IB MYP Unit Planner
Living Pod for Migrant Workers

TEACHER
Moneeb Minhas

SUBJECT
Design

SHARED GRADES
Grade 8, Grade 9

START DATE
Week 2, September

DURATION
16 weeks
45 hours

COURSE PART

1 of 27

⊙ INQUIRY

Key Concepts

🖎 **Communities** are groups that exist in proximity defined by space, time or relationship. Communities include, for example, groups of people sharing particular characteristics, beliefs or values as well as groups of interdependent organisms living together in a specific habitat.

Related Concepts

🖥 **Design**

Innovation, Sustainability

Conceptual Understanding

Designing for a communities needs, requires innovative and sustainable design.

Global Context & Explorations

⚖ Fairness and development

🪧 *Explorations to develop*
- Inequality
- Difference and inclusion

Statement of Inquiry

To reduce inequality, we can design for a community's needs, using innovative and sustainable design

Living Pod for Migrant Workers

Inquiry Questions

Factual · Design	What are the main requirements of a living space for people?	

Students will inquire into the necessities of a human and what we require to live comfortably

Factual · Design	What are the minimum dimensions of a kitchen/bedroom/living room/bathroom?

Students will inquire into the ergonomics and dimensions of basic human necessities such as a kitchen or bathroom.

Conceptual · Design	How are Living spaces designed to meet the community's needs?

Students will explore the requirements of the target market living in their own community

Debatable · Design	Is the lifestyle of a person the biggest driving force of a living space?

Students will investigate the lifestyle of a community and debate whether it should be the most important influence on a design.

Debatable · Design	Do we need to consider the environment to create a sustainable living space?

Students will investigate Eco-design and Sustainable design in Architecture .

Debatable · Design	Are Migrant workers treated fairly in Qatar and other parts of the world?

Students will interview the migrant workers in school to come to a conclusion.

Factual · Design	What is a Migrant?

Students will research definitions from reliable sources

Factual · Design	What is the difference between a Migrant worker, Asylum Seeker and Refugee?

Students will research and explore the differences between definitions

Factual · Design	What are Human Rights and when did they originate?

Students will explore the rights of humans and how they have changed or developed over history

Conceptual · Design	How many articles are to be found on Universal Declaration of Human Rights?

Students will research and discuss the various UN Human Rights

Conceptual · Design	What sorts of problems are faced by migrant workers in Qatar?

Students will explore the various problems faced by migrant workers in Qatar through interviewing workers

Living Pod for Migrant Workers

`Debatable` `Design`

Students will explore aspects of design that can solve some of the issues faced by migrant workers

To what extent can design solve the problem of migrant workers?

`Debatable` `Design`

Students will discuss why countries do not follow Human Rights declarations

Why are there still countries who do not follow the Universal Declaration of Human Rights?

◈ RESOURCES

OCT
6

1. Inquiry and Analysis - Living Pod for Migrant workers

`Summative` `Task` 🕐 Saturday at 11:55 PM

Students are to complete the following tasks

TASKS

Gannt Chart
Research - Migrant workers
Research - Human RIghts
Justify the need for the solution
Situation Analysis / Research Plan
Target User Profile
Pod Analysis 1
Pod Analysis 2
Pod Analysis 3
Design Brief

OCT
6

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Design Brief

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NOV
5

Homework - Design Ideas

`Formative` `Task` 🕐 Monday at 9:00 AM

Students to complete the x4 Design Ideas with annotations by Monday lesson. Please bring in the Designs with you.

JAN
20

3. Creating the Solution - Living Pod Project

`Summative` `Task` 🕐 Sunday at 9:00 AM

Creating the Solution

Tasks:
1. Making - Modelling (Here you must take pictures of your model and add them to the slide. Take lots of different angles and also of interior and then add them on)
2. Changes and IMprovements - Here you must explain all your changes you have made to the model and design. Give justified explanations and visuals showing the changes and why you changed them.

