



SUBJECT and GRADE	CONSUMER STUDIES GR 10	
TERM 4	Week 4	
TOPIC	Housing and Interior	
AIMS OF LESSON	To gain knowledge and understanding of: • Design features of housing and interiors: • Ergonomics in design • Universal design • Enabling housing environments for the disabled • Design considerations	
RESOURCES	Paper based resources	Digital resources
	• Textbooks and the activities in each section of Focus and Oxford textbooks. • Worksheets and its memoranda.	• PowerPoint slide show. • See link in the activities column.
INTRODUCTION	• This lesson is a combination of design features of housing and interiors and enabling housing environments for the disabled. The focus is to provide working spaces that take into consideration human and body dynamics in providing spaces or environments that promote performance.	
CONCEPTS AND SKILLS	A. Ergonomics in design You should be able to explain what ergonomics is using your own words and understanding. • It is the science that studies the relationship between people and their environments and seeks to enhance workers' comfort and performance by improving the working spaces. • It is also the study of how we use products in these spaces in order to save time while performing some tasks.	Can you answer these questions? - Define the term ergonomics. - Explain the reasons for using ergonomics in design. - Name and explain the basics of ergonomics. - Identify factors that will influence the worker and influence worker productivity.

	Basics of ergonomics Human dimensions: • Explain how designers use human dimensions to improve their workspaces. • Anthropometry which is the study of the measurements and proportions of the human body. Body dynamics/ mechanics • Explain the relationship between body parts and good posture. Application of ergonomics in interior design • You should be able to discuss or explain how this is achieved in furniture design and workplace design. Furniture design: • Look at the relationship between the activity done and the furniture that is designed to fulfill that task. Consider also the size of furniture to the room and the age of the users. Workplace design: • Consider how furniture in the workplace positively or negatively influences the worker's performance and productivity. • Look at the size of the room, lighting, storage space and room temperature. B. Universal design What is Universal design? • You should be able to explain what universal design and the underlying principles it. Principles of universal design • Equitable/ Reasonable use	- List dimensions used by designers to create furniture and workspaces - Identify good posture and how to rectify bad posture - Give examples of good movements to ensure that you prevent injuries when working. Explain the following: - Principles of universal design - Characteristics of universal design. - How to achieve universal design in housing, interiors, furniture, appliances and equipment. - Name and discuss the design considerations for people with disabilities.
--	---	---

	• Flexibility in use • Simple and intuitive use • Observable / perceptible information • Tolerance of error • Low / less or little physical effort • Size and space for access and use Characteristics and advantages of universal design. • Adaptability/ Flexibility • Supportive • Accessibility • Work efficiency • Safety oriented designs. C. Enabling housing environments for the disabled - People with disabilities should live in houses that are barrier free and provide access with minimal or no inhibitions. - These houses should cater for the different disabilities such as limited walking abilities, blind or partially blind, deaf or hearing impaired and wheelchair bound users. Design considerations • Accessibility - Entrances and driveways e.g. ramps with railings, good lighting, automatic doors, non-slip floors, railings in bathrooms and kitchens wider doors etc. • Rooms - Kitchen: Lower work surfaces with rounded corners, knee space under table and sinks, suspended mirrors, pull out work surfaces etc. - Sleeping facilities: Big and wide bed, bedside drawer, handrails along the bed etc.	
--	--	--

	- Social spaces: Open plan rooms allowing use of wheelchairs, strong and durable furniture etc. - Bathrooms: doors to open outward, shower to accommodate wheelchair, mirror placed low, handrails in bath etc. • Lighting/electrical outlets - Rooms with good general lighting at entrances, at the stairs and floors, light switches at convenient heights etc. • Storage features - Drawers that slide are more suitable than shelves, easily accessible units • Interior fabrics and furniture - Easy to clean fabrics, durable floors, light furniture, and flame retardant fabrics.	
ACTIVITIES/ ASSESSMENT	• Summarise the chapters on the universal design and housing for the disabled. • Complete the activities in your textbook. • Complete the activities attached. • Click on the link below for PPT presentations. https://drive.google.com/file/d/1IQPF_oT2ELqT46Nw7XxeHsljo2m3rkmn/view?usp=sharing https://drive.google.com/file/d/1oXS3K3vn3C6FJo-5tGwuO_IS5zJQU9qi/view?usp=sharing	
CONSOLIDATION	- Explain the terms ergonomics and universal design. - Explain how human dimensions and body dynamics influence ergonomic design. - Discuss how ergonomics is applied in interior design. - Explain the principles of universal design. - Explain the characteristics and advantages of universal design. - Discuss design considerations for people with disabilities.	
VALUES	- We live and work in spaces that should promote comfortable and conducive working spaces. There are several innovative workspaces that ergonomically consider the physical and psychological wellbeing of employees and thus promote productivity and performance. People with disabilities deserve to be treated with respect by having homes which cater for their needs and challenges.	