



**مدرسة القلبين العالمية بالخبر**  
عضو المدارس العربية السعودية العالمية  
**INTERNATIONAL PHILIPPINE SCHOOL IN ALKHOBAR**  
MEMBER: SAUDI ARABIAN INTERNATIONAL SCHOOLS  
MOE Permit No. 39G DepEd School ID 700024

## SENIOR HIGH SCHOOL DEPARTMENT



# Portfolio

# Badron, Ahmad G.

Grade 11 – STEM 2

Second Semester, SY 2020 – 2021



### **What is a portfolio?**

A portfolio is a showcase of all students' work, it is a collection of work that students keep, reflect on and share with their parents. There will be four (4) areas that are evident.

#### **1) Learner Profile**

Reflect on student's experiences in an online class and how these demonstrate MELCs.

#### **2) Academic Progress**

Reflect on student's work and development or progress in his/her different subjects.

#### **3) Reflection On Learning (ROL)**

Reflection on student's skills and the acquisition of MELCs.

#### **4) Inquiry**

Demonstrate the inquiry cycle across the curriculum (Inquiry, Action, and Reflection).

### **Why do students keep a portfolio?**

The portfolio will help you in four ways:

1. You can reflect on your learning throughout the semester
2. You can organize the evidence of your work in a variety of areas.
3. You can share your accomplishments with your family and others.
4. You will use this as a final Performance Task in all your subjects every end of semester.

### **What type of work does a student put in the portfolio?**

You include written works, performance tasks, essays, artworks, researches, certificates you earn from participating webinars or activities. If the work/project is too large to fit in your Portfolio, a photo may be attached to a paper that describes the work/project. Be sure the date is on all your work and don't forget to complete the Assessment to Learning reflection for every work.

### **Who will grade the portfolio?**

The student will self-assess the portfolio by using the student checklist at the end of every semester. The teacher will also evaluate it as a requirement for completing the semester.

### **Organization of the Portfolio**

#### ***Table of Contents***

1. Cover Page
2. IPSA Vision and Mission Statement.
3. Personal Page
4. Written works with ROL/Learning experiences in every subject.
7. Performance Tasks with ROL/Learning experiences in every subjects.
8. Other works (e.g. essays, art works, researches) with ROL/Learning experiences in every subjects.
9. End of Semester Reflection



# **IPSA VISION and MISSION STATEMENTS**

## **VISION STATEMENT**

International Philippine School in Al Khobar (IPSA) is a leading Filipino community school: pro-God, dynamic and responsive to the needs of the learners and the community.

## **MISSION STATEMENT**

International Philippine School in Al Khobar (IPSA) is committed to providing value-focused, research-based, service-driven and innovative education.



## Personal Page

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I am Ahmad Badron, and I may or may not consider myself an ambivert. And by that, I mean that I get very noisy with people I've known for long enough, and very silent around people I may know, but not too close to. I am a 5'7" (or 169 cm), 16 year old Filipino guy, born on a Tuesday, June 29, 2004 in Dammam Maternity Hospital, KSA. When I've got nothing to do, like nothing at all, I think about anything I can think of, and I brainstorm on it and come up with thoughts about the topic. So now you know about what goes in my head, when stationary. I'd say I am emotionally stable as a person. But kind of not too. I tend to overthink things, especially my friendships and relationships with people, which is a bad thing to do.

Currently, I am reading War and Peace, by Leo Tolstoy, and I'm not sure if I'm ever gonna finish it. First of all because it has 2000+ pages, and second that matters is that I'm not that 'reader' -ish of a person. So I'm not sure how this read is gonna go. I have played Lawn Tennis ever since I was young enough to be able to carry a racket in both my hands. And I still play it to this day. I like a lot of challenges, and thinking, so I try programming challenges that help me make algorithms that are actually useful in the long run. Mention the fact I also program. So far, the languages I have learned and have been able to program on are C++, Python, JavaScript, and Java. HTML and CSS aren't programming languages, mind you.

# Reading & Writing

## Written Works

### 3rd Quarter

#### 1 Written Work 1

WW # 1- THIRD QUARTER	
Mary Jane Soriano • Dec 8 10/10	Due Dec 8, 4:45 PM
In 3 to 5 sentences, kindly complete this phrase : Critical Reading is...	
Class comments	
Your answer	Graded
Critical Reading is reading the deeper message and meaning behind the literal text. It's like exploring the submerged part of the iceberg. It can also be interpreted as studying a book or a story's theme instead of reading its summary.	

#### 2 Written Work 2

Reading & Writing   3rd Quarter
<h2>Written Work 2: Early Pregnancy &amp; Motherhood</h2> <p>December 13 2020 Pg 85</p> <p><b>Findings:</b> Table Reading - Describe in two sentences what you see on the given table.</p> <p>I can see that there are more and more women who are having early pregnancies are usually living in poverty, in rural areas, and have lower educational attainments. We can also see that as early as 15 years of age, women already get pregnant.</p> <p><b>Discussion:</b> Explain in five sentences what the findings mean or imply.</p> <p>This implies that those who have lesser education and wealth, although cant support all their children, get pregnant because of lack of knowledge on their activities, and to have more hands to carry their poverty. This is like some paradox or loop for those in the slums, where they dont have enough money to support their own education, and therefore giving them lower waging jobs for what they know and can do. Educating the poor may be a solution to this problem but the situation they are in causes them to stop learning again, falling back into the loop that was mentioned earlier. Lots of factors come into play when it comes to this topic. Unemployment of a parent, or lack of education of a parent, may cause their children to fall into these spots.</p> <p><b>Conclusion &amp; Recommendation:</b> In three sentences state the impact or effect of these findings and implications, to you, to your family, school, community or society.</p> <p>These findings bring massive impacts to society and to families in the Philippines. In schools, these topics are being taught to adolescents. Contraceptives, and condoms are encouraged to the youth. Families become more careful with their children. More and more consequences may come as time does.</p>

### 3 Written Work 3 (Group): Circle Chat

Reading & Writing | 3rd Quarter

## Circle Chat

December 9 2020

Page 30

### Article Questions

1. What is alcoholism?
2. Why do people drink too much?
3. How does alcoholism affect families?
4. What do children experience when they grow up with an alcoholic parent?
5. What is the source of the article about alcoholism?
6. What happens if a parent doesn't see alcoholism as a problem?
7. Can you do something to help an alcoholic friend? How?
8. Is it possible to give advice to parents involved in alcoholism?
9. Do you agree that parents can still function normally even if they're into alcoholism? Why do you say so?
10. What strategy would best work in dealing with an alcoholic parent?
11. Is there a long term side effect for this kind of domestic scenario?

Form a group of at least five members and create a circle chat. Based on the article you read, determine the answers to the guide questions.

Comprehension Check	Question Number
Which question/z do you think requires a simple answer?	1, 2, 5
Which question/s would have answers found directly from the text?	1, 2, 4, 5
Which question/s would have answers not found explicitly in the text but the idea is implied?	5, 6
Which question/s would have answers that are based on predictions you made?	7, 8, 9, 10, 11

### 4 Written Work 4 (Group): Unified or Not?

Reading & Writing | 3rd Quarter

## Written Work 4: Unified or Not?

December 10 2020

Page 61

### Details That Support the Main Idea

- Try making hanging lanterns using old jars and wire, hand cut paper snowflakes out of newspaper, ...
- Impress your friends and family this year with a low-cost, creative green holiday bash.
- Set the ambience with personalized decors out of recycled materials, and energy-efficient LED fairy lights.
- Use reusable dinnerware instead of disposables as much as possible.
- Place clearly marked recycling and non recycling bins out for your guests.

### Details That Do not Support the Main Idea

- Use electronic invitations to get the word out.
- Start the party early to make use of natural light.
- Server organic dishes made from fresh food bought from the local market.
- Organic food can be prepared in a very meticulous way.
- Celebrate the holidays in the most visited places in the city.

5 Written Work 5 (Group): Odd One Out!

6 Written Work 6 (Group): Revision through Cohesion

Reading & Writing | 3rd Quarter

## Written Work 6: Revision through Cohesion

December 10 2020  
Pg 65-6

Revise the following sentences by applying the appropriate cohesive device. Write the cohesive device on the line before the number.

1. Most commercial products are on sale during the holiday season. Many people crowd the malls, grocery stores, and the department stores weeks before Christmas.  
**Revision:**  
Most commercial products are on sale during the holiday season, so many people crowd the malls, grocery stores, and the department stores weeks before Christmas.
2. My parents gave me their permission to spend Christmas with our relatives in Davao, but I have already decided not to spend Christmas with our relatives in Davao.  
**Revision:**  
My parents gave their permission to spend Christmas with our relatives in Davao, but I have already decided not to.
3. I can make my dream Christmas vacation in Korea a reality. I have saved enough money for my plane ticket, hotel reservation, and pocket money.  
**Revision:**  
I can make my dream Christmas vacation in Korea a reality, because I have saved enough money for my plane ticket, hotel reservation, and pocket money.
4. What I love most about Christmas are the colorful lanterns, catchy jingles, and surprise presents. Colorful lanterns, catchy jingles, and surprise presents make Christmas the best holiday ever.  
**Revision:**  
What I love most about Christmas are the colorful lanterns, catchy jingles, and surprise presents, they make Christmas the best holiday ever.

## 4<sup>th</sup> Quarter

1. Written Work 1

Reading & Writing | 3<sup>rd</sup> Quarter

## Written Work # 1

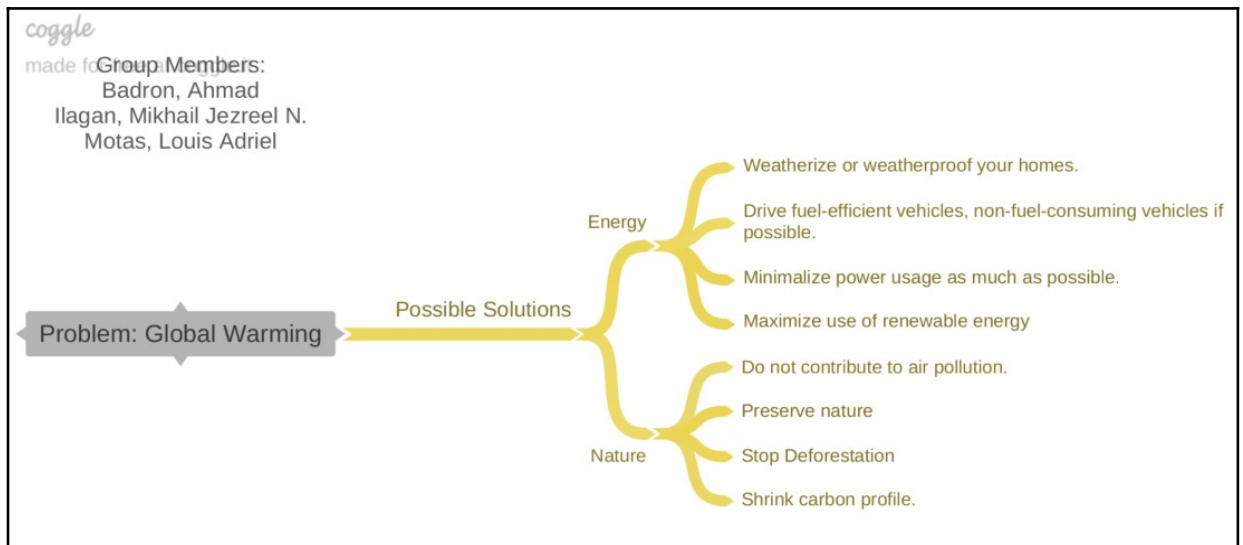
February 14 2021  
Page 114

**You Complete Me**  
Read the topic sentence and the first supporting detail of each paragraph. Complete 1 of the 3 paragraphs by adding details to support the topic sentence and to persuade the teacher.

**Paragraph:**

Homework is an essential part of the learning process. First, it gives students additional practice of skills covered in class. Second, it trains students to do the same work, in the same attitude, but in different environments. And third, it also trains students' punctuality and perseverance.

2. Written Work 2



### 3. Written Work 3: Critique / Review

Reading & Writing | 3<sup>rd</sup> Quarter  
**Written Work 3: Critique / Review**  
 February 16 2021

Product to Review:  
**Vim – a powerful text editor**

**Introduction**  
 Recent Developments in the world and in the region  
 Vim has saved a lot of programmers' time and energy with their projects, when it came to writing their programs and scripts.

