Personal Project Report
Marcela Garcia 10C

<u>Criterion A:</u>

Learning Goal:

      My learning goal is to identify why having sustainable buildings is important, their influence and how they help, why they're innovative. By the time I am finished with my personal project I don't only want to be able to distinguish this and be able to explain it in great detail, but I would also like to know and be able to describe how a sustainable building is made, what does it look like, what are the characteristics of a sustainable building, and of course, probably one of the most important things, what makes it sustainable.

Product Goal:

      For my product I will design and make a 3D model of a sustainable building with at least three characteristics that make it sustainable. And if possible, I will also make my whole product (3D model) out of materials that are sustainable or I will reuse unwanted materials to make my actual 3D model.

Why I chose 'Sustainable Buildings' as my Personal Project:

      Before finalizing my decision of my chosen topic for the personal project I brainstormed and wrote down some of my personal interests or things that I was drawn to and wanted to learn more things about. One of my personal interests has always been architecture. I have always been interested in this and always enjoyed drawing houses, designing them, and looking at houses both physically and online. Architecture has always been one of my passions, along with being responsible environmentally, helping take care of our planet, and living in a healthy, clean and sustainable place. Consequently, I find sustainable buildings very interesting and something that will be seen even more in the near future. I think sustainable buildings, also known as green buildings, are very innovative and should be made more. I have decided that for my Personal Project I will be learning and collecting data about how architecture can be sustainable, 'Sustainable Buildings', and how this will help earth like explained in more detail in my learning goal above.
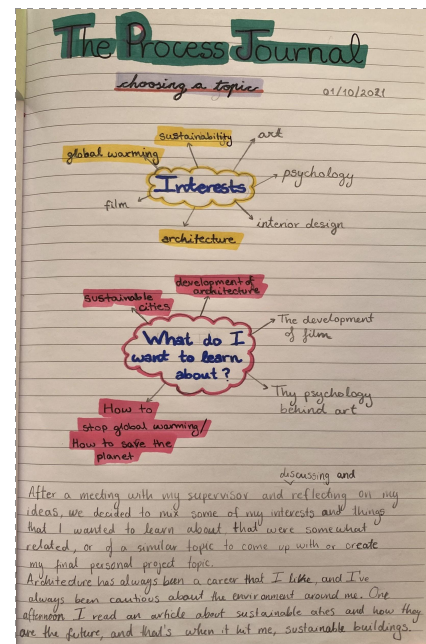
Global Context:

      The global context best matches my chosen topics for the personal project is Globalization and Sustainability. The global nature of human made systems. As explained by GEMS World Academy Chicago, "This global context is about how concerned we are worldwide, how we make decisions about global issues and how we can act in a responsible way to make the world a better place." For my chosen topic, sustainable cities. The global issue is global

warming and the decision to act in a responsible way and make the world a better place is to build sustainable buildings that help reduce the amount of global warming and other negative environmental impact architecture usually has.

Projects Action Plan:

Activity	What needs to be done	Targeted deadline (expected date for estimated /desired completion)	Actual Date of completion
Write the project's goals and global context	Complete learning product (write what I am looking forward to learn about during the personal project, what I expect to have a substantial amount of knowledge about after the research (about sustainable buildings)) complete product goal (what my final product should look like, what I'd like it to look like) ISMART goals, and determine my project's global context	By: 27/10/2021	27/10/2021
Start research about sustainable buildings (Project's topic)	Research about chosen topics, sustainable buildings. Focus on learning goals specifically.	By: 29/10/2021	29/10/2021
Complete research about sustainable buildings (Project's topic)	Be able to achieve the learning goal.	By: 09/12/2021	09/12/2021
Plan design brief/ plan product	Use the information collected in the research, follow the product goal, and be able to have an idea of what I want the product to have or even look like (how will it be a sustainable building)	By: 14/12/2021	14/12/2021
Write success Criteria	Specify the needs of the final product, what it should have or look like and the levels of achievement	By: 19/12/2021	19/12/2021
Design and draw final model of product	Use the product goal and compare and contrast with the success criteria, use the information gathered and create own model of a sustainable building	By: 29/12/2021	29/12/2021

