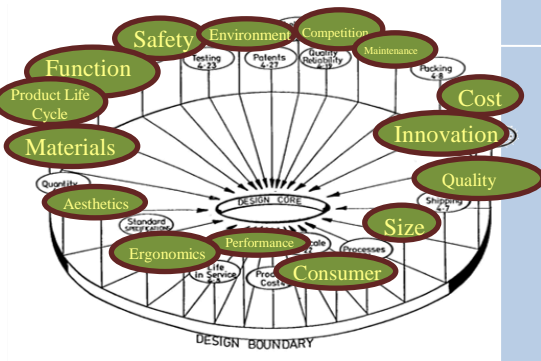


Specification

Aim
 To consider the criteria that is imperative in my building design.

Design Brief
 To design a building inspired by shells that makes use of eco-technologies suitable for Llandudno.

Rank	Term	Definition	Why have I selected this?	Does this term consider environmental issues?	Quantitative or Qualitative	Essential or Desirable	How am I going to use it?	How am I going to end test?
1	Environment	The surroundings or conditions in which something lives or operates.	I have chosen to consider the environment when designing as eco-technologies are a major consideration in this design. Eco-technologies are continually improving and being developed to make more sustainable buildings and I aim to make a highly sustainable building using eco-technologies that will be utilised to their potential from my chosen site.	This term considers environmental issues holistically, from the materials to the energy efficiency of the building. In this task I see the environment as paramount importance when designing.	Environment is a quantitative features as the efficiency that the eco-technologies create can be measured against numerical data.	In this project the environment is an essential feature to the design, as I have stimulated in my design brief.	I am going to use the environment to consider every element of my design; the orientation of the building on the site so as to best utilise the surroundings for eco-technologies, the manufacture, materials and building use and how these can be best adapted for sustainability and efficiency.	I will end test the environmentally abilities of the building by calculating how my eco-technologies will help the building reduce its carbon footprint, and how the building could be disassembled and used at the end of its life cycle – increasing sustainability.
2	Aesthetics	The nature and expression of beauty, that creates a pleasing appearance.	The influences and concepts that a building derives from effects the entire aesthetics of a building. It needs to remain in character with its environmental setting whilst accepting the eco-technologies well and allowing the entire design to work together.	Through this project the aesthetics of my building will consider environmental issues as the shape, style, flow and appearance of the building will be affected by the site that I have chosen and the eco-technologies that I wish to implement. The aesthetics of my building also need to consider the local environment by remaining in character with the other buildings, especially as my chosen site at Llandudno is surrounded by history.	Aesthetics is a qualitative design feature as it cannot be counted or collected. It is a description of opinion and is not a factual piece of information that can be included in the design process. However, if being considered in relation to aiding eco-technologies then it could be quantitative.	This term is only a desired characteristic of my design as without suitable aesthetics the building would still be functional and make use of eco-technologies. However, I think that the aesthetics of the building can also be classed as essential as the building is being designed with my chosen site in mind, taking into account the history of the site and the surrounding area and local buildings.	I am going to use the aesthetics of my product largely in the initial and concept ideas that I have drawn in my sketchbook. I may need to re-evaluate the aesthetics of my design when considering the appropriate eco-technologies that I want to incorporate into my building considering my research.	To test the aesthetics of my product I would ask the client whether they think the building is aesthetically pleasing, if it flows well with the eco-technologies that it uses and also if it fits in with the surrounding environment.
3	Materials	Something that objects are made of.	I have selected this term as the materials that my building will be made from needs to be considered throughout the entire design process especially in regards to more sustainable building design.	This term considers many environmental issues as the materials could 'lock-up' carbon dioxide (if they are made from a natural material such as wood), they could be sustainably sourced, recycled after use, manufactured and constructed in a way that is better for the environment. They could be made from recycled materials or be an innovative use of locally sourced materials, each idea considering how it could be better for the environment.	Materials are a quantitative feature as they can be measured in their strength to weight ratio, and their properties and costs compared to other materials for example as well as how they influence the efficiency of the building (such as heating, natural lighting, ventilation).	The materials are a desirable feature to my building as ideally I would like them to be as sustainable and environmentally friendly as possible, however there is no need for them to do so, so in terms of criteria to consider when designing my building the materials can be thought of as a desirable element.	I am going to consider the materials when I begin to develop some strong design ideas and need to consider the building further. When I reach this stage I will conduct additional material research and also look and how the materials I would use for y building could be transferred to a scale model.	To test certain materials of my building, such as the EcoCem concrete that has been used for the foundations samples will need to be taken and their compressive strength testing off site to ensure that they are to a suitable standard to be used in my building.
4	Function	The purpose of the building, what it is used for and what it is expected to do.	Considering my chosen function of the building (an aquatics centre) is necessary to my design. The aesthetics and use of eco-technologies will influence the aesthetics of my design but the function of the building will define the specific elements that I need to consider when designing my building, such as the height of rooms with diving platforms, and areas such as changing rooms that need to be accommodated.	The function of my building doesn't consider environmental issues as when designing I am considering a building function that will benefit the consumer and the local economy and environment and hopefully increase tourism. So the function of my building will not particularly have a positive or negative effect on the environment.	The function of my building is a qualitative feature of my design as it is a description of the building and what it has to offer.	Function is an essential element of my design as without a specific function people would not visit my building. The function of my building has also allowed me to consider my consumer more effectively through a psychographic market segment where I can design my building based on the activities and lifestyle that can group various consumers together.	I will consider the function of my design throughout the entire design process as the function of my building is almost the concept behind my ideas.	To end test the function of my product I will analyse how my people use the building, and their opinions of the features that are available. I will also consider the competition of my building in relation to nearby buildings of similar uses to see if they impact the use of my design because of their function.
