

Trust for society and the future

National Printing Bureau

Business Guide



Remaining a trusted organization through changing times

Since its establishment in 1871, the National Printing Bureau, an agency engaged in administrative execution, has strived to manufacture products of a highly public nature that are closely connected to people's lives, such as Bank of Japan notes, the Official Gazette, and passports. The Bureau has been stably supplying such high-quality products. Although our business environment is transforming dramatically, the mission of the National Printing Bureau will remain unchanged.



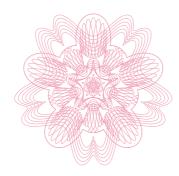


The Bureau will ensure a stable and reliable supply of products while preserving our traditions, responding flexibly to environmental changes, and adopting constant technology evolution while continuing to create products and information services with public trust.

By making efforts on both sides, the Bureau contributes to the further development of Japan's society and economy and the stability of people's lives.

Mission of the National Printing Bureau

By reliably providing products and information services such as Bank of Japan notes, the Official Gazette, and passports that support social infrastructure, the National Printing Bureau contributes to the development of the Japanese economy and foster stability of people's lives.



Competent ministry: Ministry of Finance Bank of Japan notes Bank of Japan notes Bank of Japan notes Cabinet Office National Plant Plant Plant Plant Plant Okayama Plant Plant Other government agencies, local governments, etc.

Bank of Japan notes and the National Printing Bureau

Are you familiar with the small text located at the bottom center of the banknote? This is called the "manufacturer's imprint" and serves as evidence that it is manufactured by the National Printing Bureau. Banknotes are manufactured by the National Printing Bureau based on the Minister of Finance's production plans and the quantity ordered by the Bank of Japan. The history of banknote manufacturing dates back to the National Printing Bureau's predecessor, the Paper Money Bureau, through which the Ministry of Finance produced the first domestically manufactured banknote in 1877. Since then, the Bureau has consistently manufactured Bank of Japan notes, engaging in all processes from paper manufacturing to printing.



Business content This section introduces the National Printing Bureau's business and products.



Bank of Japan notes

The Bureau stably and reliably manufactures the quantities of banknotes necessary for the national economy. The Bureau also provides information necessary to maintain the public's trust in Bank of Japan notes.



Official Gazette, statute books, documents on budgets and settlement accounts, and others

In addition to editing, printing, and disseminating the Official Gazette, which is the official means of communication of laws, cabinet ordinances, treaties, and government information, the Bureau also manufactures highly public printed materials, such as statute books and documents on budgets and settlement accounts.



Passports, postage stamps, securities, and others

The Bureau manufactures passports, postage stamps, revenue stamps, and certificate stamps that are highly resistant to counterfeiting under a strict manufacturing control system and provides products that the public can use with confidence.



Contributing to Digital Government

The Bureau also promotes the provision of information services reflecting the needs of Japan's society and economy. For example, the Bureau works on the reliable provision of the electronic version of the Official Gazette and early construction of base registries (databases for social infrastructure); further, it cooperates with the digitization of official documents. Thus, the Bureau contributes toward Digital Government.

History of the National Printing Bureau

In 1871, the National Printing Bureau was founded as the Paper Money Office Since then the Bureau's manufacturing technology has evolved, and it has continued to Official Gazette, among others.



(Shiheishi) under the Ministry of Finance. manufacture products that support people's daily lives, such as banknotes and the

July 1871

Founded the Paper Money Office under the Ministry of Finance (First head: Eiichi Shibusawa)



August 1871

The Paper Money Office was renamed the Paper Money Bureau (Shiheiryo).

1877

The Shiheiryo was renamed the Shiheikyoku (Paper Money Bureau) and became a government enterprise.

The Paper Money Bureau was later renamed the Printing Bureau (Insatsukyoku).

1909

Establishment of the Research Institute

1924

Became the Cabinet **Printing Bureau** Naikaku *Insatsukyoku*) after government reorganization

Became the Printing Bureau (Insatsukyoku) under the Ministry of Finance

1943

1949

Became the Printing Agency (Insatsucho), an independent agency of the Ministry of Finance

1952

Became the Printing Bureau, Ministry of Finance (Okurasho *Insatsukyoku*), an affiliated organization of the Ministry of

2001

During the reorganization of government ministries and agencies, the Japanese name of the Printing Bureau, Ministry of Finance, became "Zaimusyo Insatsukyoku".