Start Product	Take pictures of the process, use only reusable materials, no new equipment/ materials. Materials needed and used: • 2m X 2m hard cardboard (to make the walls, floors and roofs of building) (X1) • Hot glue gun (stick walls together) (X1) • Cutex (cut the walls) (X1) • Old unused/unwanted straws (don't know how many are needed but I have enough) • Scrap paper (Enough scrap paper to print the walls, both on the inside and outside of the 3D model, and the furniture in the building) • The fake grass used for decoration (all reused)	By: 30/12/2021	30/12/2021
Finish Product	Contrast and compare to success criteria	By: 15/01/2022	15/01/2022
Finish draft for Criterion B in report	Identify the ATL skills used and talk about the process of product making	By: 30/01/2022	30/01/2022
Plan the personal project's presentation/exhibition	Meet with the supervisor, plan and distinguish what it is you want to share, identify your learning goal, show how you achieved it, show process journal and designs… maybe practice presenting	By: 15/02/2022	15/02/2022
Do final presentation/ exhibition for personal project	Present all your information, pitch product, explain every decision made, exhibit process journal, collect feedback.	By: 08/03/2022 - 09/03/2022	08/03/2022
Complete the personal projects report	Use the supervisor's feedback, reflect on everything, show proof, and finalize crit A, B and C using the template provided in teams and online.	By: 20/03/2022	20/03/2022

More detailed Action Plan (Specifically Research and connecting it to the product and design):

Steps (in order, most prioritized - to least important):

1. Do research, collect information about sustainable buildings,

2. To complete the Learning Goal, answer these questions, 4 Ws: what, when, where, why, and how. These are some examples of the type of questions I must be able to answer by the end of the project in order to prove that I have accomplished and achieved my learning goal.
- What are sustainable buildings?
- What does a sustainable building look like?
- What does a sustainable building have, some of its features?
- What are the most important features and the most sustainable parts of a sustainable building?
- What materials are needed to make green buildings?
- When should we start seeing sustainable buildings?
- When did we start making them?
- Where can we find them?
- Where can we get the materials to make green buildings?
- Where should we build them?
- Why should we have more sustainable buildings?
- Why is it sustainable?
- Why are they an innovative idea?
- Why are they important?
- Why do we see more nowadays?
- How are sustainable buildings made?
- How will they help?
- How many green buildings should be built to make a city sustainable?

3. Once all information is collected and we know what a sustainable building looks like and how it's made and with what, we sketch a model of what our product will look like.

4. Bring the sketch to life, look for materials needed and make the 3D model, the product.

Works Cited of my Research (achieved Learning Goal):

Iberdrola. "The 'Green' Buildings Are Leading the Way to More Sustainable and Efficient Urban Planning." *Iberdrola*, 2022,
      www.iberdrola.com/sustainability/sustainable-green-buildings.

Structuralia. "6 Características de Una Edificación Sostenible Que Debes Conocer." *Blog.structuralia.com*, 30 July 2021,
      blog.structuralia.com/caracteristicas-de-una-edificacion-sostenible-que-debes-conocer.

Rodrigez, Manuel. "Arquitectura Sostenible: Características de Un Edificio Sostenible LEED." *Canal Gestión Integrada*, 17 Aug. 2016,
      revistadigital.inesem.es/gestion-integrada/caracteristicas-edificio-sostenible/. Accessed 18 Mar. 2022.

warrior. "¿Qué Hace Que Un Edificio Sea Sostenible?" *Save the Planet Now*, 7 July 2020, www.saveplanetnow.com/que-hace-que-un-edificio-sea-sostenible/.
      Accessed 18 Mar. 2022.

apliaqua. "Depósitos de Agua 1000 Litros | APLIACUA." *Depuración Del Agua*, depuraciondelagua.com/depositos-de-agua/1000-litros/. Accessed 18 Mar. 2022.

Ures, Pablo. "El Reciclaje de Aguas Grises Como Complemento a Las Estrategias de Gestión Sostenible Del Agua En El Medio Rural." *Research Gate*, 2011,
      www.researchgate.net/figure/Figura-1-Esquema-basico-de-sistema-de-tratamiento-de-aguas-grises-en-una-vivienda_fig1_324039859. Accessed 2022.

ArchDaily. "Gray and Rainwater Reuse Systems." *ArchDaily*, 2011,
      www.plataformaarquitectura.cl/catalog/cl/products/14995/sistemas-para-reutilizacion-de-aguas-grises-y-pluviales-anwo.

---. "DEPURACIÓN DEL AGUA." apliaqua.

Gatley, Neill. "What Is Sustainable Construction and Why Is It Important?" *British Assessment Bureau*, 2 Feb. 2019,
      www.british-assessment.co.uk/insights/what-is-sustainable-construction-and-why-is-it-important/.

ecologicas. "Edificio Sostenible ¿Qué Son Y Cuáles Son Sus Características?" *Designable*, 25 Feb. 2020,
      www.designable.es/casas-ecologicas/caracteristicas-de-un-edificio-sostenible/. Accessed 18 Mar. 2022.

WBDG Sustainable Committee. "Sustainable | WBDG - Whole Building Design Guide." *Wbdg.org*, 2018, www.wbdg.org/design-objectives/sustainable.

brick. "Why Sustainable Buildings Are the New MUST HAVE." *Brick.com*, 2022,
      brick.com/why-sustainable-buildings-are-new-must-have#:~:text=The%20tangible%20benefits%20may%20not. Accessed 18 Mar. 2022.

