

Economics 120 Grade 12

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Universal Design for Learning (UDL)Global Competencies	

1. Introduction

1.1 Mission and Vision of Educational System

The New Brunswick Department of Education and Early Childhood Development is dedicated to providing the best public education system possible, where all students have a chance to achieve their academic best. The mission statement for New Brunswick schools is:

"To have each student develop the attributes needed to be a lifelong learner, to achieve personal fulfillment and to contribute to a productive, just and democratic society."

1.2 New Brunswick Global Competencies (February, 2018)

New Brunswick Global Competencies provide a consistent vision for the development of a coherent and relevant curriculum. The statements offer students clear goals and a powerful rationale for school work. They help ensure that provincial education systems' missions are met by design and intention. The New Brunswick Global Competencies statements are supported by curriculum outcomes.

New Brunswick Global Competencies are statements describing the knowledge, skills and attitudes expected of all students who graduate high school. Achievement of the New Brunswick Global Competencies prepares students to continue to learn throughout their lives. These Competencies describe expectations not in terms of individual school subjects but in terms of knowledge, skills and attitudes developed throughout the curriculum. They confirm that students need to make connections and develop abilities across subject boundaries if they are to be ready to meet the shifting and ongoing demands of life, work and study today and in the future.

See Appendix C for full details.

2. Pedagogical Components

2.1 Pedagogical Guidelines

Diverse Cultural Perspectives

It is important for teachers to recognize and honour the variety of cultures and experiences from which students are approaching their education and the world. It is also important for teachers to recognize their own biases and be careful not to assume levels of physical, social or academic competencies based on gender, culture, or socioeconomic status.

Each student's culture will be unique, influenced by their community and family values, beliefs, and ways of viewing the world. Traditional aboriginal culture views the world in a much more holistic way than the dominant culture. Disciplines are taught as connected to one another in a practical context, and learning takes place through active participation,

oral communication and experiences. Immigrant students may also be a source of alternate world views and cultural understandings. Cultural variation may arise from the differences between urban, rural and isolated communities. It may also arise from the different value that families may place on academics or athletics, books or media, theoretical or practical skills, or on community and church. Providing a variety of teaching and assessment strategies to build on this diversity will provide an opportunity to enrich learning experiences for all students.

Universal Design for Learning

Universal Design for Learning is a "framework for guiding educational practice that provides flexibility in the ways information is presented, in the ways students respond or demonstrate knowledge and skills, and in the ways students are engaged. It also "...reduces barriers in instruction, provides appropriate accommodations, supports, and challenges, and maintains high achievement expectations for all students, including students with disabilities and students who are limited English proficient." (CAST, 2011).

In an effort to build on the established practice of differentiation in education, the Department of Education and Early Childhood Development supports *Universal Design for Learning* for all students. New Brunswick curricula are created with universal design for learning principles in mind. Outcomes are written so that students may access and represent their learning in a variety of ways, through a variety of modes. Three tenets of universal design inform the design of this curriculum. Teachers are encouraged to follow these principles as they plan and evaluate learning experiences for their students:

- **Multiple means of representation:** provide diverse learners options for acquiring information and knowledge
- **Multiple means of action and expression:** provide learners options for demonstrating what they know
- **Multiple means of engagement:** tap into learners' interests, offer appropriate challenges, and increase motivation

For further information on *Universal Design for Learning*, view online information at the **CAST website**, download the **UDL reference handout**, or refer to the appendices section of this document.

UDL is neither curriculum nor a checklist. If it were either one of those things, it would oversimplify the act and professionalism of teaching. As an educator, you have taken courses in pedagogy, classroom management, and theory. You have a collection of tools, resources, and strategies you have learned recently or over the years. The structure of UDL guides you to actively, attentively, and purposely pull from that collection. It also asks you to possibly think differently. The Difference: Because UDL is a framework versus a curriculum, teachers are in full control in designing the learning environment and lessons (p. 4, *Design and Deliver*).

Loui Lord Nelson (2104) *suggests* the following reflective questions to support planning (p. 134):

When I plan my lessons do I:

- Have a clear goal?
- Know how I am going to measure whether students have met the goal?

- Create activities and assignments that guide students toward the lesson goal?
- Create lessons and activities designed with options mentioned under the three principles of Engagement, Representation and Action and Expression?
- Create assessments directly related to the lesson's goal?
- Create assessments designed with the options listed under Action and Expression?
- Use a variety of tools and resources to create my lesson plans?

Nelson makes the following recommendation:

Start small. Choose one focus within the framework. Choose one focus within your practice. Enlist the involvement of other teachers, and talk with each other about your experiences. Trade suggestions. Share experiences. Share successes. Watch for change. (p. 136)

The curriculum has been created to support the design of learning environments and lesson plans that meet the needs of all learners. Specific examples to support Universal Design for Learning for this curriculum can be found in the appendices. The **Planning for All Learners Framework** will guide and inspire daily planning.

English as an Additional Language-Curriculum

Being the only official bilingual province, New-Brunswick offers the opportunity for students to be educated in English and/or French through our public education system. The NB Department of Education and Early Childhood Development (EECD) provides leadership from K-12 to assist educators and many stakeholders in supporting newcomers to New-Brunswick. English language learners have opportunities to receive a range of instructional support to improve their English language proficiency through an inclusive learning environment. NB EECD, in partnership with the educational and wider communities offer a solid, quality education to families with school-aged children.

2.2 Pedagogical Guidelines

Assessment

Assessment is the systematic gathering of information about what students know and are able to do. Student performance is assessed using the information collected during the evaluation process. Teachers use their professional skills, insight, knowledge, and specific criteria that they establish to make judgments about student performance in relation to learning outcomes. Students are also encouraged to monitor their own progress through self-assessment strategies such as goal setting and rubrics.

Research indicates that students benefit most when assessment is regular and ongoing and is used in the promotion of learning (Stiggins, 2008). This is often referred to as formative assessment. Evaluation is less effective if it is simply used at the end of a period of learning to determine a mark (summative evaluation).

Summative evaluation is usually required in the form of an overall mark for a course of study, and rubrics are recommended for this task. Sample rubrics templates are referenced in this document, acknowledging teachers may have alternative measures they will apply to evaluate student progress.

Some examples of current assessment practices include:

- Questioning
- Observation
- Conferences
- Demonstrations
- Presentations
- Role plays
- Technology Applications

- Projects and Investigations
- Checklists/Rubrics
- Responses to texts/activities
- Reflective Journals
- Self and peer assessment
- Career Portfolios
- Projects and Investigations

For further reading in the area of assessment and evaluation, refer to the Department of Education and Early Childhood Development's Assessment and Evaluation's **reference document**.

Cross-Curricular Literacy

Literacy occurs across learning contexts and within all subject areas. Opportunities to speak and listen, read and view, and write and represent are present every day -in and out of school. All New Brunswick curricula include references to literacy practices and materials are available to embed explicit strategies for strengthening comprehension and to help teachers strengthen their students' reading skills.

Key documents that highlight specific cross- curricular strategies include: K-2 Literacy Look Fors, 3-5 Literacy Look Fors, Cross-Curricular Look Fors (Grades 6-12) and Cross-Curricular Reading Tools. These documents describe learning environments and key strategies that support cross-curricular literacy practices.

3. Subject Specific Guidelines

3.1 Rationale

Economics pervades almost all aspects of our lives, and with it comes the need for economic literacy. Many of the daily problems that confront us are economic in nature: news stories about increasing taxes, inflated housing markets, high deficits in government, and trade negotiations such as NAFTA. The Economics 120 course provides students with basic economic skills, concepts, and techniques to acquire knowledge of our Canadian economic system and how students fit into this economic world as consumers and producers, as well as to make informed and reasoned judgements as consumers and producers.

3.2 Course Description

Economics 120 examines economic theory and practice. Students will analyze fundamental economic concepts including the interaction of supply and demand, the fundamentals of money and banking, producing and trading. The course will provide students with a basic understanding of our Canadian economic system and will explore the various factors that affect economic decision-making as individuals and as groups.

3.3 Curriculum Organizers and Outcomes

The general curriculum outcomes (GCOs) for the social studies curriculum are organized around six conceptual strands. These general curriculum outcomes statements identify what students are expected to know and be able to do upon completion of study in social studies. These strands are elaborated upon in the Foundation for the Atlantic Canada Social Studies Curriculum document.