NOTE: You DO NOT do the following tasks:
"Plan for making" or
"Making - Design in context"

JAN
20

3. Creating the Solution - Living Pod Project

`Summative` `Task` 🕐 Sunday at 9:00 AM

Creating the Solution

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1. Making - Modelling (Here you must take pictures of your model and add them to the slide. Take lots of different angles and also of interior and then add them on)
2. Changes and IMprovements - Here you must explain all your changes you have made to the model and design. Give justified explanations and visuals showing the changes and why you changed them.

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"Plan for making" or
"Making - Design in context"

Living Pod for Migrant Workers

4. Evaluating - Living Pod Project

`Summative` `Task` 🕘 Saturday at 9:00 AM

EVALUATION

Tasks

1. Evaluation against Specification - in this task you will need to create a table with 3 columns. Column 1: Design Specification Points

For this column you need to copy and paste your specfication points

Column 2: Did your final design meet the specification points?

For this you just need to write "Yes" or "No" or "NA"

Column 3: How can the design be improved to meet the success criteria

For this column you need to explain and justify how you met your specification point if you chose yes and why you did not meet it if it is no.

2. EVALUATION - IMPROVEMENTS

For this task you need to explain at least 3 things you would change if you were to do this project again:

Paragraph 1: what would you change in your model

Paragraph 2: what would you change about your own skills (organisational skills, time-managements skills etc) Your focus should be on the ATL skills. Reflect on yourself

Paragraph 3: What other skills would you like to learn if you were to do this project again. Focus is on NEW SKILLS.

3. EVALUATION- IMPACT OF THE LIVING POD ON THE TARGET USER

For this task you need to explain in detail with justification how your living pod has impacted:

1. THe target user, which is your migrant worker (explain how it will improve his/her lifestyle and living conditions.

2. The global context, which is the UN Human Rights - Explain how your pod helps Qatar in improveing their human rights laws by providing these living pods. You must refer to the information you researched and learnt in Inquiry and Analysis.

NOTE: I have attached an example evaluation for you.

Living Pod for Migrant Workers

4. Evaluating - Living Pod Project

Summative Task 🕐 Sunday at 9:00 AM

EVALUATION

Tasks

1. Evaluation against Specification - in this task you will need to create a table with 3 columns. Column 1: Design Specification Points

For this column you need to copy and paste your specfication points

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For this you just need to write "Yes" or "No" or "NA"

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2. EVALUATION - IMPROVEMENTS

For this task you need to explain at least 3 things you would change if you were to do this project again:

Paragraph 1: what would you change in your model

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Paragraph 3: What other skills would you like to learn if you were to do this project again.

3. EVALUATION- IMPACT OF THE LIVING POD ON THE TARGET USER

For this task you need to explain in detail with justification how your living pod has impacted:

1. THe target user, which is your migrant worker (explain how it will improve his/her lifestyle and living conditions.

2. The global context, which is the UN Human Rights - Explain how your pod helps Qatar in improveing their human rights laws by providing these living pods. You must refer to the information you researched and learnt in Inquiry and Analysis.

NOTE: I have attached an example evaluation for you.

Living Pod for Migrant Workers

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1. Inquiry and Analysis - Living Pod Project

`Summative` `Task` 🕐 Sunday at 9:00 AM

Students to complete all tasks pertaining to Criteria A (Inquiry and Analysis)

Tasks:

Gannt Chart
Research - mIgrant workers
Research - Human Rights
Justifying the need for a solution
Situation Analysis/Research Plan 1
Situation Analysis/Research Plan 2
Research - Target User Profile
Pod Analysis 1
Pod Analysis 2
Design Brief

APR
16

2. Developing Ideas - Living Pod Project

`Summative` `Task` 🕐 Tuesday at 9:00 AM

Students to complete all tasks pertaining to Criteria B (Developing Ideas)

Tasks

Specification
Design Idea 1
Design Idea 2
Design Idea 3
Design Idea 4
Evaluation of Ideas against specification
Development - Plan drawings
Development - Isometric

MAY
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3. Creating the Solution - Living Pod Project

`Summative` `Task` 🕐 Friday at 9:00 AM

Students to complete all tasks pertaining to Criteria C (Creating the solution)

Tasks

Plan for making
Creating the Model
Changes and Imrpovments

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JUN
20

4. Evaluating - Living Pod Project

Summative · Task · 🕐 Thursday at 9:00 AM

Students to complete all tasks pertaining to Criteria D (Evaluating)

Tasks

1. Evaluation against Specification

In this task you will need to create a table with 3 columns. Column 1: Design Specification Points

For this column you need to copy and paste your specfication points
Column 2: Did your final design meet the specification points?
For this you just need to write "Yes" or "No" or "NA"
Column 3: How can the design be improved to meet the success criteria
For this column you need to explain and justify how you met your specification point if you chose yes and why you did not meet it if it is no.

