MODULE 5 ASSISTIVE TECHNOLOGY

THERE ARE NO WORKSHEETS WITH THIS MODULE AS THE TOPIC IS DEALT WITH AS MUCH AS POSSIBLE WITH COMPUTER BASED EXAMPLES

OUTCOME	LEVEL	PHASES OF LEARNING
Technology & Enterprise Technology in Society Students understand how cultural beliefs, values, abilities and ethical positions are interconnected in the development and use of technology and enterprise.	**Technology & Enterprise Technology in Society** TIS 2 Understands that people use technologies for different reasons and that this use has an impact on their lives TIS 2.1 Understands that people may choose to use different technologies and use them in different ways for a variety of reasons.	**Technology & Enterprise Technology in Society** **MIDDLE CHILDHOOD** **The focus for learning in this phase is on:** • how technologies apply in certain circumstances • the factors that affect the development of technologies • the various impacts and effects of technology on people, including specific groups in society, and on the environment ethical and legal issues, and safe use of technologies **Process – investigating** • certain technologies might apply in particular circumstances (eg how people keep warm in cold climates) • ways to examine and evaluate technologies in the light of how needs and wants are met factors affecting technology development (eg availability of materials and tools, and personal skills, as well as the values, attitudes and beliefs of creators and users) **Information** • audience and context affect the construction of particular information products (eg the different ways news would be presented to a small group or a whole school assembly, the age of intended readers of a book) information is not the same as truth (eg music can change emotional reaction to a documentary, facts can be selected when reporting)
Technology & Enterprise Processes Students apply a technology process to create or modify products, processes, systems, services or environments to meet human needs and realise opportunities	**Technology & Enterprise Processes** TP 2.1 Investigates and identifies the uses and effects of products, systems, processes, services and environments. TP 2.2 Generates designs and recognises some practical constraints using text, drawings or models and introducing related technical terms I 2.1 Understands that information is used, created,	**Technology & Enterprise Processes** **MIDDLE CHILDHOOD** **The focus for learning in this phase is on:** • a process to solve technology challenges • the appropriateness of familiar and unfamiliar technologies to particular circumstances, needs and wants • a range of design strategies for generating and sharing ideas and plans taking into account

	constructed, stored and transmitted in different ways.	circumstances of development and use • organised production processes to meet particular requirements when creating products • the evaluation of products according to identified costs and benefits **Features, properties and use** • people who use particular technology products and processes might have different ideas about what is useful and appropriate from the people who create products and processes • functional aspects of technologies such as ease of use, legibility, portability and maintenance • certain technologies might apply in particular circumstances (eg how people keep warm in cold climates)
Technology & Enterprise Systems Students design, adapt and use systems that are appropriate to achieving solutions to technology challenges.	**Technology & Enterprise Systems** S 2.1 Understands that systems are designed for specific purposes, and are comprised of elements (people and parts) that have functions and work together	**Technology & Enterprise Systems** **MIDDLE CHILDHOOD** **The focus for learning in this phase is on:** • cause and effect relationships between systems • how systems meet needs and wants and the consequent impact on society and the environment • a specific technology process to assist in understanding how systems can be used and created • how to meet users' needs whilst avoiding risks and inefficient use of resources **Form and attributes** • cause and effect relationships exist within systems **Context and impact** • systems have been developed over time to satisfy human needs and wants • systems change according to different needs and wants

CONTENT

This Technology and Enterprise unit uses computers and the internet to demonstrate the learning environment utilized by people who are blind or vision impaired. Sections of the Module focus on the T&E outcomes of educational access, the use of the internet with an enlarged screen or voice interface, and the importance of online accessibility.

- View the video clip " Living with disability" on the website and ask the students to list the types of assistive technology used by Sean
- Print out the Assistive Technologies Worksheet and the materials listed at the linked website and discuss with the students which of the technologies listed would be of most benefit to blind or vision impaired people and why.
- Imagine the worlds without computers and the internet. Discuss this as a reality for some people who have vision impairment. List all the disadvantages that may occur for these people as a result. What gains or losses would there be.
- As a project, students brainstorm ideas for new software enhancements that would make it easier for people with vision impairment to use computers and the internet. E.g.: reading software, or a printer that prints tactile items e.g.: a map of a world or a picture
- Watch the BBC Video clip about the development of the bionic eye and discuss the project with your students
- Write a report about one or other of the assistive technology developments shown in the online video clips.