1. Citizenship, governance, and power:

Students will be expected to demonstrate an understanding of the rights and the responsibilities of citizenship and the origins, functions, and sources of power, authority, and governance.

2. Individuals, societies, and economic decisions:

Students will be expected to demonstrate the ability to make responsible economic decisions as individuals and as members of society.

3. People, place, and environment:

Students will be expected to demonstrate an understanding of the interactions among people, places and the environment.

4. Culture and Diversity:

Students will be expected to demonstrate an understanding of culture, diversity, and world view, recognizing the similarities and differences reflected in various personal, cultural, racial, and ethnic perspectives.

5. Interdependence:

Students will be expected to demonstrate an understanding of the interdependent relationship among individuals, societies, and the environment – locally, nationally, and globally – and the implications for a sustainable future.

6. Time, Continuity and Change:

Students will be expected to demonstrate an understanding of the past and how it affects the present and future.

A Thinking Focus

Deep learning in a social studies course occurs when other key dimensions, such as historical thinking and critical inquiry are considered and implemented. Economics 120 provides students with relevant, current issues, as well as case studies that allow students to apply historical thinking concepts.

Historical Thinking

Six historical thinking concepts have been identified by Peter Seixas through his work at the University of British Columbia's Centre for the Study of Historical Consciousness. These six historical thinking concepts are designed to help students think more deeply and critically about the past as well as their own relationship to the past, including how it

can be linked to the present. Teachers can use these historical thinking concepts to extend and deepen the learning of the specific curriculum outcomes. A brief description of the concepts follows:

Historical Significance – looks at why an event, person, or development from the past is important. E.g., what is the significance of a particular event in history? What would have happened if this person [historical figure] had not existed?

Evidence – looks at primary and secondary sources of information. To learn from a piece of evidence we must learn to ask appropriate questions. Different questions would be asked about a diary entry, for example, than would be asked about an artefact.

Continuity and change – considers what has changed with time and what has remained the same (e.g., what cultural traditions have remained the same and what traditions have been lost over time?). Includes chronology and periodization, which are two different ways to organize time and which help students to understand that —things happen between the marks on a timeline.

Cause and Consequence – examines why an event unfolded the way it did and asks if there is more than one reason for this (there always is). Explains that causes are not always obvious and can be multiple and layered. Actions can also have unintended consequences (e.g., how has the exchange of technologies over time changed the traditions of a culture?). This concept includes the question of – agency, that is, who (what individual or groups) caused things to happen the way they did?

Historical Perspective – any historical event involves people who may have held very different perspectives on the event. For example, how can a place be found or – discovered if people already live there? Perspective taking is about trying to understand a person's mind set at the time of an event, but not about trying to imagine oneself as that person. The latter is impossible as we can never truly separate ourselves from our 21st century mindset and context.

Ethical Dimension – assists in making ethical judgments about past events after objective study. We learn from the past in order to face the issues of today. Perspective taking and moral judgement are difficult concepts because both require suspending our present day understandings/context.

Seixas, P. (2006). Benchmarks of historical thinking: A framework for assessment in Canada. UBC: Centre for the Study of Historical Consciousness.

For more information on historical thinking and for access to valuable lesson ideas for this and other social studies courses, teachers may go to The Centre for the Study of Historical Consciousness.

Critical Inquiry

In order to focus the exploration of ideas, it is good practice to identify the key questions that need to be addressed. When students are invited to investigate and resolve their queries, the learning is enriched. It is the ideal, of course, to have students create their own critical questions. But, students may need direction and practice to arrive at the point where they are formulating quality questions that will spark curiosity and involvement. The following may be used as criteria for the construction of solid critical inquiry questions:

A Good Critical Inquiry Question:

- 1. The question should be one that the learner is interested in. The ideal level of interest would be such that the student feels a need to find answers to satisfy a real curiosity.
- 2. The question is open to research. This means that a) there is a need to dig deeper to find the answer, and that credible sources are needed to find the answers; b) in most cases the research is accessible within the classroom environment.
- 3. The learner does not already know the answer, or has not already decided on the answer before doing the research.
- 4. The question is an 'open' one. This is to suggest that the question calls for an extensive explanation that is multi-layered. The explanation shows its complexity by referring to various viewpoints and angles. There may be more than one explanation.
- 5. The question has a clear focus. The question can be framed by the teacher, the student or the student and teacher together. There needs to be enough focus to be directive, allowing productive research. Questions are often seen as stepping stones to the work, but it is likely that the original question(s) might need to be adjusted as research is conducted.
- 6. It can be the case that an initial question requires identified sub-questions and that the explanation is the sum of the responses to the sub-questions.

(Adapted from Dale Roy, Erika Kustra, Paola Borin, 2003, McMaster University)

Outcomes

The New Brunswick Curriculum is stated in terms of general curriculum outcomes, specific curriculum outcomes and achievement indicators.

General Curriculum Outcomes (GCO) are overarching statements about what students are expected to learn in each strand/sub-strand. The general curriculum outcome for each strand/sub-strand is the same throughout the grades.

Specific Curriculum Outcomes (SCO) are statements that identify specific concepts and related skills underpinned by the understanding and knowledge attained by students as required for a given grade.

GCO 1	Students will examine fundamental economic concepts.
Specific Learning Outcomes	1.1 examine scarcity, choice and opportunity cost and relate them to the study of economics.
	1.2 examine economic systems.
GCO 2	Students will examine demand, supply, and equilibrium.
Specific Learning Outcomes	2.1. examine demand and the law of demand.
	2.2. examine supply and the law of supply.
	2.3. examine the relationship between

	demand, supply and market equilibrium.
GCO 3	Students will examine the firm and market structure.
Specific Learning Outcomes	3.1. examine the types of business organization in Canada.
	3.2 examine the models of market structures. 3.3. analyze the impact of labour unions on the labour market.
GCO 4	Students will analyze the measures of economic performance.
Specific Learning Outcomes	4.1. examine GDP.
	4.2. examine inflation.
	4.3. examine unemployment.
GCO 5	Students will examine money, banking & financial markets.
Specific Learning Outcomes	5.1. examine the functions of money.
3	5.2 demonstrate an understanding of the types of financial institutions in Canada.
	5.3. examine the role of the Bank of Canada in
	the Canadian economy.

Possible Timeline for Teaching Economics 120

Outcome	Time
GCO 1 Students will examine fundamental economic concepts.	3 weeks
GCO 2 Students will examine demand, supply and equilibrium.	4 weeks
GCO 3 Students will examine the firm and market structure.	3 weeks
GCO 4 Students will analyze the measures of economic performance.	3 weeks
GCO 5 Students will examine money, banking & financial markets.	3 weeks

4. Curriculum Outcomes

GCO 1: Students will examine fundamental economic concepts.

SCO 1.1 Examine scarcity, choice and opportunity cost, and relate them to the study of economics.		
Concepts and Content		I Can Statements
Economics		I can explain economics.
Scarcity Opportunity cos Sustainability Trade-offs	t	I can explain the difference between microeconomics and macroeconomics.
Production Poss Factors of Produ Trade	uction	I can identify various approaches to economic decision-making, considering cultural perspectives (like First Nation communities).
Absolute Advant Comparative Ad Specialization	_	I can discuss strategies for sustainable economic growth.
_		I can explain scarcity.
what economics	rst outcome is to examine is and how economic ade not only by students,	I can explain and calculate opportunity cost.
but also their far country. Econon	nily, city, province and/or nics is the study of choices.	I can use opportunity cost and trade-offs to show decision-making.
What to buy for university/colleg	noices to make such as: lunch? Where to go to e? How to spend the night mics test? Everyone has to	I can create and analyze a production possibilities curve.
make decision of resources. This	n how to use their unit should allow students about the cost of those	I can calculate the opportunity cost from a given production possibilities curve.
decisions – the implications. Stu	opportunity cost – and its idents should also	I can explain the factors of production (natural, human, capital).
recognize that without scarcity, there would be no study of economics. In considering		I can calculate absolute and comparative
cultural perspectives of economic decision- making, examining issues like shale gas		I can determine the benefits of trade.
and fracking, hunting, or fishing may allow for effective discussion on economic decision-making. As well, students could consider New Brunswick's bilingual services and its impact on government's economic		I can explain absolute advantage and comparative advantage.
		I can calculate absolute and comparative advantage and use them to determine

decision-making.