5	Safety	Secure from liability to harm, injure, danger or risk.	I have selected safety as an important feature to consider as without safety my building could not be used. Safety is of paramount importance	Safety does not consider environment as the building being safe is a very important characteristic that must be met regardless of the environmental impact of the building.	Safety is a quantitative design feature as it can be compared and checked against safety regulations.	Safety is an essential feature of my design as without considering it the building would not be functional or suitable for public use. It is required to be sound in its construction and its use.	I will consider the safety of my building when carrying out the development of my design ideas to look at space and layout of the building and how it interacts with the consumer.	To end test the safety of my building I will check the safety regulations associated with my building.
6	Innovation	A new or radical method, idea or product.	I have selected this term as innovation is an important area to consider when designing my building with regards to being eco-efficient. I will need to think of new ways that I could make my building more sustainable, through the design and material use that I could generate.	In this context innovation considers environmental issues as I am designing a building that will be innovative through its sustainability and design. I will use innovation to make a building more sustainable through eco-efficiency and a use of suitable eco technologies. Considering innovation when designing will surely have many benefits over the environmental impact of my building.	Innovation is a qualitative element of my design as it is a descriptive measure.	Innovation is a desired characteristic of my building as it is not feature that is essential for my product to function. However, it would help my building be more sustainable and also an innovative building would help attract tourism in the area and also increase the revenue so it is an important element to consider when designing.	I am going to use creative design techniques in my sketchbook as they will help me to design more innovative solutions. I will use divergent thinking and sketch some concepts. I will then choose an idea I would like to develop and continue in my design process until I have a building design that uses innovation to make it more sustainable.	As innovation is a qualitative design feature there is no specific way to test against it, however I shall use the techniques that I have decided to use for aesthetics by generating a questionnaire that my client can complete. This will be a successful test as aesthetics and innovation can link together well. I could also measure how my innovative features of sustainability have improved the eco-efficiency of my design.
7	Consumer	A person that purchases services or goods for personal use.	I have considered this term as without designing for the consumer my building function will not be useful and therefore no one would use my building. I have decided to use a psychographic segment to consider my consumer where the function of my building will be based on the lifestyle preferences that group people together. In this case my consumer will be people who enjoy keeping active and like swimming.	Designing with the consumer in mind does not consider an environmental impact, but it allows me to consider the space that a person would require and also if they can use the building comfortably. For example, that there is plenty of natural light, good ventilation and good heating systems to ensure the consumer is comfortable. There are some issues such as heating and ventilation that could be considered due to environmental concerns and also to the consumer as they are things that the consumer will expect of a building but which could be generated in an innovative way to make them more sustainable and better for the environment.	The consumer is qualitative design criteria as the client can only offer their opinion of the building.	Designing with the consumer in mind is an essential criteria as the building must be suitable to be used an accessed by anyone. The consumer must also be able to use the building comfortably. Considering the consumer also helps me to work on the function of the building. When designing the building for the consumer another essential factor that I must consider is the age and ability especially since my building use is an aquatics centre and there may need to be different facilities for different needs.	I am going to think of the consumer when I am in the developmental stages of my design, I will look at spaces that the consumer would require, as well as various access routes and even car park layouts. When thinking of the eco-technologies that I want my building to implement I will have to consider the consumer for example in terms of temperature regulation. I will also consider consumer opinions when designing the aesthetics of my building.	I will devise a questionnaire that the client could answer as well as interviews to find their specific thoughts and feelings of the building. This can help me evaluate my building and see where its strengths and weaknesses lie. Whilst designing I will ask the opinion of my consumer on the various elements of my design that I have considered such as space, heating, lighting etc.



Conclusion

From devising this specification I am able to begin designing my building as I have 15 key criteria to consider. I will use a few terms to consider such as aesthetics in my initial sketches however as my designs develop I know that one of the most important terms in my specification is the safety as without it my building cannot be viable or successful. Considering the environment and the aesthetics of my building are also high priorities for me as they will help my building be more sustainable and attract people to use the building. I will consider my specification throughout the designing process as I can annotate clearly and effectively to develop a successful building.