Metz, Jessica. "Green Roofs – PUBLIC JOURNAL." +*Public*, 2016, publicjournal.online/green-roofs/.

In the image (screenshot) above, you can see my final works cited (in MLA8 format) of all of the research completed throughout the project.

Design Brief:

     As explained briefly in my product's goal. For my final product I am going to make a 3D model with reused materials of a sustainable building. This model will be designed by me after completing the research and having more knowledge about sustainability in architecture. I will want to design something that I haven't seen before when doing the research so I will make my model have at least three different characteristics of a sustainable building. After doing some calculations I came up with my action plan above. My action plan is carefully planned out with targeted due dates specifically placed for the completion of each of the activities I have to

perform during the personal project. They were delicately chosen so that I wouldn't fall behind and always finish everything on time. As you can see, I will have to complete my product by the 15th of january and I should start no later than the 30th of december 2021 so that I have enough time to complete my product and have time to make mistakes and resolve them, in case I do come across some inconveniences or problems during the process of making the product.

For my product I don't really have a target audience. It is a model of a sustainable building, one that could be functional in real life. It will be detailed and labeled so that everyone (all ages) can understand what it is and how it functions.

Down below is a more detailed plan (a criteria) of what exactly my product must have and what each achievement will deserve. If for the first goal I do everything in the 'exceeds expectations' columb, then my product will deserve a high level of achievement.

Product Success Criteria:

#	Below Expectations	Meets Expectations	Exceeds Expectations
1	My model is not standing on its own, it is not 3D, it does not look like a building. It is not resistant, it was not scaled properly.	My model is aesthetically pleasing, it is 3D and you can tell it is a building. It is somewhat resistant, most pieces are scaled, but there are some irregularities.	My 3D model is clearly a model of a building. It is visually appealing, stands perfectly still and is resistant due to its perfectly scaled fit with no irregularities.
2	My model does not have any features of a 'sustainable' building.	My model is a representation of a 'sustainable' building. It has one to two features of a green building, which are visible.	My model is a clear representation of a 'sustainable' building. It has to have three or more features of a green building, and these are distinguishable, clear and labeled.
3	My 3D model is not visually appealing, it does not show the different parts of the model and what they are. It does not have labels, or colors. It's size is not convenient, it is either too big or too small.	My 3D model is somewhat visually appealing, it shows the different parts of the model and what they are. It has some labels, and colors. The model's size is not very convenient, but it is still acceptable.	My 3D model is visually appealing, it is big enough to catch people's eyes and clearly show the different parts of the model and what they are. It has labels, and colors. The model is not huge, it is also easy to carry around and move.
4	My model does not give any understanding about sustainable buildings. It has very little to do with sustainability and green houses. Looks like a normal building and needs a lot of	My model gives viewers some understanding about sustainable buildings. It is informative but needs some explaining to have a full understanding about the model and the choices made,	My model gives the viewers great understanding of the subject 'sustainable buildings'. It is informative and just by viewing the model you learn about sustainable buildings.

	explaining in order to understand all the choices made and what they represent.	and what they represent.	
5	My final 3D model was not built with 'sustainable' materials. No reused materials were used to build the model, new materials had to be purchased for the making of the product. (not very sustainable/eco-friendly)	My final 3D model was built with some 'sustainable' materials. Some reused materials were used to build the model, (only a few new materials had to be purchased for the making of the product).	My final 3D model was built out of 'sustainable' materials itself. Reused/unwanted or old materials were used to build the final product (no new materials had to be purchased for the making of the product).

Criterion B:

The personal project has allowed me and encouraged me to use different ATL skills throughout the making of my product and achieving my learning goal.

My learning goal was to identify why having sustainable buildings is important, how they help, why they're innovative, and how you can make a sustainable building, what does it look like, what makes it sustainable. To achieve my learning goal I had to use multiple ATL skills, one that I used quite frequently was self management skill, specifically the organization skill. A lot of research had to be done in order to achieve my learning goal. My knowledge on sustainable buildings was very vague and I was very oblivious about this topic, so I had to use my organization skills and self managing skills in order to organize my work and use my time appropriately to not only achieve my learning goal in time, but also finish my other assignments or school work.

The ATL skill that I used the most in order to achieve my learning goal was, as mentioned above, the research skill. As NUI Galway explains, "research skills refer to the ability to search for, locate, extract, organize, evaluate and use or present information that is relevant to a particular topic." On this occasion I was able to locate and extract information about sustainable buildings, more specifically information that would help me later achieve my learning goal.

A lot of research had to be done in order to learn about sustainable buildings, why they are the future, and how one is made, or features of the building that makes it sustainable.