Students will be introduced to trade, and be able to determine absolute and comparative advantage in order to determine who should produce each good.

specialization.

I can analyze the impact that barriers to trade have on New Brunswick, Canada and the world.

Resources

Document: <u>Instruction & Assessment</u> Suggestions

Opportunity Cost Practice Document

Video: Production Curve Video 1

Production Curve Video 2
Production Curve Video 3

Website: Scarce Chairs Lesson Plan

College: Where Am I Going to Go? Lesson

<u>Plan</u>

Scarcity, Choice, Opportunity Cost in the

Health Sector Lesson Plan

Aboriginal Affairs New Brunswick

Practical Money Skills: Lessons 9-12

World's Largest Lesson: Decent Work and

Economic Growth

Lesson Plan: The Magic of Markets: How

Trade Creates Wealth

Lesson Plan: Should LeBron James mow

his own lawn?

Website: The Economist - Big Mac Index

Issues of International Trade

SCO 1.2	Examine the economic systems.	
Concepts and Co	ontent	I Can Statements
traditional, mixed Knowledge Ecor Fiscal Policy Treaties Students will exasystems – communicational. They systems deal with cost by examining three economic produce? How to produce? Finally Canada's economic controls and the produce?		I can identify the three economic questions facing all economies: What to produce? How to produce? For whom to produce? I can compare and contrast the various economic systems (command, market, traditional, mixed). I can determine why Canada is a mixed economy. I can identify the actors within various economies.
Resources		
Suggestions Lesson Plan: Per	ncils or Candies? Planned Market Allocation	Website: Khan Academy (videos and resources)

GCO 2: Students will examine demand, supply and equilibrium.

SCO 2.1	Examine an understanding of demand and the law of demand.	
Concepts and Co	ontent	I Can Statements
Demand Consumer Beha Demand Schedu Demand Curve Diminishing Retu	ıle	I can explain demand and a demand schedule. I can determine the relationship between prices and consumer behaviour. I can explain the determinants of demand.
law of demand - quantity demand	derstand the concept of the - when prices increase, ded decreases; and when , the quantity demanded	I can produce a demand curve to demonstrate a change in demand. I can distinguish between a change in demand and a change in quantity demanded.
Students will work through many examples of change in demand so they are comfortable with the language and can easier determine the difference between a change in demand and a change in quantity demanded.		I can calculate and interpret elasticity of demand. I can explain the law of diminishing marginal returns.
Resources		
Suggestions	and Total Revenue Test	Website: Lesson Plan: Market Game in Chips

SCO 2.2	Examine supply and the	e law of supply
Concepts and Co	ontent	I Can Statements
considering the opposition of the consumers. Students way consumers. If the demand and the curve, they show supply curve. Students will lear	means that you are effect of the market on ents can have a hard time because they are ey have a good grasp on movement of the demand ald be able to link it to the arn the difference between a y and a change in quantity	I can explain supply. I can determine the relationship between prices and producer behaviour. I can explain the determinants of supply. I can produce a supply curve to demonstrate a change in supply. I can distinguish between a change in supply and a change in quantity supplied.
Resources		
Document: Instruction & Assessment Suggestions Video: Elasticity and Total Revenue Test Website: Lesson Plan: Market Game in Chips		

SCO 2.3	Examine the relationship between demand, supply and market equilibrium	
Concepts and Co	ontent	I Can Statements
equilibrium price graphs are put to be able to determ equilibrium price a change in sup government involve examined so problems that care	arn how to determine when demand and supply ogether. They should also mine what happens to the and quantity when there is ply or demand. Finally, olvement in the market will students can see the an be created in the market illing or floor is imposed.	I can explain equilibrium. I can determine equilibrium using supply and demand curves. I can analyze the change in equilibrium price and quantity due to changes in supply and demand. I can analyze the effect on equilibrium due to government controls such as price ceilings and price floors.
		1

Resources

Document: Instruction & Assessment

Suggestions

<u>Lesson Plan: Everybody Wins When</u> <u>Government Controls Prices!! Or Do They??</u>

Video: Price Ceilings and Floors

GCO 3 Students will examine the firm and market structure.

SCO 3.1	Examine the types of business organization in Canada.		
Concepts and Co	ontent	I Can Statements	
Capital (stocks, Stock Market Financial Crisis Students who had business class so the state of	bolic, private, crown) bonds, loans) ave previously taken a such as Entrepreneurship Organization and 0 will have already been e of the terminology and bout the stock market. also be exposed to various and learn how they began on the world economy, and	I can compare and contrast the different types of business organization in Canada – sole proprietorship, partnership, and corporation (public, private, crown). I can determine how companies can raise capital (stocks, bonds, loans). I can determine how the stock market works. I can evaluate a financial crisis and its impact on Canada and the world.	
Resources	Resources		
	ey – <u>Netflix</u> original series uction & Assessment	Website: Lesson Plan: Business Organization: How Sweet It Can Be Lesson Plan: Types of Business Organizations Website: Incorporating/Registering a Business in New Brunswick	
		Website: Canada Business Network	
		Yahoo Finance Simvest	
		Investopedia	

SCO 3.2	Examine the models of market structures.		
Concepts and Content		I Can Statements	
market structure	ion etition introduced to the models of	I can identify the models of market structure (monopoly, oligopoly, monopolistic competition, perfect competition). I can determine how non-price competition is used in each of the four models.	
Resources			
Document: Instru	uction & Assessment	Website: Canada Competition Act	
	ket Structures Simulation		
SCO 3.3 Analyze the impact of labour unions on the labour market.			
Concepts and Content		I Can Statements	
Labour Market Labour Union Collective Barga Strikes Lockouts Picketing	ining	I can determine how a labour union can be formed and certified in Canada. I can explain the collective bargaining process. I can determine different methods to settle a dispute (strikes, lockouts, picketing, etc) I can analyze the impact labour unions have had on wages in Canada.	
Resources			
Document: Instru Suggestions	uction & Assessment	Website: Canadian Foundation for Economic Education Labour: Markets, Laws and Unions (Student Resource) Canadian Foundation for Economic Education Labour: Markets, Laws and	
		Unions (Additional Student Resource) Canadian Labour Congress Website	

GCO 4: Students will analyze measures of economic performance.

SCO 4.1	Examine Gross Domestic Product (GDP).	
Concepts and Co	ontent	I Can Statements
Gross Domestic Intermediate god		I can explain GDP and determine the categories used to calculate GDP.
Final goods Nominal GDP Real GDP		I can distinguish between intermediate and final goods.
Business Cycle Recession Depression		I can explain what GDP does not measure (underground economy, illegal drugs, etc).
Students will be given a brief introduction to various macroeconomic concepts to help them understand terms and concepts they see in the news regarding the health of Canada's economy. They will learn some basic calculations to be able to compare and contrast various years of an economy and/or different countries.		I can distinguish between nominal and real GDP.
		I can calculate real GDP and real GDP per capita and compare various economies using the results.
		I can analyze the four phases of the business cycle and how it relates to GDP, recessions and depressions.
Resources		
Document: Instru Suggestions	uction & Assessment	Website: The CIA World Factbook Lesson Plan: Which Came First – Democracy or Growth?

SCO 4.2	Examine inflation.		
Concepts and Content		I Can Statements	
Inflation Deflation Price Index Canada's inflation rate is currently stable, thanks to the work of the Bank of Canada; however, this has not always been the case. Countries around the world still experience hyperinflation (most recently Zimbabwe in 2008-2009). This unit will introduce students to inflation and its causes. They will learn how hyperinflation can begin and how the Bank of Canada works hard keep Canada's inflation rate low, stable and predictable. They will also be introduced to basic calculations of a price index to understand how it is made up and used to calculate the Canadian inflation		I can explain inflation and the causes of inflation. I can distinguish between inflation and deflation. I can explain who is helped and who is harmed by inflation. I can analyze price index and examine how a price index is calculated. I can use a price index to calculate the inflation rate.	
Resources	Resources		
Suggestions		Website: Bank of Canada Backgrounders on inflation in Canada (free PDF download) Statistics Canada Website Lesson Plan: Inflation Activity	

SCO 4.3	Examine unemployment.		
Concepts and Content		I Can Statements	
discussed often elaborating on the unemployme Survey is introduunderstand the cand be able to u calculate the une	te	I can analyze how the Labour Force Survey is used to determine Canada's unemployment rate. I can explain why discouraged workers are not part of the labour force. I can determine types of unemployment. I can calculate the employment rate, unemployment rate and participation rate. I can discuss the limitations of the unemployment rate.	
Resources	Resources		
Document: Instru Suggestions	uction & Assessment	Website: Statistics Canada: Labour Force Survey Lesson Plan: The Unemployment Game Lesson Plan: Calculating the Unemployment Rate	

GCO 5: Students will examine money, banking & financial markets.