2003

Became an Incorporated Administrative Agency (Dokuritsu Gyosei Hojin) and renamed the National Printing Bureau (Kokuritsu Insatsukyoku)



1868-1912 (Meiji era)

The first postage stamp produced by the Bureau (the prototype of today's regular postage stamps)

1872

Issuance of the Cherry Blossom Stamps



The first domestically manufactured banknote

1877

Issuance of the National Bank Note (new version) 1 yen note



1883

Cabinet Document Bureau inaugurated the first issue of the Official Gazette.



Promulguation of the Constitution of the Empire of Japan

1889

Issuance of an extra edition of the Official Gazette



Japan's first commemorative postage stamp celebrating the 25th anniversary of the marriage of the Emperor and Empress Meiji

1894

Issuance of the silver wedding commemorative postage stamp to celebrate the Emperor and Empress Meiji



1912-1926 (Taisho era)

In response to stamp counterfeiting incidents, stamps incorporating anti-counterfeiting technologies, such as watermarks were issued.

1914

Specification changes of regular postage stamps, known as *Tazawa* stamps



(Transmission Image)

Despite losing the Bureau's plant to the Great Kanto Earthquake, an extra edition of the Official Gazette was urgently issued the next day to announce requisition order.

1923

Issuance of the Official Gazette using handwritten mimeograph printing



1926-1989(Showa era) 1946-1948

Issuance of the Bank of Japan notes (A series)













1950-1953

Issuance of the Bank of Japan notes (B series)







1957-1969

Issuance of the Bank of Japan notes (C series)









Simultaneous redesign of the 10,000 yen, 5,000 yen, and 1,000 yen notes for the first time

1984

Issuance of the Bank of Japan notes (D series)





1989–2019 (Heisei era)

1999

Launch of the Online Official Gazette Service



2000

Issuance of the Bank of Japan note (D series 2,000 ven note)



2001

Launch of the Official Gazette Information Search Service



2004

Issuance of the Bank of Japan notes (E series)







2019 – (Reiwa era)

2020

Issuance of the new specification passport







2024

Issuance of the Bank of Japan notes (F series)

10,000 yen note



5,000 yen note



1,000 yen note



Highly public products with relia ble technology

The National Printing Bureau applies traditional and skilful techniques to manufacture products that are publicly needed.

Bank of Japan notes

10,000 yen note





- Front Eiichi Shibusawa, who was active in the business world
- Tokyo Station (Marunouchi Station Building), a historical building (Important Cultural Property) popularly known as the "Red Brick Station Building"
- Size Height 76mm x Width 160mm

5,000 yen note





- Front Umeko Tsuda, who was instrumental in modern higher education for women
- Back Fuji, a flower that has been popular since ancient times and appeared in the Kojiki and Manyoshu.
- Size Height 76mm x Width 156mm

1,000 yen note





- Front Shibasaburō Kitasato, who developed serum therapy for tetanus, founded the Kitasato Institute and strived to educate young people
- Thirty-six Views of Mt. Fuji (Under the Great Wave Off Kanagawa) is a masterpiece of KATSUSHIKA Hokusai, an ukiyo-e artist from the Edo period; it has inspired artists around the world.
- Size Height 76mm x Width 150mm

Passports

This is a certificate issued by the Japanese government guaranteeing a citizen's nationality and identity; as an official document, it requests overseas governments to allow the bearer a smooth travel.



Postage Stamps

The gravure printing method represents delicate lines and rich shading, so postage stamps are called "small works of art."



Revenue stamps and certificate stamps

The National Printing Bureau's anti-counterfeiting technologies are also used in government-issued stamps such as revenue stamps and automobile weight tax stamps, as well as prefectural certificate stamps.



Certificate paper

The Bureau's emphasis on ease of authentication incorporates various well-balanced technologies and provides papers with even more robust deterrents and counterfeit prevention measures.



Tradition and advanced techniqu es come alive in banknotes.

The word "ART" refers to both art and technology. Banknotes, being a sophisticated fusion of art and technology, are appropriate to be called "ART".

Achieving "ART" with superior skill and technology

A precise portrait with great master craftsmanship

The portraits featured on banknotes undergo meticulous hand engraving by specialists known as engravers. The lines are so precise that more than ten lines can be engraved within a width of one millimeter. The skill of these engravers shines through in their thoughtful approach to engraving lines expressing nuances in shading and texture.



