INTI International College Penang

FINAL
Examination Paper

(COVER PAGE)

Session	:	**January 2020**
Programme	:	Foundation in Science (CFSI)
Course	:	**ENL1212: English Language Skills 2**
Date of Examination	:	5 April 2020 (Sunday)
Time	:	9:00am – 1:00pm Reading Time : Nil
Duration	:	4 Hours
Special Instructions	:	

This paper consists of **FOUR (4)** Sections. Read the instructions carefully before attempting.

Materials permitted :

Nil

Materials provided :

Nil

Examiner(s)	:	**Mr. Toby Teh Tze Chien**
Moderator	:	Assoc. Prof. Dr. Ting Su Hie

*This paper consists of **6** printed pages, including the cover page.*

INTI INTERNATIONAL COLLEGE PENANG

FOUNDATION IN SCIENCE (CFSI)
ENL1212: ENGLISH LANGUAGE SKILLS 2
FINAL EXAMINATION: JANUARY 2020 SESSION

Instructions: This paper consists of **FOUR (4)** Sections. Read the instructions carefully before attempting.

Question 1

Read the passage below and answer the questions that follow (25 Marks)

Under a dark sky, you can see thousands of stars. If you watch for a few hours, you can see them rise and set as the Earth rotates once a day. If you go outside the next night at the same time, you'll see that things will look pretty much the same as they did the night before. The stars rise and set, Polaris hangs to the north, and so on.

One day hardly makes any difference to the sky's appearance. But what if you wait for another night? Or a week? If you're that patient, and observant, you can spot subtle changes.

The Earth takes a year to orbit the Sun once. Every day, it moves a little bit along its orbit. And as it does, from Earth's perspective, distant stars appear to move their positions relative to the sun. One day we might see a star very near the Sun, but the next day the angle is a bit bigger. About six months after we first saw it, the star will be directly opposite the Sun in the sky. Then the angle starts to shrink again as the star approaches the Sun from the opposite side, until, after a full year, the cycle repeats.

To the naked eye observer, the stars appear to rise and set at different times over the course of the year. Stars in the east rise about four minutes earlier every night, and set in the west four minutes earlier. A constellation that was entirely below the eastern horizon at sunset one month might be completely visible after sunset the next month.

Another way to think about it is that the stars appear to be fixed, and as the Earth circles the Sun, the Sun moves through the stars over the course of the year, making a complete circle around the sky once per year. The path it takes is a reflection of the Earth's path around the Sun, a line in the sky. We call that line the ecliptic. That means the Sun passes through the same constellations in the sky every year. But even though we talk about this process in terms of the sun's movement, it's really the path travelled by the Earth that creates this effect, as our perspective moves with it.

There's another aspect of all this you might notice over time. You've probably seen a globe, and noticed that the axis of it is tilted; it's not straight up-and-down, perpendicular to how it sits. That's because a globe is modelling the Earth and the Earth is tilted.

The Earth spins on its axis once per day, and orbits the Sun once per year. But the Earth's axis is tilted with respect to its orbital plane by 23.5 degrees. And this has a profound effect on our planet.

Imagine for a moment that the Earth's axis were straight up and down to its orbit, exactly perpendicular. If that were the case, every day, the Sun would take the same path across the sky. If you were on the equator the Sun would rise, go exactly overhead, and then set. If you're on the pole, the Sun will appear to go around the horizon every day, neither rising nor setting — it would always be twilight.

But that's not the case. In the months of June and July, the Earth's North Pole is tipped toward the Sun. Six months later it's pointed away. Instead of it taking the same path every day, in the northern summer, when we're tipped toward the Sun, the Sun takes a higher path in the sky. Because that path is longer, the days are longer, too. Six months later, in December and January, the Earth's pole is tipped away. The Sun takes a lower path in the sky, and because the path is shorter days are shorter too. That's why we have seasons!

1. What are two things you can observe if you watch the sky every night? **(4 Marks)**

2. How long does it take for a star to return to its original position in the sky? **(2 Marks)**

3. Give two reasons why the stars appear to move across the sky. **(4 Marks)**

4. If the Earth's orbit was perpendicular to its axis, what would be the perspective of the sun be like in:
    a. Malaysia? **(2 Marks)**
    b. The Arctic? **(2 Marks)**

5. According to this article, what are the days like for the following regions and times?
    a. Australia in June **(2 Marks)**
    b. Japan in February **(2 Marks)**
    c. South America in November **(2 Marks)**
    d. England in May **(2 Marks)**

6. Write a title to this article that is no longer than **SIX (6) words** **(3 Marks)**

Question 2

Write a summary of the article below. Your summary should not be longer than <u>120 words</u>. **(25 Marks)**

Tons of people are afraid of sharks. Which is really a bummer, because sharks are awesome, amazing, totally incredible, and so fascinating.