8	Product Life Cycle	The period of time over which an item is developed, brought to market and eventually removed from the market, possibly due to upgraded technologies or trends in fashion.	I have chosen product life cycle as one of my criteria as how my building will be dealt with at the end of its life cycle is a concern. I need to think of innovative ways that my product could increase its life cycle, for example the building can be easily disassembled and used for other projects, or that the building is made from recyclable materials.	Product life cycle considers environment as extending the life cycle of my building will make it better for the environment. When designing I need to consider 'cradle to cradle' instead of 'cradle to grave'. For example a building where the materials are easily disassembled from the building and can be used towards other schemes after the designated life cycle.	Product life cycle is a quantitative feature as a product's life span will be a numerical value that can be calculated.	Product life cycle is a desirable design criteria as my building should consider its life cycle to be more environmental friendly but it is not essential to the function of my building nor especially when making it more eco-efficient.	I will consider the product life cycle throughout the entire design process especially when considering the materials and structures of my building which will come through my initial concepts and then further developed.	To end test the product life cycle I will see how the eco-technologies have made the building more efficient in terms of energy usage. I will also look at the materials and site of the building and see how they can be reused.
9	Cost	An amount that has to be paid or spent to buy or obtain something	Looking at the cost of building, and indeed the cost of the building use, an aquatics centre, where swimmers would be able to swim on a pay-as-you-go basis will allow me to consider my consumer more effectively and help me highlight the areas of my design that I need to consider with the client in mind.	This term does consider the environment as innovative materials that are better for the environment tend to be expensive however some methods of construction that are better for the environment could reduce labour time and therefore keep cost lower. Cost can also be considered in the amount that has to be spent on lighting, heating and ventilation – all of which could be impacted on by eco-technologies so features that are better and worse for the environment also have an impact on cost.	Cost is a quantitative design feature as it can be predicted and calculated depending on the stage of the development.	Cost is an essential feature of my design specification as I want to keep costs as low as possible and there should be cost savings over an extended period of time due to the eco-technologies that I will put in place.	I will consider cost throughout the entire design process, however mostly from during my further design development and when I am considering the best eco-technologies for my building and also the materials and construction techniques.	I will end test the cost of my building by comparing to the cost of similar buildings in terms of use (other aquatics centres) and also in terms of sustainability. I could contact local architects and ask their opinion on whether my building is a viable project.
10	Size	The relative extent of something; how big it is.	I have chosen size as one of my design criteria as my building needs to be large enough to incorporate all of the features that are to be expected from an aquatics centre (various pools, diving platforms, changing facilities etc) and also so that the consumer can use the building comfortably.	The size of my building does consider environmental issues as it will have a major impact on the local environment of the site that I will build on, especially as the site that I am considering is a green belt. The height of the building also considers the local environment in terms of views.	Size is a quantitative design feature as it is measurable through dimensions and estimates of size are made numerically.	Size is an essential feature to my design as I need to see how the different features of my building would fit together when designing, especially in relation to the diving platforms.	I will consider the size of my building when developing my design ideas. I will also consider the ergonomics of my building and the consumer when I am designing in terms of size. I need to consider the effect that the size will have on the consumer and the environment when designing.	I will end test the size of my building by asking users if there is another room for them to feel comfortable whether in the reception, changing facilities or the pools themselves. I will also compare the approximated capacity of the building with the number of visitors.
11	Performance	The way in which something functions.	I selected this performance as something to consider when designing my building as it shows how well my product will function over time. If it has a good performance then it is likely to please the client, through its sustainability and its building use which will create satisfaction in the local area.	Performance considers environmental issues as performance and efficiency are similar ideas. I want my building to be designed to be as efficient as possible especially in terms of the environment and how the technologies that I have used within my design help increase the performance of building but in a manner that will have little adverse effect on the local or global environment.	Performance can be a quantitative feature as it can be calculated numerically in terms of energy efficiency, and my building can then be compared to buildings of similar uses and sustainable features.	Performance is a desirable characteristic of my design as I want my design to perform as highly as possible in terms of efficiency, sustainability and building use however it is not required for my building to be successful.	The performance of my building will be used when I conduct my materials research and see how eco-friendly materials could enhance the performance on my building. However, I want to consider the impact that eco-technologies have on the performance of building as well I so I shall consider performance from this perspective when I am in the initial designing stages,	To end test the performance of my building I could calculate the cost-savings from eco-efficient technologies and environmentally friendly materials and processes and also ask the consumer on their opinions of the performance of the building in terms of its function as an aquatics centre.
