

Reviewed by Paul Laing

Bob Comey worked as a wood patternmaker for The Steel Company of Canada before obtaining a teaching certificate. He taught for both the Wellington Board of Education and the Peel Board of Education. Bob is now a part time instructor at OISE/UT in the Initial Certification Program for Technological Studies. Norm Dale worked as a construction electrician for ten years before becoming a teacher. He ended his career as Consultant for Technological Education for the York Board of Education. Both authors are now retired.

Inventeering opens with a statement of the authors' assumptions that many elementary teachers need assistance in meeting the technology requirements of the new Ontario Curriculum since they lack training and skills in the area of technology. The authors are aware of crowding of curriculum and demands on teachers' time for implementing new things. This legitimate concern is met by the fact that they take some time to show how technology can enhance and support the teaching and learning in other curriculum areas.

Section one of the book provides an overview of Design as a Process and some of the considerations in teaching process. Sections two through five provide needed information on tools, materials, and safety. The safety aspect is appropriately and well emphasized in Bob and Norm's book. While experienced science and technology teachers will be familiar with this area, the target audience (general teachers incorporating and teaching technology for the first time) will welcome information in the area of safety. Section six briefly, and with effective diagrams, explains the use of a number of tools and construction techniques. Throughout the book the line drawings used as illustrations are both clear and serve well as aids in understanding the text.

In section eight, the authors review simple machines including levers, wheel and axles, and gears and cams. Section nine follows with a brief discussion of energy and control systems. Basic electricity and hydraulics are covered. At this point, in this easily read and understandable book, the teacher has enough background information to work with students in the design and making of some simple devices fulfilling the teaching of technology requirement.

A most welcome section is nine, which provides a number of approaches to assessment of student progress in the technology area. The range varies from checklists to detailed rubrics for evaluating both the product and the process. Included are methods for evaluating a student's participation and contributions to the group's effort and product. This section ends the first half of the book, which provides background information, theory and rationale for teaching technology and the approaches suggested.

The remainder of the book provides specific challenges for students in technology grouped by grade level and matched to areas of the Ontario curriculum. The authors provide activities with clear directions and diagrams that help explain the steps and techniques. Clearly, the authors took into account the needs of children, as the activities for younger grades are more teacher directed and those for older children allow for more creativity as children gain knowledge of tools, materials and construction techniques. However, the activities are not so rigid that teachers cannot improvise and modify according to their strengths and those of their students. Included are sample letters to send to parents to help collect materials needed. Throughout *Inventeering*, safety is emphasized, as is the fact that there may be more than one solution to a problem.

At the end of the book several Internet resources are provided as well as a three page list of books containing ideas on making things. An additional four page list of books useful in the classroom is included. *Inventeering* is a book that would be a good addition to any school's or any teacher's professional library collection.

Reviewer

Paul Laing is a vice-principal with the Greater Essex County District School Board, Windsor Ontario.