2. EVALUATION - IMPROVEMENTS

For this task you need to explain at least 3 things you would change if you were to do this project again:
Paragraph 1: what would you change in your model
Paragraph 2: what would you change about your own skills (organisational skills, time-managements skills etc)
Paragraph 3: What other skills would you like to learn if you were to do this project again.

3. EVALUATION- IMPACT OF THE LIVING POD ON THE TARGET USER
For this task you need to explain in detail with justification how your living pod has impacted:
1. THe target user, which is your migrant worker (explain how it will improve his/her lifestyle and living conditions.
2. The global context, which is the UN Human Rights - Explain how your pod helps Qatar in improveing their human rights laws by providing these living pods. You must refer to the information you researched and learnt in Inquiry and Analysis.

NOTE: I have attached an example evaluation for you.

Important Information

Added by **Moneeb Minhas** on September 25, 2016
This document is the Brief sheet for students starting the project. To be given at the beginning of the unit. Contains the general overview of the unit, areas to be covered and levels descriptors.

ⓜ CURRICULUM

MYP Objectives

- **A: Inquiring and analysing**
  - i. explain and justify the need for a solution to a problem for a specified client/target audience
    ii. identify and prioritize the primary and secondary research needed to develop a solution to the problem

  iii. analyse a range of existing products that inspire a solution to the problem

  iv. develop a detailed design brief, which summarizes the analysis of relevant research

- **B: Developing ideas**
    - i. develop a design specification, which clearly states the success criteria for the design of a solution

        ii. develop a range of feasible design ideas, which can be correctly interpreted by others

        iii. present the chosen design and justify its selection

        iv. develop accurate and detailed planning drawings/diagrams and outline the requirements for the creation of the chosen solution.

- **C: Creating the solution**
    - ii. demonstrate excellent technical skills when making the solution

        iii. follow the plan to create the solution, which functions as intended

        iv. fully justify changes made to the chosen design and plan when making the solution

- **D: Evaluating**
    - ii. critically evaluate the success of the solution against the design specification

        iii. explain how the solution could be improved

        iv. explain the impact of the solution on the client/target audience.

Content & Skills

Skills

The ability to plan a project from start to finish. How to produce and analyse the results from an interview. How to produce and analyse the results from a consumer survey. How to create a Target User Profile. In depth product analysis of an existing product in terms of materials, manufacture and aesthetics. Looking into creating a sustainable approach to a design. Use of 3D CAD modelling and/or card modelling to develop a solution. How to evaluate a product against a specification

Living Pod for Migrant Workers

✎ ASSESSMENT

Tasks

OCT
6

1. Inquiry and Analysis - Living Pod for Migrant workers

`Summative` `Task`   🕐 Saturday at 11:55 PM

Students are to complete the following tasks

TASKS

1. Gannt Chart
2. Research - Migrant workers
3. Research - Human RIghts
4. Justify the need for the solution
5. Situation Analysis / Research Plan
6. Target User Profile
7. Pod Analysis 1
8. Pod Analysis 2
9. Pod Analysis 3
10. Design Brief

6/8 ☑ A: Inquiring and analysing

N/A ☐ B: Developing ideas

N/A ☐ C: Creating the solution

N/A ☐ D: Evaluating

Living Pod for Migrant Workers

OCT
6

1. Inquiry and Analysis - Living Pod for Migrant workers

Summative   Task   🕐 Saturday at 11:55 PM

Students are to complete the following tasks

TASKS

1. Gannt Chart
2. Research - Migrant workers
3. Research - Human RIghts
4. Justify the need for the solution
5. Situation Analysis / Research Plan
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5/8 ☑ A: Inquiring and analysing