12	Competition	To strive to gain something by defeating others who are trying to do the same.	Competition is an important design criteria to consider in terms of the function of my building. I need to consider the competition of surrounding building attractions and also buildings of similar uses that my building could improve upon. Considering competition when designing also allows me to create new design solutions.	Competition does not consider environmental issues especially as it is will not have a positive or negative effect on the environment. However, competition can be considered in terms of the local environment within my site and nearby buildings.	Competition can be a quantitative feature as the number of people using the building can be calculated and compared to people using nearby buildings or buildings in the area of similar uses.	Considering competition when designing is essential as without looking at my site I could design a building that is already there and not in need of regeneration in which case my building would be in heavy competition and may not be successful.	I will consider competition in the initial designing stages of my building when I am considering the building use. I think that the building use is the most important feature in terms of competition and I want to make sure that my building is used sufficiently,	I will end test competition by counting the number of people that use the building and comparing that to other local establishments. I will also ask the users of the building on their opinions and whether this building is better or worse than ones they have used previously in terms of function (aquatics centre)
13	Quality	The standard of something as measured against other things of a similar kind; the degree of excellence of something.	Quality is a consideration for my design as a building needs to be of a high quality to be suitable for use. If my building is not of a high enough quality then it will not be suitably safe for public use.	Quality does consider environmental issues to some extent as quality is dependent on the materials used in the building, how they are manufactured and how the building is constructed. I will need to find a way that my building can maintain a high quality without having an adverse effect on the environment.	Quality is a qualitative feature of my design as it is not measurable, merely perceived, however it can be checked against safety regulations.	The quality of my building is an essential design feature as a low quality building would not be used as a leisure area for the public.	I will consider the quality of my building when choosing materials and construction methods. The quality of my building would mostly be considered during the manufacturing process but also during the later stages of my developed designs.	To end test the quality of my building I will ask the client to complete a survey on their opinions of the quality. Another way to check the quality of my building is to make sure that it fulfils safety guidelines.
14	Maintenance	The process of keeping something in good condition.	I have chosen maintenance as a term to consider when designing as the building needs to be accessible especially if there are solar panels or a green roof. The building will also need to be carefully maintained in terms of hygiene as it is a building of public use and swimming pools especially require lots of treatment.	Maintenance considers environmental issues as it makes sure that the eco-technologies are working appropriately and efficiently. Particularly when considering green roof or walls from my building maintenance will be an important feature to make sure that they functioning properly which would therefore be beneficial to the environment.	Maintenance is a quantitative feature as you can numerically see if the eco-technologies are not performing how they should be based on the comparison of expected efficiency.	Maintenance is an essential feature to my design as the building could become unsafe or not as efficient if not maintained properly.	I will have to consider maintenance when I am designing my building especially in relation to features of my building that will require a lot of care for example the swimming pools and the eco-technologies. I will also have to consider whether the maintenance my building will require automated work or skilled personnel.	I will end test the maintenance of my building by seeing if there are suitable access routes in my building that work could be done from to ensure that the buildings stays to its expected standards. Such as access to the roof, access to the swimming pools and changing rooms.
15	Ergonomics	The study of designing equipment and devices that fit the human body, its movements, and its cognitive abilities.	Ergonomics is a feature that I have to consider when designing as I need to ensure that my building is suitable for use by all sorts of people, regardless of their age, gender or if they have a disability.	Ergonomics of my building does not consider environmental issues, it only considers the user of my building and how the building works, fits and flows with them.	Ergonomics is a qualitative feature of my building design as only opinions can rank whether the ergonomics of my building have been considered accurately and effectively.	Ergonomics is an essential criteria of my design as without considering all types of consumer for my building then it might not be as successful as it would alienate some of my consumer base and decrease revenue.	I will consider ergonomics when considering the features of my building such as the different swimming pools that will be used in my aquatics. I need to ensure that the pools have varying depths to accommodate older and younger swimmers. I also need to consider the different features that different people would enjoy, such as a swimming pool for training or a swimming pool with a slide for more recreational swimming.	I will end test the ergonomics of my building by using a questionnaire to identify whether my consumer thinks the buildings meets their needs in terms of function, layout, space and facilities for people of different ages, genders and abilities.