SCO 5.1	Examine money, banking & financial markets.	
Concepts and Content		I Can Statements
functions and ch look at what has help students ur and why it was of Students will als features on Can students who wo familiar with the will not be award bank notes are r Teachers may a explore other co the design and s	o explore the security adian bank notes. Some ork in retail may already be se features; however, many of the methods to check if	I can explain barter. I can determine the functions of money (medium of exchange, measure of value, store of value). I can evaluate the characteristics of money (portability, durability, divisibility, uniformity, not easily copied). I can examine exchange rates and their impact on trade. I can identify security features on Canadian bank notes.
Resources		
Document: Instru Suggestions	uction & Assessment	Website: Fraud Prevention Kit (order for free from the Bank of Canada)
Video: Bank of C	anada video series on the Front Lines"	Bank of Canada Backgrounders on money (free PDF download)
Bank of Canada Cryptocurrency? The Crisis of Cre	-	<u>Civix: Student Budget Consultations</u> <u>Talk with our Kids about Money – Teacher's Guide and Lesson Plans</u> (must first register)

SCO 5.2	Examine the types of financial institutes in Canada.	
Concepts and Content		I Can Statements
Concepts and Content Chartered bank Financial Institution Deposit Loan Students will become more familiar with banking in Canada. Students will explore financial institutions in Canada to allow them to better understand the banking options available to them. Students will also be introduced to banks creating money through the loan process, which can be linked back to 4.2.		I can explain the term "chartered bank" and distinguish it from other types of financial institutions (credit unions). I can determine types of deposits available at a bank. I can determine how chartered banks can create money through loans. I can calculate the amount of money that can be created because of a deposit.
Resources		
Document: Instruction & Assessment Suggestions Website: Financial Education Resources		

SCO 5.3	Examine the role of the Bank of Canada in the Canadian economy.	
Concepts and Content		I Can Statements
Monetary Policy Bank rate Students often don't know how the Bank of Canada is different from the other chartered banks in Canada. This outcome is meant to introduce them to the importance of the Bank of Canada and link it back to the outcomes on inflation, money and banking. There should be an introduction to the 4 core functions of the Bank of Canada with an emphasis on monetary policy. It is also important to link monetary policy to the students by exploring interest rates that will affect their lending.		I can explain the function of the Bank of Canada. I can explain monetary policy. I can explain how the Bank of Canada uses monetary policy to control inflation. I can evaluate how the bank rate influences consumers.
Resources		
<u>Suggestions</u>	Canada video "You Can	Website: Bank of Canada Backgrounders on Monetary Policy (free PDF download)

5. Bibliography

Website	Information	Link
The Economics Classroom	Video lessons on a variety of topics covered in the curriculum document	http://econclassroom.com/
The Economics of Seinfeld	Video clips from Seinfeld that explain various economic concepts	http://yadayadayadaecon.com/
Foundation for Teaching Economics	Offers free teacher resources and lesson plans	https://www.fte.org/
EconoClass	Resources for economics teachers	http://www.econoclass.com/
Council for Economic Education	Lesson plans for economics and personal finance	http://councilforeconed.org/

7. Appendices

Appendix A: Suggestions

Suggested Instruction and Assessment Strategies, Questions, and Activities

SCO 1.1

SUGGESTED INSTRUCTIONAL STRATEGIES

- Have students create a KWL chart on the definition of economics.
- Introduce the topic of scarcity and discuss what makes an item scarce.
- Discuss the potential opportunity cost of hosting a large scale sporting event in a city such as the 2015 Toronto PanAm Games or the 2010 Vancouver Olympics.
- Have students use a decision making model to show various alternatives, costs and benefits to a decision they may need to make or something relevant to them (going to university vs college, what school to attend, whether to go to the football game on Friday night or not, etc.)

Alternative	Cost(s)	Benefit(s)

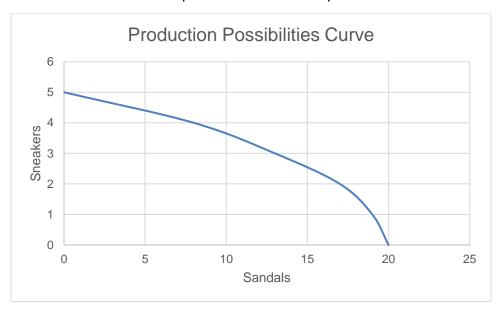
- Have students brainstorm in groups the factors of production unique to New Brunswick (land resources in NB, typical types of labor in NB, and capital created in NB). Get the students to provide 3 (or more) examples for each factor of production (3 examples of land, 3 examples of labor, 3 examples of capital). Have groups present to the class and compile a list and discuss as a class.
- Have students list purchases they and/or their family have made in the past week and determine which of those are Canadian items, and which come from other countries.
- Have students chose a country and follow the exchange rate of that country compared to Canada for the duration of the unit.
- Play a trade game in class with students such as The International Trade Game
 (http://www.economicsnetwork.ac.uk/showcase/sloman_game) or The Trading Game http://marcfbellemare.com/wordpress/7259)
- Have students examine the impact on trade of having a high Canadian dollar as compared to a low Canadian dollar against the US dollar.
- Introduce students to comparative and absolute advantage and calculate the opportunity
 cost of various cases to determine specialization. The topic of opportunity cost was
 explored in the first unit of study.

SUGGESTED QUESTIONS AND ACTIVITIES FOR ASSESSMENT AND INSTRUCTION

Q Below is the production possibilities for an economy that produces two goods – sandals and sneakers.

Production Possibility	Sandals	Sneakers
Α	0	5
В	8	4
С	13	3
D	17	2
E	19	1
F	20	0

a. Graph the production possibilities using sandals on the horizontal axis and sneakers on the vertical axis. Describe the shape of the curve and explain the reason.



The PPC for sandals and sneakers is a curve which shows that there is an increasing opportunity cost.

b. Calculate the opportunity cost of moving from point E to point D. Calculate the opportunity cost of moving from point C to point B. Do these calculations support the answer in part a) to describe the shape of your curve? Explain.

The opportunity cost from E to D is 2 pairs of sandals. The opportunity cost from C to B is 5 pairs of sandals. These calculations support part a) because it shows an increasing opportunity cost.

c. On your graph, show how more workers in the economy could impact the PPC.

Students should show that the whole curve would move outward due to the increase in workers (resources).

d. On your graph, show how a technological improvement in the production of sneakers could impact the PPC.

Students should show that the curve would start at point F (no change in production of sandals) but there would be an outward shift in the production of sneakers (the graph should touch the vertical axis further out).

Q Here is the information for two bakers for two products that they produce: chocolate chip cookies and peanut butter cookies. Use this to answer the questions below.

	Chocolate Chip Cookies (1 dozen)	Peanut Butter Cookies (1 dozen)
Courtney	60 minutes	20 minutes
Megan	30 minutes	15 minutes

- a) Who has the absolute advantage in producing chocolate chip cookies? *Megan*
- b) Who has the absolute advantage in producing peanut butter cookies? *Megan*
- c) Who has the comparative advantage in producing chocolate chip cookies?

Courtney's opportunity cost to produce chocolate chip cookies is 3 dozen peanut butter cookies. Megan's opportunity cost to produce chocolate chip cookies is 2 dozen peanut butter cookies. Therefore, Megan has the comparative advantage in chocolate chip cookies.

d) Who has the comparative advantage in producing peanut butter cookies?

Courtney's opportunity cost to produce peanut butter cookies is 1/3 of a dozen chocolate chip cookies. Megan's opportunity cost to produce peanut butter cookies is ½ dozen chocolate chip cookies. Therefore, Courtney has the comparative advantage in peanut butter cookies.

e) What should each baker produce? Why?

