

WORKSHEETS



POLYMER BANK NOTES

Lesson 1-1 How do I know it's real?

Worksheet 1: How do I know it's real?

Note to teacher: Use PowerPoint 1 which has images of polymer and paper notes.

Directions: Using actual bank notes, or the images provided by your teacher, and your own knowledge, brainstorm about ways to tell if a bill is genuine.



Canadian Journey series bank notes



Lesson 1-2

Security features: Polymer and Canadian Journey series

Worksheet 2: Security features: Polymer series

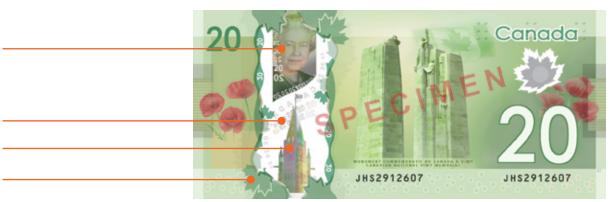
Note to teacher: Use PowerPoint 2, which has images of the front and back of a polymer note.

Directions: Label each of the security features indicated below. In the following table, explain how to check each feature.

FRONT



BACK





Worksheet 2: Security features: Polymer series

Feel	Look	Flip
Polymer note:	Large window:	Large window:
Raised ink:	Metallic portrait:	
	Metallic building:	
	Transparent text:	
	Small numbers:	
	Maple leaf border:	
	Frosted maple leaf window:	
	Hidden numbers:	



Lesson 1-2 (answers)

Security features: Polymer and Canadian Journey series

Worksheet 2 answers: Security features: Polymer series

FRONT



BACK

Metallic portrait	20 0	Canada
		THEN EL
Small numbers	ROLOPE	
Metallic building		
Maple leaf border		912607 JHS2912607



Worksheet 2 answers: Security features: Polymer series

Feel	Look	Flip
Polymer note: Feel the smooth, unique texture of the note. It's made from a single piece of polymer with some transparent areas.	Large window: Look for transparency through the large window containing a metallic portrait and building.	Large window: Flip the note to see the features in the large window repeated in the same colours and detail on the other side.
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: Look at the details in the metallic portrait in the large window. It matches the large portrait.	
	Metallic building: Look at the details in the metallic building in the large window. Tilt the note to see sharp colour changes in the building.	
	Transparent text: Look at the word "Canada." It is transparent and feels slightly raised.	
	Small numbers: Look at the numbers in and around the large window. They match the value of the note.	
	Maple leaf border: Look at the maple leaves that border the large window. Some of the leaves cross into the window.	
	Frosted maple leaf window: Look at the frosted maple leaf window to see that it has a transparent outline.	
	Hidden numbers: The hidden numbers are an additional security feature that you can use if you're still unsure about a polymer note after checking the other features.	



Lesson 1-2 Security features: Polymer and Canadian Journey series

Game sheet 1: Know your polymer security features

Raised ink (one location)	Metallic portrait
Large window	Maple leaf border
Metallic building	Hidden numbers
Frosted maple leaf window	Raised ink (one location)
Small numbers	Raised ink (one location)
Transparent text	



Lesson 1-2

Security features: Polymer and Canadian Journey series

Worksheet 3: Security features: Canadian Journey series

Directions: Label each of the security features indicated below. Then in the following table, explain how to check each feature.



Touch	Look	Tilt
Raised ink:	Ghost image:	Metallic stripe:
	Dashes:	Dashes:
	Puzzle number:	



Lesson 1-2 (answers)

Security features: Polymer and Canadian Journey series

Worksheet 3 answers: Security features: Canadian Journey series



Touch	Look	Tilt
Raised ink: Feel the raised ink on the large number, the shoulder of the portrait and the words "Bank of Canada • Banque du Canada."	Ghost image: Hold the note up to the light and look through it. A small, ghost-like image of the portrait appears. It is visible from both sides of the note.	Metallic stripe: Tilt the note. The numbers and maple leaves change colour.
	Dashes: Hold the note up to the light and look through it. The dashes form a solid line. It is visible from both sides of the note. Small characters (e.g., CAN 20) match the note's value.	Dashes: Tilt the note. The dashes shift from gold to green.
	Puzzle number: Hold the note up to the light and look through it. Irregular marks on the front and back of the note form a complete number. It is visible from both sides of the note.	



Lesson 1-3

The life of a bank note

Option A or C Worksheet 4: Life of a bank note

Directions: While watching the Life of a Bank Note videos, answer the following questions.

Part One: Research and Development

- 1. How long did it take to develop and test the new polymer notes?
- 2. What is the main reason for issuing new notes?

3. How do the developers of the new notes try to stay ahead of counterfeiting?

4. What types of durability testing were done on the new polymer notes?



Option A or C Worksheet 4: Life of a bank note

Part Two: Design

1. How did the Bank of Canada design the new bank notes?

2. What technology was used to create the features on the new bank notes?

3. What are the new notes printed on?

4. What does polymer feel like?

5. What is the most striking feature of the new bills?



Option A or C Worksheet 4: Life of a bank note

Part Three: Production

- 1. What is the single biggest factor in deciding how many bank notes are produced each year?
- 2. Has the printing process for the new polymer notes changed from the process used for paper notes?

3. What is already included in the polymer substrate when it is shipped to the printer?

4. What are the next six steps in the production process?

5. How much longer will polymer notes last compared with paper notes?



Option A or C Worksheet 4: Life of a bank note

Part Four: Distribution

1. When did the Bank of Canada open for business?

2. In 2012, how many regional distribution points were there across Canada?

3. What manages the flow of notes?

4. What are the positive aspects of the move to polymer notes for the distribution system?

5. In 2011, how many bank notes were in circulation?

6. How is the Bank making it easier to distribute the new notes?



Option A or C Worksheet 4: Life of a bank note

Part Five: A Greener Life

1. What is the key factor in the reduced environmental impact of the polymer notes?

2. What are the other environmental benefits of using polymer notes?

3. What happens to polymer notes that are destroyed?



Option A or C Worksheet 4 answers: Life of a bank note

Part One: Research and Development

- 1. How long did it take to develop and test the new polymer notes?
 - 5 years
- 2. What is the main reason for issuing new notes?
 - to improve security
- 3. How do the developers of the new notes try to stay ahead of counterfeiting?
 - by studying counterfeiting techniques
 - by trying to counterfeit the bills
- 4. What types of durability testing were done on the new polymer notes?
 - mechanics
 - crumpling
 - abrasion
 - tearing
 - water resistance
 - extreme temperatures
 - finger oils
 - prolonged sun exposure



Option A or C Worksheet 4 answers: Life of a bank note

Part Two: Design

- 1. How did the Bank of Canada design the new bank notes?
 - focus groups across Canada were asked to bring something they felt was Canadian
- 2. What technology was used to create the features on the new bank notes?
 - digital tools
 - special computer software
- 3. What are the new notes printed on?
 - polymer
- 4. What does polymer feel like?
 - smooth
- 5. What is the most striking feature of the new bills?
 - the large window



Option A or C Worksheet 4 answers: Life of a bank note

Part Three: Production

- 1. What is the single biggest factor in deciding how many bank notes are produced each year?
 - the need to replace worn bank notes
- 2. Has the printing process for the new polymer notes changed from the process used for paper notes?
 - not drastically
- 3. What is already included in the polymer substrate when it is shipped to the printer?
 - security features
 - other design elements
- 4. What are the next six steps in the production process?
 - layers of ink
 - serial numbers
 - varnish
 - cutting
 - packaging
 - shipping
- 5. How much longer will polymer notes last compared with paper notes?
 - at least 2.5 times longer