Specification

Introduction

The specification is a very important aspect of the design process. A specification details primary and secondary criteria which must be fulfilled by the design of the dwelling in order for it to be a success. If the design doesn't meet these requirements it will not be a success.

Primary specification criteria detail requirements of the design that are essential to success, without these aspects, the design will be a failure, examples of primary specification criteria are, the aesthetics of the design must incorporate inspiration from biomimicry, the design must be safe, and the design must offer accommodation.

Secondary specification criteria detail targets of the design that are desirable, but not essential for success. I will aim to meet these aspects of design, but my design can succeed without them. An example of a secondary criteria, is the design of the building will be very environmentally friendly.

Within the specification I will detail all the different aspects of design, such as aesthetics, function, and safety. I will explain the targets for each element of the design, and decide whether the targets are desirable or essential.

I will also need to find a way of determining whether a target has been achieved by the design, I will detail my method of evaluation for each target.

The specification will ensure I stay focussed when designing, it will allow me to see which targets I have to meet, and will make my design the best it can be.

I will use my specification when analysing my initial ideas, the idea that meets the most requirements of the specification will be chosen to be developed further.

Element and rank	Definition	Why have I selected this?	Desirable or Essential	Qualitative or Quantitative	How will this be used?	Method of End Testing
Function Rank 1	The function is the natural purpose of an object or product. The function is what the design been manufactured or constructed to do.	The function is the most important feature to my building, the whole purpose of my dwelling is for filling a need in the tourist industry in the Lake District, therefore it is key that the function of the building (docking facility with luxury accommodation) is successfully incorporated in the design; otherwise the dwelling will not be used as it would unneeded. The function has to be aimed at a gap in the market for a particular target market otherwise it wont have an innovative purpose.	Essential – the functionality of the building is essential, this will be what draws the consumer in, as my dwelling will be the only one of its kind that offers docking facilities combined with luxury accommodation on the surface of Lake Windermere. Without the functionality, the wants of the intended target market will not have been met and the building will be left redundant without any use. With well designed functionality comes increased success , this is why it is essential I achieve the proposed functionality.	Qualitative	The function of the building will be considered throughout the project, this what the building is revolved around so it has to be considered thoroughly.	The method I will use to test the functionality of the building, will be to conduct consumer feedback. I will ask the consumers within the target market whether the building has met their functional needs, I will analyse the responses and determine whether the intended function has been successful incorporated within the design. I myself can analyse whether a personal craft can be easily docked in the accommodation, and compare my dwelling's features to existing accommodation to determine whether the luxury standard has been achieved. Both these methods will allow me to ends test.
Aesthetics Rank 2	A set of principles concerned with the nature and appreciation of beauty. successful aesthetics have a pleasing appearance to viewers. The aesthetics of the inside and the outside of the building, the colours and the shapes used, whether they are perceived as attractive.	The aesthetics are important because they visually represent the building. The visuals are important because they will attract the consumers to stay in the luxury accommodation. The aesthetics must be well considered because they must be suited to surrounding environment otherwise it will upset people and the building's creation may be opposed. The aesthetics have to innovatively incorporate the Biomimicry theme that is perceived as beautiful to viewers to be really considered as aesthetically successful.	Essential – the aesthetics and appearance of the dwelling are critical for success, the aesthetics will catch the eye and attract consumers to stay in the accommodation. Aesthetics are also critical because the look of the building must blend in and be suited to the surrounded environment to eliminate the possibility of the design being rejected by the locals and the council. However if the aesthetics are not successful, the design will ensure that the functionality of the building still appeals to the target market which it is designed for.	Qualitative	The aesthetics will be used in the designing and development stages of the project. Used when sketching initial ideas in my sketchbook. I will analyse the aesthetics of the initial ideas and develop the ideas so that the aesthetics are appealing to the consumer and suited to the environment.	To determine whether the aesthetics of the building are successful. I will ask the consumer their opinion of the design, on whether the aesthetics are pleasing to look at and if the design blends in and looks natural in its environment. After recording the feedback I can determine whether the criteria have been met.
Consumer Rank 3	A consumer is a person who buys goods or services for their own use. The consumer will be the people that pay to use the facilities and stay in the accommodation of my dwelling.	Considering the consumer will allow me to design a building that meets their needs and wants. I will need to aim my dwelling at a specific target market, analyse and identify the characteristics and lifestyle of the specific consumer and design a dwelling that is suited to the consumer, which would be of use to the consumer and enhance the experience of their holiday in the Lake District.	Essential – it is essential to consider the consumer in the process of designing my proposed dwelling. The consumer must be able to use and access the building easier, and it is essential to ensure the demands of the consumer are met through the design.	Qualitative	I will consider the consumer in the designing and development stages. When designing, I will annotate the initial ideas, analysing whether the idea is well designed and suited to the consumer and their needs. I will consider what facilities and features the consumer requires and try to incorporate them into the final design.	To reflect on how successfully the building has been designed for its proposed target market, I will create a questionnaire that asks the consumer their opinions on multiple aspects of the design of the building. Analysing the results will allow me to identify improvements that would make the dwelling more consumer friendly, that would be applied if the building was further developed or expanded.
Innovation Rank 4	To introduce something new, something that hasn't been done before and breaks the normality.	I have selected innovation as important as it is critical that my dwelling offers something different to what is already exists in the Lake District region, otherwise there wont be a need for the building. The aesthetics should be innovative to attract attention and not just follow conventional design.	Essential – the innovation of the building is a critical factor in the design of the dwelling. The building has to be innovative because then it will stand out against local competition, and attract consumers. If the building is innovative in its design it wont follow convention and will explore new technologies and materials that will improve the design of the building instead of following traditional and accepted design. I want to push the boundaries of the design of the building, so my building is one of a kind and attract consumers from far around. I will be innovative in the aesthetical, functional and environmental aspects of the building in particular.	Qualitative	Innovation is mostly involved in the design stages of the project. When designing and developing initial ideas, I will use designing techniques that encourage the designer to avoid following convention and to think outside the box innovatively. This will ensure my final design is innovative and will catch the eye of the consumer.	To determine whether the design of the building is innovative, I will compare my building to the buildings in the surrounding area, and assess whether my building stands out and offers something innovative in comparison. I will also conduct a questionnaire that asks the consumer their opinion on the innovation of the building, and from the feedback, I can determine whether this design criteria has been met.
Safety Rank 5	Safety refers to the state of being safe, which is the absence of risk of injury, danger, or loss.	I have chosen to select this because one of the core values of a building has to be its safety. The structure of the building has to be safe otherwise the dwelling will present a health hazard to its occupants. Without safety my building will not be allowed to be built. Therefore I have to ensure the structure of the building is completely safe. I will also have to have safety procedures in place that effectively deal with events such as a fire.	Essential – the safety of the building has to be of the highest order, the dwelling must be designed to present the fewest amount of hazards possible, this is critical as the consumers will not be comfortable staying in a dwelling where their health is put at risk. The safety of the building must be up to standard as otherwise it will not be allowed to be built through failure to meet building safety regulations. The building must be safe in its design and manufacture to ensure people's safety.	Qualitative	The safety of the building will be considered in the designing and manufacturing aspects of the building. I will assess the safety of the building's design in the development stages, working towards making the final design as safe as possible. Once the design itself is as safe as possible, I will consider the safety aspects of the buildings manufacture, ensuring the process of manufacture presents no hazards to the construction workers. When the building has been manufactured, I will need to ensure the correct safety procedures are in place in the case of an emergency, such as a fire.	To end test the safety of the dwelling's design, I will analysis the design of the building and identify if any features of the building present unacceptable health hazards. If there are safety issues, they will have to be resolved quickly through redesigning and manufacture work. I will check the safety regulations to assess the safety of my dwelling.