Carrying on the traditional techniques of washi (Japanese traditional paper)

"Light-and-shaded watermark" is based on the traditional Japanese paper technique of watermark. This technique has been handed down since the Meiji era and is highly regarded worldwide for its sharpness and delicate shade expression.



Uniquely evolved western technologies

The engraving technique was introduced by foreign technicians during the Meiji era and has evolved in its own unique way. The depth, width and direction of the engraved lines create a three-dimensional effect.



Tradition and digital technology merge

The design of the banknote is completed when the Guilloche pattern, generated through a combination of computer-generated data, is seamlessly fused with traditional engraved lines.



Universal design, user-friendly for many people

The design aims for fair, easy banknote use by many people, regardless of age, nationality, or

Enlarged numerals of the face value

By enlarging the numbers on both sides, the face value becomes more easily understandable.







Tactile mark

The tactile mark, shaped with 11 diagonal lines for excellent finger sensitivity, is differently positioned to facilitate easy identification of denominations.







ability.

Watermark

Distinctive watermarks, each tailored with different shapes and positions for each denomination provide a visually accessible means of differentiating between denominations.







Artworks

Using traditional craft techniques, the Bureau creates numerous artworks with high dignity and presence.



Intaglio printing

Commemorative stamp



The greeting card on the left was used at

Watermarked Greeting card

Currency recognition app U-Qui-Ch-kun

The National Printing Bureau offers a free download of the currency recognition app "U-Qui-Ch-kun" (Universal Quick Checker for Bank of Japan notes) for visually impaired individuals (iOS version, available only in Japan). This app, when pointed at the banknotes with a camera, identifies the denomination and provides the face value through audio and large text.







*The authenticity verification feature is not available

*iOS is a trademark or registered trademark of Cisco in the United States and other countries or regions and is used under license from Cisco.

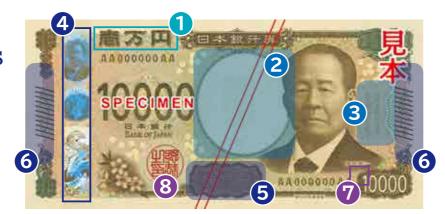
Anti-counterfeiting technology that upholds social stability

Banknotes must be absolutely difficult to counterfeit, and also have features suitable To maintain social and economic stability and keep trust, the Bureau makes constant

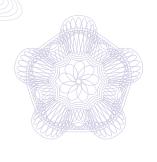
for circulation in Japan.

efforts to improve world-class anti-counterfeit technologies for banknotes.

Main technologies applied in banknotes



NIPPON O GINKO 10000
SPECIMEN
5



1 Intaglio printing

The main designs on banknotes, including the portrait, are printed using the intaglio printing method. Specifically, for the denomination numerals and the text "日本銀行券" (Bank of Japan note), a technique known as intaglio printing is employed, where ink is applied thickly to create a greater relief.

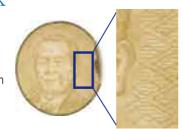


tilting

touch

Watermark and high-definition watermark

In addition to the intricate portrait watermark, finely crafted continuous patterns (high-definition watermark) are applied around the portrait.



watermark

3 Watermark-bar-pattern

When viewed through transparency, vertical rods become visible, with three rods on the 10,000 yen note, two rods on the 5,000 yen note, and one rod on the 1,000 yen note.



4 3D hologram

It's the world's first adoption in banknotes. By tilting, the banknote left or right, the three-dimensional portrait rotates, and other designs change depending on the viewing angle.





tools



By tilting, the face value numerals, such as "10000" or "5000" appear on the front side, while on the back side, the characters "NIPPON" appears.





When tilting, a pink-colored sheen emerges at the center of both the left and right ends of the banknote.



tilting

with tools

7 Microprinting

"NIPPONGINKO" is printed in microscript that cannot be reproduced with color photocopiers.



8 Luminescent ink

When ultraviolet light is shone, the seal on the front (the seal of the Governor of the Bank of Japan), and patterns on both sides become luminescent,



9

Thorough measures to prevent counterfeiting



Mitsumata Abaca (Oriental paperbush) (Manila he

Special paper for banknotes

Paper for Japanese banknotes is made from *mitsumata* (oriental paperbush), abaca (Manila hemp), and so on. *Mitsumata* has been used as a raw material for Japanese traditional paper since ancient times and has also been used for banknotes since 1879. Banknotes are passed from hand to hand and through machines; they get folded or even wet at times. Therefore, banknotes must be durable. It is also important to complicate counterfeiting. Banknotes' unique color, texture, and feel help to prevent counterfeiting.