You can see the amount of research I did throughout this project. And you can definitely see it reflected on my model.

Another ATL skill that I used a lot throughout the whole personal project was the organization skill/ self-management skill. As you can see in my action plan in my criterion A above, I had set up targeted deadlines for the completion of each task and activity. I had set up these deadlines and due dates on purpose to make sure I was always on track and I was never behind. I gave myself enough time to complete each activity but even then I thought that I wasn't going to be able to achieve them. To my surprise however, as you can see on the last column, the column on the right in the action plan. I did in fact manage my time appropriately and actually managed

to complete each activity on time, I was able to organize my time and was able to not fall behind at all during the personal project.

Once I had finished the research, I was able to move onto my product. The information gathered in the research part of the personal project helped me plan, model and make my product. You can see this reflected on my process journal as you can clearly see all my notes and ideas gathered in the research and how I got different inspirations from different buildings that I found online to create my own model. The buildings I used as a guide and as inspiration where all in the same website, this website is called 'iberdrola', and it is probably the website I used the most during the personal project due to the fact that it had a lot of relevant and important information, specifically about the characteristics of a sustainable building, where to build one, how and even some examples, like the ones taken to help me design my model. You can see me reflect and link the two, my research skills and my thinking skills on the images below, these were extracted from my process journal, and I think they are a clear example and show how this is true and how I used different buildings and information that I had found during the research to guide me and inspire me to design my own building.
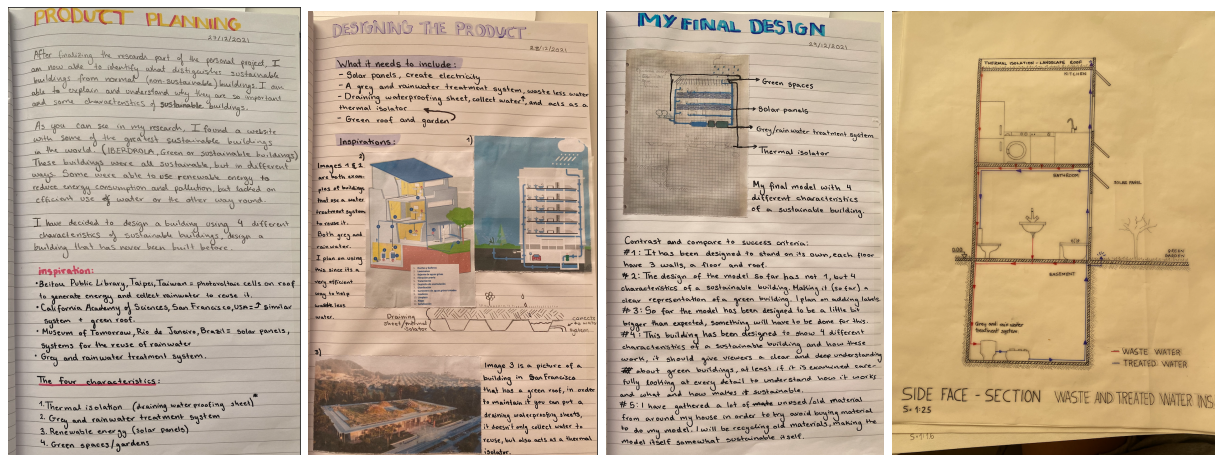

My product goal was to make a 3D model of a sustainable building. And if possible, also use materials that are sustainable to make it. In order to achieve my product goal I had to use thinking skills, I transferred and used the information gathered while researching about sustainable buildings and used not only critical thinking skills, but also creative skills to then come up with my own model of an innovative sustainable building.

I took four different features of what makes a building sustainable and was able to make one building with all four. A model like the one I designed has yet to be made, buildings with all four, thermal isolation (to avoid the heat or the cold from entering or leaving the building), solar panels (to generate electricity and renewable energy), gray and rainwater treatment system (to clean and reuse used water or rainwater), and green gardens has not been made. Furthermore, not only was my design creative and innovative, but also my final model.

During the process of building my product, I developed and applied two different approaches to learning. The first one was as mentioned before, organization skills which goes under self-management skills. Organization skill is when you can manage your time and tasks effectively and appropriately. Using the information that I gathered throughout my research about sustainable buildings, and then using it to design and plan my product took longer than I expected. I didn't know how long it was going to take me to construct my building due to the fact

