



# Canada's new polymer notes

Secure • Durable • Innovative

# BANK NOTE FACT SHEETS

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# **About Polymer**

Canadian bank notes are now printed on polymer—a smooth, durable film. Polymer notes are:

### Secure

The new \$5, \$10, \$20, \$50 and \$100 polymer notes have leading-edge security features that are easy to verify and hard to counterfeit.

### Durable

Polymer notes last at least 2.5 times longer than cotton-paper notes, saving money in processing and replacement costs.

# **Innovative**

These notes combine transparency and holography to make for one-of-a-kind currency.

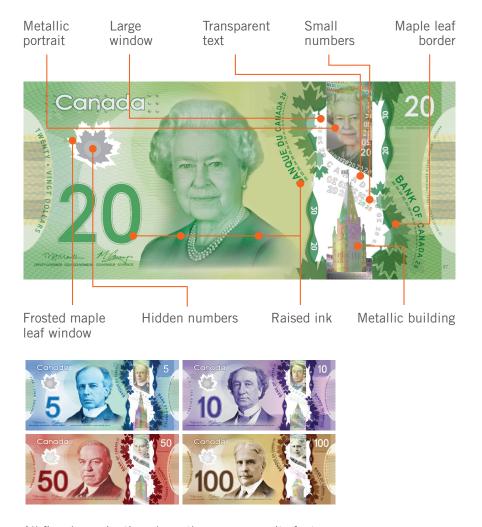
### Better for the environment

Because polymer notes last longer, they will have a reduced impact on the environment compared with cotton-paper notes. They will also be recycled.

Visit bankofcanada.ca/banknotes for access to a life-cycle analysis that compares polymer and cotton-paper notes.

# **About Security**

The transparent windows and metallic images are innovative security features that can be seen on both sides of the note.



 $\ensuremath{\mathsf{AII}}$  five denominations have the same security features.

Learn more about these security features at bankofcanada.ca/banknotes.

# Design of the \$5 Note

Canada's new bank notes evoke the country's spirit of innovation. The *Polymer* series is itself a technical innovation and its designs celebrate Canada's achievements at home, around the world and in space. Reflecting the ingenuity, determination and courage of a nation and its people, Canada's accomplishments extend well past our frontiers.

### Canadarm2 and Dextre

Robotics innovation is Canada's ongoing contribution to the International Space Station program and demonstrates our commitment to space exploration. The Canadian-built Mobile Servicing System is the sophisticated robotics suite that helped to assemble the International Space Station in orbit. This system consists of *Canadarm2*, *Dextre* and the *Mobile Base*.

On board the space station—a permanent orbiting research laboratory—international partners conduct scientific experiments, many of which result in an enhanced quality of life on earth. Canada's contribution to the space program evokes pride and sparks the imagination and curiosity of our future leaders in science and technology.



### Canadarm2

Canadarm2 is the centrepiece of Canada's contribution to the International Space Station. The 17 metre-long robotic arm plays a major role in the assembly and maintenance of the station. It routinely makes repairs, moves equipment and supplies, captures and docks unpiloted spacecraft and, at times, supports spacewalking astronauts. Launched in April 2001, Canadarm2 is a larger, more advanced version of the original Canadarm, which was retired in July 2011.



# 2 Dextre

Dextre, which is short for Special Purpose Dexterous Manipulator, is a sophisticated two-armed robot that attaches to Canadarm2. It acts as a space handyman and performs routine upkeep and repair work outside the International Space Station so that astronauts can devote their time to scientific research. Launched in March 2008, Dextre is sometimes referred to as "the Canada Hand" since it rides on the end of Canadarm2 and manipulates small components that require precise handling.

# 3 Mobile Base

The *Mobile Base* is a moveable work platform and storage facility. It serves as a base for *Canadarm2* and *Dextre*.

# 4 Astronaut

The astronaut depicted on the \$5 note represents all Canadians who have contributed to the space program and the scientific research conducted on board the International Space Station. This image also depicts the courage and commitment of all Canadian astronauts and highlights the role they have played, and will continue to play, in inspiring youth to get excited about science and technology.

For more information, visit the Canadian Space Agency at: www.asc-csa.gc.ca.