Option A or C Worksheet 4 answers: Life of a bank note

Part Four: Distribution

- 1. When did the Bank of Canada open for business?
 - 1935
- 2. In 2012, how many regional distribution points were there across Canada?
 - 10
- 3. What manages the flow of notes?
 - a computerized inventory-management system
- 4. What are the positive aspects of the move to polymer notes on the distribution system?
 - polymer notes will be replaced less often
 - polymer notes are handled better by machines
- 5. In 2011, how many bank notes were in circulation?
 - 1.5 billion
- 6. How is the Bank making it easier to distribute the new notes?
 - introduce one denomination at a time

Option A or C Worksheet 4 answers: Life of a bank note

Part Five: A Greener Life

- 1. What is the key factor in the reduced environmental impact of the polymer notes?
 - durability: life expectancy is at least 2.5 times longer than for a paper note
- 2. What are the other environmental benefits of using polymer notes?
 - distribution of bank notes (less frequent shipping)
 - longer-life circulation (bigger environmental savings over time)
- 3. What happens to polymer notes that are destroyed?
 - they are shredded and recycled



Lesson 1-3

The life of a bank note

Option B Summary worksheet 1: Life of a bank note

Directions: While watching the Life of a Bank Note videos, write down 2 to 3 main points from each video.

Life of a Bank Note videos	Main points
Part One: Research and Development	
Part Two: Design	
Part Three: Production	
Part Four: Distribution	
Part Five: A Greener Life	

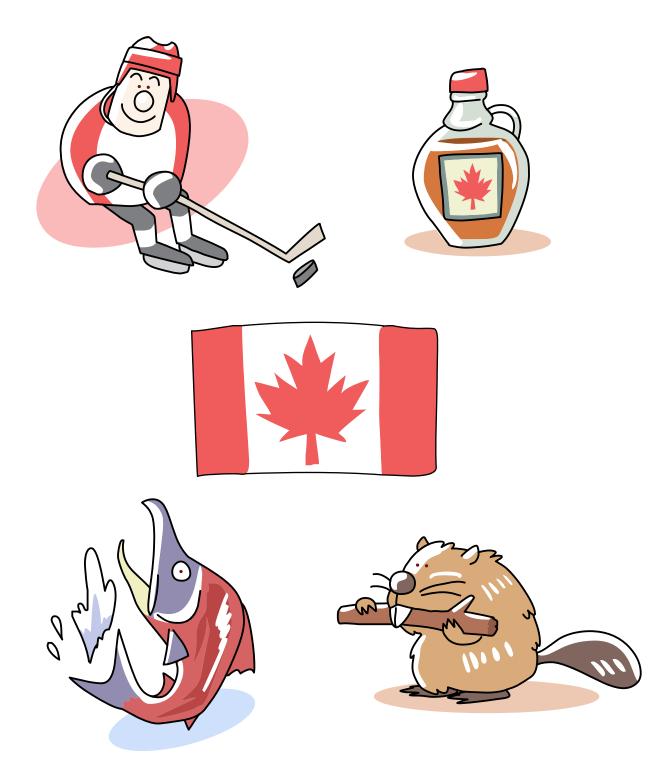
Exit out Exit out 1 card

Exit out	Exit out
Name:	Name:
Explain two ways that you can check your bills to make sure that they are genuine.	Explain two ways that you can check your bills to make sure that they are genuine.
	1.
2.	2.
Exit out	Exit out
Name:	Name:
	Explain two ways that you can check your bills to make sure that they are genuine.
bills to make sure that they are genuine.	
bills to make sure that they are genuine.	bills to make sure that they are genuine.
Explain two ways that you can check your bills to make sure that they are genuine. 1.	
oills to make sure that they are genuine.	bills to make sure that they are genuine.



Worksheet 5: Canadian identity brainstorm

Directions: Brainstorm potential images, symbols, events, places or people that best represent the Canadian identity.



Worksheet 6: Canadian identity and Vimy Ridge quotations

Directions: Using the quotations below, discuss Vimy Ridge, the importance of the battle and the reasons why the Canadian National Vimy Memorial was chosen as a symbol of Canadian identity on the \$20 bank note.

"In those few minutes I witnessed the birth of a nation." - Brigadier General A. E. Ross

> "The fight to take Vimy Ridge cost Canada dearly, but it would become the cornerstone of the nation's image of its place in the world." - Gary Graves, CBC News

"As far as I could see, south, north, along the miles of the Ridge, there were the Canadians. And I experienced my first full sense of nationhood." - Lieutenant Gregory Clark, MC, Weekend Magazine (Toronto), 13 November 1967

> "We went up Vimy Ridge as Albertans and Nova Scotians. We came down as Canadians." - a war veteran remembering Vimy Ridge



Worksheet 7: Canadian identity research assignment

Directions: Using your textbook, encyclopedias, databases or the QR code below, complete the following table. Once you have finished, record your reference sources in the space provided.





\$20 note: The Canadian National Vimy Memorial

Image	History	Significance to Canadian identity
Poppies		
Monument		
Canadian flag		

References used: _____

Worksheet 8, extension exercise: Canadian identity research assignment

Directions: Using your textbook, encyclopedias or databases, complete the following table. Once you have finished, record your reference sources in the space provided.



\$100 note: Medical innovation

Image	History	Significance to Canadian identity
Insulin		
DNA strand		
ECG		

References used: _____

Worksheet 8, extension exercise: Canadian identity research assignment

Directions: Using your textbook, encyclopedias or databases, complete the following table. Once you have finished, record your reference sources in the space provided.



\$50 note: CCGS Amundsen, research icebreaker

Image	History	Significance to Canadian identity
CCGS Amundsen, research icebreaker		
"Arctic" in Inuktitut		
Map of Canada's northern regions		

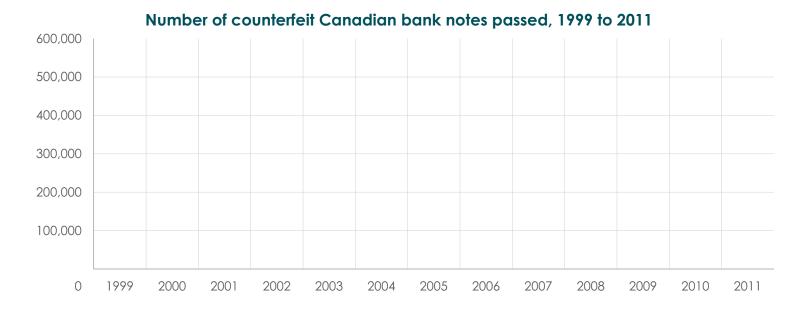
References used: _____

COUNTERFEITING AND ITS IMPACT

Lesson 3-1 Counterfeiting statistics

Worksheet 9: Counterfeiting statistics

Directions: Using the information provided, plot a line graph and answer the questions on the next page.