Combination of letters and numbers on the front of the banknote

The combination of letters and numbers at the top left and bottom right on the front of a banknote is called the serial number. It is the uniform number of a banknote, and banknotes of the same denomination are printed with different serial numbers.





Color of banknotes

Currently issued banknotes use more than 20 colors in total. If bright primary colors are used, color copy machines and scanners can easily reproduce similar colors, so complex and unique colors are intentionally chosen to prevent reproduction.

Consistent manufacturing process to provide high-quality, uniformed products

Japanese banknotes are manufactured with a consistent manufacturing system. This is the introduction of the banknote manufacturing process.

Production of original drawings and original plates



Plate manufacturing



Ink manufacturing



Papermaking



Designers create original drawings using a sophisticated approach with colored pencils and paints. Their output is delicately engraved by dots and lines onto copper sheets using a special tool called a burin to create original plates. This work requires sophisticated skills and artistic sensibilities. In contrast, cutting-edge computer system is used to create images such as Guilloche patterns for banknote backgrounds.



Large multi-faced printing plates are produced from a single original plate before being chromized and reinforced for printing durability.



Printing inks are produced by mixing various pigments and varnishes using a uniquely developed formula. Therefore, inks have both beautiful unique colors and outstanding functionality.



Raw materials are shredded and defiberized in water. The fibers are then ground thoroughly so that they combine easily and are mixed with chemicals to produce pulp for paper. The pulp is subsequently run over a wire mesh, elaborately watermarked, dried, and rolled to make paper. Finally, the paper is cut into sheets of the right size for printing. This durable paper is also suitable for mechanical processing in devices like cash handling machines.



Printing





Notes are printed using a specialized press developed by the National Printing Bureau, first for the back and then for the front. The press can create highly accurate and detailed patterns thanks to its capacity to perform offset printing and intaglio printing simultaneously on a single side.

Hologram application



3D holograms that appear to rotate when tilted left or right and holograms that change color and pattern depending on the viewing angle are placed using a special hot stamping machine.

Serial number printing



After the front and back side patterns have been inspected, the seal of the Governor of the Bank of Japan and alphanumeric serial numbers are printed on the front.

Inspection, finishing

Cutting



Large sheets of paper are finely machine-cut to predetermined dimensions.

Inspection, finishing



All cut notes are inspected individually using specialized machines, counted, banded, and packaged in blocks of 1,000.

Wrapping



The packaged notes are individually wrapped using a wrapping machine, and delivered to the Bank of Japan.

Operation improvement activity

Operation improvement activities at the National Printing Bureau include efforts by individuals and circles to stabilize quality, reduce workload, and improve work efficiency by reviewing work methods. Since the establishment of the Bureau in 1871, its staff's steady efforts have been passed down, and made activities with a rich history and tradition.





Maintaining trust and building the future

The Research Institute promotes research and development of products that respond to The Bureau challenges to create of new value to realize a bright future.

Research and development that brings security and convenience to life

The Bureau challenges to create of new value to meet the needs of society and people's lives.

Digital printing machine



Digital printing is environmentally friendly without use of printing plates; further, it allows for advanced anti-counterfeiting technology that takes full advantage of digital technology. Research is underway for practical application in the Research Institute.

Certificate issuance system



With the digitalization of society, printed output using color multifunctional printers and other equipment is a complementary role of digital information. Research on certificate issuance system with an eve toward a new era has been embarked upon at the Research

Research and development that supports the reliability of the National Printing Bureau products

The Research Institute conducts multifaceted analyses and tests using state-of-the-art equipment and contributes to the provision of products with high counterfeit resistance.

Ion milling



This device performs cross-sectioning without damaging the structure of paper or printed matter.

Rheometer and adherence measuring device

These devices check whether newly developed ink can be printed properly on a printing machine.



Rheometer

It can judge the softness of ink.

Trace component analyzing system



This system can analyze the detailed structure of organic compounds.

Adherence measuring device

It evaluates the adhesiveness of ink after printing.

the changing times, and technologies that maintain the trustworthiness of banknotes.