# Design of the \$10 Note

### The Canadian train

The expansion of the railway in the 1880s was hailed as a remarkable feat of engineering for a young country with a varied and often treacherous terrain. At the time, the railway was the longest ever built, and its completion demonstrated Canada's pioneering spirit by linking our eastern and western frontiers, connecting people, and facilitating the exchange of goods. Today, The *Canadian* train, winding its way through the Rockies showcases Canada's natural beauty and symbolizes what we accomplished as a young nation.

# 1 The Canadian train

The train featured on the \$10 note symbolizes the engineering feat of linking Canada by rail. In 1871, British Columbia agreed to join Confederation on the condition that the federal government build a railway to link the new province with the East (Manitoba was the province's closest neighbour). Canada's first Prime Minister, Sir John A. Macdonald, who is also featured on this note, kept that promise. The resulting rail expansion is one of his great legacies.

At present, The *Canadian* train still connects us. Its route showcases the country's geographic diversity, from Toronto, our largest city, to the Pacific coast, and allows both Canadians and visitors to experience the breadth of our country from the unique perspective of a railcar. The *Canadian* is represented here as a symbol for rail activity across the country playing a critical role in our economy and transporting people and goods to small and large communities alike.



# **2** The Canadian Rockies

Located in Jasper National Park, the mountains featured on the \$10 note showcase the grandeur of the Canadian Rockies. On the left are the shoulder of Lectern Peak and Aquila Mountain; in the centre are Redan, Esplanade and Gargoyle mountains; and on the right is Mount Zengel, part of the Victoria Cross Ranges. Rather than feature only one mountain range, a variety was selected to highlight the diverse and majestic nature of the Rockies.

# 3 Map of Canada's passenger railways

The map on the back of the \$10 note shows VIA's network of passenger rail routes. This image was provided by Natural Resources Canada.

For more information, visit: www.viarail.ca, www.railcan.ca, Jasper National Park and www.nrcan.gc.ca.

# Design of the \$20 Note

# **The Canadian National Vimy Memorial**

The Canadian National Vimy Memorial is featured on the new \$20 note as a tribute to Canada's contributions and sacrifices in military conflicts throughout its history. Located on the site of the 1917 Battle of Vimy Ridge, the Canadian National Vimy Memorial in France was erected in honour of Canadian service during the First World War.

### The Battle of Vimy Ridge

In April 1917, all four divisions of the Canadian Corps fought together and successfully captured Vimy Ridge in France, after several failed attempts by other Allied forces. This victory is often described as Canada's coming of age.

# 1 The Vimy Memorial

Located at the highest point of Vimy Ridge, the Canadian National Vimy Memorial bears the names of the 11,285 Canadian First World War servicemen with no known resting place in France. The memorial was erected on land that was granted permanently to Canada by France in 1922, in recognition of Canada's war efforts. The following words are inscribed on the base of the monument: "To the valour of their countrymen in the Great War and in memory of their sixty thousand dead this monument is raised by the people of Canada."



Designed by Canadian sculptor Walter Seymour Allward, the limestone monument features two pylons that stand 30 metres high. With a maple leaf carved in one and a fleur-de-lis in the other, the pylons represent the sacrifices of people from Canada and France.

There are twenty sculpted human figures on the monument. Among them is a group of allegorical figures known as "The Chorus." They represent the virtues of Peace, Justice, Hope, Charity, Faith, Honour, Truth and Knowledge. Reaching upward with a torch, Peace is the highest figure on the monument

For more information, visit www.vimyfoundation.ca.

# 2 Poppies

The presence of red poppies in battlefields and burial grounds throughout Europe during the First World War inspired the symbol of remembrance that we know today. Mourning the death of a friend, Canadian military doctor and artillery commander Major John McCrae wrote "In Flanders Fields," the now-famous poem that reflects on the living presence of poppies in a landscape devastated by war.

# Design of the \$50 Note



### CCGS Amundsen, Research Icebreaker

The vastness and splendour of Canada's northern frontier have helped to shape our cultural identity. The icebreaker plays an important role in the North, keeping Canada's historic passages open, undertaking marine search and rescue, supporting isolated communities, and participating in international environmental research. The CCGS *Amundsen* helps Canada—the nation with the world's longest stretch of Arctic coastline—to remain at the leading edge of Arctic research, providing the world's oceanographers, geologists and ecologists with unparalleled access to the North.

