

BLM Mod.1.2#1: Overview of *Inventions, Innovations, and Discoveries*

Name _____ Date _____

Module 1:
What Does It Mean?
An Introduction to *Inventions, Innovations, and Discoveries*

| Learning Experience (LE) Title | LE Overview |
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| Mod.1.1: What on Earth? | Infer and predict the purpose of an unfamiliar object through observation. |
| Mod.1.2: What Do I Know? | Discuss what you already know about inventions, innovations, and discoveries. Note questions you wish to have answered and points of interest you wish to pursue. |
| Mod.1.3a: Back to the Future: A Timeline of Discoveries | Explore the concept of “discovery.” Prepare a timeline to identify and understand discoveries and place them in a social and historical perspective for Canada and the world. Learn how to create a bibliography. Make an oral presentation about your chosen discovery. |
| Mod.1.3b: Why Do We Invent? | Explore the concept of “inventions.” Through investigation, observe that an invention is the result of trying to meet a need that might make our lives easier or more pleasant. Write a paragraph explaining your choice for “the world’s greatest invention.” |
| Mod.1.3c: Then and Now: Advances in Computer Technology | Explore the concept of “innovation.” Investigate the invention of the computer, from the first mainframe to the latest wireless palm computer, and note the changes and improvements (innovations) that have been made to that invention over time. |

Module 2:
Explain That Again: A Further Investigation

| LE Title | LE Overview |
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| Mod.2.1: Extra! Extra! Read All about It! | Listen to or read stories about inventions that have affected your life in one way or another. These stories trace the history of an invention from its inception to its current application. Analyze one story and write a newspaper article publicizing the invention profiled in the story. |
| Mod.2.2: Biography of an Inventor or a Scientist | Research an inventor or a scientist and write a short biography of this person. |
| Mod.2.3: Rube Goldberg | Discover that the American cartoonist Rube Goldberg (1883-1970) became famous for developing sketches of oddball inventions that came to be called “Rube Goldberg Machines.” Invent and draw your own Rube Goldberg machine and write descriptions that model how Rube Goldberg described his “inventions.” |
| Mod.2.4: Chindogu: Useless Inventions | Chindogu is a Japanese word meaning “useless invention.” Use communication skills to persuade a “consumer” of the advantages and merits of purchasing a useless invention. This can be accomplished through a written advertisement, a video commercial, a poster, or some other appropriate means. |
| Mod.2.5: Tally-Ho | Make a tally of the electrical and non-electrical inventions you use in your own home. Use this list to complete a double-bar graph on a spreadsheet. |
| Mod.2.6: Customer Service Department | Learn to design and conduct a survey to verify the needs and complaints of a selected group of people, which could be satisfied by creating an invention or by improving on one (innovation). |

(continued)

**Module 3:
Explore Electricity: The Backbone of Modern Inventions**

| LE Title | LE Overview |
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| Mod.3.1: Static Electricity | Investigate static electricity in common objects. Construct an electroscope to test a variety of objects for static electricity. Write a definition of static electricity using appropriate vocabulary. |
| Mod.3.2: Current Electricity | Explore current electricity. Through experimentation, learn how simple series and simple parallel circuits work. Write a definition for an electrical circuit. |
| Mod.3.3: Electrical Circuits | Improve your electrical circuits and discover what changes make a light bulb brighter. Investigate and invent useful electrical circuits, including switches. |
| Mod.3.4: Electromagnetism | Explore electromagnetism by building an electromagnet. Explore motors and generators by constructing a motor or a generator that can be used to power a simple device you would find useful in your daily life. |
| Mod.3.5: Awareness of Electrical Energy Consumption | Describe factors that affect the consumption of electrical energy to raise your awareness of energy use. Outline an action plan to reduce energy consumption and promote your plan. Describe ways in which electricity has an impact on your daily life. |
| Mod.3.6: Safety with Electricity | Design a poster or a web page to promote safety with electricity. |

**Module 4:
Invention Convention: The Student As Inventor**

| LE Title | LE Overview |
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| Mod.4.1: Design Your Own Invention OR Build a Better . . . | Design and build your own invention, based on a “need” you have identified that could fulfill a specific “want.” OR Improve on a current invention (innovation). |
| Mod.4.2: Design a Logo/ Business Card | Use graphics software to design you own logo and create a catchphrase to promote your invention. Create a business card that incorporates your logo and catchphrase. |
| Mod.4.3: Promotion | Review a variety of advertising strategies used to promote products and services. Rotate through learning centres to create a promotional poster, a commercial, a pamphlet, a jingle, and a multimedia presentation or website to promote your invention. |
| Mod.4.4: Showtime | Plan, promote, set up, and hold an Invention Convention in which you showcase your invention. |
| Mod. 4.5: Mission Accomplished: A Reflection | Reflect upon the Invention Convention. Note what worked well and what could be improved upon in general for the event. Reflect on your own display, on the feedback you received for your invention, and on the suggestions that were made. |