Technology development that contributes to society

The Bureau has built people's trust and technological capabilities over the years; further, it has embraced and developed technologies to ensure the security of highly public products. It also works to contribute to society by providing anti-counterfeiting technologies licenses for various certificates and other documents. Technology for authentication with the naked eye

2 MetallicView



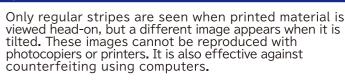








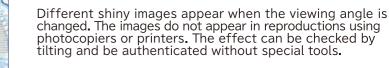




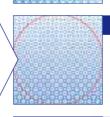


 \odot

Technology for authentication using devices

















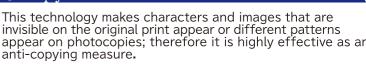




















This technology makes hidden characters and images that are invisible on the original print appear using infrared light.



National Printing Bureau smartphone identification tool

This app visualizes the latent image technology developed by the National Printing Bureau. *iOS is a trademark or registered trademark of Cisco in the United States and other countries and regions and is used under license.



Android version



versior



15

Official Gazette that binds the public and the government with trust

The Official Gazette, an official means of transmitting laws and government information, was first day except on administrative holidays.

The National Printing Bureau edits, prints and distributes the Official Gazette via the Internet and also The law concerning promulgating laws and regulations had lost its statutory basis with the Gazette was enacted on December 6, 2023, and promulgated on December 13, 2023. While the version as an authentic copy.

published by the Cabinet Document Bureau in 1883. Currently, the Cabinet Office publishes it every

disseminates it for the purpose of communicating important national matters accurately and reliably. enforcement of the Constitution of Japan in May 1947. However, the Act on Publication of the Official authentic copy of the Official Gazette has been the paper version so far, the law allows its electric

7

Delivery of the Official Gazette

The contents of the Official Gazette are also delivered on the Internet. The Online Official Gazette Service provides the Official Gazette (i.e., regular editions, extra editions, government procurement editions, and others) for the latest 90-day period; information regarding laws and government ordinances promulgated since July 15, 2003; and information of government procurement since April 1, 2016. The information is made available free of charge in PDF format. The Official Gazette Information Search Service (fee-based) provides gazette archives from as far back as May 3, 1947, when the present Constitution of Japan was implemented, to the present day. Information can be searched and browsed using dates and keywords.







Manufacture of the Official Gazette



Manuscripts are submitted from various ministries and agencies.



Manuscripts are assigned to the Official Gazette pages.



delivered via the Internet.



The Official Gazette is posted at the National Printing Bureau at 8:30 a.m.

Products of National Diet use and others



Statute books

The Bureau manufactures products that contain highly public administrative information, such as budgets and settled accounts.



Documents on budgets and settled accounts



3

Publication format and articles in the Official Gazette

The Official Gazette includes official documents and information such as announcements from the government and government agencies to the general public, as well as articles on legal pronouncements from corporations in accordance with the Companies Act. The volume of the article varies. If content cannot be adequately listed in a regular edition, an extra edition may also be issued.

Regular edition

It includes articles on laws and regulations and company pronouncements. It is published daily, not exceeding 32 pages, except on administrative holidays.

Extra edition It includes content that cannot be sufficiently

cannot be sufficiently listed in the regular edition. It is published as needed, except on administrative holidays.

Government procurement edition

It includes public notices related to government procurement. It is published as needed, except on administrative holidays.

Special edition

It is published at any time when there is an article that needs to be posted urgently.

Index

It is published once a month as an index of the regular edition. It has a table of contents including laws, decrees, ordinances and notifications of the previous month.



Documents promulgated or announced by the government and government agencies

(As of the end of December 2023)

- Laws, government decrees, and treaties
 Agreements made by the government or entered into with other countries
- Cabinet and ministerial ordinances, rules, and public notices

Agreements made by individual ministries

- National Diet matters
 Issues relating to the National Diet
- Personnel transfers
 Movements of ministers and staff within individual
- Investitures, honors, and decorations
 Notifications of honors bestowed on people who have contributed to the country
- Government agency reports
 Matters relating to the minimum wages, national examinations, and other matters



Pronouncements from the government, various ministries, government corporations, local governments and other bodies

(As of the end of December 202)

- Public bidding, successful bidding pronouncements, and pronouncements by government agencies
- Pronouncement of competitive bidding
- Pronouncements from courts, governmental corporations, etc.

Public pronouncement mandated by law Changes in highway tolls, registrants of national licenses, etc.