that I was focusing on using materials that no one was using around my house in order to make my 3D model be "sustainable" itself, I didn't have a lot of 'construction skills'. I hadn't really built houses before, specially with those materials or with a professional plan or more throughout and with the hopes of making the house sustainable. In addition to all the other assignments that I had due during those times. Consequently I had to use my organization skills to manage my time effectively and organize my days and my tasks so that I would be able to finish all of them in time and properly done. Furthermore, even under a lot of stress and focusing on finishing my product in time, I was still able to take pictures of the product's process, and then comment on every step during the process. I was able to write annotations and notes like shown in the images below. These images are pages extracted from my process journal.
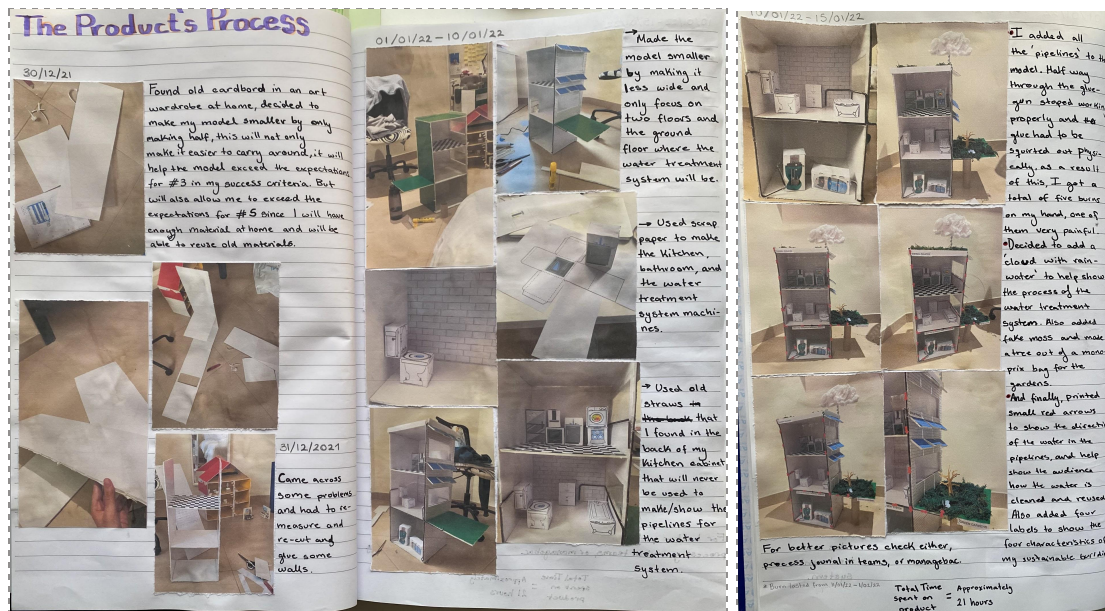
And finally another ATL skill that I used effectively throughout the process of constructing my sustainable building as my product, was the affective skill. This also goes under self management, but this is when someone can manage their own state of mind, concentrate and be focused, they can learn from their mistakes and problems later create a solution in order to not repeat them. During the making of my product, I had to really focus and concentrate not only in following my detailed plan so that my product would be successful and exceed all of my success criteria's goals, but I had to be careful with how I made my product. As mentioned above, it was a very stressful time and I felt the need to rush. This didn't only consult with me having severe injuries such as burns on my fingers when sticking the walls, floors, and ceilings of my building together. But this also led to me rushing and measuring some of the walls wrong and having to repeat and start over, this definitely made me waste some time that could've been used effectively.

This didn't only happen once, but it happened constantly, in order for these injuries to stop occurring, and for these unnecessary mistakes to keep proceeding, I learned from my mistakes and problems and managed to focus and concentrate to not repeat them.

Criterion C:

As stated earlier in my criterion A, my learning goal for my personal project was to "identify why having sustainable buildings is important, how they help, why they're innovative (The research part of the project). And learn how one can make a sustainable building, what does it look like, what makes it sustainable (also the research part of the project but also preparation to begin the design and planning of my product)."

After completing my personal project, I can confirm and even provide evidence to show that I met my learning goal, and after this project, I was able to explain and provide an answer to everything stated in my learning goal that was developed before starting the project. I was able to identify the reason as to why sustainable buildings are important, why they're innovative, how one can be built, its characteristics, and how those make it or help make the building a sustainable one.

You don't only see this progress of reaching my learning goal throughout my research and the notes I took throughout my exploration and investigation about this topic. But you can also see this in my process journal as I developed new information and was able to use it and generate my own design of a sustainable building.

Some specific knowledge that has definitely increased or just advanced and refined while the making of this project is definitely linking the research to creating my own product, a sustainable building. Before starting my project, I did not have a lot of prior knowledge or skills about sustainable buildings, I knew what they were and how they were very innovative and very futuristic, something that was going to be seen in the very near future. But because of this project, my personal project. I have been able to develop and increase my knowledge and by the time I had finished my research part I was able to do something that I couldn't have done before this project. And that was to plan, design, create and build my own sustainable building using everything that I had learnt throughout the personal project.