N/A ☐ B: Developing ideas

N/A ☐ C: Creating the solution

N/A ☐ D: Evaluating

NOV
5

Homework - Design Ideas

Formative   Task   🕐 Monday at 9:00 AM

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N/A ☐ A: Inquiring and analysing

N/A ☑ B: Developing ideas

N/A ☐ C: Creating the solution

N/A ☐ D: Evaluating

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JAN
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3. Creating the Solution - Living Pod Project

Summative   Task   🕐 Sunday at 9:00 AM

Creating the Solution

Tasks:
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N/A ☐ B: Developing ideas

6/8 ☑ C: Creating the solution

N/A ☐ D: Evaluating

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20

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Summative   Task   🕐 Sunday at 9:00 AM

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N/A ☐ B: Developing ideas

5/8 ☑ C: Creating the solution

N/A ☐ D: Evaluating

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4. Evaluating - Living Pod Project

`Summative` `Task` 🕐 Saturday at 9:00 AM

EVALUATION

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For this task you need to explain in detail with justification how your living pod has impacted:

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N/A ☐ A: Inquiring and analysing

N/A ☐ B: Developing ideas

N/A ☐ C: Creating the solution

4/8 ☑ D: Evaluating

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4. Evaluating - Living Pod Project

`Summative` `Task` 🕐 Sunday at 9:00 AM

EVALUATION

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N/A ☐ A: Inquiring and analysing

N/A ☐ B: Developing ideas

N/A ☐ C: Creating the solution

5/8 ☑ D: Evaluating

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1. Inquiry and Analysis - Living Pod Project

`Summative` `Task` 🕐 Sunday at 9:00 AM

Students to complete all tasks pertaining to Criteria A (Inquiry and Analysis)

Tasks:

1. Gannt Chart
2. Research - mIgrant workers
3. Research - Human Rights
4. Justifying the need for a solution
5. Situation Analysis/Research Plan 1
6. Situation Analysis/Research Plan 2
7. Research - Target User Profile
8. Pod Analysis 1
9. Pod Analysis 2
10. Design Brief

5/8 ☑ A: Inquiring and analysing

N/A ☐ B: Developing ideas

N/A ☐ C: Creating the solution

N/A ☐ D: Evaluating

APR
16

2. Developing Ideas - Living Pod Project

`Summative` `Task` 🕐 Tuesday at 9:00 AM

Students to complete all tasks pertaining to Criteria B (Developing Ideas)

Tasks

1. Specification
2. Design Idea 1
3. Design Idea 2
4. Design Idea 3
5. Design Idea 4
6. Evaluation of Ideas against specification
7. Development - Plan drawings
8. Development - Isometric

N/A ☐ A: Inquiring and analysing

5/8 ☑ B: Developing ideas

N/A ☐ C: Creating the solution

N/A ☐ D: Evaluating

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3. Creating the Solution - Living Pod Project

Summative   Task   🕘 Friday at 9:00 AM

Students to complete all tasks pertaining to Criteria C (Creating the solution)

Tasks

1. Plan for making
2. Creating the Model
3. Changes and Imrpovments

N/A ☐ A: Inquiring and analysing

N/A ☐ B: Developing ideas

5/8 ☑ C: Creating the solution

N/A ☐ D: Evaluating

Living Pod for Migrant Workers

JUN
20

4. Evaluating - Living Pod Project

Summative   Task   🕐 Thursday at 9:00 AM

Students to complete all tasks pertaining to Criteria D (Evaluating)

Tasks

1. Evaluation against Specification

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N/A ☐ A: Inquiring and analysing

N/A ☐ B: Developing ideas

N/A ☐ C: Creating the solution

N/A ☑ D: Evaluating

MYP Assessment criteria

🖥 Design

5/8 ☑ A: Inquiring and analysing   5/8 ☑ B: Developing ideas

5/8 ☑ C: Creating the solution   N/A ☑ D: Evaluating

* - Class mean of Assessed Criteria

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⊕ LEARNING EXPERIENCES

Learning experiences

- Students will have access to living pod examples as precedence.
- Students will have access to examples of portfolios to see how to present their design work.
- Students will have access to youtube videos of living pod designs around the world for inspiration and ideas.
- Students will aquire knowledge through individual research as well trial and error
- Verbal and written formative assessment will be given throughout the project in order for students to reflect on their design.
- Formative assessment will be delivered at the end of each task in order for improvements to be made before the final deadline.
- Differentaiaion is by task.