And also, they're not very likely to hurt you. Of the tens of thousands of people that go in the water, sharks only kill around one person per year on average. And often, that's because they're provoked or make a mistake.

Cows, on the other hand, kill about 20 people a year on average. And not many of us are afraid of them! So, why is our fear so misguided?

Why are so many people afraid of sharks, and airplanes, and other things that aren't actually that dangerous? It comes down to the way our brains deal with risk. When you start assessing whether something is risky, your brain doesn't jump into logic and statistics mode.

Instead, the first stop for sensory information is the brain's emotion centre, the amygdala. Eventually, that info does get processed by higher-level areas, like the prefrontal cortex. But even then, when there's a mismatch between emotion and logic, emotion usually wins.

And ultimately, that means our brains are prone to a number of biases. Some of them aren't that surprising, especially when it comes to certain fears. There's one called availability bias, which is when things that come to mind more easily are judged to happen more often, especially if you have strong emotions about that thing.

This bias pops up all the time when it comes to sharks. Like, when you see these animals on TV or in a movie, they're rarely being majestic and minding their own business. They're usually in the middle of attacking someone. So if that's the first thing that comes to mind when you picture a shark, you might believe these attacks are super common, even though they're not.

Besides availability bias, there's also a concept known as dread risk. This says that, the greater potential something has for harm, the riskier you perceive it to be. So, since sharks are fearsome predators and could really hurt you, you might start to think that being around one at all is super risky, even though it probably doesn't want anything to do with you. These biases are pretty intuitive, but there's another big factor that might come into play here, and it's less obvious: It's that sharks are unpredictable.

This idea comes from something called the Cognitive Vulnerability Model. It's a tested model that says that people are more afraid of things they perceive as unpredictable, uncontrollable, and dangerous. Historically, sharks and humans haven't been around each other a lot, especially when you think in geological time scales. So, sharks can seem hard to predict just because they're so different from us. And the fact that shark encounters are so rare makes those events harder to predict, too.

A lack of control is also a big factor in this model, both when it comes to controlling the hazard and controlling your response to it. You're probably fine if you see a shark in an aquarium, because the enclosure keeps the situation controlled. But a shark while swimming at the beach? Not so much. And besides, when it comes to sharks, not only do we have less control when we're swimming, but many of us also don't know what to do in the rare event that a shark does attack.

There's a lot of conflicting advice out there. Do you play dead? Punch it in the nose? Poke it in the eye? Sing Baby Shark? The confusion takes away some of your sense of control.

To be clear, the Cognitive Vulnerability Model doesn't just explain a fear of sharks. The model also explains some of our other seemingly irrational fears, like why some people are terrified of flying. Cars kill more people than planes, but unless you're a pilot, you don't have much control over the aircraft. And that could feel scary.

Regardless of what you're afraid of, though, understanding why can be really helpful. If you know why you're afraid of something, maybe you can take a step to address that. But when it comes to sharks specifically, understanding our fears is also important for keeping these animals safe. Many shark species are at risk of extinction, often due to human activity. And if unpredictability and lack of control are why we fear these animals, then understanding them better may be a way to reduce that fear. Shark-human interactions are really rare, and so they are not studied extensively. But there's work being done to change that.

And on an individual level? Research suggests that exposure to sharks, like seeing them in an aquarium, can also make people fear them less. So, learn about these amazing creatures! You'll discover something totally awesome, and you might feel a little less afraid as a result.

Question 3

Choose ONE (1) of the topics below and write an OUTLINE FOR AN ESSAY. You may use the template below to organize your outline. (20 Marks)

a) Some people argue that technology such as mobile phones and the internet are making people less socially interactive. Do you agree or disagree?

b) Government funding for mental health care should make prevention more important than treatment. Compare and contrast both measures.

c) Child obesity is becoming an issue in schools. Discuss its causes and effects.

Outline Template

Thesis Statement: _____ (3 Marks)

Topic Sentence 1: _____ (2 Marks)

Supporting Information (3 Marks)
A: _____
B: _____
C: _____

Topic Sentence 2: _____ (2 Marks)

Supporting Information (3 Marks)
A: _____
B: _____
C: _____

Topic Sentence 3: _____ (2 Marks)

Supporting Information (3 Marks)
A: _____
B: _____
C: _____

Concluding Statement: _____ (2 Marks)

Question 4

Using the outline from Question 3, write an essay of at least 350 words. (30 Marks)