



community choices unit three

ask

How do rising price levels affect the sustainability of a country?

acquire

- Chart paper and markers OR laptops for students to collaborate using Google docs
- Student & teacher handouts
- PowerPoint presentation
- Newspaper articles

explore

- Anticipation guide
- Interactive PowerPoint presentation

analyze

- Collaborative impact analysis
- Video analysis

act

- Editorial piece
- Inflation rate calculation
- News broadcast/radio show



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unit three

U3L4 | Sustainability and inflation

This lesson teaches students why price stability is necessary to maintain a sustainable society. Students will learn how rapid inflation negatively impacts societal, economic, and environmental sustainability. They will learn how to calculate the inflation rate and understand its significance as an indicator of economic health. Students will also compare and contrast inflation rates of two petroleum producing countries (Norway and Venezuela), to identify causes of the disparity.

subjects: Economics, Business, Math, Politics, Social Science, History

timing: **Activity 1**

Complete Anticipation Guide | **45–50 minutes**

Activity 2

Complete ‘Sustainability and Inflation’ collaborative organizer | **25–30 minutes**

Note: follow up with Activity 5

Activity 3

Complete ‘Managing Wealth and Building Trust’ video worksheet | **25–30 minutes**

Activity 4

Write an editorial piece | **150 minutes**

Activity 5

Inflation rate calculations | **75 minutes**

Activity 6

Produce a news broadcast or radio show | **150 minutes**

learning goal

- To begin thinking about inflation and its impact on standard of living.
- To identify and understand the far reaching impacts of inflation on sustainability.
- To understand why Norway limits their spending to four per cent of the forecasted revenue of the oil fund.
- To understand the far-reaching negative impacts of rapid price rise on society, economy, government, and environment.
- To effectively develop and support several comprehensive arguments.
- To calculate the inflation rate.
- To understand that moderate inflation is a healthy part of economic growth.
- To understand factors which cause inflation.
- To understand how government policy tools influence price stability.

success criteria

- Completion of ‘Before’ and ‘After’ columns, with effective justification in ‘Reason’ column, in inflation anticipation guide.
- Complete ‘Sustainability and Inflation’ collaborative organizer and informally share findings with the class.
- Completion of inflation rate calculations using Statistics Canada data tables.
- Completion of ‘Managing Wealth and Building Trust’ video worksheet.
- Completion of price stability newspaper editorial piece.
- Completion of managing inflation news broadcast/radio show.



community choices

unit three

U3L4 | Sustainability and inflation

ask

Inquiry questions

- How does inflation impact sustainability?
- How are citizens, economy/government, and the environment affected when prices rise rapidly?
- Why does Norway limit their spending to four per cent of the forecasted revenue of the oil fund?
- Why should price stability be a top priority for government?
- What causes the inflation rate to fluctuate?
- How do governments maintain inflation rate targets?

acquire

'Sustainability and Inflation' PowerPoint presentation

Activity 1

Anticipation guide student worksheet

Anticipation guide teacher answer key (appended to lesson plan)

Activity 2

'Sustainability and Inflation' collaborative organizer student worksheet

'Sustainability and Inflation' collaborative organizer teacher answer key (appended to lesson plan)

Activity 3

'Managing Wealth and Building Trust' video student worksheet

'Managing Wealth and Building Trust' video teacher answer key (appended to lesson plan)

Activity 4

Editorial piece assignment sheet

Activity 5

Inflation rate calculation worksheet

www.statcan.gc.ca

Activity 6

News broadcast/radio show assignment sheet

- Guardian article 'Street protests loom as shortages, inflation and oil slump hit Venezuela'
- New York Times article 'Oil cash waning, Venezuelan shelves lie bare'
- LA Times article 'Shortages, inflation and long lines have Venezuelans grumbling'
- CBC article "Sovereign wealth funds: What does it take to succeed?"
- CBC article "Norway's sovereign wealth holds lessons for Canada"
- Huffington Post article "The Norwegian government pension fund: a success story"



community choices

unit three

U3L4 | Sustainability and inflation

explore

Activity 1 | Anticipation guide

In this activity students will begin thinking about the issue of inflation and its impact on sustainability. They will choose to agree or disagree with eight inflation related statements in the 'Before' column of the Sustainability and Inflation anticipation guide. Teacher reads each statement and gets a show of hands (agree or disagree) for each question to get a sense of students' prior knowledge.