Differentiation

- Students will be given extra support who struggle with using sophisticated software independently.
- Students who struggle with tasks will be encouraged to sit with peers who do not so they can share knowledge and skills among each other.
- Differentiation of individual students will be assessed when the unit starts, depending on the students individual needs.
- Students will be provided with exemplar work of previous examples or other units to help them with layout of their portfolio and level of detail required for different tasks.
- Students will be given video tutorials that they can use independently to produce their end product.

Living Pod for Migrant Workers

⊘ CONNECTIONS

⊘ CONNECTIONS

Living Pod for Migrant Workers

Approaches to Learning

Linked objectives

🖥 Design

- **A: Inquiring and analysing**
  - i. explain and justify the need for a solution to a problem for a specified client/target audience
  - ii. identify and prioritize the primary and secondary research needed to develop a solution to the problem
  - iii. analyse a range of existing products that inspire a solution to the problem

- **B: Developing ideas**
  - i. develop a design specification, which clearly states the success criteria for the design of a solution
  - iii. present the chosen design and justify its selection
  - iv. develop accurate and detailed planning drawings/diagrams and outline the requirements for the creation of the chosen solution.

- **C: Creating the solution**
  - ii. demonstrate excellent technical skills when making the solution

- **D: Evaluating**
  - iv. explain the impact of the solution on the client/target audience.

💬 Communication

I. Communication skills

Exchanging thoughts, messages and information effectively through interaction
- 1. Give and receive meaningful feedback
- 5. Use a variety of media to communicate with a range of audiences
- 7. Negotiate ideas and knowledge with peers and teachers

Reading, writing and using language to gather and communicate information
- 23. Organize and depict information logically

I. Communication skills

In order for students to, (design objective C ii), demonstrate excellent technical skills when making the solution **they will need to**, (I. Communication skills - 1) Give and receive meaningful feedback**. The skill strategies that will be explicitly taught and practised are**: Students will use Google drives platform to present their work, receive feedback from the teacher and then reply to the feedback using the "reply" buttons/tools.

In order for students to, (design objective B iv), develop accurate planning drawings/diagrams and outline requirements for the creation of the chosen solution. **they will need to**, (I. Communication skills 5) Use a variety of media to communicate with a range of audiences**. The skill strategies that will be explicitly taught and practised are**: Students will learn to use a 3D graphics package (Google SketchUp) to present their chosen design. Thereafter, present screenshots of this on another media platform called Google drives to present their work to their teacher.

In order for students to, (design objective B i), develop a design specification, which outlines the success criteria for the design of a solution based on the data collected **they will need to**, (I.

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Communication skills - 7) Negotiate ideas and knowledge with peers and teachers**. The skill strategies that will be explicitly taught and practised are**: Students will use Google drives platform to present their work, receive feedback from the teacher and then reply to the feedback using the "reply" buttons/tools.

In order for students to, (design objective B iii), present the chosen design and outline the reasons for its selection **they will need to**, (I. Communication skills - 23) Organize and depict information logically**. The skill strategies that will be explicitly taught and practised are**: Students will learn how to convert work into a digital format and use a present tool in Google Classroom to share their work.

🌐 Social

II. Collaboration skills
Working effectively with others
- 2. Practise empathy

II. Collaboration skills

In order for students to, (design objective A i). explain and justify the need for a solution to a problem and (design objective D iv), describe the impact of the solution on the client/target audience. **they will need to**, (II. Collaboration skills – 2) Practise empathy**. The skill strategies that will be explicitly taught and practised are**: Students will interview migrant workers and those less fortunate than them that are going through issues and problems on a daily basis and explore ways in which they can help them as individuals and as designers.