General Features  
 Vim is a powerful text editor relies more on the use of the keyboard than the use of the mouse.

**Body**  
 What are the essential features?  
 Vim allows you to maximize the use of the keyboard by allowing you to have a multitude of commands, and command combos, in just the reach of your fingers.

What are the strengths of these features?  
 Vim relies more on the use of the keyboard than the use of the mouse. In actuality, it doesn't even need a mouse, to begin with. It reduces the time wasted in switching a hand from the mouse to the keyboard, and gives the keyboard more power and control over editing your files. It gives even more control and power to the keyboard with the various commands, and command combos you can do with Vim.

What are the weaknesses of these features?  
 Vim may not appeal to people who are more visual when it comes to computers, and people who are less-proficient with the keyboard, as Vim relies on the use of the keyboard to navigate, and edit your files.

**Conclusion**  
 Points of recommendation  
 Kamran Khan, a Security Engineer at Google pointed out in a Quora thread<sup>[1]</sup> that:  
*Vim is held in high regards because it is one of the only editors around that give you a perfect combination of: ubiquitous, simple, powerful, extensible, no need of a GUI, and being free!*

What are the positive and negative features of the item?  
 Vim is just a base foundation for many more Vim forks that give you more features that its origins may not have. Vim is also very light on the computer's performance as it only operates on any terminal on the computer, which is a very big plus when working with big projects. Some negative features, as I have said are it's learning curve for beginners and people who aren't proficient with the keyboard, as it may take a

What background knowledge is needed for users to fully maximize the use of item or enjoy the event / movie / product, etc?  
 The users, must obviously be programmers or developers in need of a more efficient way to work around editing their files and



## REFLECTION ON LEARNING

What are the Written Works?

### 3<sup>rd</sup> Quarter

1. Written Work 1 – **10/10**
2. Written Work 2 – **10/10**
3. Written Work 3: Circle Chat – **10/10**
4. Written Work 4: Unified or Not? – **10/10**
5. Written Work 5: Odd One Out! – **10/10**
6. Written Work 6: Revision through Cohesion – **12/12**

### 4<sup>th</sup> Quarter

1. Written Work 1 – /15
2. Written Work 2 – /15
3. Written Work 3 – /15

Explain what exactly you were required to do in these written works?

### 3<sup>rd</sup> Quarter

- 1 We were asked to continue this phrase: “Critical Reading is ... ” in a short answer.
- 2 We looked at a table of data about early pregnancy and motherhood, and we were asked to reflect and give our findings based on the data. We wrote our output in paragraph form.
- 3 We listed down different types of questions based on the article we just read and the questions that came along with it. We did this activity with a group.
- 4 We picked out the sentences that didn’t support the main topic, and those that support the main topic.
- 5 We underlined the sentences that were out of order or sequence to evaluate the paragraph’s coherence. We did this activity with a partner.
- 6 We revised sentences that didn’t feel right with cohesive devices, and we did it as a group.

### 4<sup>th</sup> Quarter

1. In this written work, we completed a paragraph and filled in supporting details to complete the idea.
2. In this written work, we made a graphic organizer with our select group mates, that was about a problem or a topic we chose.
3. In this written work, we made a proper review of a product. I chose to review Vim, which isn’t really product, but an open-source text editor.

What information was the most interesting/surprising to you?

### 3<sup>rd</sup> Quarter

- 1 I was amused by the concept of critical reading, because I was aware of it but I wasn’t aware about it being a concept.
- 2 I was surprised to see that my expectations for the results weren’t what they turned out to be. I expected that the reckless teenagers would be more prone to early pregnancy, but it turned out that the 20-year-olds were more prone to pregnancy than the younger ages.
- 3 Questions can be put into different classifications, and with that, you have an idea on how to efficiently answer the questions.
- 4 Reading a paragraph without unity feels weird. The bits of the paragraph that don’t really point to the main idea distract the reader and causes them to lose grip of the main idea.
- 5 My reaction to this was pretty much the same with the last activity, but this time, we get the satisfaction of revising the wronged paragraph using cohesive devices.
- 6 Sentences can be easily fixed with just simple words such as “because”, and you can make

the sentence be read smoothly without any doubt in it.

#### **4<sup>th</sup> Quarter**

1. I learned in this written work, that with proper research, and sequence of ideas, a single sentence's idea can be completed with the supporting details that'll come after it.
2. I learned and solidified the fact for myself that two heads are better than one, because me and my group mates came up with a lot of ideas, and even ideas that I myself couldn't think of.
3. It was fun to review a product that I really like and use, and maybe a bit of bias was mixed into the critique, but anyway, it was a fun activity.

Which of the written works you did well? Why?

#### **3rd Quarter**

I'd say I have done well in much of the tasks given to us, despite missing the first day of classes. Because I participated, took my time, and kept up with the activities as much as possible.

#### **4<sup>th</sup> Quarter**

I did well with all the activities. Because I was able to catch up

In what written work do you need to improve? How?

#### **3rd Quarter**

I want to work on my motivation to read long passages. I have very bad attentiveness and I get hooked by my environment quickly. I need to work on focusing in class and focusing on what I'm doing.

#### **4<sup>th</sup> Quarter**

The only thing I have to work on is the punctuality.

## **Performance Tasks**

### **3rd Quarter**

- 1 Mini Performance Task 1: Revising through Cohesion
- 2 Mini Performance Task 2

## 4<sup>th</sup> Quarter

### 1. Mini Performance Task 1

Reading & Writing | 4<sup>th</sup> Quarter

#### Mini Performance Task 1

February 16 2021

1. Topic: **Online Learning**
2. Issue: **Normalizing Online Learning**
- Stand: **Against**
3. Claims: **Eventual decrement of practical social skills, risk of internet reliance/dependence, health hazards**

#### Outline

- I. Introduction  
Thesis Statement:  
**How normalizing online learning may lead to eventual decrement of practical social skills, internet reliance/dependence, or health hazards.**
- II. Counter Argument  
A. Counterclaim:  
**Learning online is flexible, accessible, more cost-effective than traditional education, and it also offers a wide selection of programs, and allows for a customized learning experience (Josep 2020).**  
B. Refutation:  
**"One of the most glaring issues with online education is the lack of interpersonal communication" (Earle 2014). It is hard for students to deal with issues relating to motivation, especially since video games, social media, and the internet is on the tips of their fingers at their own will.**
- III. Writer's Argument  
A. Assertion of the 1<sup>st</sup> Point:  
**"There is no sense of friendship or relationship between the students that would usually be built in traditional in-person classes" (Ong 2020). The physicality of in-person classes define the sense of community, which can easily be lost online.**  
B. Assertion of the 2<sup>nd</sup> Point:  
**Many students remember a time when broadband Internet service was not a given in a household; rather they see the Internet as a fundamental necessity (Ellis et al. 2015).**  
C. Assertion of the 3<sup>rd</sup> Point:  
**A lot of hazards and dangers come with extended screen time. As Active Health (2020) enumerates them, excessive screen time may bring you sleep deprivation, physical strain to your eyes and body, increased risk of obesity, and many more.**
- IV. Conclusion  
Course of Action:  
**In summary, normalizing online learning may lead to risks of decreased social skills, internet addiction, or health hazards due to extended screen time. A lot of thought must be put into the process of normalizing online learning, and we must clear these risks and many more risks before hopping into the next iteration of education mediums.**

## 2. Mini Performance Task 2

Reading & Writing | 4<sup>th</sup> Quarter  
**Mini Performance Task 2**  
February 17 2021

**Ahmad G. Badron**  
055-758-1975  
[bdmahmde@gmail.com](mailto:bdmahmde@gmail.com)  
Subikha, Al Khobar, KSA

**Education**

- Junior High School (2016 – 2020)
  - IPSA
- Elementary (2010 – 2016)
  - IPSA
- Preschool (2008 – 2009)
  - IPSA

**Special Skills**

- Communication & Leadership Training (CLT) Program
- Basic C++ Programming
- Basic Javascript Programming
- Basic Python Programming

**Seminars Attended**

1. Career Talk – 2020
2. PPO Webinar – 2020

**Other Personal Information**

- Full Name
  - Ahmad Guro Badron
- Date of Birth
  - June 29 2004
- Place of Birth
  - Dammam Maternity Hospital, Dammam, KSA
- Hobbies
  - Programming
  - Lawn Tennis
  - Music
  - 8 Ball Pool (Billiard)

## 3. Mini Performance Task 2 Part 2

Reading & Writing | 4<sup>th</sup> Quarter  
**Mini Performance Task 2 (Part 2)**  
February 21 2021

**Ahmad Badron**  
8156 17<sup>th</sup> Street  
Al Khobar Al Janubiyah, KSA

To the Selection Committee:

My name is Ahmad Badron and I am a high school senior in the International Philippine School in Al Khobar, KSA. By the summer of 2022, I will be starting my freshman year at the Mindanao State University with an intended major in Mathematics, and also intending to go down a Computer Science path.

I have studied my high school years in different schools and environments, so I can adjust pretty well to any environment. I joined the Robotics Club in my freshman year in IPSA as a high school junior, which is where my interest in programming sparked. In my 3<sup>rd</sup> year of junior high school, we were met with the C++ programming in our computer class and got me going into programming and exploring other programming languages. As I have traversed different programming languages and different fields, I can quite confidently say I have learned the basic fundamentals of programming and have gotten pretty familiar with various languages, to add.

I have strong feelings about going down a career path in the Computer Science industry. And I can tell you I am very passionate about it. I want to find solutions to problems that people might never know they had. I also want to find ways to make everyday life more convenient for anyone who needs it.

I still have so much more room to grow and learn more, and that is why I want to focus on school. As we all know it college fees usually tend to be high, and although my parents work abroad, I still want to help them with the expenses that they already have there. This scholarship would help me achieve that and lessen the temporary burden on my family.

I'd really love to contribute as much as I can offer to Mindanao State University, and hopefully graduate with the pride of the University. It'd be my pleasure to receive a scholarship. Thank you for your time and attention, I look forward to your response.

Sincerely,  
Ahmad Badron

## REFLECTION ON LEARNING

What are the Performance Tasks??

### 3rd Quarter

- 1 Mini Performance Task 1: Revising through Cohesion - **15/15**
- 2 Mini Performance Task 2: Comparing & Contrasting - **15/15**

**4<sup>th</sup> Quarter**

1. Mini Performance Task 1 – /25
2. Mini Performance Task 2 – /20
3. Mini Performance Task 2 Part 2 – /20

Explain what exactly you were required to do in this Performance Task?

**3rd Quarter**

- 1 We were told to revise a paragraph using cohesive devices.
- 2 We were asked to compare and contrast two subjects in an essay form.

**4<sup>th</sup> Quarter**

1. In this mini performance task, we wrote a position paper. I chose the topic “Online Learning” having a stand against normalizing it.
2. In this mini performance task, we made a resume.
3. In this mini performance task, we made scholarship application letter, basing the details off the resume we made in the last mini performance task.

How may the skills that you have developed in this Performance Task be of help to you in your future career?

**3rd Quarter**

- 1 Cohesive devices are very useful when revising sentences and making the ideas flow smoothly as the reader reads it.
- 2 Having different ways to compare two topics is very handy, especially having two ways expressing your thoughts.

**4<sup>th</sup> Quarter**

1. Position papers are like the scripts for asynchronous debates for me. I learned in this activity how to express my stand and opinions on topics in a more formal manner.
2. Resumes are key items in the hustle for finding jobs, which is what we will get into hopefully after or during college.
3. Learning how to write a scholarship application letter is going to be very helpful, to me and my family. Because I am looking forward to applying for a scholarship when I come home to the Philippines for college.

Which of the Performance Tasks you did well? Why?

**3rd Quarter**

I’d rather lean towards doing well in the first mini peta. Because I clearly understood the topic well among the others. I also did well in mini peta 2, because I had a good understanding of the activity and the topic.

**4<sup>th</sup> Quarter**

I did well in all as well, because I was in pace with the lessons.

In what Performance Task do you need to improve? How?

**3rd Quarter**

I’d gladly say I did well with most of the activities, it’s just that I feel like I was a bit tight on time, so I need to be more punctual.

**4<sup>th</sup> Quarter**

I need to improve in being more comprehensive in most of my writings, because I lack details, explanation and reason when I write out my ideas.

