



Foreword

Technology is the science and art of making and using things, by turning the materials of the natural world into tools and machines.

An invention is any new thing created which improves the way something is done, or introduces a new way of doing things. Inventions can be intentional or accidental, practical or fun!

Innovations are changes to things that already exist.

Do women invent? Just take a look around!

Whether you are relaxing in your living room, studying at school, working at your office, or shopping in a store, inventions by women are everywhere. From the tasty chocolate chip cookie to advanced computer programming, products and processes invented by women worldwide are an important part of everyone's lives.

This book begins to tell the impressive story of Canada's remarkable female inventors and innovators. Their ideas have changed the way we live and have become a rich part of our national heritage. Our researchers discovered inventive Canadian women at work from coast to coast – in every province and territory, in every industry, and in every walk of life. They can be found in high-tech manufacturing firms, in retail shops, in universities, in homes, in high schools, at the bottom of deep mine shafts, and in orbit high above the earth. In a single word, they are everywhere.

We owe a huge debt to every inventor and innovator who took the time to tell the story of her work, and who had the candour to share her personal story as well. We are particularly grateful to the women working in technical areas who had the patience to help non-experts grasp complex concepts and subject matter.

In addition to researching and interviewing active inventors and innovators, we have combed Canada's historical books and records to learn about women from our past. In some cases, all that remains of their work is a footnote, or the record of a patent application. We can only imagine the stories of struggle and triumph that lie behind some of these brief entries.

You will notice that all the female inventors in this book are problem-solvers. Some women solved problems that were connected to their occupations. While others found creative solutions to challenges they experienced in their daily lives. The student inventors featured in the book used a fresh "why not" approach to finding solutions to environmental problems in their communities. Through innovative science fair

projects, these young women were able to fine-tune their scientific and inventive skills, and develop technologies that may eventually rid the earth of pollutants.

Many of the inventions you will read about are the result of dynamic research being carried out at universities and research centres across the country by specialists in all fields. Some of the inventions are the first of their kind, while others have advanced existing technologies and processes. In each case, the invention has benefited others by making the world healthier and more enjoyable.

The idea for the Inventive Women project began several years ago with a query from a curious young student who wanted to know if women invented. When she and I sought the answer to that question, we discovered surprisingly few resources on female inventors. This book is part of an attempt to begin to fill that void, but it is only a beginning. It offers a brief introduction to the work of the women we have featured. And it only scratches the surface of literally thousands of examples of invention and innovation by Canadian women.

We hope you will take the time to find out more about the inventions, projects, and people mentioned here. We also hope you will be on the lookout for inventive women at work in your own local community or neighbourhood – or even in your own family! Most of all, we hope this book will be an inspiration to young women of today who are eager to put their own inventive ideas into gear. Canada's new generation of female inventors and innovators now have dynamic role models to help them succeed.

Annie Wood, Inventive Women Inc.



Inventors are people who can see new needs, find ways of meeting them, and see opportunity and value in accidental discoveries.

Scientists are researchers who uses experiments and scientific testing to discover new laws and principles of nature.

Engineers are trained in science, mathematics, and industrial processes. Their training allows them to use their knowledge to convert raw materials and power sources into needed products and services. Engineers usually work in teams to invent a new device, method, or process.