Teacher presents interactive Sustainability and Inflation PowerPoint.

After participating in the interactive Sustainability and Inflation PowerPoint students will return to this activity and complete the 'After' column. Students informally share 'After' agree or disagree justifications with the class.

analyze

Activity 2 | 'Sustainability and inflation' collaborative organizer

In this activity students will collaborate with their group members to identify the negative impacts of inflation. They will think deeply about how citizens, economy/government, and the environment are affected when prices rise rapidly.

- Form groups of three–four students
- Each group works collaboratively to complete the organizer—identifying the negative impacts of high inflation
- Students can use pen and paper or laptops and Google docs to complete the organizer
- Each group informally shares findings with the class

Note: follow up with Activity 4

Activity 3 | Managing wealth and building trust video (6 min) worksheet

In this activity you students watch a short video and complete a worksheet. The video features several Norwegian policy analysts speaking about the management of Norway's oil fund. Students should incorporate knowledge gained in the previous activities of this lesson to elaborate on their answers.

- Teacher explains 'Dutch disease' which is referenced several times in the video
- Teacher clarifies information students are looking for and plays video
- Each time an answer is stated by the speaker, there is a short break in the video (teacher can manually press pause to allow for longer discussion time)
- Teacher can collect worksheets or take up orally during the breaks in the video

act

Activity 4 | Editorial piece

In this activity students individually write an editorial piece for their local newspaper explaining why price stability is a critical component of a sustainable society and should be the government's top priority. Arguments must be relevant, supported, and compelling. Students can use the ideas recorded in their 'Sustainability and inflation' organizer (Activity 2) to get started.

U3L4 | Sustainability and inflation

Activity 5 | Inflation rate calculation

In this activity students will learn how to calculate the inflation rate. They will practice using real figures from the Statistics Canada website.

- Go to the Statistics Canada website: www.statcan.gc.ca
- Click on 'Browse by key resource' tab and select CANSIM
- Click on subject 'Prices and price indexes'
- Click on 'Consumer Price Indexes' (29 tables)
- Select the table of your choice and have students use the CPI data to calculate the inflation rate

$$\left[\frac{\text{CPI (more recent year/month)} - \text{CPI (older year/month)}}{\text{CPI (older year/month)}} \right] \times 100$$

Activity 6 | News broadcast or radio show

In this activity students will work with a partner to investigate and determine causes for the large discrepancy in inflation rates between Norway and Venezuela. You will provide students with several articles to get started, but additional research is strongly encouraged. Students may present their findings in one of two formats: News broadcast or radio show.

- As of January 2015 Norway's inflation rate was approximately 2 per cent. As of December 2014 Venezuela's inflation rate was approximately 68 per cent (source: www.tradingeconomics.com).
- Both countries are experiencing a natural resource boom in petroleum yet their inflation rates are at opposite ends of the spectrum.
- Students will work in pairs (one student researches Venezuela, and one student researches Norway) to investigate the inflation rates of two uniquely different oil rich countries.
- Students will identify:
 1. Impact of inflation rate on social, economic, and environmental sustainability in each country.
 2. Causes of the large discrepancy in inflation rates between the two countries (effective use and/or absence of monetary and fiscal policy tools contributing to each country's rate).
- Students can submit results in one of two ways:
 1. News broadcast (can be done live in class or pre-recorded and submitted electronically).
 2. Radio show podcast (submitted as an audio file).

*APA bibliography required.