# PE & Health

## Written Works

### 3rd Quarter

#### 1 Written Work 1

### WRITTEN WORKS NO. 1

Leo Mayo Parco • Dec 14 (Edited Dec 14)

19/20


Due Dec 14, 2:35 PM


GUIDE QUESTION:  
Nature of Different Sports Activities Individual and Dual Sports

1. How are rules important in playing any SPORTS / GAMES? Discuss in detail.

2. Share your experience on how the Different Sports Activities benefited you in any way?

Class comments

 Add class comment...

Your answer  Graded

Rules are an essential pillar in playing sports, because without rules, watching games would be more or less like watching TV noise. Not making any sense or purpose in watching it even, maybe even playing the game.

I have played my number of sports, and I can say that playing a lot of sports aren't only fun, but also give me the chance to understand the feeling of losing and developing a proper attitude towards it. Like how I always lost in Table Tennis matches, and yet I still want to play more of the game and learn more in the game. I am also trained physically despite all the mental benefits of sports.

#### 2 Written Work 2

### Physical Education and Health 2

#### WRITTEN WORKS NO. 2

**Name: Badron, Ahmad G.**  
**Grade and Section: 11 STEM2**

1. Use the table below and categorize the different Track and Field Events mentioned in the video. Write your answer in the space provided.

Running	Walking	Jumping	Throwing
Relay	Walkathon	Pole Vault	Discus
Sprint		High Jump	Javelin
Hurdles		Long Jump	Shot Put
			Hammer Throw

2. In your words, explain the following:

a. Multi-Events:

There are two multi-events that are for both genders: Men's Decathlon, and Women's Heptathlon. The Decathlon consists of 10 events in its full course, hence its name *deca*-. The event starts with 100m run, long jump, shot put, high jump, and 400m run in its first day. And 110m hurdles, discus throw, pole vault, javelin, and 1500m run in its second day. While the Heptathlon consists of 7 events, hence the name *hepta*-. The heptathlon starts with 100m hurdles, high jump, shot put, and 200m run in its first day. And it finishes with long jump, javelin, and 800m run in its second day.

b. Walking Events:

Race walking aka Walkathon, is a long distance walking event that is organized as a fun racing event with a multitude of participants. This is quite similar to the marathon, instead the participants don't sprint.

c. Marathon:

The Marathon is a long distance run event that is usually 40km long, also with a multitude of participants. It is said that the event commemorates the long distance that the Greek soldiers ran during times of war. It is usually held as a fun racing event.

### 3 Written Work 3

Physical Education and Health 2			
WRITTEN WORKS NO. 3			
<b>Name:</b> <u>Badron, Ahmad G.</u>			
<b>Grade and Section:</b> <u>11 STEM 2</u>			
1. RACKET SPORTS: Badminton, Table Tennis and Lawn Tennis			
Racket Sports	Description	Materials and Equipments	Common Shots or Strikes
Badminton	Badminton is, if not, the fastest paced racket game among the others. It is played with a shuttlecock. The goal is to make the shuttlecock hit your opponent's ground and not on yours.	<ul style="list-style-type: none"> <li>- Racket</li> <li>- Net</li> <li>- Shuttlecock</li> </ul>	<ul style="list-style-type: none"> <li>- Clear</li> <li>- Drop</li> <li>- Drive</li> <li>- Smash</li> </ul>
Table Tennis	Table Tennis is also one of fastest paced racket games from what has been discussed. It requires flexibility and a fast reflex to play this game professionally. But otherwise it is also a fun casual game.	<ul style="list-style-type: none"> <li>- Racket</li> <li>- Net</li> <li>- Table</li> <li>- Ping Pong Ball</li> </ul>	<p>Grip Used</p> <ul style="list-style-type: none"> <li>- Pen Hold</li> <li>- V Hold</li> <li>- Hands hake</li> <li>-</li> </ul>
Lawn Tennis	Lawn Tennis is a much more athletic racket game when played	<ul style="list-style-type: none"> <li>- Racket</li> <li>- Tennis Ball</li> <li>- Net</li> </ul>	<p>Basic Strokes</p> <ul style="list-style-type: none"> <li>- Forehand</li> <li>- Backhand</li> </ul>

### 4<sup>th</sup> Quarter

#### 1. Written Work 1

### REFLECTION ON LEARNING

What are the Written Works?

#### 3rd Quarter

1. Written Work 1 - **19/20**
2. Written Work 2 - **22/25**
3. Written Work 3 - **29/30**

#### 4<sup>th</sup> Quarter

1. Written Work 1 –
2. Written Work 2 –
- 3.

Explain what exactly you were required to do in these written works?

#### 3rd Quarter

1. We were asked two simple questions about sports, its rules, and how it benefited us in any way.
2. We filled in tables about athletic sports, a topic we recently just studied. We also assessed our knowledge of the said topic through defining and explaining three words related to the topic.
3. We filled in tables about the respective racket games we studied about. We were also asked to describe Pickleball and where it originated.



What information was the most interesting/surprising to you?

**3rd Quarter**

- 1 Sports as a topic itself got me hooked to it. I look forward to the lessons.
- 2 I was very interested in how the professional athletes who play the game have so much stamina, I wish I had a talent like theirs.
- 3 When it comes to my main sport, lawn tennis, I'm not that much of a geek. But this made me feel like one. I also always thought that table tennis was the fastest paced racket game out there, until I realized how badminton is professionally played.

Which of the written works you did well? Why?

**3rd Quarter**

I would come to an agreement with myself that I have done well in all of the written works, since most of the required tasks were just revolving around the same topic we just have discussed.

In what written work do you need to improve? How?

**3rd Quarter**

I do think that I don't any much negative productivity this quarter, and I'm proud of that. I'm also proud to say I have to keep it up.

## Performance Tasks

### 3rd Quarter

#### 1 Performance Task 1

Physical Education and Health 2		
PERFORMANCE TASK NO. 1		
Name: Badron, Ahmad G.		
Grade and Section: 11 STEM2		
Throw, Clap and Catch Activity		
Direction: Using a ball or any small and light materials available in their houses, the learners will do the following Throw, Clap, and Catch Activities:		
One Ball		
<ul style="list-style-type: none"><li>• 5x - both hands</li><li>• 5x - left hand</li><li>• 5x - right hand</li><li>• 5x - alternate hand</li></ul>		
Two Balls		
<ul style="list-style-type: none"><li>• 5x - both hand</li><li>• 5x - alternate hands</li></ul>		
Task	How many times	Number of tries before completing the task
One Ball - Both Hands	5x	5
One Ball - Left Hand	5x	5
One Ball - Right Hand	5x	5
One Ball - Alternate Hand	5x	5
Two Balls - Both Hand	5x	5
Two Balls - Alternate Hands	5x	5

## 2 Performance Task 2

**Physical Education and Health 2**  
**PERFORMANCE TASK NO. 2**

**Name:** Badron, Ahmad G.  
**Grade and Section:** 11 STEM2

**Walk and Run Activity**  
Direction: Fill in the table below with the needed details

Walk and Run Activity	No. of Steps	No. of Minutes
Regular Walk in Place	100	55s
High Knee Walk in Place	100	1m
Jogging in Place	70	1m
Butt Kick in Place	70	1m 11s

Questions:

- While having our Walk and Run Activity, what have you observed in yourself?  
  
I observed that I have quite a moderate stamina. I don't know about the others, but I think my time was average.
- Based on the activity, what are the things you need to improve to keep yourself healthy?  
  
I need to increase my daily physical activity, especially since this quarantine/lockdown caused massive impact in people's physical and mental health. I need to get over my lockdown habits and start over with a healthier lifestyle.

## 3 Performance Task 3

**Physical Education and Health**  
**PERFORMANCE TASK NO. 3**

**Name:** Badron, Ahmad G.  
**Grade and Section:** 11 STEM2

**Basic Skills in Racket Games**  
Direction: Fill in the table below with the needed details

Basic Skills	No. of Minutes	No. of Touches
Forehand	1m 9s	110
Backhand	50s	102
Combination	24s	24

Questions:

- While having our discussion about the racket games sports, what are your new learnings?  
  
I learned that pickleball is like a budget version of lawn tennis and it is more of a casual game than a professional sport.
- Based on the lesson, what racket games are you interested in learning and improving, explain why?  
  
I am already playing most of these games, and I think I want to improve in both table tennis and lawn tennis. Lawn tennis is my main sport and I really would like to improve on the game a lot. Ever since quarantine/lockdown, I haven't played a single game of it, and now that lockdown has been taken down, I have been playing lawn tennis again. I think I'll be able to play more when the winter vacation comes, and maybe some table tennis with Louis Adriel when they come here to Kobar for vacation.

## 4 Performance Task 4

<p align="center"><b>Physical Education and Health 2</b> <b>PERFORMANCE TASK NO. 4</b></p> <p><b>Name:</b> Badron, Ahmad G. <b>Grade and Section:</b> 11 STEM2</p> <p><b>Game Analysis</b></p> <p>Instruction: In three to five-sentences, write your answer on the space below. Answer the following questions explicitly.</p> <p>1. How do you feel while watching the Badminton Match on the video?</p> <p>I am very impressed with their immense skills in badminton, it makes me see them as, if not, badminton geniuses.</p> <p>2. Describe the different uses of typical shots and strikes of both players in the video.</p> <p>A wide usage of the different types of shots can be observed from both players. Yuxiang is observably on the defensive side, and Momota is on the offensive, using a lot of the smash and drives.</p> <p>3. Who do you think is the best player among the two players in the video? Why?</p> <p>I think that Huang Yuxiang has been bested by Kento Momota. With the game being one of, if not, the fastest game, being on the offensive is a greater advantage than defending.</p> <p><b>Subject Evaluation</b></p> <p>1. Based on our topic, discuss what is more interesting to you and why?</p> <p>I think I am a bit biased with this decision, but I was more interested in the racket games than the other games. As I said, and if you don't already know, I am a lawn tennis player and I'm looking forward to playing table tennis as well, which is the main influence of my decision.</p> <p>2. Share your new learning in our four days class in PE &amp; Health.</p>
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### 4<sup>th</sup> Quarter

1. Written Work 1
2. Written Work 2

## REFLECTION ON LEARNING

What are the Performance Tasks??

### 3rd Quarter

- 1 Performance Task 1 - 25/30
- 2 Performance Task 2 - 29/30
- 3 Performance Task 3 - 29/30
- 4 Performance Task 4 - 30/30

### 4<sup>th</sup> Quarter

1. Written Work 1
2. Written Work 2

Explain what exactly you were required to do in this Performance Task?

### 3rd Quarter

- 1 In this performance task, we provided ourselves a small ball, or any material in its shape in the case there isn't a ball. Then we threw the ball in the air, clapped our hands, and caught the ball again. We had to do this 5 times for certain circumstances.
- 2 In this performance task, we measured the time it took for us to walk, and jog in different paces and variations.
- 3 In this performance task, we provided ourselves a racket and a ball, makeshifts if not available. We measured how much we could do forehands, and backhands, and measured the time it took for us as well.
- 4 In our final performance task, we watched a video of two professional badminton players going at it with each other. We were asked to reflect and give our insights on the clip of the match. We also gave our opinion on the subject in its course of 4 days.

How may the skills that you have developed in this Performance Task be of help to you in your future career?

**3rd Quarter**

- 1 Hand-eye coordination is a serious thing in any field of competitive sports, and I think I just found a way to measure my hand-eye coordination with this activity.
- 2 Our legs are being used in our daily life indoor or outdoor, and since legs can be used in athletic professions, I think this can also be a measuring tool for when someone is planning on an athletic career.
- 3 As a lawn tennis player, I have been through this in my training stages, but I can still use this same technique for when I teach lawn tennis to younglings.
- 4 Game analysis are key factors when growing to be an iconic and strong athlete. Whether analyzing your games, or analyzing games of pros, it is always your advantage if you study where you went wrong, what you can do right, and etc.

Which of the Performance Tasks you did well? Why?

**3rd Quarter**

As with my response in the written works, I am proud to say I am content with my performance in all of the given tasks.

In what Performance Task do you need to improve? How?

**3rd Quarter**

And as I have previously mentioned, I am proud and satisfied with my products and in my opinion, there's still room for improvement.