Specification

Design Brief

To design an innovative, modern, high luxury dwelling that suits and fits into the surrounding environment of the Lake District. Docking Facilities are to be offered for personal boats of the consumer, along side a sufficient capacity car park. With the building's aesthetics being inspired by Biomimicry. The design will aim to be as environmentally friendly to support a sustainable future of responsible design.

Conclusion

I have detailed the importance of each one of the elements of design in my project, and will now use the specification to analyse the strengths of each of my initial ideas.

Element and rank	Definition	Why have I selected this?	Desirable or Essential	Qualitative or Quantitative	How will this be used?	Method of End Testing
Size Rank 11	The dimensions, proportions, magnitude, or bulk of anything.	I have selected this as one of my design criteria's because it is important that the size and dimensions of the building are suitable for its purpose and surrounding environment. The building size must easily be able to accommodate the occupants and incorporate all the features, such as the docking facilities. The size of the building must be appropriate for the site; meaning it must not be too big other is will stand out and not blend in with the environment.	Essential – it is essential I get the size of the building correct, so it is suitable for use for the target market. If the size of the building is not appropriate, the tourists will not be able to dock their vessels and the function of the building will have been fulfilled in the design.	Quantitative	The size of the building will be used in the development stage of the buildings development. I will analyse the size of my chosen site where the dwelling will be situated and identify how my space I have to work with. Then when I am designing and developing the initial ideas, I will analyse whether the size has been utilised effectively and whether all the necessary features of the building have been included in the design. I will ensure the size of the accommodation rooms are of luxury size, so that a comfortable relaxed experienced is achieved, I will also ensure that the reception area and ding facilities also achieve this effect.	To receive feedback on whether the correct size has been achieved in my final design; I will ask consumers whether the facilities had adequate space for their needs. I could receive feedback on the overall size of the dwelling by comparing and contrasting the building against similar dwellings with the same type of purpose, and also compare it to other hotels in the Windermere and Lake District region. if my building was around the same size, i would consider the size to be appropriate. If the design was identified as too small, I would start to research and design extensions that would increase the size, solving the initial problem.
Life Cycle Rank 13	A life cycle is the stages of an objects starting with its creation and finishing with its death or discontinuation.	Life cycle is important in the design of a building, it is important that the design of the building is able to last a long period of time without the need to renovate or upgrade, it must be designed with the whole of its life cycle in mind. Cradle to cradle design involves considering the whole life of the dwelling, and considering how the building will be disposed of at the end of its life, aiming for a high percentage of the dwelling's materials to be recycled to be environmentally friendly.	Essential – the design criteria is essential in terms of the life span of the building, I will need to ensure the design is able to last the test of time, and guarantee success over a long period of time. Desirable – the life cycle of my dwelling is not an essential design criteria to me in the sense that the life cycle doesn't impact the dwelling's function or purpose, it would be considered an added bonus if my dwelling had an environmentally friendly solution to do with its disposal, however it is not critical to success.	Qualitative	The life cycle of the product will be considered during most of the project. I will have to consider the life cycle when designing the dwelling, ensuring the design is capable of matching the intended life of the product without the need of costly maintenance or upgrading. To enable the building to be disposed of in an environmentally friendly way, I will have to consider life cycle whether making decisions such as choosing materials.	A perfect way to end test the life cycle of the dwelling would be to compare the actual life span of the building to its intended life span, and see if they match, if not then I will analyse why the target was not met by the design, and identify what features, or lack of features caused the target to be missed. I will also record how the building is disposed of, what features and materials were recycled, and how were they recycled. Using this information I can analyse whether the dwelling was disposed of effectively without harming the environment by sending material to land fill.
Cost Rank 14	The amount of money need to buy, do or make something. The cost will be the total money used in the creation of the dwelling from start to finish.	The cost of design, manufacture, and construction of the dwelling will be important to consider in the project, a realistic and achievable budget must be set for the project. Cost also involves the amount of money needed to run and maintain the dwelling, if the hotel is very energy efficient, the energy bills will be reduced, saving money. Therefore will be aim to keep these cost to a minimum. It is important that I charge a competitive price for consumers to stay in my dwelling, if the pricing is wrong, it will drive customers away, therefore I must identify a fair price for my target market but also cover the cost of the building.	Desirable – I will aim to keep the cost of the project to a minimum, as this will enable me to charge a reasonable price to stay in the dwelling, and will increase profits. However if the quality of the building is compromised by the budget, I will go over budget because sometimes spending more money is worth it because the end result with in the building having greater success. Over the life span of the building the money spend over the budget will be made back through the increased popularity of the building, and money will be saved on energy bills because the eco technologies incorporated in the building will be more energy efficient.	Quantitative	The cost and budget of the building will be used and referred to mainly in the manufacture and construction stages of the building's development. I will analyse the cost of the material I select to use and analyse whether their properties and appearance are worth their price. I will also	To analyse how well I have managed money within my project, i will calculate the total amount spent in the project, from start finish, and identify if this figure is larger than the budget that I had allocated. If the dwelling cost has gone over budget I will analyse if the extra money was worthwhile spent, or whether the extra money spent didn't add to the quality of the building. After completing these tasks I will be able to decide whether I have been successful with the cost management of the building.
Ergonomics Rank 15	The scientific study of designing equipment and devices that fit the human body and its cognitive abilities, so that the product can be used effectively and efficiently.	Ergonomics has been selected because the dwelling must be able to cater for its range of consumers with ease. The dwelling must consider the range of consumers, for example, disabled facilities must be offered to accommodate for people with a disability, and the design has to be friendly with all age groups, young or elderly, everybody must be able to utilise and move about the dwelling with ease.	Essential – the ergonomics of the building are absolutely critical in the design. The building must cater for various types of consumer, otherwise certain consumers will have a negative experience of the dwelling because the correct facilities weren't provided. For example, lift or ramp facilities must be offered to allow easy mobility for all ranges of consumers.	Qualitative	This specification aspect will be used in the designing stage of the building. When designing I will ensure that the features are ergonomically friendly to all consumers. I will continue this consideration when the initial ideas are being developed, to ensure the final design ensure a positive experience for all consumers that stay in the dwelling.	The determine whether the building caters for consumers of varying age, ability and gender, I will conduct consumer feedback, in the form of a survey, to gain the consumers feedback. In the survey I will ask whether the dwelling provided required facilities for their needs, if the feedback is positive across a wide range, then I can conclude that the building has good ergonomics. If the feedback is negative I will look to offer the demanded facilities in renovation work.