Year	Number of counterfeit Canadian bank notes passed
1999	94,607
2000	94,222
2001	128,917
2002	208,474
2003	443,303
2004	552,980
2005	402,303

Year	Number of counterfeit Canadian bank notes passed
2006	287,088
2007	141,502
2008	107,689
2009	66,696
2010	53,536
2011	52,239



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Worksheet 9: Counterfeiting statistics

Number of counterfeit Canadian bank notes passed, 1999 to 2011

1. What are the recent trends in the number of counterfeit Canadian bank notes passed?

2. Why do you think the number of counterfeit Canadian bank notes being passed has been decreasing since 2004?

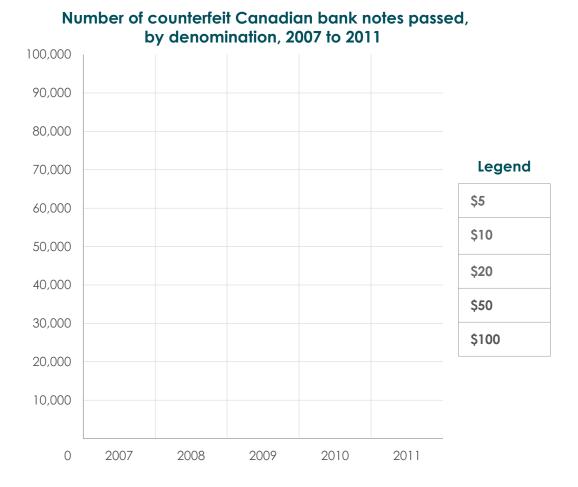
3. Why do you think counterfeiting increased between 1999 and 2004?

Lesson 3-1

Counterfeiting statistics

Worksheet 9: Counterfeiting statistics

Directions: Using the information provided, plot a line graph and answer the questions on the next page.



Denomination	2007	2008	2009	2010	2011
\$5	16,382	5,332	2,894	2,384	1,648
\$10	13,791	8,444	8,342	6,080	3,930
\$20	94,045	38,425	24,762	22,435	25,039
\$50	10,263	8,483	5,653	3,792	2,123
\$100	7,003	46,982	25,030	18,834	19,466



Worksheet 9: Counterfeiting statistics

Number of counterfeit Canadian bank notes passed, by denomination, 2007 to 2011

- 1. Which Canadian bank notes are counterfeited the most often?
- 2. Why do you think these particular denominations are the most frequently counterfeited?

3. Which Canadian bank notes are counterfeited the least often?

4. Why do you think these bank notes are counterfeited less often?

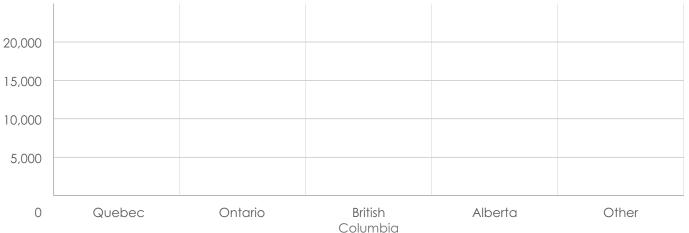
5. What trend do you see in the number of bank notes being counterfeited?

Lesson 3-1 Counterfeiting statistics

Worksheet 9: Counterfeiting statistics

Directions: Using the information provided, create a bar graph and answer the questions on the next page.

Number of counterfeit Canadian bank notes passed, by province or territory, in 2011



Number of counterfeit Canadian bank notes passed, by province or territory, in 2011						
Province or territory	Number of counterfeit Canadian bank notes passed	%				
Quebec	18,602	37%				
Ontario	15,368	29%				
British Columbia	11,522	20%				
Alberta	4,766	10%				
Other *	1,981	4%				
Total	52,239	100%				
* Other includes:						
Manitoba	734					
Nova Scotia	490					
Saskatchewan	302					
Prince Edward Island	222					
New Brunswick	146					
Newfoundland and Labrador	64					
Northwest Territories	14					
Yukon Territory	7	ANK NOTE				
Nunavut	2	OUNTERFEIT				

Worksheet 9: Counterfeiting statistics

Number of counterfeit Canadian bank notes passed, by province or territory, in 2011

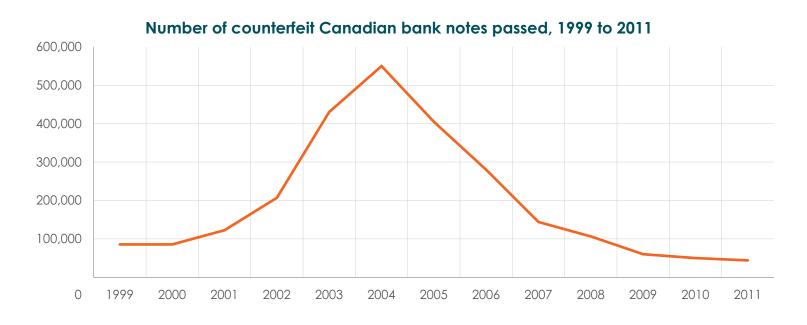
1. Which province has the greatest counterfeiting activity? What do you think is the reason for this?

2. Does the population of a province or territory have an impact on the number of counterfeit bank notes being passed? Explain your answer.

3. Why do you think Quebec, Ontario, British Columbia and Alberta all have higher numbers of counterfeits passed than the rest of the provinces and territories combined?

Lesson 3-1 (answers) Counterfeiting statistics

Worksheet 9 answers: Counterfeiting statistics

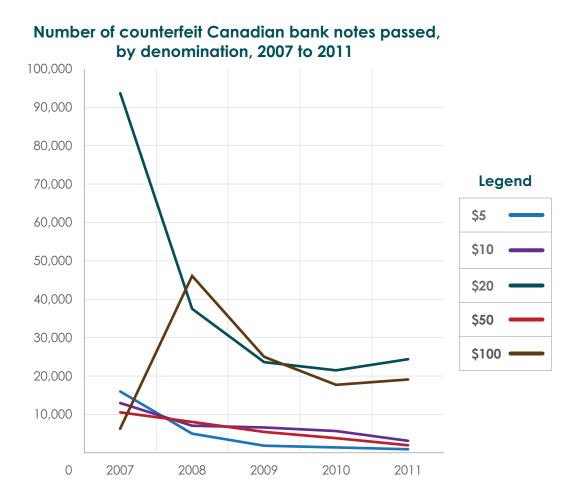


- 1. What are the recent trends in the number of counterfeit Canadian bank notes passed?
 - The number of counterfeit bank notes peaked in 2004.
 - The number of counterfeit bank notes has decreased since 2004.
 - Decrease by about half, in the number of counterfeit bank notes passed between 2005 and 2006.
- 2. Why do you think the number of counterfeit Canadian bank notes being passed has been decreasing since 2004?
 - More people are checking the security features on bank notes to make sure that they are genuine.
 - More sophisticated security features are being added to bank notes, especially since the Canadian Journey series was released in 2004.
 - Police investigations have led to significant seizures of counterfeit notes, resulting in a further decrease to the number of counterfeit notes passed.



- 3. Why do you think counterfeiting increased between 1999 and 2004?
 - People got lazy about checking the security features. (This is not correct but students may give this answer.)
 - Evolution in computer technology. Counterfeiting no longer requires large presses operated by people who are skilled.
 - The security features on the Birds of Canada series and on the original Canadian Journey \$5 and \$10 notes were more easily counterfeited.

Worksheet 9 answers: Counterfeiting statistics



1. Which Canadian bank notes are counterfeited the most often?

- \$20
- \$100
- 2. Why do you think these particular denominations are the most frequently counterfeited?

\$20

- There are more genuine \$20 notes in circulation than any other denomination.
- Counterfeiters expect that people won't check lower denominations like the \$20.

