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**MATSEC
Examinations Board**

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From: Dario Pirotta
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To: College Principals
Heads of School

Subject: SEC 33 Design and Technology: Iterative Project 2022

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Heads of school are kindly requested to bring this document to the attention of all Design and Technology teachers.

Reference is made to the SEC 2022 Design and Technology syllabus. Candidates are to prepare an iterative project in line with one of the situations by the MATSEC Examinations Board.

Thank you for your co-operation.

Theme: **Enjoying an Accessible Lifestyle**

Document guidelines

- Read carefully the Project Theme which will provide the context to all the situations available.
- Select one of the given situations after briefly analysing the context.
- Use the given specification grids to determine any information that yet requires to be specified.
- State your selected situation on the Iterative Project Grading Criteria document and read carefully the criteria set for the entire project.
- The Iterative Project should consist of the Initial Project Proposal and the Final Design Project, as specified in the syllabus document.

Using the specification grid

The specification grid gives a snapshot of the situation, stating the fixed information that needs to be adhered to when developing the project. The level of specification row indicates whether the necessary information has been given in full in a section or if the candidate has further information to look into.

	Context	Environment	Need	User
Level of given specification	●□□	●□□	●□□	●●●
Information	info	info	info	info

For example, if the 'User' has 3/3 specs, then this area is fully specified; however if the 'Need' section only provides 1/3 specs, the candidate is expected to provide, based on his/her own decisions, and within the given theme, this missing specification within the Initial Project Proposal.

Kindly follow the syllabus guidelines on the Initial Project Proposal and Final Project.

Theme: **Enjoying an Accessible Lifestyle**

Situation 1

Every house presents various challenges to keep it clean, welcoming, safe and secure for all. Domestic accidents, faults, climatic conditions as well as security issues, can drastically affect the lifestyle of some members of a household.

Guidelines

- a) Explore possible hazards and threats in a house.
- b) Identify the needs of particular members of a family with respect to the hazards and/or threats mentioned in part a).
- c) Create **ONE** innovative working prototype of a system that can make a home safer and/or more secure for its family members.

Note: A working prototype of a system is an artefact that may not be in full size but still represents in full its function and the user interaction. If a system is modular, this needs to be presented in a marketable and self-explanatory way.

	Context	Environment	Need	User
Level of given specification	●□□	●□□	●□□	●●□
Information	safety and security in a household	domestic environment	safe and secure lifestyles	family member/s

Situation 2

Retail and community spaces such as shops, restaurants, play areas, libraries, swimming pools, etc. need to maintain a proper level of hygiene and disinfection. This would allow visitors to feel safe and reassured during their visit. In order to achieve this, these spaces follow procedures which reduce the spread of harmful germs and disease. However, children may encounter difficulties to understand and follow such procedures.

Guidelines

- a) Identify **ONE** retail or community space which is normally visited by children.
- b) Design a product or system which actively makes sanitary functions more accessible to children.

Note: These solutions cannot be limited to only communicative functions (signs, notices, etc.).

	Context	Environment	Need	User
Level of given specification	●□□	●□□	●□□	●●□
Information	accessibility to health and prevention procedures in retail and community spaces	retail and community spaces frequented by children	accessibility to health and hygiene products and procedures; visitors safety	visiting children

Situation 3

Enjoying outdoor activities is part of our lifestyle. Many people enjoy outdoor cooking, camping, physical activities, boating, etc. Outdoor activities may require the completion of a series of tasks. Such tasks can be simple for some and problematic for others, especially for people who have physical difficulties. Overcoming these difficulties enable such tasks to be more accessible for more people who can independently enjoy their lifestyle.

Guidelines:

- a) Analyse how selected outdoor tasks may be harder to perform for a specific group of people.
- b) Create an innovative device which helps this group of people enjoy that particular outdoor task more independently.

Note: Proposed device must offer solutions to a number of users with similar issues but can be made adjustable to particular needs of some of them.

	Context	Environment	Need	User
Level of given specification	●□□	●□□	●●□	●□□
Information	enjoying an outdoor lifestyle	outdoor	access simple tasks independently	people with physiological issues