⏱ Self-management

III. Organization skills
Managing time and tasks effectively
- 3. Keep and use a weekly planner for assignments
- 6. Bring necessary equipment and supplies to class
- 8. Use appropriate strategies for organizing complex information

V. Reflection skills
(Re-)considering the process of learning; choosing and using ATL skills
- 23. Focus on the process of creating by imitating the work of others
- 24. Consider ethical, cultural and environmental implications

III. Organization skills

In order for students to, (design objective A ii). construct a research plan, which states and prioritizes the primary and secondary research needed to develop a solution to the problem **they will need to**, (III. Organization skills 3) Keep and use a weekly planner for assignments**. The skill strategies that will be explicitly taught and practised are**: Students will learn to create a Gannt Chart that will help them schedule and monitor their weekly progress.

In order for students to, (design objective B iii), present the chosen design and outline the reasons for its selection **they will need to**, (III. Organization

skills - 6) Bring necessary equipment and supplies to class**. The skill strategies that will be explicitly taught and practised are**: Students will need to bring their own devices (Laptop / Camera / Smartphones etc) So they can present their product on different platforms and take images of any work done on paper to transfer onto their portfolio.

In order for students to, (design objective A ii). construct a research plan, which states and prioritizes the primary and secondary research needed to develop a solution to the problem and (design objective A iii). analyse a group of similar products that inspire a solution to the problem **they will need to**, (III. Organization skills - 8) Use appropriate strategies for organizing complex information**. The skill strategies that will be explicitly taught and practised are**: Present their research plan in an organised and structured table. Learn how to summarise and present complex information in the form of diagrams and Mindmaps. Use acronyms such as CAFQUES to provide a structure for analysing a living pod.

In order for students to, (design objective A iii). analyse a group of similar products that inspire a solution to the problem **and** (design objective C iii), follow the plan to create the solution, which functions as intended **they will need to,** (V. Reflection skills - 23) Focus on the process of creating by imitating the work of others**. The skill strategies that will be explicitly taught and practised are**: Students will use CAFQUES to analyse the work of other architects, then use this information to inspire their ideas for their own living pod.

In order for students to, (design objective A iii). analyse a group of similar products that inspire a solution to the problem **they will need to**, (V. Reflection skills - 24) Consider ethical, cultural and environmental implications**. The skill strategies that will be explicitly taught and practised are**: Learning how to research and find the ethical and cultural implications of a particular living pod. Students will need to consider environmental issues and how to make their pod more eco-friendly.

🔁 Research

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VI. Information literacy skills
Finding, interpreting, judging and creating information
- 10. Understand and use technology systems
- 14) Identify primary and secondary sources

VII. Media literacy skills
Interacting with media to use and create ideas and information
- 20. Communicate information and ideas effectively to multiple audiences using a variety of media and formats
  - b) I try new ways to communicate, present and use information. eg visual/audio technology, social media, blogs.
  - c) I utilise charts, diagrams, graphics and pictures to complement text, not simply as decoration.

VI. Information literacy skills

In order for students to, (design objective C ii), demonstrate excellent technical skills when making the solution **they will need to**, (VI. Information literacy skills -10) Understand and use technology systems**. The skill strategies that will be explicitly taught and practised are**: Students will learn how to use 3D modelling software (Google SketchUp) to present their design in 3D. Students will also learn to use google classrooms effectively to present an e-portfolio of their design work in a design format.

In order for students to, (design objective A ii). construct a research plan, which states and prioritizes the primary and secondary research needed to develop a solution to the problem **they will need to**, (VI. Information literacy skills - 14) Identify primary and secondary sources**. The skill strategies that will be explicitly taught and practised are**: students will learn to how to identify which research they may carry out as primary and secondary in the form of a research plan table.

VII. Media literacy skills

In order for students to, (design objective C ii), demonstrate excellent technical skills when making the solution **and** (design objective D i), describe detailed and relevant testing methods, which generate accurate data, to measure the success of the solution **they will need to**, (VII. Media literacy skills - 20) Communicate information and ideas effectively to multiple audiences using a variety of media and formats**. The skill strategies that will be explicitly taught and practised are**: Students will learn to use a 3D design package to produce their design in 3D. And then present screenshots of this on another media platform called Google drives to present their work to their teacher. Students will learn to use still cameras to present their hard copy work and use "screen video capture" to record a website review when testing their site. r site.