\$100

• This denomination has the highest value, so it gives counterfeiters the most profit when it passes.

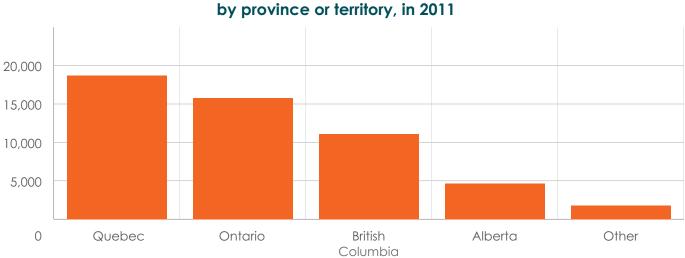
- 3. Which Canadian bank notes are counterfeited the least often?
 - \$5
 - \$10
 - \$50

4. Why do you think these bank notes are counterfeited less often?

- \$5 and \$10: These notes are not worth as much as the \$20 note, so they are not worth the counterfeiting effort required.
- \$50: Historically, the \$50 is one of the least-used notes, and people are more likely to take a closer look at it.
- 5. What trend do you see in the number of bank notes being counterfeited?
 - The number of counterfeit bank notes being passed is decreasing.
 - The \$100 and \$20 notes are counterfeited the most often.
 - The \$5 note has seen the most significant decrease in counterfeiting.

Lesson 3-1 (answers) Counterfeiting statistics

Worksheet 9 answers: Counterfeiting statistics



Number of counterfeit Canadian bank notes passed, by province or territory in 2011

- 1. In 2011, which province has the greatest counterfeiting activity? What do you think is the reason for this?
 - Quebec (mainly Montréal)
 - As is the case in major urban areas (Montréal, Toronto, Vancouver), criminal activity is more prevalent (including gangs, drugs, etc.).
- 2. Why do you think Quebec, Ontario, British Columbia and Alberta all have higher numbers of counterfeits passed than the rest of the provinces and territories combined?
 - On average, bigger cities are subject to more criminal activity.
 - Retailers in big centres are busier, making it potentially easier to pass counterfeits.



Lesson 3-2 Role play: Impact of counterfeiting

Role-playing script

Directions: If you are playing a role, choose a name for your character.

Characters: Youth (18 years old, the accused) Cashier (17 years old) Owner of restaurant (60-year-old woman) Police officer (investigating police officer) Customer #1 and Customer #2 (regular customers at the restaurant)

(Youth enters restaurant at about 6:30 p.m.)

Youth: Hi, I'm here to pick up my order.
Cashier: Would you mind giving me your name, please?
Youth: Yeah, it's Youth.
Cashier: No problem Youth. Just give me a minute to package it up for you. Would you like ketchup and vinegar with your order?
Youth: No thanks.

(The owner pops her head out the door and walks over to the customer.)

Owner: Hi, I'm the owner. Has everything with your experience here been satisfactory today? Youth: Yes, I'm just waiting for my order. I think it's almost ready. Owner: Great! Enjoy your meal.

(The owner returns to her office.)

Cashier: Here you go. That will be \$22.75.

Youth: All I have is a \$50 bill.

Cashier: Let me get you your change.

(Later that night at closing time, 11:30 p.m., the owner counts the money while the cashier tidies up the restaurant.)

Owner: Hey Cashier, can you come over here for a minute? **Cashier:** Sure Owner, what's up?



Owner: I think this \$50 dollar bill is a counterfeit. Look at the transparent window. There isn't a portrait and there should be. Also, feel the texture. It doesn't feel as smooth as it should.

Cashier: You know I only got one \$50 dollar bill tonight, and it was from that guy you spoke with earlier. **Owner:** What guy?

Cashier: You remember the young guy with the dark hair and blue jacket. You asked him if everything was o.k. with his order. It must have been him.

Owner: I can't believe you didn't catch that, Cashier. You're always so careful about checking the bills as they come in.

Cashier: I'm really sorry. It was very busy, and he seemed really nice. I just completely forgot.

Owner: It's okay, *Cashier*. It's just that losing \$50 is a significant amount of money for a small business like mine. I need to know that my employees always check the bills as they come in. To be honest, it's partly my fault since I never trained you how to check bills. In fact, I'll do that right now. Once you're trained though, I'll count on you to detect and not accept bills that you feel might be counterfeits.

(The next day at the restaurant.)

Owner: Hey, Cashier, I'm heading to the bank to make a deposit. I'll be back in 20 minutes.

Cashier: Okay, I'll keep an eye on things.

(Owner heads to the bank and as she is walking toward downtown, she sees the young man from the previous night at a convenience store.)

Owner: Hey you, I need to talk to you.

(Youth starts to run and Owner chases him.)

Owner (yelling): Hey you! STOP! Help, Help! Someone, stop that guy!

Police officer (*riding on bike grabs Youth*): Hold on a minute there. It seems as though we have a bit of a problem.

Owner: I think this guy tried to pass a counterfeit \$50 bill at my store last night, and I bet he's trying to pass another one right now.

(Police officer checks with the convenience store owner and, sure enough, the young man has passed another counterfeit bill. Police officer handcuffs Youth.)

Police officer: I am placing you under arrest for passing counterfeit money at this convenience store and at the restaurant. You have the right to retain a lawyer. Do you understand?

Youth: No way man, I'm innocent!

Police officer: This will go much easier for you if you co-operate. I'm going to search you for further evidence of counterfeiting.

Youth: Ah....

(Police officer finds a stack of \$50 counterfeit bills in Youth's pocket.)

(Back at the restaurant the next day, two regular customers enter.)

Customer #1: I can't wait to have my favourite burger. This is the best restaurant in town.
Customer #2: I know. What would we do without our weekly lunch date?
Cashier: Hi Customer #1. Hi Customer #2. Will you have the usual?
Customer #2: You got it!
Cashier: I have to let you know that our prices have gone up recently. The burger is now \$1 more.
Customer #1: That's a pretty big increase! I don't know if it makes sense for us to come here anymore. Maybe we should try that new place I heard about that's opening next week.

Based on real-life events RCMP case number 2010-26081 http://bc.rcmp.ca/ViewPage.action?siteNodeId=230&languageId=4&contentId=16702

Reflection on role play

- 1. Take a moment to reflect on the role that you portrayed in this play.
- 2. How did the act of counterfeiting affect your character?
- 3. Share with your small group and then be prepared to share with the class as a whole.

Lesson 3-2 (answers) Role play: Impact of counterfeiting

Role-playing script answer sheet

Youth: As per the Criminal Code of Canada, if convicted of passing and possession of counterfeit money, Youth could go to jail.

Cashier: Owner may ask Cashier to work in another area of the restaurant or Cashier ultimately could be fired.

Owner: Owner has now lost money. She will have to raise her prices to make up the loss and she may lose customers because of this. If her employees continue to forget to check the money coming in, they could accidentally pass a counterfeit bill to a customer in his or her change.

Police officer: He was taken away from his other duties to deal with this criminal activity. This meant that the streets were not being patrolled as well as they ought to have been, and another serious crime might have occurred.

Customer #1 and Customer #2: They will have to decide whether they are willing to pay the higher price or start eating elsewhere.