Unfortunately I don't have evidence for this growth, I don't have proof of me not having a lot of prior knowledge or just the skills to create my own sustainable building. However, you can see throughout my process journal how I was able to use and correlate information gathered about sustainable buildings to later create my own.

You can see all of my thoughts and ideas put into my own design, you can see where I got some inspiration from, the research that had been done throughout the project. Meaning information that I didn't have prior to the personal project.

As mentioned and explained in my criterion B above, (applying skills). Throughout the personal project, I was able to develop and use multiple different IB learner profile attributes accordingly and appropriately. These definitely had a positive impact on me as a learner and student.

One of the IB learner profile attributes that I think I used and developed the most throughout my personal project was definitely inquirer. During the project, I strived and aimed to develop new skills and research about some things that I was passionate and curious about, these things being sustainable buildings, and what characteristics one has. As mentioned above, I had very little prior knowledge about this topic, meaning during the project, I used and developed my inquirer profile attribute to help me learn both, independently and with others to obtain and increase my knowledge about this subject.

Considering the fact that sustainable buildings was something that I was curious about but I had never considered developing skills for on my own. After this project, and after developing this

learner profile attribute, it helped me realize that investigating and inquiring about subjects you're curious about is actually fun and genuinely interesting. Developing this learner profile attribute has helped me use it for other subjects that I also found interesting or was just curious to learn more about. It has helped me become more open minded, independent, and has allowed me to investigate more and acquire more knowledge about topics that were compelling to me. Consequently, as you can see, this has definitely had a positive impact on me as a learner, student and even just as a person in general. Because it has pushed me, motivated me and allowed me to investigate on my own and become an independent learner.

Another IB learner profile attribute that I have used constantly throughout my whole personal project, was the reflective learner profile attribute. As an IB learner I strive to reflect upon my own ideas, my own experiences thoughtfully to understand my strengths and weaknesses that later help my learning and personal development. Throughout the whole personal project you reflect upon everything, not only upon the knowledge and information collected during the research part of the project to later come up with your own product. But you also reflect upon yourself as a learner, a student, and even as a person. Achieving and developing this skill has definitely given me a very positive impact, this has now allowed me to reflect more not only on myself but also on the work that I am getting done, all of my other tasks and assignments. Reflecting on myself and on my work has made me realize that I get better work done.

Therefore in conclusion, the personal project has resulted in me becoming a better person, and a better student. It has allowed me to grow, as I have developed many skills from which the world will benefit from in the near future.

The personal project has allowed me to become a better inquirer, to nurture my curiosity, I have become more open minded, I take risks that allow me to become more independent. I have learned to become more balanced and reflect on what I do at every point in my life. I learn from my mistakes and I am able to understand and acknowledge my strengths and weaknesses. It has allowed me to become a better thinker both critical and creative, it has allowed me to analyze and initiate reasonable and ethical decisions and ideas for myself. Create my own ideas and designs (when using the knowledge concentrated during the research to later create my own product, everything is shown both on my process journal and even in crit B above). It has allowed me to become a better communicator, express and share my ideas, and even listen to others (when discussing the project to my supervisor, teachers, family and friends).

As mentioned before, I think the personal project is a project that allows you to work on every single IB learner profile attribute and develop the skill, it allows you to grow as a person, and become a better person and learner. It allows you to work on skills that everyone should have, and skills that are extremely beneficial and will give you many opportunities in the future as they make you a better person.

My Final Product:

      When planning and designing my model, I actually compared it to my success criteria to make sure that it would fit and exceed in all of its factors, criteria and goals. You can see I did this in my process journal. In my success criteria I had five different goals or expectations. My goal for all was obviously to exceed expectations, consequently for my first criteria, my goal was to make my 3-D model a clear representation of a building, one that is visually appealing and stands perfectly still. In this criteria I was focusing more on how my model was built so that it would look professional and wouldn't have any irregularities and would stand on its own.

After not only designing, but also creating and building my model, I think I can say that my product does in fact exceed expectations for my first criteria. My 3-D model is clearly a model of a building, it stands on itself and was perfectly scaled so that each wall would fit, it is resistant. And I would say that my model is in fact visually appealing due to the fact that I added actual grass to both gardens, the one on the roof and the garden on the ground level, and I even made my own cloud and raindrops to help show the rain water coming down to show how it will later be cleansed/threatened to be reused thanks to the water treatment system underground. Like shown on the images above,

However after my personal project exhibition/presentation I made a Feedback questionnaire to the people that I presented my project to. And one of the questions in my questionnaire was, "how can I improve my product?" And in one of the responses, someone said " it can be more stable", unfortunately they didn't specify exactly on what could have been improved to make it more stable, but I guess looking at this response from a more general perspective or point of view, my model could have been better looking and focusing on this criteria.