🧠 Thinking

VIII. Critical thinking skills
Analysing and evaluating issues and ideas
- 2. Gather and organize relevant information to formulate an argument
- 17. Use models and simulations to explore complex

VIII. Critical thinking skills

In order for students to, (design objective A i). explain and justify the need for a solution to a problem **they will need to**, (IX. Creative thinking skills – 2) Gather and organize relevant information to formulate

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systems and issues

IX. Creative thinking skills
Generating novel ideas and considering new perspectives
- 20. Use brainstorming and visual diagrams to generate new ideas and inquiries

an argument**. The skill strategies that will be explicitly taught and practised are**: Researching on human rights and the UN declaration, then using this information to formulate arguments for and against the treatment of migrant workers.

In order for students to, (design objective C ii), demonstrate excellent technical skills when making the solution **they will need to**, (VIII. Critical thinking skills - 17) Use models and simulations to explore complex systems and issues**. The skill strategies that will be explicitly taught and practised are**: Using youtube video tutorials and online "help support" to learn how to use create a living pod in Google Sketchup as well as diagnose any issues they face during the use of the software.

IX. Creative thinking skills

In order for students to, (design objective B iv), develop accurate planning drawings/diagrams and outline requirements for the creation of the chosen solution. **they will need to**, (IX. Creative thinking skills - 20) Use brainstorming and visual diagrams to generate new ideas and inquiries**. The skill strategies that will be explicitly taught and practised are**: Developing hand drawn ideas and computer generated 3d models.

X. Transfer skills

In order for students to, (design objective C ii), demonstrate excellent technical skills when making the solution **they will need to**, (X. Transfer skills - 38) Transfer current knowledge to learning of new technologies**. The skill strategies that will be explicitly taught and practised are**: Students will learn to use their knowledge learnt about 3D modelling in previous years to produce a 3D model in Google SketchUp (new software).

IB Learner Profile

- Inquirers: Researching a particular problem in detail and coming up with a good solution.
- Communicators: Communicating their ideas and solutions to the problem using different mediums.
- Caring: Taking consumer needs of those less fortunate than them into consideration
- Risk takers: Taking risks in the CAD modelling of designs to see if they work

◉ REFLECTIONS

Living Pod for Migrant Workers

2018 - 2019

Prior to studying the unit

- Why do we think that the unit or the selection of topics will be interesting?
- What do students already know, and what can they do?
- What attributes of the learner profile does this unit offer students opportunities to develop?
- Are there any possible opportunities for meaningful service learning?

Why do we think that the unit or the selection of the topic will be interesting?

The unit is based around the architecture and migrant workers, both of which are topics directly related to Qatar. Qatar has a population of over 80% migrant workers and is one of the fastest growing countries in the world in terms of architectural structures. The students will find this unit interesting as they will get to explore the lifestyle, needs, and shortcomings of the migrant workers working in Qatar and around the world. They will explore the human rights declarations and make comparisons to the migrant workers living in and around Qatar.

What do students already know, and what can they do?

Students have already explored the design cycle and are aware that Design focuses around "finding the solutions to problems". They have done an architectural related unit before in G6 where they used 3D software to produce a structure. Now they will be using card modeling skills to produce their final product. They can use the skills learnt on floor planning in G6 and apply them to this unit.

What attributes of the learner profile does this unit offer students opportunities to develop?

To focus on the main attributes of the learner profile that will be developed in this unit are:

- Inquirers - students use their research skills and independently explore the UN Human Rights laws and problems faced by migrant workers

- Communicators - students communicate their ideas using different mediums such as sketching, technical plan drawings and 3D card models.

- Caring - students will show empathy, care and respect for the migrant workers, their shortcomings, living conditions, standard of living etc

Are there any possible opportunities for service learning?

Service learning will be encouraged in this unit. Students will be studying the lives of the less fortunate migrant workers of Qatar and how they struggle to work long hours so they can earn enough for their families in their homeland. Students will be encouraged to donate and help migrant workers via charities or those living and working in their compounds at home.

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During the unit

- What difficulties did we encounter while completing the unit or the summative assessment task(s)?
- What resources are proving useful, and what other resources do we need?
- What can we adjust or change?
- What skills need more practice?
- What is the level of student engagement?
- What is happening in the world right now with which we could connect teaching and learning in this unit?