Lesson 3-2 Role-play: Impact of counterfeiting

Information sheet 1: Impact of counterfeiting

The impact of counterfeiting on direct victims

a. No reimbursement

- Victims who receive counterfeit bank notes are not reimbursed by the Bank of Canada.
- Under the Bank of Canada Act, the Bank of Canada has a legal obligation to honour genuine notes but has no legal obligation to honour counterfeits.
- The Bank of Canada, like all other central banks in the world, has concluded that reimbursement would be an incentive that could lead to increased counterfeiting activity.

b. Counterfeiting losses can have a substantial impact on individuals and businesses

- The impact of counterfeiting on individuals or on small businesses can be substantial.
- Counterfeiting losses can also have a negative impact on larger businesses. These losses may lead to increased prices that are ultimately borne by the consumer.

The impact of counterfeiting on society

a. Bank notes are vital to the economy

- The value of genuine notes in circulation has increased 60 per cent in 10 years (2001–11). The value of bank notes in circulation in Canada has increased from an annual average of \$36 billion in 2001 to \$57 billion in 2011.
- The Bank's goal is to produce bank notes that Canadians can use with confidence. Counterfeiting undermines that confidence.
- As J. Reilly stated in R. v. Haldane, [2001] O.J. No. 5161 (Sup. Ct.) at paragraph 17: Counterfeit money constitutes a very serious threat to the community, from the economy of the community to the economy of the country, particularly now when it can be produced relatively easily, although the government does try to keep one step ahead.

b. The effect of the loss of confidence in bank notes by businesses

- In 2008, there was an increase in counterfeiting of the \$100 note from the *Canadian Journey* series in Toronto and Montréal. As of December 2009, 50,826 of these notes had been passed, which represented a face value of \$5,082,600.
- A survey done for the Bank of Canada showed that as a result of this increased counterfeiting, about 7 per cent of retail businesses in Toronto posted signs indicating the refusal of either \$50 or \$100 notes; 8 per cent of businesses did so in Montréal.

Ultimately, all Canadians pay for the increased costs to the Bank of Canada

- The Bank of Canada's earnings from bank notes are remitted to the Government of Canada. Therefore, with the increased costs to produce more secure notes and training, all Canadians indirectly pay for this as the Bank remits lower earnings to the Government.
- To stay ahead of counterfeiting, the Bank of Canada must continue to invest in producing new and more secure bank notes in shorter time frames.
- The Bank has devoted substantial resources to help combat counterfeiting by:
 - o enhancing the security features in new bank notes;
 - o expanding procedures to detect and remove counterfeit notes from circulation;
 - o monitoring and analyzing counterfeiting activity;
 - o expanding programs to teach businesses, the public and law enforcement how to verify genuine bank notes; and
 - o developing initiatives to support the efforts of law enforcement personnel to deter counterfeiting.
- In 2012, the cost per note for the Canadian Journey series was 10 cents, while the cost per note for the Polymer series was 19 cents.

Financial losses from increased costs to law enforcement agencies and businesses

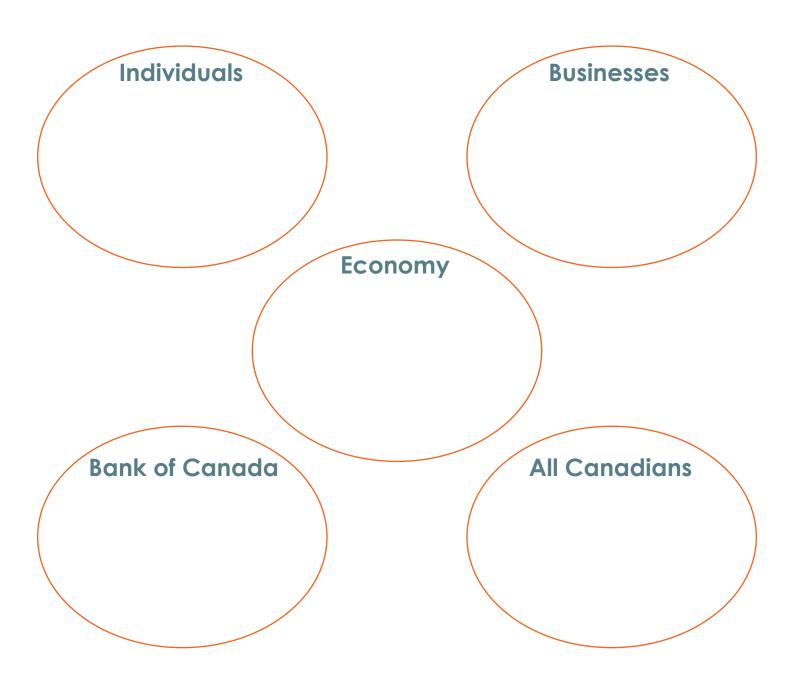
• Counterfeiting also has a substantial financial impact on law enforcement agencies and businesses that must devote resources to train staff to combat counterfeiting.



Lesson 3-2 Role play: Impact of counterfeiting

Worksheet 10: Impact of counterfeiting

Directions: After reading Information sheet 1, fill in the circles below stating how each one is affected by counterfeiting.





Lesson 3-2 (answers) Role play: Impact of counterfeiting

Worksheet 10 answers: Impact of counterfeiting

Individuals

Victims who receive counterfeit bank notes are not reimbursed by the Bank of Canada.

Losses lead to increased prices that are ultimately borne by individuals.

Businesses

The impact of counterfeiting on businesses can be substantial.

For example, grocers that operate on narrow profit margins of 1 to 2 per cent must sell \$5,000 to \$10,000 worth of goods to recoup the loss incurred through a single \$100 counterfeit bank note.

Economy

The rise in the number of genuine bank notes in circulation demonstrates that they remain vital to the Canadian economy. The value of bank notes in circulation in Canada has increased from an annual average of \$36 billion in 2001 to \$57 billion in 2011.

Bank of Canada

The Bank has devoted substantial resources to help combat counterfeiting.

All Canadians

The Bank of Canada's earnings from bank notes are remitted to the Government of Canada.

Therefore, all Canadians ultimately pay when the Bank remits lower earnings because of its increased costs due to counterfeiting.



Lesson 3-3 Criminal Code offences: Case studies

Worksheet 11: Understanding the consequences of counterfeiting

Directions: Using Information sheet 2: Criminal Code of Canada: Part XII/Offences Relating to Currency, identify what charges can be laid in each case.

Case	Overview	Charges based on the Criminal Code
Case study #1	An investigation of the accused's activities by the RCMP revealed that he had purchased large quantities of materials for a sophisticated operation of manufacturing \$100 bills. A search warrant executed on the accused's residence led to the seizure of \$233,900 in counterfeit \$100 bills. A report from the RCMP's Ottawa lab showed that 35,787 additional counterfeit \$100 notes from this operation had been passed in Canada. The accused had a criminal record for similar offences.	
Case study #2	The investigation showed that a group, which included the two accused, was involved in many clandestine counterfeiting activities. During sentencing, the judge took into account the following factors: the police seized \$4.2 million in counterfeit Canadian currency, the two accused were waiting for their sentence in another case, the complexity and scope of the illegal operation, and the professional quality of the counterfeit bills.	
Case study #3	The accused was a passenger in an automobile intercepted by the RCMP. The police found five counterfeit \$100 bills in the accused's wallet. The accused also provided false identification at the time of his arrest. He was 21 years old and had been convicted some 20 times, but had no related prior offences. He was on probation at the time of his arrest.	