Screenshot and proof for one of my questions in the feedback questionnaire with its answers:

How could I improve my product? (My 3D model of my sustainable building)

Nothing

Very clear

Its great

It can be more stable

Nothing

Its perfect for me.

In my second success criteria, in order to exceed expectations my model had to be a clear representation of a

sustainable building, I had to have three or more features of a green building and these had to be distinguishable, meaning they had to be very clear and/or labeled. I do think my model is a very clear representation of a sustainable building, it doesn't have three, but for different features that make it a green building and they are all clearly labeled. The first one is the thermal isolation on the roof. The second one is the gray and rainwater treatment system in the basement (underground), you can't only see how it is underground, but I even added red arrows to clearly show the direction of the water and how it would flow all the way to the basement to be treated by the treatment system to later be pumped up to the toilet and the gardens once again, like shown on the image. The third characteristic of a sustainable building that I used on my own building was renewable energy. I did this by adding solar panels in between each window. I didn't add solar panels all around the house just because I wanted to show the least of the house as possible to make people only focus on two sides but still be able to see and show all of the four characteristics or features of a green building that I used. And finally, The final characteristic I added to my house was green spaces/gardens, and you can clearly see these on my 3-D model/my product. All of these features are not only big enough to see, but they are also clearly labeled so that anyone looking at my product would be able to understand how it works without needing anyone to explain it to them. You can clearly see all four of the characteristics labeled on my model in the images above.

In my questionnaire I had a lot of questions in which I asked what they had learned and if my product was easy to understand and a clear representation of a sustainable building, 100% of my responses back said that yes, my product did in fact exceed expectations for this criteria like shown on the screenshot.

Screenshot of one of my questions in the feedback questionnaire with its answers:

Was my product easy to understand and use? Was it a clear representation of a sustainable building?
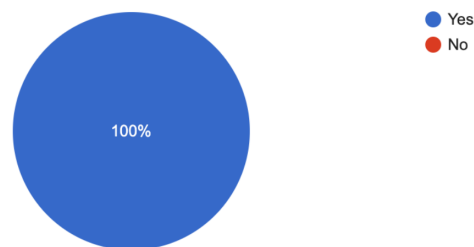

My third goal for my success criteria was to make my 3-D model visually appealing, not only have labels or colors to catch peoples eyes but also be convenient, more specifically its size. My goal was to make it big enough so that people would see it and want to learn about it and understand it, but also not be too big so that it wouldn't be easy to carry around or move. Before starting my building, this was obviously one of the hardest criteria, and I thought I was going to be able to exceed it. Due to the fact that my building is in fact a three-story building with a garden on the side and a cloud with rain water over the roof. When measuring my walls and doors to build my model, I wasn't sure of how big my final product was going to be, I could get an idea but obviously it could not end up how you planned for it to look. Nevertheless, after building it, it wasn't only light enough to carry and move around, but it was actually the perfect size, it was not only big and a model that I would say catches peoples attention, but it was also

extremely easy to move, its size didn't affect it whatsoever. So I think I could say that my model once again exceeds expectations for my success criteria. Everyone who answered my feedback questionnaire agreed with me on this.

My fourth goal for my success criteria was for my model to give viewers a great understanding of the subject 'sustainable buildings'. My model had to be informative and just by looking at the model, people had to be able to learn and understand about sustainable buildings. As mentioned before, I did in fact ask questions about this in my questionnaire. One of the questions I asked was, "did you learn something new?". 100% of the responses back said that they did in fact learn something new. I then asked "if so, what did you learn?" All of the answers had something to do with sustainability, you can see this on the screenshot. So I would say that once again my product met, if not exceeded the expectations for my fourth goal in my success criteria, since everyone that came to visit my booth and got to see and understand my product said it was easy to understand and taught them about how the building is sustainable and why as you can see in the screenshots below.

Was my product easy to understand and use? Was it a clear representation of a sustainable building?

Did you learn something new?

Yes
No

100%

Yes
No

100%
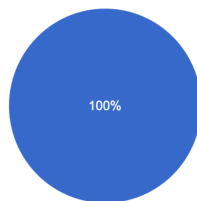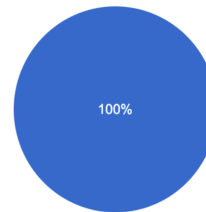
If so, what did you learn?

