Selected Bibliography

Biographies
Fiction
Informational Resources
Professional Resources
Departmental Publications
Selected Bibliography

This list of resources is provided as a starting point for teachers looking for learning resources that support the *Inventions, Innovations, and Discoveries* interdisciplinary unit.

Although these resources have not been reviewed, teachers can access most of the titles in the holdings of Manitoba Education, Citizenship and Youth’s Instructional Resources Unit (IRU) Library at 1181 Portage Ave., Winnipeg, Manitoba. Visit the IRU online catalogue at: <http://library.edu.gov.mb.ca:4100/>.

The videos listed in the bibliography are available either through IRU or, in the case of electricity-related videos, through Manitoba Hydro at: <http://www.hydro.mb.ca>.

The selected resources are organized under the following headings/categories:

- Biographies
- Fiction
- Informational Resources
- Professional Resources
- Departmental Publications
Biographies

To find biographies appropriate for the *Inventions, Innovations, and Discoveries* interdisciplinary unit, consider subjects such as discoverers in the field of science, scientists, and inventors.

The asterisk (*) denotes Canadian content.

Print


This biography tells the life of Canadian inventor and geologist, Abraham Gesner.


Casey uses short biographies of women inventors around the world to demonstrate how inventions come about.


In his parents’ garage, Steve Wozniak designed the first personal computer. He and his friend Steve Jobs went on to create the Apple II.


Hacker chronicles the lives and achievements of noted female scientists, including astronomer Jocelyn Bell Burnell, primatologist Dian Fossey, and anthropologist Margaret Mead.


This biography relates the life and inventions of Charles Babbage, who came up with the machine that evolved into today’s computer.


An Wang invented the magnetic memory core that changed the computer industry. His company Wang Laboratories produced the first computer.

Harris, Laurie Lanzen, ed. *Biography Today: Scientists and Inventors*. Profiles of People of Interest to Young Readers Series. Detroit, MI: Omnigraphics, 1996.


This book chronicles the achievements of nine Afro-Americans responsible for inventions related to important parts of modern life, such as refrigeration, electric lighting, and transportation.


Einstein’s theories revolutionized the way we think about time, space, light, gravity, and the entire universe. His life story is written and illustrated in this book.

Four inventors, Charles Goodyear (vulcanized rubber), Robert Goddard (rocketry), Thomas Edison (electrical devices), and George Eastman (photography), tell their stories.

Steve Jobs and Steve Wozniak developed the Apple computer that changed the way people use and think about computers.


When Gertrude Elion’s grandfather died of cancer, she decided to study chemistry and find a cure for cancer. Her research led her to discover a drug called Imuran, useful for organ transplants.


This author discusses the scientists and inventors responsible for the advances in communications technology, including Johann Gutenberg, Samuel Morse, Thomas Edison, and Philo Farnsworth.


America’s first submarine was the invention of a Connecticut farmer named David Bushnell. He created an underwater craft made of wood and called it the Turtle.


On a blustery day in 1903, the Wright Brothers fulfilled the human dream of flying. This book relates the history of the Wright Brothers’ invention of flight and explains the basic principles of flight.


This biography is about the Canadian-born Elijah McCoy, who studied engineering in Scotland and patented over 50 inventions despite the obstacles he faced because of his race.


Meet 10 women who beat the odds and changed the world with their inventions.


*----. *Alice Wilson, Telling the Earth’s Story*. Mississauga, ON: Copp, Clark, Pitman, 1991.

This book tells the life of Canadian geologist and paleontologist Alice E. Wilson.


This book tells the life of Canadian astronomer Helen Sawyer Hogg.


This book tells the life of Canadian physician and heart specialist Maude Abbott.


This is a biography of Canadian surgeon Norman Bethune.


Bill Gates was only 15 years old when he started his own company with his friend Paul Allen. After dropping out of Harvard, he and Allen joined up again to form a new company called The Microsoft Corporation, which revolutionized software for the personal computer.

Videocassettes


This videocassette profiles the life and times of Jules Verne, whose imagination and creativity established the field of science fiction in the nineteenth century and foreshadowed the scientific fact of the twentieth.


This videocassette profiles the life and times of Thomas Edison, the inventor who patented more than 1100 inventions in over 60 years, among them the incandescent electric lamp, the phonograph, and the motion picture camera.


Using archival footage, this program examines the life of David Sarnoff, a poor Russian immigrant, who was the first person to recognize the financial and commercial potential of television.
Fiction

To find titles appropriate for novel studies related to the *Inventions, Innovations, and Discoveries* interdisciplinary unit, consider works about inventions, discoveries, achieving success through cooperation, stories of survival in the wild, and works of science fiction. Some titles are listed below.

The asterisk (*) denotes a Canadian author and/or Canadian content.