# Disaster Readiness & Risk Reduction

## Written Works

### 3rd Quarter

#### 1 Activity 1

##### ACTIVITY 1

##### FILMSHOWING ON DISASTER

##### PROCESSING QUESTIONS:

1. What were your expectations before watching the movie or the film?

With a lot of teenagers in this film I was expecting this to be a tragedy romance film.

2. How did you feel while and after watching the movie?

The movie felt dull, and emotionless. I guess they gave more attention to the tragedy/disaster aspect of the film. They probably made this movie for the main purpose of Disaster readiness and awareness.

3. What scenes struck you most and why?

The fire tornado and when the bald man in the Batmobile flew in the eye of the storm. These scenes struck me most because I never thought this was possible.

#### 2 Activity 2

##### Activity 2

##### Instruction:

Identify 3 disasters in the story/ picture.

Determine the causes of the disaster.

Identify the different needs during the disaster you chose.

##### Disaster 1.



In the picture above, the house is set in big flames. The most probable cause of this disaster is irresponsible management of stove gas or misuse of candles or it's an intended crime. The people who are victimized are in grave need of shelter, clothes, and food.

##### Disaster 2.



In the picture above, the people have been struck with a great flood or a tsunami. There's a lot of probable causes for this disaster, one of which is earthquakes or heavy rain. Just as every disaster, victims need shelter, and food.

### 3 Activity 3

Activity 3: HAZARDS, VULNERABILITY & CAPACITY

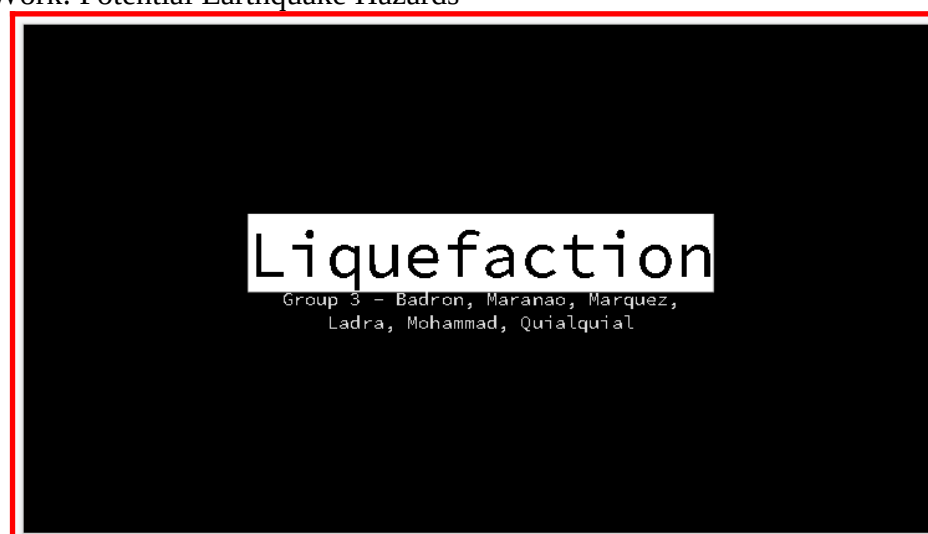
Test I.

Classify hazards according to their types. Write your answer in the corresponding answersheet provided below.

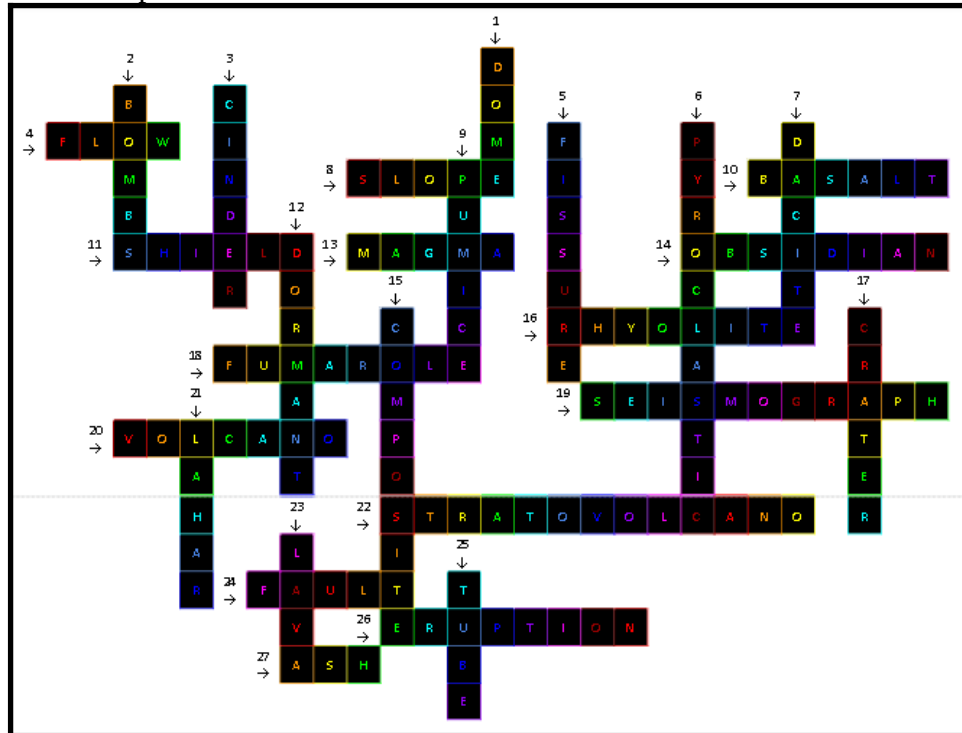
<ul style="list-style-type: none"> <li>Storm surge</li> <li>Industrial technological hazards</li> <li>Oil spill</li> <li>Famine</li> <li>Tsunami</li> <li>Earthquake</li> <li>Gaseous chemical contamination</li> <li>Lahar flows</li> <li>Drought</li> <li>Fire</li> <li>Nuclear</li> <li>Civil conflict/armed conflict</li> <li>Flooding</li> <li>Chemical contamination</li> <li>Flash Flood</li> <li>Typhoon</li> <li>Volcanic eruption</li> <li>Environmental degradation</li> <li>Red tide</li> <li>Pestilence</li> </ul>		
---	--	--

NATURAL HAZARDS	HUMAN MADE HAZARDS	COMBINATION: SOCIOCULTURAL HAZARDS
<ul style="list-style-type: none"> <li>- Typhoon</li> <li>- Storm Surge</li> <li>- Tsunami</li> <li>- Earthquake</li> <li>- Flash Flood</li> <li>- Flooding</li> <li>- Volcanic Eruption</li> <li>- Red Tide</li> <li>- Lahar Flows</li> <li>- Pestilence</li> <li>- Fire</li> </ul>	<ul style="list-style-type: none"> <li>- Civil/Armed Conflict</li> <li>- Environmental Degradation</li> <li>- Famine</li> <li>- Oil Spill</li> <li>- Industrial Technological Hazards</li> <li>- Gaseous Chemical Contamination</li> <li>- Nuclear</li> <li>- Chemical Contamination</li> </ul>	<ul style="list-style-type: none"> <li>- Flooding</li> <li>- Drought</li> </ul>

### 4 Written Work: Potential Earthquake Hazards



## 5 Written Work: Erupt-A-Word



6

## REFLECTION ON LEARNING

What are the Written Works?

### 3rd Quarter

- 1 Activity 1 - 30/30
- 2 Activity 2 - 15/15
- 3 Activity 3 - /30
- 4 Written Work: Potential Earthquake Hazards - 20/20
- 5 Written Work: Erupt-A-Word - /27

Explain what exactly you were required to do in these written works?

### 3rd Quarter

- 1 In this activity, we watched an hour-long tragedy movie concerning disaster readiness and awareness. Then we were asked to reflect on the events in the movie.
- 2 In this activity, we were split into breakout rooms. Then we picked out pictures that we could tell stories we could relate it to. Then in a Google Docs file, we picked out 3 images to explain the situation/disaster that occurred to them.
- 3 In this activity, we sorted different kinds of hazards into 3 categories. Then we identified different words related to disaster readiness, hazards, and etc.
- 4 In this written work, we were grouped into breakout rooms. Each group was assigned a potential earthquake hazard. My group was assigned to Liquefaction or Soil Liquefaction. Later, our group's assigned reporter explained and discussed our accumulated information to the class.
- 5 In this written work, we were given two hyperlinks to pages that contained information for a crossword we had to fill in.

What information was the most interesting/surprising to you?

### 3rd Quarter

- 1 I'm quite surprised that although people have been taught disaster drills, especially students, almost all their lives, they still gave a number of casualties to the tornadoes.
- 2 I've come to realize that no matter what we do, disasters will always bring casualties to the table, and there's no way around it. But what we do know is that we can prevent a larger and greater number of casualties and unfortunes.
- 3 Being able to classify different hazards is one step towards preventing/preparing for it. Learning about them thoroughly is an even larger one.
- 4 Now is the only time I learned about Soil Liquefaction, I never knew that the solid ground that I know can be as unstable as liquid water.
- 5 I was so interested in the different types of lava. I never learned about it until now.

Which of the written works you did well? Why?

### 3rd Quarter

I'd like to point out that I appreciated the second activity a lot. Sharing stories and experiences with people help share the lessons we might have pulled out from it. And me having experienced some tragedies for myself, it's nice to open it up to people.

In what written work do you need to improve? How?

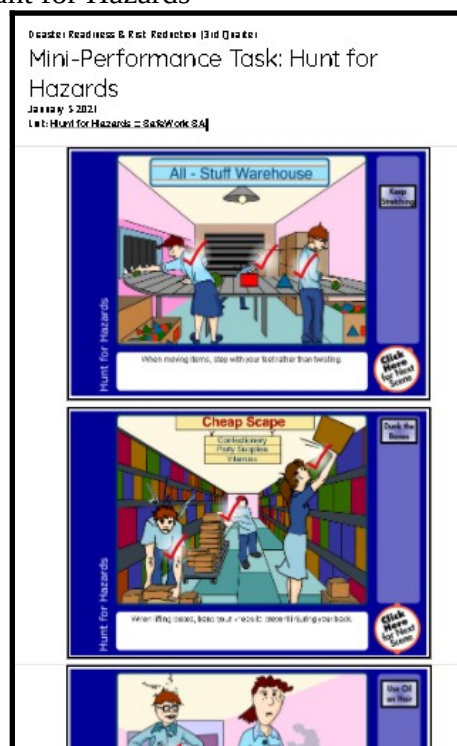
### 3rd Quarter

I feel like I should've paid more attention to the movie we watched. That's just the only doubt I have for myself this quarter.

## Performance Tasks

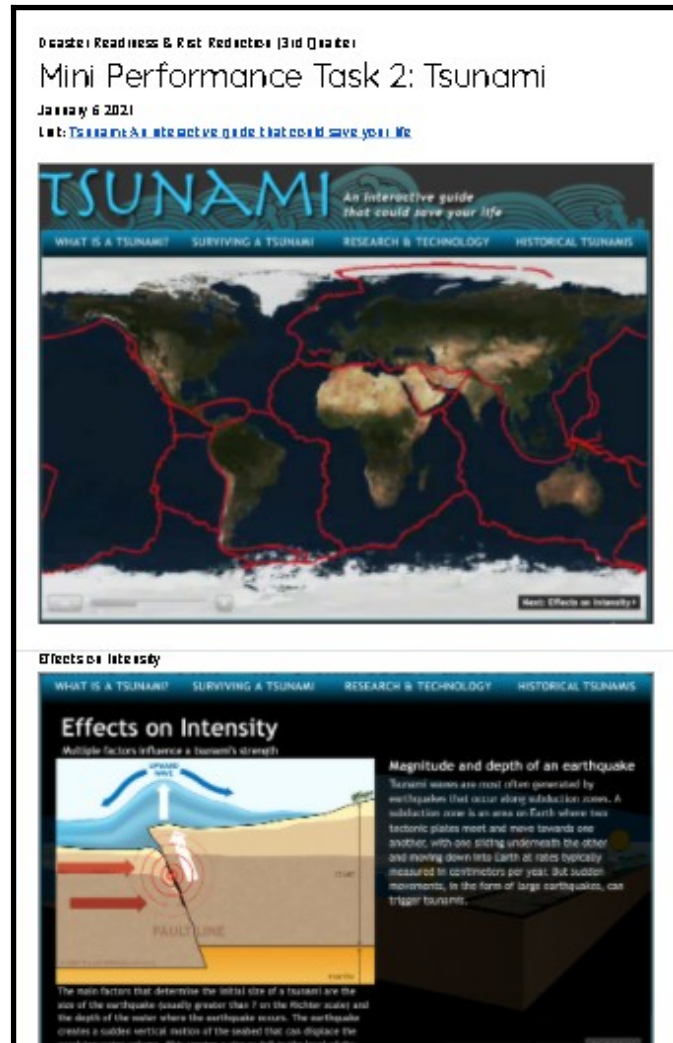
### 3rd Quarter

- 1 Mini Performance Task: Hunt for Hazards





## 2 Mini Performance Task 2: Tsunami



### REFLECTION ON LEARNING

What are the Performance Tasks??

