TECHNOLOGY EDUCATION K TO 7

Integrated Resource Package 1995

Overview

Grades K to 3	
Students begin to appreciate that technology is everywhere. They become aware of the role of technology in their lives by exploring familiar devices. Through problem-solving activities, they develop group interaction and communication skills, and self-confidence in handling simple processes and products. Student activities are based on classroom themes and their own experiences and personal interests.	*In grades K to 3, students:* • construct devices that are useful and relevant to them • explore materials, tools, and processes, independently and in groups • realize that there are several solutions to a single problem • learn the importance of using tools and materials safely
Grades 4 to 7	
Students consider the personal, community, and global consequences in the use of technology now and in the future, and develop a concern for its responsible application. They investigate the historical development of technology and begin to appreciate its impact on society and individuals. By investigating a product from its inception to its completion, students learn to research, create, and communicate solutions to design problems.	*In grades 4 to 7, students:* • gain experience using a variety of communication tools (e.g., modem, CD-ROM, video, overhead projector) • identify problems involving design and investigate possible solutions • use an expanding variety of tools, materials, and production processes • use objective tests and feedback to refine and modify designs • become increasingly responsible for managing their time and resources, and for planning and organizing their activities within a specific task • begin to recognize that a system is made up of parts and devices that interact to achieve a purpose

Grades 8 to 10	
Students work in specialized environments to develop and use technological solutions to problems that they identify or that are identified for them. They continue to learn about the technical requirements of various careers. They consider the personal, local, and global consequences, and the cultural, ethical, and aesthetic implications of technology. They investigate the future applications of technology to improve the human condition.	*In grades 8 to 10, students:* • set goals, develop plans, and assess their own ability to design products (individually and in groups) • use graphic designs and oral and written language to convey technical ideas • learn about the safe use of specialized tools and machinery • consider how they will use technology in daily life and in the workplace • study the characteristics and uses of materials and information while solving problems involving design that occur in daily life and in the workplace • learn to create and manage systems that energize and control products
Grades 11 to 12	
Students work in a sophisticated technological learning environment designed to promote their skills, knowledge, and abilities to solve complex and varied problems. Students take advantage of opportunities to prepare for postsecondary training opportunities.	*In grades 11 to 12, students:* • develop skills appropriate to the workplace • produce products and systems that meet community standards • work in co-operative groups to develop solutions to real-life problems • develop detailed understanding of materials, processes, systems, and information gathering • select appropriate technologies to solve problems • evaluate possible solutions using models, simulations, and prototypes