- Pronouncements by local governments
 Notification of expiration of teachers' licenses, reburial of the dead, and traveler deaths, etc.
- Pronouncements from companies and others

Account settlements, etc.



Digitization of official documents

The Bureau also works on the digitization of ministries and public organizations' highly confidential official documents.





Exercise of social responsibility and main tenance of established tradition and trust

The National Printing Bureau's operations are eco-friendly and take the global environment awareness of its responsibilities.

Compliance activities

The National Printing Bureau responds to public demand and expectations by working to ensure that its employees are highly aware of the need for compliance and are strongly motivated to practice it.

Basic policy

- The National Printing Bureau places societal trust at the center of all its activities and positions compliance as a top management priority.
- Individual National Printing Bureau employees take the initiative to practice compliance.

Environmental activities

Core philosophy

As a public entity responsible for the reliable provision of Bank of Japan notes, the Official Gazette, passports, and information services, the National Printing Bureau conducts its business activities in harmony with the environment at all stage of the process.

Action guidelines

The Bureau establishes and operates an environmental management system to realize its core philosophy and focuses on the following actions.

- Environmental compliance
- Reduction of greenhouse gas emissions
- Reduction of resource consumption and waste disposal volume
- Environmentally friendly production and information-provision services
- Environmental conservation enlightenment

Efforts to reduce greenhouse gas remission

Based on the greenhouse gas emission reduction targets to be achieved by FY2030 in the govenment's Plan for Global Warming Countermeasures (approved by the Cabinet on October 22, 2021), the Bureau established a basic plan to steadily reduce greenhouse gas emissions; further, it implements various measures to achieve the targets.

The National Printing Bureau's basic plan for reducing greenhouse gas emissions is given here.



Examples of environmental conservation activities







Installation of solar power generation equipment at all facilities



Biodiversity conservation area (Shizuoka Plant)

*Japanese only

Public relations of environmental activities

To fulfill accountability as a public entity, the National Printing Bureau publishes an environmental report every fiscal year, summarizing its achievements and activities related to global environmental conservation.

The environmental report is given here.



into consideration. It also observes stringent compliance standards with a sense of pride and

Safety activities

Plants of the National Printing Bureau awarded accident-free record certificates

The National Printing Bureau is actively engaged in safety activities to realize a safe and secure work environment. As a result of these efforts, both the Hikone Plant and Shizuoka Plant were awarded accident-free record certificate by the Ministry of Health, Labor and Welfare. The accident-free record certificate is awarded to workplaces that have not had any accidents for a certain period.





Hikone Plant

August 2021

Class-4 accident-free record certificate



Shizuoka Plant

June 2023

Class-1 accident-free record certificate (3.9 million hours)



Safety activity content is given here.



Contribution to the local community and society

Special lectures at art universities by the National Printing Bureau's designers

The National Printing Bureau holds special lectures by its designers, explaining the superior skills of designers involved in banknote manufacturing, mainly focusing on an overview of printing technology and copper engraving techniques.
These lectures provide students

with an opportunity to broaden their career possibilities and options, and the lectures are also part of the Bureau's social contribution activities aimed to familiarize the public with the designers' high level of skills developed over the years.

3 minutes walk from

Oii statior



Collaboration with the local community

As part of its community contribution activities, the Bureau concludes agreements with local governments and other organizations to cooperate in local events and contributes to the promotion of local tourism.







3 minutes walk from Oii station(Central entrance) 3 minutes walk from Oji station(Exit 1)

The exhibition rooms of the Banknote and Postage Stamp Museum displays various exhibits, including banknotes and postage stamps that have been produced by the National Printing Bureau, as well as pre-Meiji-era notes, foreign notes and postage stamps, and copper engravings closely related to banknote production. The exhibits reflect changes in society, economy, culture, and technology, so visitors can learn about the unknown historical aspects of banknotes and postage stamps.



Opening hours 9:30~17:00

Closed on Mondays and year-end holidays (except National Holidays on Monday, in which case the museum is open on the holiday and closed the following Tuesday instead)

1-6-1 Oji, Kita city, Tokyo 114-0002

National Printing Bureau Banknote and Postage Stamp Museum Q



18

19



Inquiry

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2-2-5 Toranomon, Minato city, Tokyo 105-8445 PHONE:+81-3-6893-0002 FAX:+81-3-3587-4470 https://www.npb.go.jp/en/index.html



Recycling suitability A: It can be recycled into paper for printing.