#### 3rd Quarter

- 1 Mini Performance Task: Hunt for Hazards - 50/50
- 2 Mini Performance Task 2: Tsunami - /50

Explain what exactly you were required to do in this Performance Task?

#### 3rd Quarter

- 1 In this performance task, we hopped on a flash animation. In the flash animation, we determined the most probable hazards in workspaces and everyday life as well, and dragged to it some possible solutions to them.
- 2 In this performance task, We hopped on another flash animation where tsunamis were elaborately explained. A couple or more video footage of tsunamis were included in the flash animation as well. Then we had to screenshot every page of the flash animation and put it in a Docs file.

How may the skills that you have developed in this Performance Task be of help to you in your future career?

#### 3rd Quarter

- 1 One way or another, everyone is still going to be having a job. And when working, hazards

will always be present, since we're not in a perfect ideal world. Learning about these hazards and studying how we can avoid them as much as possible beforehand will be a great advantage for when we set foot into the world of labor.

- 2 I think being prepared for a tsunami beforehand is very helpful for when the real thing comes. Especially since the Philippines is part of the Pacific Ring of Fire where most seismic activities happen in the world.

Which of the Performance Tasks you did well? Why?

**3rd Quarter**

I did well in all the performance tasks. They were all understandable and with the right motivation despite having the same class for a week straight.

In what Performance Task do you need to improve? How?

**3rd Quarter**

So far, good progress, keep it up for next quarter.

# Komunikasyon at Pananaliksik

## Written Works

### 3rd Quarter

1. Gawain 1
2. Gawain 2
3. Gawain 3
4. Gawain 4

## REFLECTION ON LEARNING

What are the Written Works?

### 3rd Quarter

1. Gawain 1 - **20/20**
2. Gawain 2 - **20/20**
3. Gawain 3 - **13/16**
4. Gawain 4 - **10/10**

Explain what exactly you were required to do in these written works?

### 3rd Quarter

1. Sa gawaing ito, sinagutan namin ang pahina 146 B at ang pahina 151 Salok-Dunong.
2. Sa gawaing ito, sinagutan namin ang pahina 158 A at ang pahina 163 Salok-Dunong.
3. Sa gawaing ito, sinagutan namin ang pahina 172 B at ang pahina 177 Salok-Dunong.
4. Sa gawaing ito, sinagutan namin ang pahina 191 Salok-Dunong.

What information was the most interesting/surprising to you?

### 3rd Quarter

1. Natutunan kong marami pala tayong mga salitang ginagamit na hindi naman salita sa wika.
2. Natutunan kong mas komplikado ang pakikipag-komunikasyon sa tao mula sa ating alam.
3. Natutunan kong kasama rin ang mga di-berbal na kilos sa pakikipag-komunikasyon.
4. Natuklasan kong pwede ko palang pahabain ang aking mga sanaysay gamit ng kakayahang diskorsal.

Which of the written works you did well? Why?

### 3rd Quarter

Nagawa ko lahat ng maigi dahil nasundan ko yung klase.

In what written work do you need to improve? How?

### 3rd Quarter

Siguro yung Gawain 3. Pero normal naman po magkamali, 'di ko lang po ata napag-isipan ng maayos.

## Performance Tasks

### 3rd Quarter

- 1 Mini Performance Task: Pagsusuri ng Speech Act

### REFLECTION ON LEARNING

<p>What are the Performance Tasks?</p> <p><b>3rd Quarter</b></p> <ol style="list-style-type: none"><li>1 Mini Performance Task: Pagsusuri ng Speech Act -</li></ol>
<p>Explain what exactly you were required to do in this Performance Task?</p> <p><b>3rd Quarter</b></p> <ol style="list-style-type: none"><li>1 Sa mini peta na ito, pinanood namin ang pelikula na “Guerrero” at kumuha ng mga linya mula sa pelikula. Sinuri din namin kung anong klaseng Speech Act ito.</li></ol>
<p>How may the skills that you have developed in this Performance Task be of help to you in your future career?</p> <p><b>3rd Quarter</b></p> <ol style="list-style-type: none"><li>1 Makakatulong ito dahil ang araw-araw buhay sa mga susunod na taon ay magiging puno ng komunikasyon ng iba't ibang uri, kaya ito importante.</li></ol>
<p>Which of the Performance Tasks you did well? Why?</p> <p><b>3rd Quarter</b></p> <p>Sa palagay ko, nagawa ko itong performance task nang maigi, dahil nakasabay nga ako sa <i>discussion</i> ng klase at naintindihan ko ang aralin.</p>
<p>In what Performance Task do you need to improve? How?</p> <p><b>3rd Quarter</b></p> <p>Tulad ng aking palagay kanina, nagawa ko nang maigi ang performance task na ito.</p>

# General Chemistry 2

## Written Works

### 3rd Quarter

#### 1. WW1: Exercise Set 1

General Chemistry 2 | 3<sup>rd</sup> Quarter  
Exercise Set 1: Liquids, Solids, and Materials  
January 17, 2021  
Page 33

1. -  
2. -  
3. -  
4. -  
5. -  
6. -

7. The chlorofluorocarbon ( $\text{CCl}_2\text{F}_2$ ) has enthalpy of vaporization of  $24.8 \frac{\text{kJ}}{\text{mol}}$ . To vaporize  $1.00 \text{ kg}$  of the compound, how much the min energy transfer is required?  
 $1 \text{ kg} = \frac{1 \text{ kg}}{1000 \text{ g}} \times \frac{1 \text{ mol}}{173.359 \text{ g}} \times \frac{24.8 \text{ kJ}}{1 \text{ mol}} = 1.43 \text{ kJ}$   
 $\text{kJ} = 1.43 \text{ kJ}$

8. The molar enthalpy of vaporization of methanol is  $38.0 \frac{\text{kJ}}{\text{mol}}$  at  $25^\circ\text{C}$ . How much thermal energy transfer is required to convert  $250 \text{ mL}$  of the alcohol from liquid to vapor? The density of  $\text{CH}_3\text{OH}$  is  $0.787 \frac{\text{g}}{\text{mL}}$  at  $25^\circ\text{C}$ .  
 $250 \text{ mL} \times \frac{0.787 \text{ g}}{1 \text{ mL}} \times \frac{1 \text{ mol}}{32.04 \text{ g}} \times \frac{38.0 \text{ kJ}}{1 \text{ mol}} = 233 \text{ kJ}$

9. -  
10. -  
11. -  
12. -  
13. -  
14. -  
15. -  
16. -  
17. -  
18. -

19. In this phase diagram, make these identifications:  
a) What phase is present in region A? Region B? Region C?  
Region A = Solid, Region B = Liquid, Region C = Gas.  
b) What phases are in equilibrium at point 1? Point 2? Point 3? Point 5?

#### 2. WW2: Self Evaluation (Virtual Lab)

General Chemistry 2 | 3<sup>rd</sup> Quarter  
The Study of Phase Change: Self Evaluation  
January 17, 2021  
[Virtual Lab Link](#)

✓ 1) During phase change, average kinetic energy of the molecules of the substance  
☐ Increases ☐ Decreases  
☒ Remains the same ☐ Doubles

✓ 2) In the part of the transition curve where the temperature decreases,  
☒ the kinetic energy decreases while the potential energy stays the same  
☐ the potential energy decreases while the kinetic energy stays the same  
☐ kinetic energy as well as potential energy changes  
☐ None of these

✓ 3) The amount of energy needed to melt 'm' gram of a solid substance to its liquid form is  
☐  $Q = mcdT$ , where C is the Specific heat capacity of the substance  
☒  $Q = mL_f$ , where  $L_f$  is the Latent heat of fusion of the substance  
☐  $Q = \rho A(T_2 - T_1) \Delta t$ , where  $T_1$  and  $T_2$  are the temperatures of the body and the surroundings  
☐ None of these

✓ 4) Heat exchanges are generally governed by  
☒ Newton's law of cooling  
☐ Stephan's law  
☐ Planck's law  
☐ Law of conservation of energy

✓ 5) The specific heat capacity of water is  
☐  $333 \text{ kJ/kgK}$  ☐  $2.108 \text{ kJ/kgK}$   
☐  $670 \text{ kJ/kgK}$  ☒  $4.187 \text{ kJ/kgK}$

#### 3. WW3: Solutions Terminology

**SOLUTIONS Terminology** Total points 7/10

The respondent's email address ([ahmad.badron@ipsa.edu.sa](mailto:ahmad.badron@ipsa.edu.sa)) was recorded on submission of this form.

#### 4. WW4: Exercise Set 2

General Chemistry 2 | 3<sup>rd</sup> Quarter  
 WW4: Exercise Set 2  
 January 19, 2021  
 Page 71

1. -
2. -
3. -
4. -
5. -
6. -
7. -
8. -
9. -
10. -
11. -
12. -
13. -
14. -
15. -
16. -
17. Calculate the percentage concentration by mass of a solution prepared by dissolving 2.32 g of calcium chloride in 81 g of water.  
 $\text{concentration} = 2.86\%$
18. How many (grams) g of ammonium nitrate must be weighed out to make 415 g of a 58% by mass solution? In how many (milliliters) mL of water should it be dissolved?  
 $g = 240.7 \text{ g}$   
 $\text{mL} = 174.3 \text{ mL}$
19. A student weighs out a 4.8 g sample of aluminum bromide, transfers it to a 100 mL volumetric flask, add enough water to dissolve it, and then adds water to the 100 mL mark. What is the molarity of aluminum bromide in the resulting solution?  
 $M = 0.18 \text{ M}$
20. Large quantities of silver nitrate are used in making photographic chemicals. Find the mass that must be used in preparing 250 x 10<sup>3</sup> mL of 0.058 M silver nitrate.  
 $g = 2.46 \text{ g}$

#### 5. WW5: Standard Enthalpy Formation & Hess' Law

General Chemistry 2 | 3<sup>rd</sup> Quarter  
 WW5: Standard Enthalpy Formation & Hess' Law  
 January 20, 2021  
 Page

1. Calculate the heat combustion at constant pressure of liquid ethanol.

The given reaction which shows the combustion of liquid ethanol:

$$\text{C}_2\text{H}_5\text{OH}(\text{l}) + 3\text{O}_2(\text{g}) \longrightarrow 2\text{CO}_2(\text{g}) + 3\text{H}_2\text{O}(\text{l})$$

$\Delta H^\circ$  [Reactants]:  
 $\text{C}_2\text{H}_5\text{OH}(\text{l}) = -277.69 \text{ kJ/mol}$   
 $\text{O}_2(\text{g}) = 0 \text{ kJ/mol}$

$\Delta H^\circ$  [Products]:  
 $\text{CO}_2(\text{g}) = -393.509 \text{ kJ/mol}$   
 $\text{H}_2\text{O}(\text{l}) = -285.83 \text{ kJ/mol}$

$\Delta H^\circ_{\text{rxn}} = \sum n \Delta H^\circ_f [\text{Products}] - \sum n \Delta H^\circ_f [\text{Reactants}]$   
 $\Delta H^\circ_{\text{rxn}} = [2(-393.509) + 3(-285.83)] - [-277.69 + 3(0)]$   
 $\Delta H^\circ_{\text{rxn}} = [-787.018 + -857.49] - [-277.69]$   
 $\Delta H^\circ_{\text{rxn}} = (-1644.508) - (-277.69)$   
 $\Delta H^\circ_{\text{rxn}} = -1366.82$

## 6. WW6: Hess' Law

General Chemistry 2 | 3<sup>rd</sup> Quarter  
WW6: Hess' Law  
January 21, 2021

Find  $\Delta H$ .  
Given:

$$\begin{array}{l} \text{H}_2 + \frac{1}{2} \text{O}_2 \rightarrow \text{H}_2\text{O} \quad \Delta H^\circ = -241.82 \text{ kJ} \\ 2\text{Fe} + \frac{3}{2} \text{O}_2 \rightarrow \text{Fe}_2\text{O}_3 \quad \Delta H = -824.2 \text{ kJ} \\ 3\text{Fe}_2\text{O}_3 + \text{H}_2 \rightarrow 2\text{Fe}_3\text{O}_4 + \text{H}_2\text{O} \quad \Delta H = -830.22 \text{ kJ} \end{array}$$


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$$3\text{Fe} + 2\text{O}_2 \rightarrow \text{Fe}_3\text{O}_4 \quad \Delta H = ?$$

- 1/2	$\text{H}_2\text{O} \rightarrow \text{H}_2 + \frac{1}{2} \text{O}_2$	$\Delta H = -241.82 \text{ kJ} \times -\frac{1}{2} = 120.91 \text{ kJ}$
3/2	$3\text{Fe} + (3/4)\text{O}_2 \rightarrow \frac{3}{2}\text{Fe}_2\text{O}_3$	$\Delta H = -824.2 \text{ kJ} \times \frac{3}{2} = -1236.3 \text{ kJ}$
1/2	$\frac{1}{2}(3\text{Fe}_2\text{O}_3 + \text{H}_2 \rightarrow 2\text{Fe}_3\text{O}_4 + \text{H}_2\text{O})$	$\Delta H = -830.22 \text{ kJ} \times \frac{1}{2} = -415.11 \text{ kJ}$
	$3\text{Fe} + 2\text{O}_2 \rightarrow \text{Fe}_3\text{O}_4$	$\Delta H = -1530.5 \text{ kJ}$

## REFLECTION ON LEARNING

What are the Written Works?