Courtney should produce peanut butter cookies because she has the comparative advantage. Megan should produce chocolate chip cookies because she has the comparative advantage.

SCO 1.2

SUGGESTED INSTRUCTIONAL STRATEGIES

- Have students complete a chart to show advantages and disadvantages of each type of economy – command, market and traditional.
- Have students research countries that fit each type of economy (note: there is no
 economy that is a true representation of any of the three types, however, some countries
 are closer to each type than others, for example: North Korea as a close command
 economy). Have the students compare and contrast these economies to Canada and
 other world economies.

SUGGESTED QUESTIONS AND ACTIVITIES FOR ASSESSMENT AND INSTRUCTION

- Q Read each statement and decide which type of economy is best described command, market or traditional.
 - a. A cereal company decides to stop selling a certain brand of cereal due to low sales. (*market*)
 - b. The type of cereal produced in a country is determined by a central authority. (command)
 - c. A cereal company makes decisions based on profit. (market)
 - d. A cereal company continues to make the same cereal year after year because that is the way it has always been done. (*traditional*)
- Q Explain why Canada would be considered a mixed economy.

Students should be able to identify that Canada has a private sector that has a goal of making profit, and businesses and consumers are able to own property. Canada also has a public sector, whereby decisions such as education, health care and infrastructure (roads, bridges, etc) are made by the government. The government also intervenes in the private sector by imposing taxes and providing subsidies.

SCO 2.1

SUGGESTED INSTRUCTIONAL STRATEGIES

- Use a classroom auction activity (with a chocolate bar, for example) to determine the
 prices students would pay. Keep track of the number of students who would pay each
 price and use the data to introduce the relationship between price and consumer
 behaviour. A demand curve can also be drawn to represent the data.
- Introduce the determinants of demand and have students provide examples of how these determinants have changed their demand for items.
 - o Income
 - Complementary goods
 - Substitute goods
 - Size of the market
 - Consumer expectations
 - Consumer tastes

- Students can investigate the difference between a change in demand and a change in quantity demanded using demand curves.
- Introduce the topic of elasticity of demand and have students calculate the elasticity of demand for various examples and interpret the results. This can be done using the total revenue test and/or the elasticity of demand formula.

 $Total\ Revenue = Price \times Quantity$

$$E_d = \frac{\% \ change \ in \ quantity \ demanded}{\% \ change \ in \ price}$$

SUGGESTED QUESTIONS AND ACTIVITIES FOR ASSESSMENT AND INSTRUCTION

- Q Determine what (if anything) would happen to the demand curve for hot dogs for each of the following situations and list the determinant.
 - a. A new study shows that eating hot dogs is good for your heart. (demand increases and the curve shifts to the right consumer tastes)
 - b. A report on the price of hot dogs is release stating that they will decrease in price next week. (demand decreases and the curve shifts to the left consumer expectations)
 - c. Hot dog buns increase in price. (demand decreases and the curve shifts to the left complementary goods)
 - d. The price of hot dogs increases. (this is an example of a change in quantity demanded therefore no change in demand and the curve would not shift)
- Q If the price of hamburger increases by \$0.50 per pound and the price of substitute products stays the same, what will happen to the demand curve? Explain your answer.

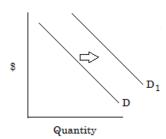
Students should be able to recognize that this will cause a shift in the demand curve to the left. If a substitute good is lower in price, consumers will choose to buy that product instead of hamburger. This would be a change in demand.

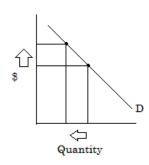
- Q For each question, a) decide whether it is a change in demand or change in quantity demanded; b) draw the graph and show what would happen; c) state the determinant. The market is listed in the brackets.
 - a. The Montreal Canadiens make the play-offs (MONTREAL CANADIENS TICKETS)

Change in demand (increase) – consumer tastes

b. Girl Guide cookies increase in price (GIRL GUIDE COOKIES)

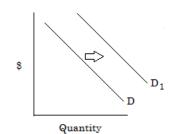
Change in quantity demanded – increase in price would be a decrease in quantity demanded





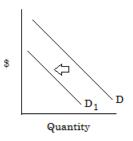
c. Consumers expect gas prices to rise next week (GAS)

Change in demand (increase) – consumer expectations



 d. CNN announces that studies show drinking bottled water is bad for your health (BOTTLED WATER)

Change in demand (decrease) – consumer tastes



Q A farmer selling strawberries for \$5 a litre increases the price to \$6 a litre. The price increase changes the quantity of litres sold from 100 pints per day to 90 litres per day. Use the total revenue test and interpret your results to determine whether the demand for strawberries is elastic or inelastic

The original revenue is \$500 (\$5 \times 100 litres) and the price increase results in a new revenue of \$540 (\$6 \times 90 litres). The farmer increased the price and increased his revenue. This shows that the demand for the farmer's strawberries is inelastic.

SCO 2.2

SUGGESTED INSTRUCTIONAL STRATEGIES

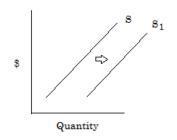
- It is helpful to the students to remind them that an increase in supply will mean a shift to the right just like a shift in demand was a shift to the right. A decrease in supply will mean a shift to the left just like a shift in demand was a shift to the left. Often students will want to move the curve up or down, however, this causes problems when working with supply because they will end up moving the curve the wrong way.
- Introduce the determinants of supply and discuss how they will change supply.
 - Size of market
 - Resource costs
 - Technology

- Producer expectations
- Other related products
- Provide students with examples of change in supply versus change in quantity supplied and allow them to practice many different situations using as many of the determinants as possible.

SUGGESTED QUESTIONS AND ACTIVITIES FOR ASSESSMENT AND INSTRUCTION

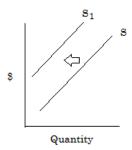
- Q Determine what (if anything) would happen to the supply curve for paper for each of the following situations and list the determinant.
 - a. The cost of pulp (used to make paper) increases. (supply decreases and the curve shifts to the left resource costs)
 - b. New technology that makes paper faster is discovered. (*supply increases and the curve shifts to the right improvement in technology*)
 - c. The price of paper increases. (this is an example of a change in quantity supplied therefore no change in supply and the curve would not shift)
 - d. A new paper mill in New Brunswick opens and starts production. (supply increases and the curve shifts to the right size of the market)
- Q For each question, a) decide whether it is a change in supply or change in quantity supplied; b) draw the graph and show what would happen; c) state the determinant. The market is listed in the brackets.
 - a. The price of paper decreases (BOOKS)

Change in supply (increase) – resource costs



b. New technology fills bottles faster (BOTTLED WATER)

Change in supply (decrease) – technology

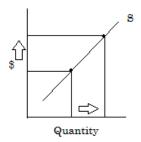


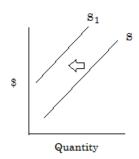
c. The price of computer ink increases (COMPUTER INK)

Change in quantity supplied – increase in price leads to increase in quantity supplied

d. A hurricane destroys the orange crop in Florida (ORANGES)

Change in supply (decrease) – size of market





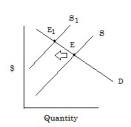
SCO 2.3

SUGGESTED INSTRUCTIONAL STRATEGIES

- Have students find current news examples that illustrate a market that is not in equilibrium and explain the current state of the market.
- Have students use a graph with a supply and demand curve and discover the change in equilibrium price and quantity when there is a change in supply or a change in demand.
- Use an example of a concert that sells out very quickly and have students discuss how this proves that this market is not in equilibrium.
- Draw a graph with a downward sloping demand curve and upward slowing supply curve and identify equilibrium. Have students investigate what would happen if a maximum price (price ceiling) were set above and below the equilibrium point. Have students also investigate what would happen if a minimum point (price floor) were set above and below the equilibrium point.

SUGGESTED QUESTIONS AND ACTIVITIES FOR ASSESSMENT AND INSTRUCTION

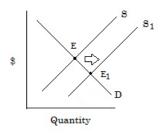
Q Fire destroys one-half of the trees on a certain tract of land in New Brunswick. Explain what would happen to the value of wood because of this loss. Use a supply and demand curve to help explain your answer.



Students should recognize that the fire would cause a decrease in supply and the supply curve would shift to the right. The shift of the supply curve would cause a higher equilibrium price and a lower equilibrium quantity.