What difficulties did we encounter while completing the unit or the summative assessment task(s)?
A difficulty we faced during the unit was trying to fit in the teaching of the skills of card model making and then having enough time to practice it before they start creating their final finished card model. Also students spent a lot of time on their plan diagram technical drawing which resulted in less time being spent on the card model. As a result, the deadlines for Criteria B and C had to be moved forward to accommodate the students pace of learning and completing the task.

What resources are proving useful, and what other resources do we need?
During model making the students found it easier to work with thick card rather than foam board. So we changed to using thick mount board card rather than a foam board for the finished models. Another resource that we may need is a change of stanley knives. The students were provided with stanley knives that were becoming blunt quite quickly, not giving them a good quality cut finish on their models. Some better, sharper stanley knives would be a better option for them.
Furthermore, the technical plan drawing was taking far too long for students trying to draw it by hand as they were struggling with scaling. As a result, I provided grid paper so students could work to a scale quicker and also introduced an online-based software called "Homestyler" which allowed them to make templates for their floor plans, making it so much easier for them to produce a plan drawing.

What can we adjust or change?
In the future the unit will be adjusted so instead of the students producing a hand drawn plan drawing of their living pod they will instead use the online based software. The online based software (Homestyler) will also allow them to make an isometric and rendered images of the interior. This will also be introduced into the assessment strands.

What skills need more practice?
The students would need more time in the future to practice card modeling skills. Many struggled to cut using the stanley knives and using the glue gun effectively to give them a good quality, strong hold. The use of the software "Homestyler" would need more practice on as well.

What is happening in the world right now with which we could connect teaching and learning in this unit?
The students during this unit were given various written interviews of migrant workers from which they had to extract information for their design. Currently, Qatar is getting ready to host the football world cup, and due to this many of the construction workers are migrants from overseas countries. In the future, we could connect this to the student's units, where instead of being given interviews, the students themselves interview the migrant workers first hand to obtain primary research.

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After the unit

- How well did the summative assessment task serve to distinguish levels of achievement?
- Was the task sufficiently complex to allow students to reach the highest levels?
- What will we do differently next time?
- How effectively did we differentiate learning in this unit?
- What can students carry forward from this unit to the next year/level of study?

How well did the summative assessment tasks serve to distinguish levels of achievement?

The summative worked very well to allow students to display their development of skills and take pictures of their models to add to their portfolios which was where they were summatively assessed.

Was the task sufficiently complex to allow students to reach the highest levels?

The tasks differed between complex and easy. Some tasks were quite easy for students to do such as the design ideas as they consistent of drawing their ideas, however many of the students still struggle to distinguish between the command terms "describe" and "explain" even though many examples were shown. If I were to teach this unit again, I would teach this task in another way to make it easier to understand.

What will we do differently next time?

Next time, I will try and get some migrant workers into the school so students can interview them or I could organise a visit to a local construction site so students can see how migrant workers work shifts and level of work they have to cover. Furthermore, I will also use software, which will allow students to make their plan diagrams, instead of getting them to draw them by hand. This will teach the same skill but covered faster in the time-scale we have.

How effectively did we differentiate learning in this unit?

For the practical part of the lessons where students had to create a model of their final living pod using card, It was differentiated very well as students who were good at model making were given little help and they had to cut their walls, floors and doors for their living pod themselves, whereas, those who struggled with model making templates were created to help them with model making. For the theoretical side, more could be done as all the students received roughly the same outline workbook which explained the tasks. Maybe some starter sentences for the less able students or those that have English as a second language to help them with writing their tasks. For the plan drawings, i could have provided students with some templates for their sizes of basic house items and furniture to help them with drawing.

What can students carry forward from this unit to the next year/level of study

Other than the study and deeper understanding of the design cycle that students can carry forward, I believe the students have learnt a lot about model making and the various techniques thereto pertaining of model making. They were shown various videos and examples of architectural model makers to help them with understanding the process of model making and the professional way to portray them. They can also carry forward the skill of technical drawings such as plan drawings. Students learnt how to draw a plan working with scale effectively.