# 1 CCGS Amundsen, research icebreaker

The Canadian Coast Guard Ship *Amundsen* became a research icebreaker in 2003. It is jointly operated by ArcticNet and the Canadian Coast Guard.

# 2 "Arctic" in Inuktitut

This syllabic text is taken from Inuktitut, a language of Canada's Inuit population. It stands for "Arctic."

# Map of Canada's northern regions

The map on the back of this note shows Canada's northern regions, including Inuit regions of the Arctic. This image was provided by Natural Resources Canada.

For more information visit www.arcticnet.ulaval.ca, www.ccg-gcc.gc.ca and www.nrcan.gc.ca.

# Design of the \$100 Note



### **Medical Innovation**

Canadians have long been at the frontiers of medical research and as a result have helped to save millions of lives worldwide. Notable Canadian contributions include pioneering the use of insulin to treat diabetes, DNA and genetic research, the invention of the pacemaker, and the first hospital-to-hospital robot-assisted surgery.

# Researcher at a microscope

The image of a researcher using a microscope depicts Canada's long-standing commitment to medical research.

# 2 DNA strand

Deoxyribonucleic acid (DNA) is the genetic blueprint of life. Canadian researchers have been at the forefront of mapping our human genetic makeup in this field of medical science.

# 3 ECG

This electrocardiogram symbolizes Canada's contributions to heart health, including the invention of the pacemaker by John Hopps in 1950.

# 4 Insulin

The discovery of insulin to treat diabetes was made by Canadian researchers Frederick Banting and Charles Best in 1921. Insulin continues to save the lives of millions of people today.

# Accessibility Features for the Blind and Partially Sighted

Polymer notes have the same suite of accessibility features as the last series of cotton-paper notes, with some enhancements as shown below. These features are present on all bank notes to help members of the blind and partially-sighted community identify the value of their notes.

Enhanced: longer-lasting tactile feature



Large high-contrast numbers

Enhanced: bank note reader codes on **both** short ends

Distinctly-coloured denominations



Go to bankofcanada.ca/banknotes for more information on these accessibility features. To obtain a free bank note reader (an electronic device that signals the denomination of a bank note by vibration, tone or voice), contact the CNIB at 1 866 659-1843 or store@cnib.ca.

# More Information

# Issue dates:

- \$20s, \$50s and \$100s now in circulation
- \$5s and \$10s in November 2013

For more information, please contact Public Affairs at 613 782-8782 or communications@bankofcanada.ca.

Our consultants are available from **08:30 to 17:00 ET**, Monday to Friday. We will normally reply to media calls and emails within four hours. Kindly include your name, affiliation, issue/question and deadline in your request.

# Rules for Use of Images

The Bank of Canada grants permission for the images on the USB flash drive included in this kit to be used by media organizations solely for publishing content related to the unveil and issue of the new \$5, \$10, \$20, \$50 and \$100 polymer bank notes. These images must be destroyed when they are no longer needed for this approved use. For the complete policy on the use of bank note images, go to bankofcanada.ca/banknotes.



# IT PAYS TO CHECK Frontiers series at a glance



# Check to protect: Feel, Look and Flip

**Feel** the smooth, unique texture of the note. It's made from a single piece of polymer with some transparent areas.

# Frosted maple leaf window

Look through the transparent outline.

## **Raised ink**

Feel the raised ink on the large number, the shoulders of the large portrait, and the words "Bank of Canada" and "Banque du Canada."

# Metallic portrait and building

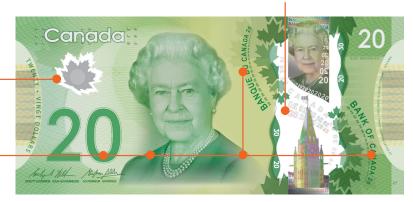
**Flip** the note to see these images from the front repeated in the same colours and detail on the back.

All five denominations have the same security features.



# Large window

**Look** through the transparent area containing: a detailed metallic portrait and building, the word "Canada", which is transparent and feels slightly raised, and small numbers matching the note's value.







The commemorative \$20 note (issued in 2015) has all the same security features as the notes in the *Frontiers* series. The large window contains different visual elements.