Specification

I now have my final design brief which is: **Design a sand buggy center on Talacre beach for families and other thrill-seekers to enjoy, whilst making the structure environmentally friendly.** I will now do a specification for this design brief, stating what my structure will need to have. I have chosen fifteen key points, and ranked them, from Pugh's design graph. I will say what it is, and why I selected it.

Rank	Name	Define	Why selected	Quantative/Qualative	Essential/ Desirable	How it will be used	How it will be tested
1.	Environment	The impact the structure will have on the environment. Everything from manufacture to the building being taken down. I will think from cradle to grave, and beyond.	It is incredibly important that my design is eco-friendly and sustainable. I would like it to be able to last for 50 years without needing much maintenance, along with minimal energy usage.	Qualative	This is essential to my building, as all new structures should be fitted with eco-friendly systems to meet modern day standards.	Throughout its whole life cycle. 'From cradle to cradle' manufacturing. The eco-friendly systems will be implemented into every part of the building in some way to make sure this project is as sustainable as it can be from start to finish.	Throughout the whole process I will analyse the energy usage of making, designing and whilst the building is in use. This can be ongoing throughout it's life.
2.	Function	How the building works overall, ease of access, comfort, convenient, etc.	I want to make the building easy to find and once you enter the building it is a welcoming place which is comfortable & enjoyable. This will also mean it is safe too.	Qualative	This is obviously essential as without the building being able to function, no one could use it. This will link in with the safety of the building, whilst also linking in with the ease of use for the user. Overall this is essential to the building.	Everywhere in the structure, and the entrance.	It can be tested by users when the building is in action, but I can also test this in the design process from other people.
3.	Aesthetics	How the building looks, inside and out. How it appears to the user, including colours and shapes.	The structure needs to be iconic, whilst fitting in to the surrounding area nicely. It is important I get this right so that I do not upset anyone else by ruining the landscape.	Qualative	I believe this is an essential aspect to my structure, as I want it to become an icon of North Wales and Talacre beach, that people can enjoy for many years to come.	When designing the building.	I will mainly test the aesthetics on consumer opinion as they are the ones who will judge the final building.
4.	Safety	Dealing with any potential hazards, dangers or issues with the structure. This can also apply whilst the building is being made.	Obviously the safety of the building is key, so that customers can actually go into it.	Qualative	This is certainly essential as a user or worker would not be allowed to go near the building if it wasn't safe for use. Being on a beach I will need to think of the different safety aspects when designing.	When designing the building, looking at every aspect to make sure nothing can go wrong, and then maintaining this level of safety.	Safety regulations can be taken throughout the course of the life cycle of the building.
5.	Consumer	How the building will be designed around the target market.	I would like my building to be made for everyone on the beach to use, but I would mainly target families. It is important that they like the building and feel welcomed, in a safe environment for children.	Qualative	It is essential I match what the consumer wants when designing the building or no one will want to go there and use it. Their opinion is vital when designing.	When the building is in use, when the consumer is using it.	Consumer opinion is vital throughout the whole process to make sure they like it.
6.	Maintenance	Will the building need any work on it whilst in use? Repairs, etc.	I think it is important that the building should be able last a long time without needing new components or repairs. This can be linked with the environment, but also the cost.	Qualative	Maintenance is essential whilst the building is in use. I want to keep this to a minimal, but I will also need to make sure it is easy to maintain.	Once the structure is in use, to the end of its life cycle.	I will make sure that before it is built that I use the correct materials and functions so that maintenance is not required, but it can be tested in the design process on different materials.
7.	Materials	What is used to make the building	It is important that I select the right materials that are durable and sustainable. This is mainly linked in with the environment, but I need to be cost effective too.	Qualative	Choosing the right materials is essential when designing as they will have to last throughout the life cycle of the whole building. They will have to be sustainable.	When the building is in use. I will try and use the same materials throughout its life cycle.	I can test different materials in the design process and decide on the most suitable on for my structure.

