, no matter how painstaking the process is.'

I am not a marathon runner. I may not understand why so many people love it. But I do believe that it can humble you, transform you and empower you.

Guangqing with Yang Xiuzhen, who participated in Oxfam's project. Yang and other women in her village earn an income by designing and producing batik handicrafts, which are unique to the Miao people. Photo: Antonio Leong / Oxfam Hong Kong

Reflection:

a) In the article, marathon running has transformed Guangqing's life. How about you? Do you do any sports? What kind of sports is that?

b) What role does sport play in your life?

c) How does it transform your life?

2019-2020 Reading to Learn

19

Form	Junior	
	Senior	✓

Put a tick ☑ in the appropriate box（can be more than one）

Learning Area / Subject：Environmental and Student Health Committee

Related Core Values：

Truth [✓] Justice [ ] Love [ ] Life [✓] Family [ ]

Title：Plastics by the Numbers

Reading across the Curriculum (RaC) : Aims		(✓)
a	To arouse interest in studying a particular subject	✓
b	To provide more background information of a particular topic	✓
c	To enrich world knowledge	✓
d	To develop deeper level of appreciation towards art work	
e	To relate school learning with daily life experience	✓
f	To develop deeper understanding and appreciation towards Chinese Culture and its core values as well as universal core values	
g	To strengthen positive values and their daily application to analyse personal and social issues	✓

Plastics by the Numbers

Within each chasing arrows triangle, there is a number which ranges from one to seven. The purpose of the number is to identify the type of plastic used for the product, and not all plastics are recyclable or even reusable. There are numerous plastic-based products that cannot break down and cannot be recycled.

1	2	3	4	5	6	7
PETE	HDPE	PVC	LDPE	PP	PS	OTHER
polyethylene terephthalate	high-density polyethylene	polyvinyl chloride	low-density polyethylene	polypropylene	polystyrene	other plastics, including acrylic, polycarbonate, polyactic fibers, nylon, fiberglass
soft drink bottles, mineral water, fruite juice container, cooking oil	milk jugs, cleaning agents, laundry detergents, bleaching agents, shampoo bottles, washing and shower soaps	trays for sweets, fruit, plastic packing (bubble foil) and food foils to wrap the foodstuff	crushed bottles, shopping bags, highly-resistant sacks and most of the wrappings	furniture, consumers, luggage, toys as well as bumpers, lining and external borders of the cars	toys, hard packing, refrigerator trays, cosmetic bags, costume jewellery, CD cases, vending cups	

Understanding the seven plastic codes will make it easier to choose plastics and to know which plastics to recycle. For example, water bottles that display a three or a five cannot be recycled in most jurisdictions in the US. A three indicates that the water bottle has been made from polyvinyl chloride, a five means that it's been made of polypropylene, two materials that are not accepted by most public recycling centers.

Here are the seven standard classifications for plastics, and the recycling and reuse information for each type.

#1 - PET (Polyethylene Terephthalate)

PET is one of the most commonly used plastics in consumer products, and is found in most water and pop bottles, and some packaging. It is intended for single use applications; repeated use increases the risk of leaching and bacterial growth. PET plastic is difficult to decontaminate, and proper cleaning requires harmful chemicals. Polyethylene terephthalates may leach carcinogens.

PET plastic is recyclable and about 25% of PET bottles in the US today are recycled. The plastic is crushed and then shredded into small flakes which are then reprocessed to make new PET bottles, or spun into polyester fiber. This recycled fiber is used to make textiles such as fleece garments, carpets, stuffing for pillows and life jackets, and similar products.

Products made of #1 (PET) plastic should be recycled but not reused.

To use less PET plastic, consider switching to reusable beverage containers and replacing disposable food packaging with reusable alternatives.

#2 - HDPE (High-Density Polyethylene)

HDPE plastic is the stiff plastic used to make milk jugs, detergent and oil bottles, toys, and some plastic bags. HDPE is the most commonly recycled plastic and is considered one of the safest forms of plastic. It is a relatively simple and cost-effective process to recycle HDPE plastic for secondary use.

HDPE plastic is very hard-wearing and does not break down under exposure to sunlight or extremes of heating or freezing. For this reason, HDPE is used to make picnic tables, plastic lumber, waste bins, park benches, bed liners for trucks and other products which require durability and weather-resistance. It is also a popular material for recycled plastic raised garden beds.
Products made of HDPE are reusable and recyclable.

However, since only about 30-35% of HDPE plastic used in America gets recycled each year, it's wise to use as little as possible. To cut down, consider replacing your disposable produce bags with reusable alternatives.

#3 – PVC (Polyvinyl Chloride)

PVC is a soft, flexible plastic used to make clear plastic food wrapping, cooking oil bottles, teething rings, children's and pets' toys, and blister packaging for myriad consumer products. It is commonly used as the sheathing material for computer cables, to make plastic pipes and parts for plumbing, and in garden hoses. Because PVC is relatively impervious to sunlight and weather, it is used to make window frames, garden hoses, arbors, raised beds and trellises.

PVC is dubbed the "poison plastic" because it contains numerous toxins which it can leach throughout its entire life cycle. Almost all products using PVC require virgin material for their construction; less than 1% of PVC material is recycled.

Products made using PVC plastic are not recyclable. While some PCV products can be repurposed, PVC products should not be reused for applications with food or for children's use.