Case	Overview	Charges based on the Criminal Code
Case study #4	The police seized a portable computer, an ink-jet printer, Can\$7,500 in uncut bank notes, and Can\$1,900 and US\$1,190 in counterfeit bank notes. The accused had also been arrested on another occasion. A search of his vehicle yielded, among other things, the following counterfeit bank notes: six Can\$100s, two Can\$5s, one Can\$20, and one US\$20. In addition, a portable computer with images of various denominations, a photocopier and other equipment associated with making counterfeit money were found at his residence.	
Case study #5	The accused was 27 years old and had a very long criminal record. His prior convictions included forgery, credit- card theft and uttering counterfeit money in 1998. He committed additional criminal activities until 2001, when he was sentenced to 2 years for possession of a controlled substance for the purposes of trafficking. These recent convictions were the first since 2001. The accused participated in a very sophisticated operation that notably included the making of about \$87,000 in counterfeit \$50 and \$100 bills.	
Case study #6	The accused had \$24,100 in \$20 bills as well as film and other items used with printers to manufacture counterfeit money.	
Case study #7	The accused had two accomplices. They were found in possession of \$15,890 in counterfeit money and had circulated \$450 in counterfeit notes.	
Case study #8	The accused and his accomplices uttered US\$2,100 in counterfeits and were found in possession of two bundles of money: one bundle of 51 counterfeit U.S. bank notes and another bundle of 50 counterfeit U.S. bank notes. The total value of the counterfeit money (uttered and in their possession) was \$12,200.	

Lesson 3-3 (answers) Criminal Code offences: Case studies

Worksheet 11 answers: Understanding the consequences of counterfeiting

Case	Overview	Charges based on the Criminal Code
Case study #1	An investigation of the accused's activities by the RCMP revealed that he had purchased large quantities of materials for a sophisticated operation of manufacturing \$100 bills. A search warrant executed on the accused's residence led to the seizure of \$233,900 in counterfeit \$100 bills. A report from the RCMP's Ottawa lab showed that 35,787 additional counterfeit \$100 notes from this operation had been passed in Canada. The accused had a criminal record for similar offences.	The accused pleaded guilty to one count of making over \$3.5 million in counterfeit \$100 bank notes and two counts of uttering a total of 26 counterfeit \$100 bills. The accused received a 62-month prison term: 5-year prison term plus 2 months for time served.
Case study #2	The investigation showed that a group, which included the two accused, was involved in many clandestine counterfeiting activities. During sentencing, the judge took into account the following factors: the police seized \$4.2 million in counterfeit Canadian currency, the two accused were waiting for their sentence in another case, the complexity and scope of the illegal operation, and the professional quality of the counterfeit bills.	The accused pleaded guilty to an array of offences, including conspiracy to make counterfeit money, and possession of instruments for the purpose of making counterfeit money. One of the accused also pleaded guilty to two counts of possession of counterfeit money. One defendant received a 12-year prison term: 9 years plus 36 months for time served. The other defendant received an 8-year prison term: 5 years plus 36 months for time served.
Case study #3	The accused was a passenger in an automobile intercepted by the RCMP. The police found five counterfeit \$100 bills in the accused's wallet. The accused also provided false identification at the time of his arrest. He was 21 years old and had been convicted some 20 times, but had no related prior offences. He was on probation at the time of his arrest.	The trial judge sentenced him to 12 months in prison on the charge of possession and 6 months served consecutively for identity theft, in addition to the 3.5 months for time served. The Court of Appeal reduced the sentence for possession of counterfeit money to 6 months, but did not change the sentence for identity theft. The accused received a 12-month prison term: 6 months for possession of counterfeit money and 6 months for identity theft, to be served consecutively.

Case	Overview	Charges based on the Criminal Code
Case study #4	The police seized a portable computer, an ink-jet printer, Can\$7,500 in uncut bank notes, and Can\$1,900 and US\$1,190 in counterfeit bank notes. The accused had also been arrested on another occasion. A search of his vehicle yielded, among other things, the following counterfeit bank notes: six Can\$100s, two Can\$5s, one Can\$20, and one US\$20. In addition, a portable computer with images of various denominations, a photocopier and other equipment associated with making counterfeit money were found at his residence.	The accused pleaded guilty to several offences, including possessing, uttering, and making counterfeit money, impersonation, and fraudulent use of credit card data. The accused received a 38-month prison term: 26-month prison term plus 12 months for time served.
Case study #5	The accused was 27 years old and had a very long criminal record. His prior convictions included forgery, credit-card theft and uttering counterfeit money in 1998. He committed additional criminal activities until 2001, when he was sentenced to 2 years for possession of a controlled substance for the purposes of trafficking. These recent convictions were the first since 2001. The accused participated in a very sophisticated operation that notably included the making of about \$87,000 in counterfeit \$50 and \$100 bills.	The accused pleaded guilty to the charge of possessing equipment for the purposes of making counterfeit money and to the charge of making counterfeit \$50 and \$100 bills. The accused received a 5-year prison term: 3 years plus 2 years for time served.
Case study #6	The accused had \$24,100 in \$20 bills as well as film and other items used with printers to manufacture counterfeit money.	The accused was found guilty of possessing counterfeit money and instruments designed for making counterfeit money. The trial judge imposed a 1-year prison sentence. The appeal court overturned that sentence and imposed a 4-year prison sentence. The accused received a 4-year prison term.
Case study #7	The accused had two accomplices. They were found in possession of \$15,890 in counterfeit money and had circulated \$450 in counterfeit notes.	The accused pleaded guilty to possessing and uttering counterfeit money. The accused received a conditional sentence of 2 years less one day.
Case study #8	The accused and his accomplices uttered US\$2,100 and were found in possession of two bundles of money: one bundle of 51 counterfeit U.S. bank notes and another bundle of 50 counterfeit U.S. bank notes. The total value of the counterfeit money (uttered and in their possession) was \$12,200.	The accused was found guilty of possessing and uttering counterfeit money. The accused received a 20.5-month prison term: an 8-month prison term plus 12.5 months for time served.

Lesson 3-3 Criminal Code offences: Case studies

Information sheet 2: Criminal Code of Canada: Part XII/Offences Relating to Currency

Definitions

Counterfeit money

Sec. 448. "Counterfeit money" includes

- (a) a false coin or false paper money that resembles or is apparently intended to resemble or pass for a current coin or current paper money,
- (b) a forged bank-note or forged blank bank-note, whether complete or incomplete,
- (c) a genuine coin or genuine paper money that is prepared or altered to resemble or pass for a current coin or current paper money of a higher denomination,
- (d) a current coin from which the milling is removed by filing or cutting the edges and on which new milling is made to restore its appearance,
- (e) a coin cased with gold, silver or nickel, as the case may be, that is intended to resemble or pass for a current gold, silver or nickel coin, and
- (f) a coin or a piece of metal or mixed metals that is washed or coloured by any means with a wash or material capable of producing the appearance of gold, silver or nickel and that is intended to resemble or pass for a current gold, silver or nickel coin.

Counterfeit token of value

"Counterfeit token of value" means a counterfeit excise stamp, postage stamp or other evidence of value, by whatever technical, trivial or deceptive designation it may be described, and includes genuine coin or paper money that has no value as money.

Current

"Current" means lawfully current in Canada or elsewhere by virtue of a law, proclamation or regulation in force in Canada or elsewhere as the case may be.

Utter

"Utter" includes sell, pay, tender and put off.

Making

Sec. 449. Every one who makes or begins to make counterfeit money is guilty of an indictable offence and liable to imprisonment for a term not exceeding fourteen years.