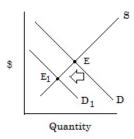
- Q For each of the following scenarios, you must:
- a. Draw and label a demand and supply curve for the market indicated and clearly show the equilibrium position.
- b. Show how the graph would be impacted and clearly label the new equilibrium position.
- c. Indicate what would happen to the equilibrium price and quantity.
- d. Indicate the determinant.
- Producers expect prices of coffee to decrease next month COFFEE
- b) Summer 2012 was rainier than usual MAGIC MOUNTAIN WATERPARK

TICKETS



Equilibrium price decreases. Equilibrium quantity increases.

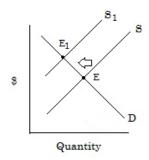
Determinant: producer expectations



Equilibrium price decreases. Equilibrium quantity decreases.

Determinant: consumer tastes

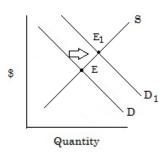
 c) Logging companies are blocked from working by environmentalists - PAPER



Equilibrium price increases. Equilibrium quantity decreases.

Determinant: size of market

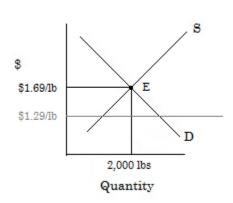
d) The price of hamburger buns decreases - HAMBURGERS



Equilibrium price increases. Equilibrium quantity increases.

Determinant: Complementary goods

Q The market for tomatoes in New Brunswick is in equilibrium at a price of \$0.89/kg and a quantity of 907kg. Explain what would happen if the Government of New Brunswick decided to implement a price ceiling at \$0.69/kg.



Students should be able to explain that a price ceiling is a maximum price that a supplier can sell the product at. By placing a price ceiling <u>below</u> equilibrium, it would create a shortage in the market. The quantity demanded would be higher than the quantity supplied.

Q For the question above, explain what would happen with a price ceiling set at \$1.09/kg.

Students should be able to explain that with a ceiling set ABOVE equilibrium, the ceiling would have no effect. Since the market can still operate at equilibrium, the price would remain at the \$0.89/kg price.

SCO 3.1

SUGGESTED INSTRUCTIONAL STRATEGIES

- Have students investigate the various forms of business ownership and determine the advantages and disadvantages of each type.
- Get students to investigate how to register/incorporate a business in New Brunswick.
- Get students to brainstorm a list of companies in the community and decide what type of business they think they would be.
- Before learning about the stock market, have students complete a KWL chart.
- Have students participate in a stock market challenge such as http://new.howthemarketworks.com/
- Give students an example of a stock market table and have them brainstorm the various terms and information given on the table before going through and explaining the meaning to them.
- Have students research a recent financial crisis and explore how it started, the impact it
 has had on that country and its citizens and the impact it has had on Canada (if any) and
 the world.

SUGGESTED QUESTIONS AND ACTIVITIES FOR ASSESSMENT AND INSTRUCTION

Q Explain the differences between a public corporation, private corporation and crown corporation.

A private corporation has stocks that are owned privately by the owner of the company, family and/or investors. These stocks are not traded on the stock market.

A public corporation has stocks that are available for the public to purchase. These stocks are traded on the various stock markets around the world.

A crown corporation is a corporation whose shares are owned by the government. For example, the Bank of Canada's shares are held by the current Minister of Finance.

SCO 3.2

SUGGESTED INSTRUCTIONAL STRATEGIES

- Introduce students to each of the four models of competition and discuss examples of New Brunswick companies/industries that would fit each type.
- Get students to list examples of monopolies in New Brunswick and/or Canada.
- Have students brainstorm ways that companies can compete with each other not including price. Link these methods to the 4 models of market structure.

SCO 3.3

SUGGESTED INSTRUCTIONAL STRATEGIES

- Have students create a KWL chart to engage prior learning.
- Use current labour disputes to introduce the terminology used in the section and discuss how disputes can affect workers, the company and others.
- Have students complete a case study such as the Hockey Star Wars cases from the Canadian Foundation for Economic Education to introduce various topics within the unit

 formation of a union, settlement of disputes, effect on the labour market, etc.
- Give students an article from a recent dispute, get them to be the arbitrator and pick a side and defend it.

SUGGESTED QUESTIONS AND ACTIVITIES FOR ASSESSMENT AND INSTRUCTION

- Q Explain one option that the union has if it wants to put pressure on the employer during the bargaining process.
 - Students can choose striking, picketing, boycott and explain it.
- ACT Students can complete an activity on negotiation. Teachers can split the class into the union and the employer and have them complete a negotiation. An example negotiation activity can be found at http://www.eduborail.org/MHT-4.aspx

SCO 4.1

SUGGESTED INSTRUCTIONAL STRATEGIES

 Have students complete a worksheet with various transactions listed and have them indicate what category of GDP each would fall into and how it would affect GDP (increase or decrease).

$$GDP = C + I + G + (X - M)$$

- Have a class discussion about intermediate and final goods and have students brainstorm how various items would be classified.
- Visit the CIA World Factbook to look at World GDP rankings
 (https://www.cia.gov/library/publications/resources/the-world-factbook/rankorder/2001rank.html). A class discussion can be had about the different standards of living in countries with a high GDP per capita versus a lower GDP per capita.
- Introduce students to how GDP per capita is calculated:

$$GDP \ per \ capita = \frac{GDP}{Population}$$

• Have students calculate real GDP given nominal GDP and the price index using the formula and compare various years of an economy.

$$real GDP = \frac{nominal GDP \times 100}{price index}$$

- Draw and explain the four phases of the business cycle to students. Ask them find evidence and/or news articles to prove what stage of the cycle they think Canada is currently at.
- Have students analyze <u>New Brunswick's GDP</u> to see how it is made up and the effects of imports and exports on it.

SUGGESTED QUESTIONS AND ACTIVITIES FOR ASSESSMENT AND INSTRUCTION

- Q What category of GDP would each transaction fall into and how would it affect GDP?
 - a. A company purchases a new computer. (investment, GDP increase)
 - b. You spend \$15 at the movies. (consumption, GDP increase)
 - c. The government decides to spend less money on new roads. (*government, GDP decrease*)
 - d. A farmer purchases a used tractor for use on his farm. (not counted because it is used, no change to GDP)
- Q Explain when a set of brakes would be considered an intermediate good and when they would be considered a final good.

Students should be able to identify that an intermediate good would be used as part of building something and a final good is being sold to the end user. The brakes would be considered intermediate if they were sold to a car manufacturer and a final good if they were sold to a consumer at a store to be installed on their car.

Q You have the following data for three countries:

Country A GDP: \$250,000 Population: 100

Country B GDP: \$165,000 Population: 55

Country C GDP: \$450,000 Population: 250

Determine the GDP per capita for each and rank the countries in order of highest standard of living to lowest standard of living.

Country B \$3,000
Country A \$2,500
Country C \$1,800

SCO 4.2

SUGGESTED INSTRUCTIONAL STRATEGIES

- Have students visit the Bank of Canada website to see the current inflation rate in Canada and compare it across the country.
- Find examples of historical prices and use the Bank of Canada's Inflation Calculator (http://www.bankofcanada.ca/rates/related/inflation-calculator/) to change the historical price to current prices and discuss the implications.
- Have students research and learn about historical instances of hyperinflation (Germany, Zimbabwe, Hungary, etc) and determine their causes, impact on the population and how they got the economy back on track.
- Provide students with a fictional basket a goods for various years and have them
 calculate the cost of each year and use that to calculate CPI and the inflation rate.

$$Price\ Index = \frac{Current\ Year\ Cost}{Base\ Year\ Cost} \times 100$$

SUGGESTED QUESTIONS AND ACTIVITIES FOR ASSESSMENT AND INSTRUCTION

Q Calculate the cost of the basket of goods for the years 2015, 2016 and 2017. Assume 2010 is the base year, and calculate the CPI for each year, along with the rate of inflation between 2015 and 2016, 2016 and 2017 and 2015 and 2017. The basket is made up of 2 pairs of sneakers, 3 pairs of shorts, and 4 t-shirts.