To avoid items made with PVC plastic, consider replacing plastic food wrap with reusable beeswax wraps; plastic toys with reclaimed wool stuffed animals; and your PVC garden hose with a Drinking Water Safe Garden Hose.

#4 – LDPE (Low-Density Polyethylene)

LDPE is often found in shrink wraps, dry cleaner garment bags, squeezable bottles, and the type of plastic bags used to package bread. The plastic grocery bags used in most stores today are made using LDPE plastic. Some clothing and furniture also uses this type of plastic.

LDPE is considered less toxic than other plastics, and relatively safe for use. It is not commonly recycled, however, although this is changing in many communities today as more plastic recycling programs gear up to handle this material. When recycled, LDPE plastic is used for plastic lumber, landscaping boards, garbage can

liners and floor tiles. Products made using recycled LDPE are not as hard or rigid as those made using recycled HDPE plastic.

Products made using LDPE plastic are reusable, but not always recyclable. You need to check with your local collection service to see if they are accepting LDPE plastic items for recycling.

To cut down on the amount of LDPE that you consume, try replacing your plastic grocery bags with fabric alternatives and taking a cloth bag to your local bakery the next time you buy a loaf of bread. You can also replace plastic sandwich bags with platinum silicone alternatives, which are heat safe.

#5 – PP (Polypropylene)

Polypropylene plastic is tough and lightweight, and has excellent heat-resistance qualities. It serves as a barrier against moisture, grease and chemicals. When you try to open the thin plastic liner in a cereal box, it is polypropylene. This keeps your cereal dry and fresh. PP is also commonly used for disposable diapers, pails, plastic bottle tops, margarine and yogurt containers, potato chip bags, straws, packing tape and rope.

Polypropylene is recyclable through some curbside recycling programs, but only about 3% of PP products are currently being recycled in the US. Recycled PP is used to make landscaping border stripping, battery cases, brooms, bins and trays. However, #5 plastic is today becoming more accepted by recyclers.

PP is considered safe for reuse. To recycle products made from PP, check with your local curbside program to see if they are now accepting this material.

To cut down on how much PP you consume, opt for reusable straws instead of plastic ones, reusable water bottles, and cloth diapers.

#6 – PS (Polystyrene)

Polystyrene is an inexpensive, lightweight and easily-formed plastic with a wide variety of uses. It is most often used to make disposable styrofoam drinking cups, take-out "clamshell" food containers, egg cartons, plastic picnic cutlery, foam packaging and those ubiquitous "peanut" foam chips used to fill shipping boxes to protect the contents. Polystyrene is also widely used to make rigid foam insulation and underlay sheeting for laminate flooring used in home construction.

Because polystyrene is structurally weak and ultra-lightweight, it breaks up easily and is dispersed readily throughout the natural environment. Beaches all over the world have bits of polystyrene lapping at the shores, and an untold number of marine species have ingested this plastic with immeasurable consequences to their health.

Polystyrene may leach styrene, a possible human carcinogen, into food products (especially when heated in a microwave). Chemicals present in polystyrene have been linked with human health and reproductive system dysfunction.

Recycling is not widely available for polystyrene products. Most curbside collection services will not accept polystyrene, which is why this material accounts for about 35% of US landfill material. While the technology for recycling polystyrene is available, the market for recycling is small. Awareness among consumers has grown, however, and polystyrene is being reused more often. While it is difficult to find a recycler for PS, some businesses like Mailboxes Etc. which provide shipping services are happy to receive foam packing chips for reuse.

Polystyrene should be avoided where possible.

To eliminate polystyrene from your trash, try a reusable coffee cup, compostable or reusable picnic cutlery, and stainless steel takeaway containers.

#7 – Other (BPA, Polycarbonate and LEXAN)

The #7 category was designed as a catch-all for polycarbonate (PC) and "other" plastics, so reuse and recycling protocols are not standardized within this category. Of primary concern with #7 plastics, however, is

the potential for chemical leaching into food or drink products packaged in polycarbonate containers made using BPA (Bisphenol A). BPA is a xenoestrogen, a known endocrine disruptor.

Number 7 plastics are used to make baby bottles, sippy cups, water cooler bottles and car parts. BPA is found in polycarbonate plastic food containers often marked on the bottom with the letters "PC" by the recycling label #7. Some polycarbonate water bottles are marketed as 'non-leaching' for minimizing plastic taste or odor, however there is still a possibility that trace amounts of BPA will migrate from these containers, particularly if used to heat liquids.

A new generation of compostable plastics, made from bio-based polymers like corn starch, is being developed to replace polycarbonates. These are also included in category #7, which can be confusing to the consumer. These compostable plastics have the initials "PLA" on the bottom near the recycling symbol. Some may also say "Compostable."

#7 plastics are not for reuse, unless they have the PLA compostable coding. When possible it is best to avoid #7 plastics, especially for children's food. Plastics with the recycling labels #1, #2 and #4 on the bottom are safer choices and do not contain BPA. PLA coded plastics should be thrown in the compost and not the recycle bin since PLA compostable plastics are not recyclable.

The plastics industry has conformed to regulations by applying the required codes to consumer products, but it is up to individuals to read and understand the codes. By understanding these simple classifications, we can best use plastics to our advantage while minimizing the health and disposal issues that may otherwise arise.

To avoid chemicals leaking into your foods from food packaging, try going homemade and storing your leftovers (or your lunches) in platinum silicone or stainless steel.

Questions

1: What can we do if we want to help stop plastic pollution of the oceans?