Print


Frankie Stein experiments with some goo from her father’s genetic engineering lab and creates a strange green creature with gleaming red eyes.


The writers in this collection of four stories try to imagine what the future will be like with a new invention.


This is a story about 18-year-old Franklin Crabbe, who packs his gear and disappears into the woods. Unprepared for wilderness life, he almost dies, but then he meets Mary, someone else with reasons to hide.


In this story, Robbie and his grandfather, unable to agree on anything, are forced to pull together after an accident in the northern woods.


Roger’s friend Kenneth uses an unusual sea vehicle of his own design to take them to an underwater cave where a cache of old loot gathered by the old mermaids turns out to contain a lot of very valuable old baseball cards.


Disasters befall the Blossom family as Pap falls into a dumpster and can’t get out, Junior tries desperately to make a success of his secret invention, and Vern dreads letting a new friend meet his unusual family.


This book relates the adventures of Robin Squires, a young boy growing up in England as he becomes involved with the mystery of buried treasure on Oak Island.


Defoe recounts the story of an Englishman who is the sole survivor of a shipwreck and who lives nearly 30 years on a deserted island.


When Kelly Sparks has a problem, she invents a gadget to fix it. Her latest problem is rival inventor Albert Einstein Jones, and the two whiz kids try to out-invent each other.

Maxine knows that she will be an inventor some day. She has already invented invisible ink, ear protectors, and a device to make babies walk. She needs a partner to win the Inventions of Children contest but her pushy ways haven’t made her very popular.


Emily has a lot of work to do. She is worried that the group in which she is placed will be the worst in the class, and she has only a few days to think of a wedding present for Mr. Vincent, the student teacher. Can she and her group learn to work together in time?


Burton Knockwurst is working on an invention that will change the face of transportation—a flying skateboard! This book offers adventures in aerodynamics and rocketry.


Paul and his Grade 4 team build an egg protector that will keep an egg from breaking in a fourth-grade science Olympiad.


In the far distant future, Toby and Thaddeus are attending boarding school on Earth, when they discover an obsolete robot named Orvis. These three get lost in “The Empty,” the wilderness that Earth has become.


Determined to find his father who has been lost in a storm, a young boy and his friend brave wind storms, starvation, wild animals, and wild men during their search in the Canadian Arctic.


Mike’s search for answers leads him on a dangerous and lonely wilderness quest.


It is the year 3000. One day Luke discovers a doorway from the underground city to the outside and ventures into a world devastated by a nuclear attack 1000 years ago.


A boy discovers the many geological layers of the earth as he digs a hole to the other side of the earth.


Mowat tells the story of Jamie Macnair, a white boy, and Awasin Meewasin, a Cree, and their adventure in the Arctic, which proves to be longer and more dangerous than they could guess.


When an odious smell engulfed the entire town of Lakeview, Archibald decides to invent a machine to eat the garbage at the city dump.

Instead of being rescued from a plane crash (as he is in *Hatchet*, another book by the same author), Brian is forced to survive a winter in the wilderness with only his survival pack and a hatchet.


After a plane crash, 13-year-old Brian spends 54 days in the wilderness, learning to survive, initially with only the aid of a hatchet given to him by his mother.


Harold and his best friend, both hopeless geeks and societal misfits, try to survive unusual science experiments, the attacks of the football team, and other dangers of junior high school.


When Laura discovers that the unpopular boy living next door to her has the ability to go into the fourth dimension, she makes the dangerous decision to accompany him on his journey there.


Gedanken and her Uncle think up a spacecraft and take off to do research for her science project. They learn about space travel and Einstein’s theory of relativity. The project will be a great success if they can get back to Earth.


The Five are visiting a famous scientist on a West Indian Island when a rival doctor tries to steal their host’s amazing medicine made from snake venom.


For her friend’s birthday, Harriet invents Dolly, a large doll that can help Harriet and her friend do their homework, but then the invention gets out of control.


During the First World War, William is sent to work for Alexander Graham Bell in Nova Scotia for the summer. Before he knows it, William is caught up in a deadly mystery that only he can solve.


This book is based on the real-life experiences of Captain Robert Bartlett and the 1913 Canadian Arctic Expedition led by Vilhjalmur Stefansson, and their adventure of survival when their ship, the Karluk, becomes trapped in ice.


Marie and Eddie’s parents have invented a time machine that travels through their own lives backwards. The children have to find a way to reverse the process before their parents reach the age of 0, “the poof point.”


A scientist discovers a means to make himself invisible. The powers he thus acquires are, however, counterbalanced by unexpected disabilities. At length, he becomes a terror to his kind, and his last stage is a gruesome tragedy.
   When Danny is left in charge of a new miniature automatic computer, he decides to program it to help him do his homework faster.