	2015 Price	COST	2016 Price	COST	2017 Price	COST
Sneakers	\$40		\$41		\$42.50	
Shorts	\$15		\$15.25		\$15.75	
T-Shirt	\$10		\$10.15		\$10.50	
TOTAL COST						

	2015 Price	COST	2015 Price	COST	2017 Price	COST
Sneakers	\$40	\$80	\$41	\$82	\$42.50	\$85
Shorts	\$15	\$45	\$15.25	\$45.75	\$15.75	\$47.25
T-Shirt	\$10	\$40	\$10.15	\$40.60	\$10.50	\$42
TOTAL COST		\$165		\$168.35		\$174.25

CPI: 2015 - 100, 2016 - 102, 2017 - 105.6

Inflation: 2015 to 2016 – 2%, 2016 to 2017 – 3.5%, 2015 to 2017 – 5.6%

SCO 4.3

SUGGESTED INSTRUCTIONAL STRATEGIES

- Visit the Statistics Canada website to look at unemployment rates across Canada and discuss the difference in rates across cities in New Brunswick, and the provinces across Canada.
- Introduce the various categories of the Labour Force Survey and provide examples of each category (employed, unemployed, not in the labour force). Discuss what it means to be unemployed.
- Use the formulas to determine the unemployment rate, employment rate, and participation rate and discuss the results. (It is important to point out that the unemployment rate + the employment rate does not equal 100%. The unemployment rate is found using the labour force as a denominator and the employment rate is found using the population as a denominator.)

$$unemployment \ rate = \frac{\# \ of \ people \ unemployed}{labour \ force} \times 100$$

$$employment\ rate = \frac{\#\ of\ people\ employed}{population\ (15+)} \times 100$$

$$participation\ rate = \frac{labour\ force}{population\ (15+)} \times 100$$

 Discuss some of the limitations of the current unemployment rate calculation – does not show discouraged workers, underemployed workers (such as workers who are part-time and would like to be full-time). Have students complete a calculation that includes these types of workers into an unemployment rate calculation to see what the new rate would be.

SUGGESTED QUESTIONS AND ACTIVITIES FOR ASSESSMENT AND INSTRUCTION

- Q What type of unemployment is each person experiencing?
 - 1. Susan has just graduated from college and is looking for her first job. Frictional
 - 2. Peter is a ski instructor and is not working in July. Seasonal
 - 3. Josh has been looking for a job for 6 months and hasn't found anything. He has given up. *Not unemployed discouraged worker*
 - 4. Carrie lost her job because it was replaced by automated equipment. Structural
 - 5. Frank was let go from his job because of a recession. Cyclical
- Q Country X has a population over the age of 15 of 300,000. There are currently 245,000 residents who are employed; 17,500 residents who are not part of the labour force and the rest are unemployed.
 - a. How many people are unemployed? 37,500
 - b. What is the labour force participation rate? 94.1%
 - c. What is the employment rate? 81.7%
 - d. What is the unemployment rate? 13.3%
- Q You have the following information about an economy.

Full-time workers	55,000
Part-time workers who don't want full-time	25,000
Part-time workers who want full-time	10,000
Discouraged workers	500
Unemployed workers	4,500
Workers not in the labour force	5,000
	Part-time workers who don't want full-time Part-time workers who want full-time Discouraged workers Unemployed workers

- a) What is the unemployment rate for this economy? 4.7%
- b) If underemployed workers and discouraged workers were counted in the unemployment rate, what would the unemployment rate be? 15.8%

SCO 5.1

SUGGESTED INSTRUCTIONAL STRATEGIES

- Provide students with a history of money. Introduce various items that have been used as money in the past and have a discussion on why these items would have been used and the advantages and disadvantages of each.
- Complete an activity to evaluate various items and their usefulness as money (evaluation of their ability as a medium of exchange, measure of value and store of value).
- Have students visit the Bank of Canada's website to see examples of Canada's security features on our current and past currency.
- Complete activities and guiz found in the Bank of Canada's Fraud Prevention kit.

SUGGESTED QUESTIONS AND ACTIVITIES FOR ASSESSMENT AND INSTRUCTION

ACT Provide students with an image of a Canadian bank note and have them circle and name the security features found on the note. (Note: The Bank of Canada provides images of Canadian bank notes on their website for non-commercial use. http://www.bankofcanada.ca/banknotes/image-gallery/)

SCO 5.2

SUGGESTED INSTRUCTIONAL STRATEGIES

- Have students pick a financial institution and learn about the different deposit options available to them. They should look at interest rates available with each option, and compare the different banks to see if there is a difference among them.
- Calculate the amount of money that could be created by a deposit using different reserve requirements (1%, 5%, 10%, etc) to see the potential impact on the money supply.

$$Expansion of money supply = \frac{excess \ reserves}{reserve \ ratio \ (as \ a \ decimal)}$$

SUGGESTED QUESTIONS AND ACTIVITIES FOR ASSESSMENT AND INSTRUCTION

A bank customer deposits \$4000 into a Canadian chartered bank that uses a 10% reserve ratio. What potential impact could this deposit have on the Canadian money supply? (\$36,000)

SCO 5.3

SUGGESTED INSTRUCTIONAL STRATEGIES

- With the class, view a video on the functions of the Bank of Canada.
- Bring the class through the Bank of Canada website to show the students the core functions of the Bank of Canada (monetary policy, financial system, funds management, currency).
- Link monetary policy to the unit on inflation and have students look into how the Bank of Canada uses monetary policy to control Canada's inflation rate.

SUGGESTED QUESTIONS AND ACTIVITIES FOR ASSESSMENT AND INSTRUCTION

Q If the Bank of Canada changes the overnight interest rate from 0.75% to 1.0%, who does this affect first? How will it affect regular bank customers like you?

When the Bank of Canada changes the overnight rate it will affect banks first, because it represents the interest rate that financial institutions would pay if they borrowed money "overnight". This would impact regular bank customers because if banks had to pay higher interest to borrow money, they would transfer this over to their customers who are borrowing money – so, consumer interest rates would increase for loans, mortgages, etc.

Appendix B: Universal Design for Learning

Universal Design for Learning

UDL helps meet the challenge of diversity by suggesting flexible instructional materials, techniques, and strategies that empower educators to meet these varied needs. UDL research demonstrates that the challenge of diversity can and must be met by making curriculum flexible and responsive to learner differences. UDL provides guidelines to minimize barriers and maximize learning for all.

Is there a form of assistive technology that could be used to enhance/facilitate this lesson?	Menu of AT from Kim K	Example in your subject area
Are there materials which can appropriately challenge readers to enhance this learning?	Audiobooks, EBSCO, Worldbook Online	
Are there students in this group who cannot access this learning (PLP background) and whose needs I must revisit before teaching?	PLP information/considerations	
Are there other choices that can be provided in this learning opportunity?	Differentiation models (RAFTs)	
Is there another/a variety of media available? Only paper-based? Can it be listening? Can I add a visual component?		
Can movement be involved?	Quantum techniques	
Grouping and regrouping?	Cooperative learning; teams games and tournaments	
Teacher versus non teacher centered? Instructional design strategies	web based lesson project-based, student research based	
Contracts?		
Opportunities for students to propose variations to the assignments/projects?	Tic Tac Toe	
Use of art /music / technology?	Songs, Videos, URL, YouTube	
Can I use drama ?Art	use of improvisation; Skits; readers theater; Can we make something?	

Demonstrate understanding visually?	
Paint a painting?	

Is there a plan to support the student/s who might already know this subject matter? Enrichment	Triad Model	
Does the language level need to be adjusted for the student to access this learning?	Link to adjust language level of text; CEFR information SIOP techniques for EL learners; use of alternate texts	
Is there an independent or collaborative activity-project that would be better meet the needs of one or more students?		
Are there any experts that I could bring into the classroom electronically or as a guest speaker?	Speakers list, Skype contacts, media links, television documentary, archived historical documents	
Have I linked the goal to as current event or a cultural event in the student's lives? Can I make the learning more relevant ?	Can this be applied in real life? TED talk, news item; societal trend, popular song? Can we start the unit and adjust or create it based on the students, interests or direction?	
Is there a hands-on experience that we could do to launch this lesson or this learning?		