Possession

Sec. 450. Possession, etc., of counterfeit money Every one who, without lawful justification or excuse, the proof of which lies on him,

- (a) buys, receives or offers to buy or receive,
- (b) has in his custody or possession, or
- (c) introduces into Canada,

counterfeit money is guilty of an indictable offence and liable to imprisonment for a term not exceeding fourteen years.

Uttering

Sec. 452. Uttering, etc., counterfeit money

Every one who, without lawful justification or excuse, the proof of which lies on him,

- (a) utters or offers to utter counterfeit money or uses counterfeit money as if it were genuine, or
- (b) exports, sends or takes counterfeit money out of Canada,

is guilty of an indictable offence and liable to imprisonment for a term not exceeding fourteen years.

Special provisions as to proof

Sec. 461.

When counterfeit complete

- (1) Every offence relating to counterfeit money or counterfeit tokens of value shall be deemed to be complete notwithstanding that the money or tokens of value in respect of which the proceedings are taken are not finished or perfected or do not copy exactly the money or tokens of value that they are apparently intended to resemble or for which they are apparently intended to pass.
- (2) Certificate of examiner of counterfeit In any proceedings under this Part, a certificate signed by a person designated as an examiner of counterfeit by the Minister of Public Safety and Emergency Preparedness, stating that any coin, paper money or bank-note described therein is counterfeit money or that any coin, paper money or bank-note described therein is genuine and is or is not, as the case may be, current in Canada or elsewhere, is evidence of the statements contained in the certificate without proof of the signature or official character of the person appearing to have signed the certificate.

Forfeiture

Sec. 462

(1) Ownership

Counterfeit money, counterfeit tokens of value and anything that is used or is intended to be used to make counterfeit money or counterfeit tokens of value belong to Her Majesty.

(2) Seizure

A peace officer may seize and detain

- (a) counterfeit money,
- (b) counterfeit tokens of value, and
- (c) machines, engines, tools, instruments, materials or things that have been used or that have been adapted and are intended for use in making counterfeit money or counterfeit tokens of value,

and anything seized shall be sent to the Minister of Finance to be disposed of or dealt with as he may direct, but anything that is required as evidence in any proceedings shall not be sent to the Minister until it is no longer required in those proceedings.

Lesson 3-3 Criminal Code offences: Case studies

Information sheet 2: Criminal Code of Canada: Part XII/Offences Relating to Currency

Definitions

Genuine bank note

A bank note is defined in Section 2 of the Criminal Code and includes any negotiable instrument issued under the authority of Parliament or under the lawful authority of a state other than Canada.

Counterfeit money, Sec. 448

A false coin or false bank note that resembles or is apparently intended to resemble or pass for a current coin or current bank note.

Possession, Sec. 4(3)

A person has anything in possession when he has it in his personal possession.

Uttering, Sec. 448

Includes sell, pay, tender, and put off (forth).

Making, Sec. 449

Everyone who makes or begins to make counterfeit money.

Possession of instruments, Sec. 458

It is an offence to make, repair, buy, sell or possess anything that has been used or is adapted and intended for use in making counterfeit money.

The Criminal Code prohibits four main offences:

- 1. Making counterfeit money (Sec. 449)
- 2. Possession of counterfeit money (Sec. 450)
- 3. Uttering counterfeit money (Sec. 452)
- 4. Possession of instruments for counterfeiting (Sec. 458)

General sentencing principales:

- Maximum penalty for possession of, making and uttering counterfeits is 14 years.
- Counterfeiting is considered a serious offence where deterrence is the main consideration in determining the sentence.
- Before imposing sentence, a judge takes into consideration:
 - o the quality, quantity and location of the notes;
 - o the age of the accused;
 - o any prior criminal record;
 - o the sophistication of the scheme;
 - o whether the accused was the mastermind or the distributor;
 - o the motivation to the accused; and
 - o restitution to the victim.

Exit out Exit out 2 card

Exit out
Name:
 What can you do to reduce counterfeiting?
2. What is the impact of counterfeiting on individuals and businesses?
Exit out
 What can you do to reduce counterfeiting?
2. What is the impact of counterfeiting on individuals and businesses?

HISTORY OF THE BANK OF CANADA AND FUTURE DESIGN OF BANK NOTES

Lesson 4-1

History of the Bank of Canada and past bank note series

Information sheet 3: History of the Bank of Canada

The Bank of Canada

- The Bank of Canada was established in 1934 by an Act of Parliament.
- Canada was in the depths of the Great Depression when the Bank was created.
- Richard Bedford Bennett was Prime Minister.
- The Bank was given the responsibility of regulating the country's money.
- The Bank was also given exclusive rights to issue bank notes. The British American Bank Note Company (BABN) and the Canadian Bank Note Company Ltd. (CBN) were used to print Canada's money.
- The first bank notes issued by the new central bank were introduced on 11 March 1935.



The Bank of Canada is:

- 1. Canada's central bank. It is a Crown corporation that operates with considerable independence.
- 2. An organization that promotes the economic and financial welfare of Canada.

The Bank of Canada does not:

- 1. provide private loans and mortgages
- 2. offer savings accounts
- 3. employ bank tellers
- 4. supply coins.

Who makes coins?

The Royal Canadian Mint

- On 2 January 1908, the Ottawa branch of the British Royal Mint was opened. Governor General Earl Grey oversaw the ceremony of the Dominion's first domestically produced coin—a 50-cent piece. The ceremony closed with Countess Grey striking the first bronze cent—a penny.
- On 1 December 1931, the Discontinuance Proclamation transformed the Ottawa branch into the Royal Canadian Mint. It is responsible for creating all coins for Canada.

Lesson 4-1

History of the Bank of Canada and past bank note series

Worksheet 12: History of bank note series

Directions: While viewing PowerPoint 4: History of bank note series, fill in the theme for each series and highlight or circle the security features used in that series.

Series	Theme	Security features	Did you know?
1935 series		 Ghost image Planchettes Raised ink Optical security device Dashes Puzzle number Fine-line detail Metallic stripe 	 This note has a portrait of Queen Elizabeth II as a young princess of eight years. The notes in this series are unilingual, either in French or in English. This series has a \$25 and a \$500 note.
1937 series		 Ghost image Planchettes Raised ink Optical security device Dashes Puzzle number Fine-line detail Metallic stripe 	 This note has a portrait of King George VI. He became king when his brother, King Edward VIII, abdicated the throne in 1936. Edward could not remain on the throne because he chose to marry a divorced woman. The notes in this series are bilingual. The colours used for each denomination in this series have been used ever since.



1954 series	 Ghost image Planchettes Raised ink Optical security device Dashes Puzzle number Fine-line detail Metallic stripe 	 Princess Elizabeth became queen in 1952. This is the series with the so-called "devil's head" notes. Part of the hair in the Queen's portrait gave the illusion of a grinning demon. The design was modified in 1956 so that the engraving no longer resembled a devil's head.
1969–79 series	 Ghost image Planchettes Raised ink Optical security device Dashes Puzzle number Fine-line detail Metallic stripe 	 Some people called this note psychedelic because of the multi-coloured tints beneath the green colour. The notes of this series were difficult to copy because colour photocopiers were not common at this time. There is no \$1,000 note in this series. This series was the first in which the serial number was positioned on the backs of the notes. This series was the first to use the sentence "THIS NOTE IS LEGAL TENDER" on each bill.