   Feckle and Tyler meet an unusual bicycle salesman and inventor who turns out to be Leonardo da Vinci, travelling through time.

   This story about Francis Saxover, who made his greatest discovery and was able to offer the world “one of the age-old dreams of man,” takes us into a world faced with the means of prolonging youth and life indefinitely, and shows us how people react to the earth-shaking discovery.
Informational Resources

To find titles appropriate for the *Inventions, Innovations, and Discoveries* interdisciplinary unit, consider subjects such as inventions, computer history, discoveries in science, and electricity.

**Inventions: Print**


  Eight success stories detail the evolution of products ranging from heavy machinery to Tupperware.


  This book explores strategies inventors used to solve problems that resulted in inventions such as the dishwasher, the Polaroid camera, and the Jacuzzi.


  This book contains 10 stories of successful inventors whose inventions were rejected as products that would never work.


  Find out about the creative geniuses behind some of our most famous products.


  In this book, Asimov chronicles “how Science has shaped the world and how the world has affected science from 4,000,000 B.C. to the present.” – Cover.


  In a question-and-answer format, the reader is put in the position of the inventor. This book shows how people have reached the skies in various ways, from balloons to the Wright Brothers’ inventions and today’s supersonic jets.


  Learn how to set up a workshop, make an inventor’s notebook, plan an invention, and build a prototype.


This book features short, chronologically arranged profiles of more than 50 inventors, along with pictures and timelines.


The authors describe the way of life of the ancient Egyptians and some inventions that made their civilization unique, such as the potter’s wheel, paper, astronomy, and irrigation.


Harvey describes many familiar inventions, foods, customs, tools, toys and games, fashions, and more that originated in ancient Egypt.


This book includes a pullout, full-colour Inventions Timeline for classroom display.


*Future World* describes a variety of new inventions in fields such as medicine, computers, travel, and space technology, and discusses their effect on our future lives.


With close-up colour photographs, you can look inside inventions to see how they work.


Readers discover how a wide variety of things such as nursery rhymes, the national anthem, anaesthesia, Cellophane, raisins, and dynamite came into being.


You will find the stories behind 38 surprising inventions that started out as inventions that didn’t work.


This book explores ideas about the process of invention and provides creative projects in various categories: flying machines, computers and robots, photographs and videos, paper and print, and fun.


Line drawings and simple explanations show the working of just about everything we use.


Using a newspaper format, the author presents the inventions, lifestyles, climate changes, and progress in hunting and farming of the Stone Age.


This resource describes the development of computers, their various components, and their uses for entertainment, education, business, and other facets of life.


**Inventions: Videocassettes**

**Inventions: CD-ROM**

**Electricity: Print**


---. *Energy and You: Middle Years.* Kit. Winnipeg, MB: Manitoba Hydro, n.d.

---. *Experiments with Electricity.* Winnipeg, MB: Manitoba Hydro, n.d.

---. *Farm Safely around Electricity.* Winnipeg, MB: Manitoba Hydro, n.d.


---. *Middle and Senior Years Power Smart Poster.* Winnipeg, MB: Manitoba Hydro, n.d.

---. *Middle and Senior Years Safety Poster.* Winnipeg, MB: Manitoba Hydro, n.d.

---. *Producing Electricity.* Colour brochure. Winnipeg, MB: Manitoba Hydro, n.d.


**Electricity: Videocassettes**


---. *Electrical Safety at Home and at Work.* Videocassette. Winnipeg, MB: Manitoba Hydro, 1996.


**Electricity: CD-ROMs**


**Electricity: Software**


**Online Resources**


Industry Canada. Canada’s SchoolNet GrassRoots Communities@CA:  
[<http://www.communities.ca/e/copyright.html>]

---. Copyright Issues: [<http://www.communities.ca/e/copyright.html>]

---. Parental Permission for Participation in a Web-Based Project:  
[<http://www.communities.ca/e/permform.html>]

---. Permission to Link to Website: [<http://www.communities.ca/e/linkperm.html>]

---. Permission to Use Graphics: [<http://www.communities.ca/e/permgraph.html>]

Manitoba Hydro: [<http://www.hydro.mb.ca>]


SPIN (Strategic Press Information Network) Project. Strategic Media Plans:  
[<http://www.spinproject.org/resources/strategic_media_plans/index.html>]
Professional Resources

To find titles appropriate to support the teaching of the Inventions, Innovations, and Discoveries interdisciplinary unit, consider the following subjects: cooperative learning, collaborative learning, constructivism, computers in education, and literature circles.

Print


**Videocassettes**


**Online Resources**


*Inventions, Innovations, and Discoveries: IMYM6*  
Selected Bibliography
Print


**Online Resources**