Appendix C: Global Competencies 6.1 New Brunswick Global Competencies

Critical Thinking and	Innovation, Creativity	Learning to Learn/Self-Aware
Problem Solving	and Entrepreneurship	and Self-Directed
 Solves meaningful, real-life, complex problems Takes concrete steps to address issues Designs and manages projects Acquires, processes, synthesizes, interprets, and critically analyses information to make informed decisions (critical and digital literacy) Engages in an inquiry process to solve problems Sees patterns, makes connections, and transfers learning from one situation to another, including real world applications Connects, constructs, relates, and applies knowledge to all domains of life such as school, home, work, friends, and community 	 Contributes to complex social, economic, and environmental problems Enhances a concept, idea, or product through a creative process Takes risks in thinking and creating Formulates and expresses insightful questions and opinions to generate novel ideas Tests hypotheses and experiments with new strategies or techniques Makes discoveries through inquiry research Demonstrates initiative, imagination, creativity, spontaneity, and ingenuity in a range of creative processes Pursues new ideas and shows leadership to meet a need in a community Leads and motivates with an ethical entrepreneurial spirit 	 Learns the process of learning (metacognition) (e.g. independence, goal-setting, motivation) Believes in the ability to learn and grow (growth mindset) and monitors progress in learning Develops personal, education, and career goals and perseveres to overcome challenges to reach these Self-regulates in order to become a lifelong learner Reflects on thinking, experience, values, and critical feedback to enhance learning Cultivates emotional intelligence to understand self and others Adapts to change and shows resilience to adversity Manages various aspects of life; physical, emotional, social, spiritual, and mental well-being Develops identity in the Canadian context (e.g., origin and diversity) and considers one's connection to others and the environment Takes the past into account to understand the present and approach the future

Collaboration	Communication	Global Citizenship	
		and Sustainability	
 Participates in teams, establishes positive and respectful relationships, develops, trust, acts cooperatively and with integrity Learns from, and contributes to, the learning of others Co-constructs knowledge, meaning, and content Assumes various roles on the team Addresses disagreements and manages conflict in a sensitive and constructive manner Networks with a variety of communities/groups Respects a diversity of perspectives Uses a rich variety of technology appropriately to work with others 	 Asks effective questions to acquire knowledge Communicates using a variety of media Selects appropriate digital tools according to purpose and audience Listens and shows empathy to understand all points of view Gains knowledge about a variety of languages Voices opinions and advocates for ideas Creates a positive digital footprint Communicates effectively and respectfully in different contexts in oral and written form in French and/or English and/or Mi'kmaq or Wolastoqey 	 Understands ecological, economic, and social forces, their interconnectedness, and how they affect individuals, societies and countries Acts responsibly and ethically in building sustainable communities Recognizes discrimination and promotes principles of equity, human rights, and democratic participation. Understands Indigenous traditions and knowledge and its place in Canada Contributes to society and the culture of local, national, global, and virtual communities in a responsible, inclusive, accountable, sustainable and ethical manner Engages in local, national and global initiatives to make a positive difference Learns from and with diverse people and develops crosscultural understanding Participates in networks in a safe and socially responsible manner 	

Critical Thinking and Problem Solving

Involves addressing complex issues and problems by acquiring, processing, analyzing and interpreting information to make informed judgments and decisions. The capacity to engage in cognitive processes to understand and resolve problems includes the willingness to achieve one's potential as a constructive and reflective citizen. Learning is deepened when situated in meaningful, real-world, authentic experiences.

Innovation, Creativity, and Entrepreneurship

Involves the ability to turn ideas into action to meet the needs of a community. The capacity to enhance concepts, ideas, or products to contribute new-to-the-world solutions to complex economic, social, and environmental problems involves leadership, taking risks, independent/ unconventional thinking and experimenting with new strategies, techniques, or perspectives, through inquiry research. Entrepreneurial mindsets and skills involve a focus on building and scaling an idea sustainably.

Learning to Learn/Self-Awareness & Self-Directed

Involves becoming aware and demonstrating agency in one's process of learning, including the development of dispositions that support motivation, perseverance, resilience, and self-regulation. Belief in one's ability to learn (growth mindset), combined with strategies for planning, monitoring and reflecting on one's past, present, and future goals, potential actions and strategies, and results. Self-reflection and thinking about thinking (metacognition) promote lifelong learning, adaptive capacity, well-being, and transfer of learning in an ever-changing world

Learners will solve meaningful, real-life, complex problems by taking concrete steps to address issues and design and manage projects.

Learners will engage in an inquiry process to solve problems as well as acquire, process, interpret, synthesize, and critically analyse information to make informed decisions (i.e., critical and digital literacy).

Learners will see patterns, make connections, and transfer what they have learned from one situation to another, including in real world applications.

Learners will construct, relate, and apply knowledge to all domains of life such as school, home, work, friends, and community.

Learners will analyze the functions and interconnections of social, economic, and ecological systems.

Learners formulate and express insightful questions and opinions to generate novel ideas.

Learners contribute solutions to complex economic, social, and environmental problems or to meet a need in a community in a number of ways including; enhancing concepts, ideas, or products through a creative process, taking risks in their thinking and creating, discovering through inquiry research, and by hypothesizing and experimenting with new strategies or techniques. Learners demonstrate leadership, initiative, imagination, creativity, spontaneity, and ingenuity in a range of creative processes and motivate others with an ethical entrepreneurial spirit.

Learners learn the process of learning (metacognition) (e.g., independence, goal setting, motivation) and believe in their ability to learn and grow (growth mindset).

Learners self-regulate in order to become lifelong learners and reflect on their thinking, experience, values, and critical feedback to enhance their learning. They also monitor the progress of their own learning. Learners develop their identity in the Canadian context (e.g., origin and diversity) and consider their connection to the environment. They cultivate emotional intelligence to understand themselves and others. They take the past into account to understand the present and approach the future. Learners develop personal, educational, and career goals and persevere to overcome challenges to reach goals. They adapt to change and show resilience to adversity. Learners manage various aspects of their life: physical, emotional, social, spiritual, and mental well-being.

Collaboration

Involves the interplay of the cognitive (including thinking and reasoning), interpersonal, and

Communication

Involves receiving and expressing meaning (e.g., reading and writing, viewing and creating, listening and

Global Citizenship and Sustainability

Involves reflecting on diverse worldviews and perspectives and

intrapersonal competencies necessary to participate effectively and ethically in teams. Everincreasing versatility and depth of skill are applied across diverse situations, roles, groups, and perspectives in order to co-construct knowledge, meaning, and content, and learn from, and with, others in physical and virtual environments.

speaking) in different contexts and with different audiences and purposes. Effective communication increasingly involves understanding both local and global perspectives, societal and cultural contexts, and adapting and changing using a variety of media appropriately, responsibly, safely, and with regard to one's digital footprint

understanding and addressing ecological, social, and economic issues that are crucial to living in a contemporary, connected, interdependent, and sustainable world. It also includes the acquisition of knowledge, motivation, dispositions, and skills required for an ethos of engaged citizenship, with an appreciation for the diversity of people, perspectives, and the ability to envision and work toward a better and more sustainable future for all.

Learners participate in teams by establishing positive and respectful relationships, developing trust and acting cooperatively and with integrity. Learners learn from and contribute to the learning of others by co-constructing knowledge, meaning, and content. Learners assume various roles on the team, respect a diversity of perspectives, and address disagreements and manage conflict in a sensitive and constructive manner.

Learners network with a variety of communities/groups and use an array of technology appropriately to work with others.

Learners communicate using the appropriate digital tools and create a positive digital footprint.

Learners ask effective questions to acquire knowledge, listen to understand all points of view, voice their own opinions, and advocate for ideas

Learners gain knowledge about a variety of languages and understand the cultural importance of language. Learners communicate effectively in different contexts in oral and written form in French and/or English and/or Mi'kmaq or Wolastoqey through a variety of media.

Learners understand the ecological, economic and social forces, their interconnectedness, and how they affect individuals, societies, and countries. Learners take actions and make responsible decisions that support quality of life for all, now and in the future.

Learners recognize discrimination and promote principles of equity, human rights, and democratic participation.

Learners understand Indigenous traditions and knowledge and its place in Canada, learn from and with diverse people, develop cross-cultural understanding, and understand the forces that affect individuals, societies, and nations.

Learners engage in local, national, and global initiatives to make a positive difference.

Learners contribute to society and to the culture of local, national, global, and virtual communities in a responsible, inclusive, accountable, sustainable, and ethical manner.

Learners as citizens participate in networks in a safe and socially responsible manner.