Suggested sources to get started:

Venezuela

- "Street protests loom as shortages, inflation and oil slump hit Venezuela"
- "Oil cash waning, Venezuelan shelves lie bare"
- "Shortages, inflation and long lines have Venezuelans grumbling"

Norway

- *Sovereign wealth funds: What does it take to succeed?* (Excellent 11 minute video: www.cbc.ca/news/business/norway-s-sovereign-wealth-holds-lessons-for-canada-1.3002803)
- "Norway's sovereign wealth holds lessons for Canada"
- "The Norwegian government pension fund: a success story"

U3L4 | Sustainability and Inflation

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community choices

unit three

U3L4 | Sustainability and inflation

U3L4A1 | Sustainability and inflation anticipation guide | TEACHER ANSWER KEY

overview

In this activity you will begin thinking about the issue of inflation and its impact on sustainability. You will choose to agree or disagree with eight inflation related statements in the 'Before' column (you're not expected to know all the answers yet, so guessing is fine).

After participating in the interactive PowerPoint presentation and completing your 'Sustainability and inflation' organizer you are ready to complete the 'after' column of your anticipation guide.

learning goal

- To begin thinking about inflation and its impact on standard of living.

success criteria

- Completion of 'Before' and 'After' columns, with effective justification in 'Reason' column.

Inquiry question

- How does inflation impact sustainability?

Instructions

1. Read the following statements.
2. In the 'before' column, record whether you agree or disagree with each statement.
3. After participating in the 'Sustainability and inflation' lesson, complete the 'After' column.
4. Provide an explanation justifying your position in the 'reason' column.
5. Be prepared to share your reasons with the class.

BEFORE lesson	Statement	AFTER lesson	Reason
Agree/Disagree	Inflation is a sign that the economy is in trouble.	Agree/ Disagree	A certain amount of inflation is healthy and a natural result of economic growth (Canada's inflation target is approx. 2 per cent). However rapid inflation (hyperinflation) is definitely a sign of trouble.
Agree/Disagree	Decreasing taxes slows down inflation.	Agree/ Disagree	No. Lower taxes mean more disposable income and more spending. Increased spending increases aggregate demand which increases inflation.
Agree/Disagree	All countries experience some inflation.	Agree/ Disagree	Many countries experience some inflation, but not all. Japan has experienced deflation (prices falling) for some time, which is very problematic.
Agree/Disagree	The government can't do anything about inflation.	Agree/ Disagree	The government has several fiscal and monetary policy tools at their disposal to manage inflation rates.
Agree/Disagree	If a large percentage of the population goes on a spending spree prices will fall.	Agree/ Disagree	Increased spending increases aggregate demand. Increased aggregate demand increases prices.
Agree/Disagree	Interest rates and inflation have an inverse relationship.	Agree /Disagree	High interest rates discourage borrowing and spending and therefore decrease inflation rates (and vice versa). The relationship is inverse because as one goes up the other goes down.
Agree/Disagree	It is preferable to have a pension indexed to inflation.	Agree /Disagree	Yes. Pensions not indexed to inflation remain the same year after year. As prices increase around them their income never changes, effectively decreasing their purchasing power. It is always preferable to have your pension keep up with inflation, therefore maintaining your purchasing power.
Agree/Disagree	A low unemployment rate can decrease increase inflation rates.	Agree/ Disagree	A low UE rate will increase inflation rates. People working means people spending money, which increases aggregate demand, and therefore inflation.



community choices

unit three

U3L4 | Sustainability and inflation

U3L4A2 | Sustainability and inflation collaborative organizer | TEACHER ANSWER KEY

overview

In this activity you will collaborate with your group members to identify the negative impacts of inflation. You will think deeply about how citizens, economy/government, and the environment are affected when prices rise rapidly.

learning goal

- To identify and understand the far reaching impacts of inflation on sustainability.

success criteria

- Complete organizer and informally share findings with the class.

Inquiry Question

- How are citizens, economy/government, and the environment affected when prices rise rapidly?

Brainstorm with your group members to identify the negative outcomes of rapid inflation. Record below in point form.