1986 series	 Ghost image Planchettes Raised ink Optical security device Dashes Puzzle number Fine-line detail Metallic stripe 	 This series used images of Canadian birds on the backs of the notes. The \$20 note has the loon on it. The \$1,000 note was originally going to feature the spruce grouse on the back. In the end, however, this was considered too controversial because of the bird's nickname "fool hen," which derives from its habit of remaining motionless to avoid predators rather than fleeing. It was replaced by the pine grosbeak. The \$1 and \$2 bills were withdrawn from this series and replaced with coins. This was the last series to use planchettes.
2001–06 series	 Ghost image Planchettes Raised ink Optical security device Dashes Puzzle number Fine-line detail Metallic stripe 	 This series was the first to have a tactile feature for the blind. It consists of a pattern of raised dots in the top right corner of the bill. This feature is still used on the polymer notes. The \$5 and \$10 notes were upgraded in 2006 and 2005 to include all the security features of this series.



Lesson 4-1 (answers) History of the Bank of Canada and past bank note series

Worksheet 12 answers: History of bank note series

Series	Theme	Security features	Did you know?
1935 series	Symbolic representations of Canada's growing agricultural, industrial and commercial prosperity	PlanchettesRaised inkFine-line detail	 This note has a portrait of Queen Elizabeth II as a young princess of eight years. The notes in this series are unilingual, either in French or in English. This series has a \$25 and a \$500 note.
1937 series	Symbolic representations of Canada's growing agricultural, industrial and commercial prosperity	 Planchettes Raised ink Fine-line detail 	 This note has a portrait of King George VI. He became king when his brother, King Edward VIII, abdicated the throne in 1936. Edward could not remain on the throne because he chose to marry a divorced woman. The notes in this series are bilingual. The colours used for each denomination in this series have been used ever since.



1954 series	Canadian landscapes	PlanchettesRaised inkFine-line detail	 Princess Elizabeth became queen in 1952. This is the series with the so-called "devil's head" notes. Part of the hair in the Queen's portrait gave the illusion of a grinning demon. The design was modified in 1956 so that the engraving no longer resembled a devil's head.
1969–79 series	Scenes of Canada	 Planchettes Raised ink Fine-line detail 	 Some people called this note psychedelic because of the multi-coloured tints beneath the green colour. The notes of this series were difficult to copy because colour photocopiers were not common at this time. There is no \$1,000 note in this series. This series was the first in which the serial number was positioned on the backs of the notes. This series was the first to use the sentence "THIS NOTE IS LEGAL TENDER" on each bill.



1986 series	Birds of Canada	 Planchettes Raised ink Optical security device Fine-line detail 	• This series used images of Canadian birds on the backs of the notes. The \$20 note has the loon on it. The \$1,000 note was originally going to feature the spruce grouse on the back. In the end, however,
			this was considered too controversial because of the bird's nickname "fool hen," which derives from its habit of remaining motionless to avoid predators rather than fleeing. It was replaced by the pine grosbeak.
			 The \$1 and \$2 bills were withdrawn from this series and replaced with coins. This was the last series to use planchettes.
2001–06 series	Celebrates Canadian history, culture and achievements	 Ghost image Raised ink Dashes Puzzle number Metallic stripe 	 This series was the first to have a tactile feature for the blind. It consists of a pattern of raised dots in the top right corner of the bill. This feature is still used on the polymer notes. The \$5 and \$10 notes were upgraded in 2006 and 2005 to include all the security features of this series.

Lesson 4-2

Design your own bank note

Worksheet 13: Design your own bank note

Directions: In a small group (4 to 5 students), brainstorm about a theme for a new \$20 bill. Once you have decided on a theme, come up with a list of images to use on your new bill.

Things to consider:

- the colour and size of your bank note
- the portrait to be used on the front of the note
- the theme and images to be used on the back of the note

Brainstorm (5 marks)

In the space provided, write down your ideas. Questions that may help you focus are:

1. What makes you proud to be Canadian? What places? What people? What events? (3 marks)

2. What natural features of Canada do you want to highlight? (1 mark)

3. What technological accomplishments do you want to highlight? (1 mark)

Design (10 marks)

Your new bill needs to include a portrait on the front, a theme for the back, and four images to support it.

In the space provided, list your theme, images and a brief explanation of why you chose each.

Theme (1 mark)	
Why? (1 mark)	
Image #1 (1 mark)	
Why? (1 mark)	
Imaga #2 (1 mark)	
image #2 (1 mark)	
Why? (1 mark)	
Image #3 (1 mark)	
Why? (1 mark)	
Image #4 (1 mark)	
Why? (1 mark)	

In the space provided, draw the front and back of your new bill. (10 marks)

Marking:

Brainstorming	out of 5
Design (written)	out of 10
Design (drawn)	out of 10
Oral presentation	out of 5

Total

_ out of 30



EVALUATION

Evaluation 1-1

Teaching journal

- Directions: Teach three people how to check polymer and paper notes, then complete the following questions.
- 1. Record the names of the three people that you taught how to check bank notes and their relationship to you (example: Sharon, sister).

Relationship

2. What were their comments on the ease/difficulty of verifying genuine bank notes?

- 3. How easy was it for you to teach others to verify genuine bank notes?
- 4. Why do you think it is important to learn about counterfeiting prevention, and to teach others about it?

5. Visit the Bank of Canada website at www.bankofcanada.ca/banknotes. How is this website useful to people who want to learn about verifying bank notes?

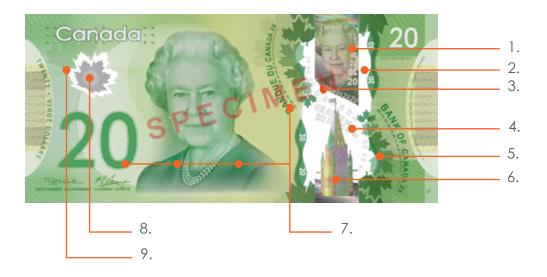


Evaluation 1-2

Security features quiz

Directions: Identify the security features that are indicated in the image of the note below.

1. Polymer note (1 mark per security feature = 9 marks)







Evaluation 1-2

Security features quiz

Directions: Identify the security features that are indicated in the image of the note below.

2. Paper note (1 mark per security feature = 5 marks)



1. _____ 2. _____ 3. _____ 4. _____ 5. _____

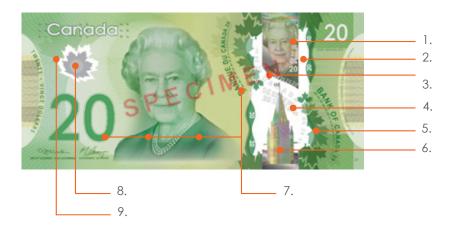


Evaluation 1-2 (answers)

Security features quiz

Security features quiz answer sheet

- 1. Polymer note (1 mark per security feature = 9 marks)
 - 1. Metallic portrait
 - 2. Large window
 - 3. Transparent text
 - 4. Small numbers
 - 5. Maple leaf border
 - 6. Metallic building
 - 7. Raised ink
 - 8. Hidden numbers
 - 9. Frosted maple leaf window



- 2. Paper note (1 mark per security feature = 5 marks)
 - 1. Dashes
 - 2. Metallic stripe
 - 3. Ghost image
 - 4. Puzzle number
 - 5. Raised ink







Gendarmerie royale du Canada

Royal Canadian Mounted Police

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Teacher's signature



Principal's signature

has participated in a training session on verifying bank notes and/or preventing identity crime Ч



This certifies that

www.bankofcanada.ca/banknotes