### 3rd Quarter

1. WW1: Exercise Set 1 - **13/20**
2. WW2: Self Evaluation (Virtual Lab) - **5/5**
3. WW3: Solutions Terminology - **7/10**
4. WW4: Exercise Set 2 - **/100**
5. WW5: Standard Enthalpy Formation & Hess' Law - **10/10**
6. WW6: Hess' Law - **/10**

Explain what exactly you were required to do in these written works?

### 3rd Quarter

1. In this written work, we answered the exercise set on Page 33.
2. In this written work we filled out the form on the Self Evaluation tab on the Virtual Lab activity.
3. In this written work, we answered a Google Form about the terminologies in our recent lesson about solutions.
4. In this written work, we answered the exercise set on Page 71.
5. In this written work, we solved a problem about finding the heat of combustion of liquid ethanol.
6. In this written work, we solved our way to finding the delta H of a given reaction, and we had to find through a number of steps.

What information was the most interesting/surprising to you?

### 3rd Quarter

1. Everything in this written work and lesson itself was new to me, besides the concepts of moles and energy.
2. I learned that Isaac Newton has made various studies on different fields of physics as well.
3. I learned in this written work, and lesson about a previously studied topic which is solutions.
4. I learned in this exercise set that a solution's concentration isn't just merely computed by dividing the solute mass to the solution mass.
5. I realized that most of chemistry is just chemical information + scientific rules & laws +

mathematics/algebra.

6. This written work solidifies what I said about the previous written work, this written work showed how important the differences of the substances were like how  $\text{Fe}_2\text{O}_3$  and  $\text{Fe}_3\text{O}_4$  aren't the same substances.

Which of the written works you did well? Why?

**3rd Quarter**

I believe that I did an excellent job on Written Work 6, because I had the help of my classmates and, in turn, helped my classmates with this activity.

In what written work do you need to improve? How?

**3rd Quarter**

I didn't perform well enough in Written Work 3, probably because I didn't review what I just learned thoroughly. I should though next time.



# Performance Tasks

## 3rd Quarter

### 1. MPT: The Study of Phase Change (Virtual Lab)

General Chemistry 2 | 3<sup>rd</sup> Quarter  
Virtual Laboratory: The Study of Phase Change  
January 14, 2021  
[Virtual Lab Link](#)

Substance	Constant : Varying	
	Temperature : Mass	Mass : Temperature
Naphthalene		
Ice		

I didn't continue to screenshots of the other parts of the activity, because it kept on crashing my PC. :(

### 2. MPT 2: Concentration

General Chemistry 2 | 3<sup>rd</sup> Quarter  
MPT2: Concentration  
January 19, 2021  
[Virtual Lab Link](#)  
[Virtual Lab Guide](#)

Guide Questions:

- What solution concentration is used in the Virtual Lab in computing for the concentration of a solution, MOLARITY, MOLALITY, or PERCENTAGE CONCENTRATION BY MASS? What made you say so?  
Molarity, because of the unit it displays which is mol/L.
- What is the concentration of pure water in the Virtual lab?  
0.00 mol/L

- If you double the amount of solvent (pure water), what will happen to the concentration of solid nickel (II) chloride? Solid copper (II) sulfate?  
For  $\text{NiCl}_2$ , the solution became less concentrated significantly. While for the  $\text{CuSO}_4$ , the concentration didn't decrease significantly.

$\text{NiCl}_2$	$\text{CuSO}_4$

## REFLECTION ON LEARNING

What are the Performance Tasks?

### 3rd Quarter

1. MPT: The Study of Phase Change (Virtual Lab) - **50/50**
2. MPT 2: Concentration - **50/50**

Explain what exactly you were required to do in this Performance Task?

### 3rd Quarter

1. In this mini performance task, we recorded the data on the simulation of phase change on a website given to us.
2. In this mini performance task, we recorded the data and came to conclusions on a simulation on a website given to us.

How may the skills that you have developed in this Performance Task be of help to you in your future career?

**3rd Quarter**

1. This performance task emulated the process of experimentation despite being isolated in my own room.
2. In addition to my previous answer, this performance task helped me understand some basic mechanics of how solutions work.

Which of the Performance Tasks you did well? Why?

**3rd Quarter**

I must say I did well in the Concentration MPT, because I really like the topic. Maybe because of the math that the lesson uses.

In what Performance Task do you need to improve? How?

**3rd Quarter**

I believe I did well in all the MPTs and that there isn't anything more to answer to this question.

# Practical Research 1

## Written Works

### 3rd Quarter

#### 1. Task 1: Practical Research

Practical Research | 3<sup>rd</sup> Quarter

#### WW1: Practical Research

January 24, 2021

1. What is the importance of research in your education as a 21<sup>st</sup> century learner?  
**Research is already being done just by looking up something on Google. Research simple as these is already very important, imagine how important a full-scale research project is.**
2. As a student, how important is Ethics in Research in providing guidance to researcher?  
**It is crucially important, not just as a student, but as a person as well. A respondent's privacy rights is the best example and representative, for how important ethics are in research.**
3. As a learner, what do you want to research on? Why?  
**I want to research/learn better ways/methods of learning/studying. Because, I feel like there's more to improve in our current education system.**

#### 2. Task 2: Qualitative Research Across Fields

Practical Research | 3<sup>rd</sup> Quarter

#### Task 2: Qualitative Research Across Fields

January 25, 2021

Field	Research Title/Author/Year	Type of Qualitative Research	Research Approach
Science and Technology	A Qualitative Study of Urban and Suburban Elementary Student Understandings of Pest-Related Science and Agricultural Education Benchmarks / Cary J. Trexler / 2000	Narrative Research	Naturalistic Approach
Engineering and Mathematics	A Qualitative Study Of The Role Of Mathematics In Engineering Capstone Design Projects / Monica E. Cardella, Cynthia J. Atman / 2004	Narrative Research	Naturalistic Approach
Humanities	Humanities For Medical Students? A Qualitative Study Of A Medical Humanities Curriculum In A Medical School Program / Caroline Wachtler, Susanne Lundin, Margareta Troein / 2006	Narrative Research	Naturalistic Approach

Links:

- [A Qualitative Study of Urban and Suburban Elementary Student Understanding of Pest-Related Science and Agricultural Education Benchmarks](#)
- [A Qualitative Study Of The Role Of Mathematics In Engineering Capstone Design Projects](#)
- [Humanities For Medical Students? A Qualitative Study Of A Medical Humanities Curriculum In A Medical School Program](#)

#### 3. Task 4: Statement of the Problem and Beneficiaries of Research Project

Practical Research | 3<sup>rd</sup> Quarter

#### Task 4: Statement of the Problem and Beneficiaries of Research Project

January 27, 2021

##### Statement of the Problem

###### Part A: The Ideal

The desired goal is to be able to learn python with efficiently, and having to be able to maximize the time, and ingest the information effectively. Since self-studying learners of Python such as me, may be lost and confused as to which aspects of Python I should learn first, we need the best progressive sequence of lessons, materials/resources to learn from, and set of hands-on activities to enhance the student/learner's proficiency of the language.

###### Part B: The Reality

There is a vast internet of possible ways to learn Python, and a vast internet of resources to learn from, and an infinite functions or programs to help the student/learner enhance their fluency in the language. Finding the most optimal way to learn Python will be looking for diamond in the middle of a desert.

###### Part C: The Consequences

To help ease this situation, this study proposes to seek expert advice from experienced Python programmers, and formulate the almost, if not, best strategy to learn Python from this multitude of sources. The research is plan to send out Google Forms to notable and well-heard Python programmers. We will consider some recognizable subjects for our research.

##### Beneficiaries of the Research Project

Beneficiaries	Benefits Received from the result of the study
Python Students/Students	Well-prepared and studied course in the cost of free.
Computer/Python Teachers	Prepared course to teach to students.

## REFLECTION ON LEARNING

What are the Written Works?

### 3rd Quarter

1. Task 1: Practical Research - **96/100**
2. Task 2: Qualitative Research Across Fields - /100
3. Task 4: Statement of the Problem and Beneficiaries of Research Project - /100

Explain what exactly you were required to do in these written works?

### 3rd Quarter

1. In this written work, we answered a set of 3 questions that asked us about
2. In this written work, we filled in a table with the data it needed: a research article for the specified the field, and it had to be a qualitative study. We had to figure out its type of qualitative research, and its research approach.
3. In this written work, we continued with the same topic as the last written work, and we made the statement of the problem, along with the beneficiary of the research project.

What information was the most interesting/surprising to you?

### 3rd Quarter

1. This written work made me realize the importance and value of research, and it sparked my interest in researching different kinds of stuff.
2. I learned that studies in the field of Science, Technology, Engineering, and Mathematics, don't necessarily need to be quantitative studies. There are various types of qualitative studies in the said fields that are really unexpected when you first think of these fields.
3. I always thought research papers are just made to be put out on the internet or something, but now I learned that research projects are directed towards the community, and it is put out there for a reason, which is to solve a problem, at the least.

Which of the written works you did well? Why?

### 3rd Quarter

I'm saying this unconfidently, but I'm just confident with how I did in Task 1. Just because I actually got a handle of what was happening in the written work.

In what written work do you need to improve? How?

### 3rd Quarter

I don't have a written work in my mind that I did that bad on. But the closest written work to that bad is Task 4, in my opinion. Not just because of my punctuality, but also because of how I did in it.

## Performance Tasks

### 3rd Quarter

#### 1. Task 3: Project Proposal and Purpose of Study

Practical Research 1  3 <sup>rd</sup> Quarter
<b>Task 3: Project of Proposal and Purpose of Study</b>
January 26 2021
<b>Proposed Topic (follow the format Result: Methodology – Topic – Sample RMTS):</b>
Optimal Learning Strategy for Learning Python: A Qualitative Study on the Optimal Learning Strategy for Python Learners.
<b>Main Question:</b>
The purpose of this <b>intrinsic case study</b> is to <b>develop</b> the <b>optimal learning strategy</b> for the <b>Python learner at IPSA</b> . The result will be a basis for what? <b>Learning Python</b> . At this stage in the research the <b>optimal learning strategy</b> will be generally defined as <b>if not, the best and optimal strategy to learn Python and clearly understand its functions, components, and mechanics</b> .
<b>Specific Questions</b>
1. What are the best and free resources to learn from? 2. What is the best sequence of lessons to learn? 3. What methods can be implemented to effectively learn the language?
<b>What encouraged you to conduct the proposed study?</b>
As a Python learner myself, and struggling to learn this language as well, I want to find the best way to learn this beautiful and powerful programming language, and in turn, share this information to any fellow Python learner who seeks it.