Rank	Name	Define	Why selected	Quantative/Qualative	Essential/ Desirable	How it will be used	How it will be tested
8.	Manufacture	How the building is actually made.	It is important that I make this as simple, efficient and as eco-friendly as possible. I will need to design my building to make it easy to build.	Qualative	It is desirable to make this structure easy to manufacture. But different methods will help me achieve this. It will be difficult since it is on a beach.	When manufacturing the building, using all of the most efficient methods.	Research into methods of manufacturing and look into the most efficient.
9.	Cost	How much the whole project will cost, from designing, to building, and then onto how much the building will cost to maintain once it is in use.	Although I want the perfect building, it also has to be designed with the cost of the project in mind. The company will not have millions to spend, so I have to take all of the prices into consideration when choosing a specific material or method, but to be the best, I might have to spend a lot.	Quantative	It is desirable that the cost of this project is at a minimal. I can try to use different materials and methods to achieve this, but I still want to be sustainable and the best, which sometimes means spending more money.	From the manufacturing to the end of the life cycle, this will be on going and monitored.	This can be analysed well before any money is spent, to make sure the cheapest but best option is being used.
10.	Innovation	Is the building unique and original?	I want the building to become iconic and original, so that people will remember it well.	Qualative	It is desirable to make my building innovative as sometimes it can be difficult. I will try different techniques and methods in testing which will spark a few creative ideas.	When the building is in use. People will enjoy the innovative functions, aesthetics and ideas that they will come across.	It can not really be tested, but it is from consumer judgement and opinion.
11.	Life Span	From the very start of the building being manufactured, to it being taken down and re-used.	It is important that the structure will last a long time without needing an development. This can be linked with environment and cost.	Quantative/Qualative	This is also desirable because I can not choose what will happen over the course of the next 50 years, however, I can make sure the building is sustainable and that it is meant to last for a very long time.	From start to finish of the whole life span.	Whilst modelling and researching materials & functions, and whilst the building is in use.
12.	Size	How big the structure is, ease of access, room size, track size, car park sizes.	I need to make sure that the building is the right size to use, it has all the rooms needed, it will fit well into the landscape, and it is easy to use.	Quantative	It is essential that I get the size of the building right so that it is suitable to use.	When designing, and when the building and area around it is in use.	In the designing stage, making sure every room and area is a decent size.
13.	Quality	How well made the building is. This is every minor detail from finish of the floor board to the fitting of the roof. It is everything in the design.	Obviously it is important for the building to be of a certain quality, to meet safety standards and for it to be a wonderful place to be. It is vital that everything is perfect as this is what the user will experience. If it is poor then they will not want to return.	Qualative	It is essential that this structure is designed and made with quality so that the customer will enjoy the experience and come again.	When manufacturing the building to make sure it is well made.	On going checks when in the manufacturing process to make sure it is up to standards. A final check that everything is clean and correct for use. This is vital before the building is open for use.

Conclusion

Although I have rank ordered these, they are almost all as equally important as each other, if one is bad- then the whole building is bad. Every little detail is important in architecture and design, so by sticking to this specification I think I will get it right. I will now use this in every design I do. I can develop the designs I have already done using this, by checking that it meets the requirements of every point. I can choose the ideas that easily match up in the most suitable way and develop it further until it is a perfect design. From here everything will involve this page, and when I complete a final evaluation I shall compare my specification to the design. This is the real start of my design process. I can start to design more detailed concepts with material choices, sizes, and other notes that I will need to know in my final design. I may need to do additional research from here on areas which I need to develop or gain more knowledge on.