About sustainable buildings

Easy and important changes for the future building

I learnt how building can be sustainable

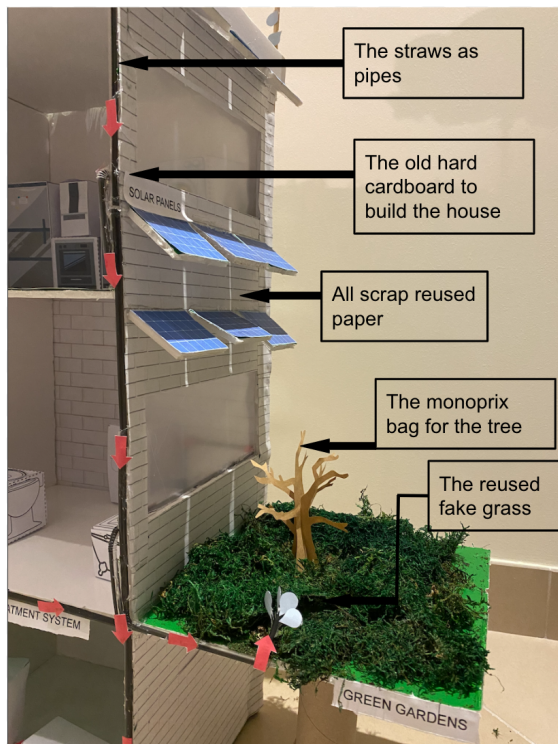Sustainability

Toilet water is not recycled

About recycling the rain.

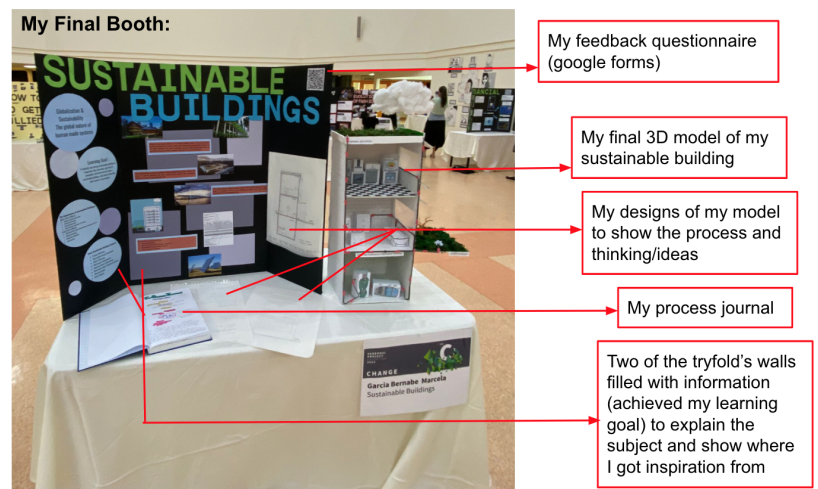Sustainable building

And finally, my fifth and last goal in my success criteria was to build my actual product using sustainable materials, or try to make the building or the process as green as possible. When writing this in my success criteria I wasn't very detailed just because I , myself, didn't know if this was going to be a possibility and I didn't know what materials I could or was going to use.

However when I started to start my design and build my product, as mentioned in my process journal. I found unused pieces of hard cardboard that were perfect to build my 3-D model, they were light color I had enough to make my building the perfect size in order to exceed with my third success criteria's expectations, and the cardboard was hard enough to make my final 3-D model resistant and strong (to exceed in my first products success criteria). So I used this, to make my kitchen and my toilet for the building, I used scrap paper (to not waste paper). To show the pipes that collect the rain and gray water to later take it to the water treatment system, I used very old straws that no one in my house had used for years, and they were not going to be used. And finally for the two gardens, I used fake grass that me and my family used to decorate the nativity scene during Christmas so that after showing and exhibiting my model this could be reused once more. And finally, for the tree you can see in the garden on the ground floor, I actually used a monoprix bag, i cut out the shape of two trees and cut two lines, on one of the trees I cut a line through the middle from the top of the tree to the middle, and for the other tree I did the opposite, I cut a line through the middle of the tree, but this time from the bottom of the tree, not the top, to the middle again so that I could attach both of the trees and they would stand on their own like shown on the diagram below.
You can see all of these below.

- The straws as pipes
- The old hard cardboard to build the house
- All scrap reused paper
- The monoprix bag for the tree
- The reused fake grass

SOLAR PANELS
TMENT SYSTEM
GREEN GARDENS

So as you can see pretty much everything used to build my final product was in fact 'sustainable' or to be more specific old, unused and reused materials. This then allows my final product (my 3D model of a sustainable building) to exceed my success criteria's goal once again.

My Final Booth:

SUSTAINABLE BUILDINGS

- My feedback questionnaire (google forms)
- My final 3D model of my sustainable building
- My designs of my model to show the process and thinking/ideas
- My process journal
- Two of the tryfold's walls filled with information (achieved my learning goal) to explain the subject and show where I got inspiration from

My Products Level of Achievement (using my success criteria):

#	Below Expectations	Meets Expectations	Exceeds Expectations
1		▮	

2			
3			
4			
5			