#### 2. Task 5: Research Framework and Scope and Limitations of the Study

## REFLECTION ON LEARNING

What are the Performance Tasks??

### 3rd Quarter

1. Task 3: Project Proposal and Purpose of Study – **98/100**
2. Task 5: Research Framework and Scope and Limitations of the Study -

Explain what exactly you were required to do in this Performance Task?

### 3rd Quarter

1. In this performance task, ironically, we applied what we learned from the discussion and we chose a topic to make a project proposal, the main question, and the specific questions for the research topic.
2. In this performance task, we drew out the IPO model for the same research topic we've been holding in Task 3 & 4. We also determined the scope and limitations for the study.

How may the skills that you have developed in this Performance Task be of help to you in your future career?

### 3rd Quarter

1. I think I will only be able to use these skills in college when thesis stuff come in, but it's still useful I guess.
2. The skills I may acquire from this performance task will be useful, like I said before, in thesis and research in college or the coming years.

Which of the Performance Tasks you did well? Why?

### 3rd Quarter

I can only admit that I did well in Task 3. There's no real reason to perform well, I just did a great

job. I'm also hopeful

In what Performance Task do you need to improve? How?

**3rd Quarter**

Not much, I'm happy with my results. But there's still room for growth and improvement, which will be in use in the next school quarter and years.

# Basic Calculus

## Written Works

### 3rd Quarter

#### 1. Activity 3.1: Graphs of Sine and Cosine Functions

Basic Calculus | 3<sup>rd</sup> Quarter  
Activity 3.1: Graphs of Sine and Cosine Function  
January 31, 2021  
Precalculus Book page 142

1. -  
2. -  
3. -  
4. -  
5. -  
6. -  
7. -  
8. -  
9. -  
10. -

Sketch the graph of the function. (Include two periods.)

11. -  
12.  $y = 5\sin 4x$

amplitude = 5  
period =  $\frac{\pi}{2}$   
horizontal shift = 0  
vertical shift = 0

13. -  
14. -

#### 2. Activity 3.2: Graphs of Inverse Trigonometric Functions

Basic Calculus | 3<sup>rd</sup> Quarter  
Activity 3.2: Graphs of Inverse Trigo Functions  
January 31, 2021  
Precalculus Book page 154

1. -  
2. -  
3. -  
4. -  
5. -  
6. -  
7. -  
8. -  
9. -  
10. -

Sketch the graph of the function. (Include two full periods.)

11. -  
12. -  
13.  $y = \frac{1}{4} \sec x$

amplitude =  $\frac{1}{4}$   
period =  $2\pi$   
horizontal shift = 0  
vertical shift = 0

#### 3. Quiz 3.0: Graphs of Trigonometric Functions

Basic Calculus | 3<sup>rd</sup> Quarter  
Quiz 3.0: Graphs of Trigonometric Functions  
February 1, 2021

1)  $y = 3\cos \frac{x}{2}$

amplitude = 3  
period =  $4\pi$   
hs = 0  
vs = 0

KP =  $(0, 3), (4\pi, 3), (2\pi, 0), (6\pi, -3)$

2)  $y = 4 - \sin(2x + \pi)$

amplitude = 1  
period =  $\pi$   
hs =  $-\pi$   
vs = 4

KP =  $(-\pi, 4), (-\frac{3\pi}{2}, 5), (-\frac{\pi}{2}, 3), (\frac{\pi}{2}, 4)$

3)  $y = \csc(5x - \pi)$

amplitude = 1  
period =  $\pi$   
hs =  $\pi$   
vs = 0

KP =  $(\pi, 0), (\frac{3\pi}{5}, 1), (\frac{8\pi}{5}, 0), (\frac{13\pi}{5}, -1), (2\pi, 0)$

#### 4. Activity 3.3: Verifying Trigonometric Identities

Basic Calculus | 3rd Quarter  
**Activity 3.3: Verifying Trigonometric Identities**  
 February 1 2021  
 Page 183 (Precalculus Book)

Fill in the blank to complete the fundamental trigonometric identity.

1.  $\sin^2 x + \cos^2 x = 1$
2.  $\sin^2 x + \cos^2 x = 1$
3.  $\sin^2 x + \cos^2 x = 1$

Verify the identity.

4.  $\sec x = \frac{1}{\cos x}$
5.  $\sec x = \frac{1}{\cos x}$
6.  $\sec x = \frac{1}{\cos x}$
7.  $\sec x = \frac{1}{\cos x}$
8.  $\sec x = \frac{1}{\cos x}$
9.  $\sec x = \frac{1}{\cos x}$
10.  $\sec x = \frac{1}{\cos x}$
11.  $\sec x = \frac{1}{\cos x}$
12.  $\sec x = \frac{1}{\cos x}$
13.  $\sec x = \frac{1}{\cos x}$
14.  $\sec x = \frac{1}{\cos x}$

#### 5. Activity 3.4: Laws of Limits

Basic Calculus | 3rd Quarter  
**Activity 3.4: Laws of Limits**  
 February 2 2021

Find the limit of each of the following:

1.  $\lim_{x \rightarrow 0} (2x - 1) = -1$
2.  $\lim_{x \rightarrow 2} x^4 = 16$
3.  $\lim_{x \rightarrow (-2)} x^3 = -8$
4.  $\lim_{x \rightarrow (-3)} (3x + 2) = -7$
5.  $\lim_{x \rightarrow (-3)} (x^2 + 3x) = 0$
6.  $\lim_{x \rightarrow (-3)} (-x^2 + 1) = -8$
7.  $\lim_{x \rightarrow 1} (3x^3 - 2x^2 + 4) = 5$
8.  $\lim_{x \rightarrow (-3)} (2x^2 + 4x + 1) = 7$

#### 6. Activity 3.5: One Sided Limits

Basic Calculus | 3rd Quarter  
**Activity 3.5: One Sided Limits**  
 February 3 2021  
 Page 15

Answer completely.

1.  $\lim_{x \rightarrow 1} f(x)$
2.  $\lim_{x \rightarrow 1} f(x)$
3. For the function  $f$  whose graph is given, state the value of each quantity, if it exists. If it does not exist, explain why.
  - a.  $\lim_{x \rightarrow 1} f(x)$
  - b.  $\lim_{x \rightarrow 1} f(x)$
  - c.  $\lim_{x \rightarrow 1} f(x)$
  - d.  $\lim_{x \rightarrow 1} f(x)$

If  $f(x) = \begin{cases} x+3, & \text{if } x < -3 \\ -x-3, & \text{if } x \geq -3 \end{cases}$

Prove analytically and graphically by using the definition of the left hand and right hand limit that:

- a.  $\lim_{x \rightarrow -3^-} f(x) = 0$
- b.  $\lim_{x \rightarrow -3^+} f(x) = 0$



## 7. Activity 3.6: Infinite Limits

Basic Calculus | 3rd Quarter  
**Activity 3.6: Infinite Limits**  
 February 4 2021  
 Page 18

1. --
2. --
3. --
4. --
5. --
6. --
7. --
8. --
9. --
10.  $\lim_{x \rightarrow \infty} \frac{x^2}{x^2 + 1}$   
 $\lim_{x \rightarrow -\infty} \frac{x^2}{x^2 + 1}$

Proof analytically:  
**Limit Theory:**  
 $\lim_{x \rightarrow \infty} \frac{ax^n}{bx^n} = \frac{a}{b}$

Proof graphically:  
 $HA=1, \text{ if } n=m \wedge a=b \in \frac{ax^n}{bx^n}$   
 $HA=1$   
 $NA=0=0=x-5$   
 $x=5 \text{ or } NA=5$   
 $x-5 \rightarrow 0 = \frac{x+1}{x-5}$   
 $0(x-5) = \frac{x+1}{x-5}(x-5)$   
 $0 = x+1$   
 $x = -1$   
 $y = \frac{0+1}{0-5}$   
 $y = -\frac{1}{5}$

## REFLECTION ON LEARNING

What are the Written Works?

### 3rd Quarter

1. Activity 3.1: Graphs of Sine and Cosine Functions – **10/10**
2. Activity 3.2: Graphs of Inverse Trigonometric Functions – **10/10**
3. Quiz 3.0: Graphs of Trigonometric Functions – **15/15**
4. Activity 3.3: Verifying Trigonometric Identities – /15
5. Activity 3.4: Laws of Limits – **8/8**
6. Activity 3.5: One Sided Limits – /15
7. Activity 3.6: Infinite Limits – /10

Explain what exactly you were required to do in these written works?

### 3rd Quarter

1. In this written work, we were asked to sketch the graphs of the sine and cosine function. We had to find the amplitude, period, and the 5 key points before we were able to sketch the graph in detail.
2. In this written work, we were asked to sketch the graphs of the inverse of the sine and cosine function, the cosecant and secant respectively. We had to sketch the graph of the sine or cosine of the given problem and then we just had to invert the graph.
3. In this quiz, we were asked to find the necessary points needed to sketch the graph of a given trigonometric function, then we sketched the graph of the given function. We were given 3 of these problems to solve.
4. In this written work, we verified the identities of the given trigonometric functions. We needed to make the statement obvious enough to be true. This was achieved through various algebraic operations that were studied in the past, and with the knowledge of the trigonometric identities.
5. In this written work, we had a quick seatwork on our recent topic, limits of functions. We were given 8 problems that we had to evaluate and find the limitations of.
6. In this written work, we were given problems, related to left and right hand limits, or better known as one sided limits, one of which is in the exercise set in the Basic Calculus book and another given by ma'am Ilas.

7. In this written work, we were tested to find the limits of rational functions which had infinite limits, and we had to prove it analytically and graphically.

What information was the most interesting/surprising to you?

**3rd Quarter**

1. I'm pretty aware of basic trigonometric functions and their graphs, but I was very interested in learning more about it, which this lesson really helped me to. I will enjoy this lesson.
2. Inverses of trigonometric functions are way more complicated, and I still feel like there's more to know on how these functions work, because if sines and cosines go wavy, these inverted trigo functions go the other way.
3. This quiz solidified our knowledge and understanding on the concept of and graphing trigonometric functions.
4. It's surprising how this trigonometric constants just loop back to each other. These concepts are very unique in the field of mathematics to me, the logics and the stars just line up perfectly, as the trigonometric identities do so too.
5. Finding the limits of functions are fairly easy when we're talking about linear functions here.
6. I was very amazed by the mechanics of limits and how they work, it gets me interested in how and where they really shine the brightest.
7. This was like a plot twist. Just when you thought that limits can also not exist, then you also learn that there can be infinite limits! What are the limits to Math's wonders?

Which of the written works you did well? Why?

**3rd Quarter**

I'm proud to say that I did well in all works, but what I'm not proud of is how I only am confident in this subject.

In what written work do you need to improve? How?

**3rd Quarter**

There was a lot of confusion in Activity 3.6, which I need to improve on by practicing with problems like these.