Societal sustainability How are citizens lives affected?	Economic sustainability How is the economy/ government affected?	Environmental sustainability How is the natural environment affected?
<ul style="list-style-type: none"> • Currency loses value, can't afford goods/services (especially those on fixed incomes) • Decreased standard of living—shortages of goods and services • Citizens hoarding goods • Citizens unable to plan for the future • Increased reliance in food banks, homeless shelters etc... • Inflation psychology • Protests, riots, looting • Instability causes citizens to feel unsafe • Loss of faith in government (emergency election, potential coup) 	<ul style="list-style-type: none"> • Decreased exports (Canadian exports appear more expensive relative to countries with lower inflation rates) • Job loss (higher unemployment rate) • Decreased savings (citizens cannot afford to save due to high cost of living) • Increased bankruptcies • Increased reliance on welfare programs (E.I., welfare etc...) • Decreased investment (lower productivity) • Government unable to effectively plan for the future 	<ul style="list-style-type: none"> • Rapid consumption of natural resources to meet demand (i.e. clear cutting, overfishing etc...) • Increased pollution levels due to increased production levels trying to meet demand (water pollution, air pollution) • Disregard for environmental protection laws (i.e. cutting down trees or hunting in a protected park to meet food/shelter needs) • Inability to plan for the future limits long-term/large scale environmental projects (they often require significant investments, i.e. installing solar panels)



community choices

unit three

U3L4 | Sustainability and inflation

U3L4A3 | Managing wealth and building trust (6 min) | TEACHER ANSWER KEY

overview

In this activity you will watch a short video and complete a worksheet. The video features several Norwegian policy analysts speaking about the management of Norway's oil fund. Incorporate knowledge gained in the previous activities of this lesson to elaborate your answers.

learning goal

- To understand why Norway limits their spending to 4 per cent of the forecasted revenue of the oil fund.

success criteria

- Completion of video worksheet.

Inquiry question

- Why does Norway limit their spending to 4 per cent of the forecasted revenue of the oil fund?

Norway's oil fund is valued at close to \$1 trillion. However, Norway still faces budget deficits and issues of unemployment and poverty. You may ask yourself, 'why don't they just use money from the oil fund to solve these problems?'

Watch the video clip and answer the following question:

Why does Norway limit their spending to 4 per cent of the forecasted revenue of the oil fund? Provide at least five different reasons.

1. It would cause 'Dutch disease' (see explanation below)—Damaging for manufacturing industry which they need in the future. (0:23 sec)
2. More than 4 per cent would increase money supply too much—wages would rise, causing prices to rise (cost-push inflation). (1:42 sec)
3. Citizens would become 'lazy & spoiled'—lose motivation to work hard, negatively impacting Norway's society and culture. (2:40 sec)
4. Deviating from the 4 per cent commitment would cause trade partners/foreign investors to lose confidence in Norway (stability is very important). (3:24 sec)
5. Norwegian currency would appreciate (become too strong) and hurt Norway's export sectors (see 'Dutch disease' explanation below). (3:45 sec)



community choices

unit three

U3L4 | Sustainability and Inflation

U3L4A3 | Managing wealth and building trust (6 min) | TEACHER ANSWER KEY

Terminology

Dutch disease

This term describes what happened in the Netherlands when they discovered natural gas in 1959. The Netherlands experienced a resource boom and shifted their economic focus away from other sectors (i.e. manufacturing and agriculture) to concentrate on the natural gas sector. The booming industry resulted in big profits, increased employment, high wages, and significant government spending—all of which contributed to rapid inflation.

Dutch currency increased in value due to significant natural gas exports. Although having a strong currency sounds like a positive thing, it had some negative results.

1. A strong currency made imports cheaper for the Netherlands, but their domestic manufacturing/agriculture sectors couldn't compete with the cheap imported goods.
2. A strong currency made it more expensive for the Netherlands trade partners to purchase exports from them. Their trade partners chose to purchase from other countries whose currency was weaker (negatively impacting the Netherlands manufacturing/agriculture sectors).