## Performance Tasks

### 3rd Quarter

#### 1. Mini Task 3.1: Trigonometric Identities (Group Activity)

Basic Calculus | 3<sup>rd</sup> Quarter

### Mini Task 3.1: Trigonometric Identities

February 1 2021  
Pre-calculus Book Page 175

Group 2:  
Badron, Motas, Leano, Marquez, Renolayan, Enriquez, Magcalas, Quialqual

- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- $$\frac{\sin^2 x \sec^2 x - \sin^2 x}{\sin^2 x (\sec^2 x - 1)}$$

$$\frac{\sin^2 x \tan^2 x}{\sin^2 x \tan^2 x}$$

#### 2. Mini Task 3.2: Limits (Group Activity)

Basic Calculus | 3<sup>rd</sup> Quarter

### Minitask 3.2: Limits

February 2 2021  
Page 31

- 
- 
- 
- 
- 
- 
- 
- $$\lim_{x \rightarrow 5} \frac{x^2 - 6x + 5}{x - 5}$$

$$\frac{(x-5)(x-1)}{x-5}$$

$$\lim_{x \rightarrow 5} (x-5) = 0$$
- $$\lim_{t \rightarrow -1} \frac{t^2 - 9}{2t^2 + 7t + 3}$$

$$\frac{(t+3)(t-3)}{(2t+1)(t+3)}$$

$$\lim_{t \rightarrow -1} \frac{t-3}{2t+1} = \frac{6}{5}$$
- $$\lim_{h \rightarrow 0} \frac{(-5+h)^2 - 25}{h}$$

$$\frac{25 + 10h + h^2 - 25}{h}$$

$$\frac{10h + h^2}{h}$$

$$\frac{h(10+h)}{h}$$

$$\lim_{h \rightarrow 0} (10+h) = 10$$
- $$\lim_{x \rightarrow 3} \frac{\frac{1}{x} - \frac{1}{3}}{x-3}$$

$$\frac{\frac{3-x}{3x}}{x-3}$$

$$\frac{3-x}{3x} \cdot \frac{1}{x-3}$$

#### 3. PeTa: Trigonometric Functions and Limits

## REFLECTION ON LEARNING

<p>What are the Performance Tasks?</p> <p><b>3rd Quarter</b></p> <ol style="list-style-type: none"><li>1. Mini Task 3.1: Trigonometric Identities (Group Activity) – <b>10/10</b></li><li>2. Mini Task 3.2: Limits (Group Activity) – /10</li><li>3. PeTa: Trigonometric Functions and Limits – /30</li></ol>
<p>Explain what exactly you were required to do in this Performance Task?</p> <p><b>3rd Quarter</b></p> <ol style="list-style-type: none"><li>1. In this mini task, we were grouped into a breakout room. We had to simplify given trigonometric functions.</li><li>2. In this mini task, we were grouped into a breakout room in random, and we were asked to simplify a given function to be able to have a valid limit out of the function.</li><li>3. In this PeTa, we did a Google Form on trigonometric functions and then we had to solve problems about limits, piecewise functions, and etc. on paper.</li></ol>
<p>How may the skills that you have developed in this Performance Task be of help to you in your future career?</p> <p><b>3rd Quarter</b></p> <ol style="list-style-type: none"><li>1. I still can't clearly see where limits are going to be useful in my future career, but all I know for now is it will.</li><li>2. The future is fogged and I can't see where this skill will take me. But it is being taught to us for a reason, so why not?</li><li>3. As foggy as it was on Friday, where specifically I can use these skills I can't determine. But it will come in handy at some point if not in the nearer future.</li></ol>
<p>Which of the Performance Tasks you did well? Why?</p> <p><b>3rd Quarter</b></p> <p>For the most part, I did well in all, there was just some inconsistency, but so far, so good.</p>
<p>In what Performance Task do you need to improve? How?</p> <p><b>3rd Quarter</b></p> <p>One thing I didn't do well in these performance tasks was my punctuality, and proficiency in the topics especially in the final PeTa. So I have to work on finishing my work earlier, and more accurately.</p>

# Statistics and Probability

## Written Works

### 3rd Quarter

#### 1. WW1: Random Variables (Group Activity)

Statistics & Probability   3 <sup>rd</sup> Quarter	
Written Work 1: Random Variables (Group Activity)	
February 7 2021	
Group 6: Manuel, Badron, Buna, Braga, Mohammad, Cabangahan	
Possible Outcomes	Value of the Random Variable G
B-B-B	0
B-B-G	1
B-G-B	1
B-G-G	2
G-B-B	1
G-B-G	2
G-G-B	2

#### 2. WW2: Discrete Probability Distribution (Seatwork 1)

Statistics & Probability   3 <sup>rd</sup> Quarter					
WW2: Discrete Probability Distribution (Seatwork 1)					
February 7 2021					
Page 17-18					
Exercises A					
Determine whether the distribution represents a probability distribution. Explain your answer.					
1)					
X	1	5	8	7	9
P(X)	1/3	1/3	1/3	1/3	1/3
<b>Not Discrete Probability Distribution.</b> Because not all the properties of a discrete probability distribution are met.					
2)					
X	0	2	4	6	8
P(X)	1/6	1/6	1/3	1/6	1/6
<b>Discrete Probability Distribution.</b> Because all the properties of a discrete probability distribution are met.					
3)					
X	1	2	3	5	
P(X)	1/4	1/8	1/4	1/8	
<b>Not Discrete Probability Distribution.</b> Because only one of the properties of a discrete probability distribution is met.					
4)					
X	4	8	12	15	17
P(X)	1/5	1/8	1/8	1/5	1/8
<b>Not Discrete Probability Distribution.</b> Because just the first property of a discrete probability distribution is met.					

### 3. WW3 (Group Activity)

Statistics & Probability | 3<sup>rd</sup> Quarter

## WW 3

February 10 2021

Find the area under the normal curve in each of the following cases. **Show your complete solution.**

- Between  $z=0$  and  $z=0.78$   
 $z=0.78=0.2823=28.23\%$
- Between  $z=-0.56$  and  $z=0$   
 $z=-0.56=0.2123=21.23\%$
- Between  $z=-0.43$  and  $z=0.78$   
 $z=-0.43=0.1664=16.64\%$   
 $z=0.78=0.2823=28.23\%$   
 $16.64\%+28.23\%=44.87\%$
- Between  $z=0.44$  and  $z=1.5$   
 $z=0.44=0.17=17\%$   
 $z=1.5=0.4332=43.32\%$   
 $17\%+43.32\%=60.32\%$
- Between  $z=-2.76$  and  $z=1.55$   
 $z=-2.76=0.4971=49.71\%$   
 $z=1.55=0.4394=43.94\%$   
 $49.71\%+43.94\%=93.65\%$
- To the right of  $z=-2.85$   
 $z=-2.85=0.4978=49.78\%$   
 $49.78\%+50\%=99.78\%$
- To the right of  $z=-1.33$   
 $z=-1.33=0.4082=40.82\%$   
 $40.82\%+50\%=90.82\%$
- To the left of  $z=0.35$

### 4. WW4: Standard Scores (Seatwork 2)

Statistics & Probability | 3<sup>rd</sup> Quarter

## WW 4: Standard Scores

February 10 2021

Solve and Interpret the following problem:

- On a final examination in Mathematics, the mean was 76 and the standard deviation was 5. Determine the standard score of a student who received a score of 88 assuming the scores are normally distributed.  

$$z = \frac{x - \bar{x}}{s}$$

$$z = \frac{88 - 76}{5}$$

$$z = \frac{12}{5}$$

$$z = 2.4 \text{ / Above Average}$$
- On a test in Statistics, the mean is 65 and the standard deviation is 3. Assuming normality, what is the standard score of a student who receives a score of 60?  

$$z = \frac{x - \bar{x}}{s}$$

$$z = \frac{65 - 60}{3}$$

$$z = \frac{5}{3}$$

$$z = 1.6 \text{ / Above Average}$$
- Lody gets a score of 85 in Biology test and 80 in a Math test. Scores in Biology test have a mean of 75 and standard deviation of 5. Scores in Math test have a mean of 76 and standard deviation of 4. In which subject is her standing better assuming that the scores in the two subjects are normally distributed?  

$$z = \frac{85 - 75}{5} \text{ Biology Test}$$

$$z = \frac{10}{5} = 2$$

$$z = \frac{80 - 76}{4} \text{ Math Test}$$

$$z = \frac{4}{4} = 1$$

$2 > 1$  Therefore, Lody had better standing in the Biology test.

### 5. WW5: Mean, Variance, and Standard Deviation of Sampling Distribution of the Sample Means

## REFLECTION ON LEARNING

What are the Written Works?

### 3rd Quarter

1. WW1: Random Variables – **20/20**
2. WW2: Discrete Probability Distribution (Seatwork 1) – **20/20**
3. WW3 (Group Activity) - **17/20**
4. WW4: Standard Scores (Seatwork 2) – **16/20**
5. WW5: Mean, Variance, and Standard Deviation of Sampling Distribution of the Sample Means – **/50**

Explain what exactly you were required to do in these written works?

### 3rd Quarter

1. In this written work, we did an 'Extension' activity in page 9 of the book. We had to fill out a table of the different possibilities for what balls you can draw out of the box.
2. In this written work, we filled out answers to questions in page 17-18 of the book.
3. In this written work, we answered some problems given to us by Ma'am Shaima about standard scores, and the standard normal table.
4. In this written work, we solved problems about standard scores but in more English sense.
5. In this written work, we answered problems about finding the mean, and standard deviation of sampling distribution of the sample means.

What information was the most interesting/surprising to you?

### 3rd Quarter

1. I was fairly familiar with combinations and sequences before, so it was fun to revisit this topic in another light.
2. Discrete probability distribution is a new concept I learned and it is a very interesting concept, I'm gonna be honest.
3. This activity was a bomb of questions and problems. It was fun to answer them all, one by one.
4. This activity was also a good activity practice my skills in solving.
5. This was, in all honesty, a bit of a heavy work, but I carried through, and we carried through. This activity helped me crank up my motivation standard.

Which of the written works you did well? Why?

### 3rd Quarter

I believe I did well in most of the written works, I have participated in the class properly, as every student should, and I did the written works in time as well.

In what written work do you need to improve? How?

### 3rd Quarter

I'd like to tell myself to keep this work up for the next quarter.

# Performance Tasks

## 3rd Quarter

### 1. MPT1: Mean, Variance, Standard Deviation

Statistics & Probability   3 <sup>rd</sup> Quarter		
MPT 1: Mean, Variance, Standard Deviation		
February 8, 2021		
Page 30 B		
Do the following.		
1. Find the mean of the probability distribution of a random variable $X$ which can take only the values of 1, 2, and 3, given that $P(1) = 10/33$ , $P(2) = 1/3$ , and $P(3) = 13/33$ .		
$X$	$P(X)$	$X \cdot P(X)$
1	10/33	10/33
2	1/3	2/3 or 22/33
3	12/33	13/10
Mean		2.1
2. -		
3. -		
4. Find the mean of the probability distribution of a random variable $X$ if $P(X) = 1/10$ for $X = 1, 2, 3, \dots, 10$ .		
$X$	$P(X)$	$X \cdot P(X)$
1	1/10	0.1
2	1/10	0.2
3	1/10	0.3
4	1/10	0.4
5	1/10	0.5
6	1/10	0.6
7	1/10	0.7
8	1/10	0.8
9	1/10	0.9
10	1/10	1
Mean		5.5

## REFLECTION ON LEARNING

What are the Performance Tasks??

### 3rd Quarter

#### 1. MPT1: Mean, Variance, Standard Deviation – 30/30

Explain what exactly you were required to do in this Performance Task?

### 3rd Quarter

#### 1. In this mini-peta, we answered page 30 of the book, which had problems about finding mean, variance, and standard deviation.

How may the skills that you have developed in this Performance Task be of help to you in your future career?

### 3rd Quarter

#### 1. These topics are very useful in the field of research and data collecting, it helps give more precision and definition to researches.

Which of the Performance Tasks you did well? Why?

### 3rd Quarter

This is the only performance task I can do well in. But I also believe I really did well in this performance task because I studied well about this topic.

In what Performance Task do you need to improve? How?

### 3rd Quarter

Like in my response in my written works, I believe I can grow better for next quarter.



# OTHER WORKS

**WORK #1:** (put the name of work here)

## REFLECTION ON LEARNING

Explain what exactly you were required to do in this work?

How may the skills that you have developed in this work be of help to you in your future career?

**WORK #2:** (put the name of work here)

## REFLECTION ON LEARNING

Explain what exactly you were required to do in this work?

How may the skills that you have developed in this work be of help to you in your future career?

**WORK #3:** (put the name of work here)

## REFLECTION ON LEARNING

Explain what exactly you were required to do in this work?

How may the skills that you have developed in this work be of help to you in your future career?

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**WORK #4:** (put the name of work here)

**REFLECTION ON LEARNING**

Explain what exactly you were required to do in this work?
How may the skills that you have developed in this work be of help to you in your future career?

# CERTIFICATES

(put scanned copy or picture of your certificates here)

# End of Semester Reflection

1. What helped you achieve or pass your subjects this semester? What prevented you from giving your best?

**Firstly, procrastination kind of prevented me from giving my best and delaying most of the tasks to be accomplished. Second, the little bit of motivation helped me to push through the subjects and the laziness.**

2. What is something you did really well or tried your best at during this semester?

**This semester, I tried my best to accomplish most of the tasks punctually, but as we can see, I kind of failed at. So I'm still working on it.**

3. What is something that you didn't do as well as you could have or something that you would like to improve?

**Exactly what I said previously, I didn't make through with the punctuality aspect of school. And I will keep on working on it, to be able to have a stable productivity in the future.**