

Economics

Sample Social Studies Learning Plan

Big Idea/ Topic

Scarcity and Rational Decisions

Connecting Theme/Enduring Understanding:

Incentives: The student will understand that parties respond predictably to positive and negative incentives.

Interdependency: The student will understand that, because of interdependency, a decision made by one party has intended and unintended consequences on other parties.

Scarcity: The student will understand that scarcity of all resources forces parties to make choices and that these choices always incur a cost.

Essential Question:

What should you consider when making a major life decision?

Standard Alignment

SSEF1 Explain why limited productive resources and unlimited wants result in scarcity, opportunity costs, and tradeoffs for individuals, businesses, and governments.

a. Define scarcity as a basic condition that exists when unlimited wants exceed limited

productive resources.

d. Define opportunity cost as the next best alternative given up when individuals, businesses, and governments confront scarcity by making choices.

SSEF2 Give examples of how rational decision making entails comparing the marginal

benefits and the marginal costs of an action.

a. Define marginal cost and marginal benefit.

b. Explain that rational decisions occur when the marginal benefits of an action equal or exceed the marginal costs.

SSEF6 Explain how productivity, economic growth, and future standards of living are influenced by investment in factories, machinery, new technology, and the health, education, and training of people.

b. Explain how investment in equipment and technology can lead to economic growth.

c. Explain how investments in human capital (e.g., education, job training, and healthcare) can lead to a higher standard of living.

SSEPF1 Apply rational decision making to personal spending and saving choices.

a. Use a rational decision making model to evaluate the costs and benefits of post-high school life choices (i.e., college, technical school, military enlistment, workforce participation, or other option).

Connection to Literacy Standards for Social Studies and Social Studies Matrices

RH.11-12.3 Cite thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain.

RH.11-12.7 Integrate and evaluate multiple sources of information presented in different media or formats as well as in words in order to address a question or solve a problem.

WH.11-12.1 Write arguments to support claims in an analysis of substantive topics or text using valid reasoning and relevant and sufficient evidence.

WH.11-12.3 Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.

Information Processing Skills– 6 (Identify and use primary and secondary sources), 15 (determine adequacy and/or relevancy of information)



Instructional Design

*This lesson has a flexible timeline and will cross over several days.

This lesson is intended to reach students in a virtual setting, whether plugged or unplugged. See bottom of lesson for list of unplugged supplies.

Part 1: In their digital/physical journal, have students answer the question "what should you consider when making a major life decision?" Encourage students to include appropriate visuals in their response. This will be the essential question for the lesson.

Walk students through slides 1-14 of the <u>Scarcity and Decision Making PPT</u>. Encourage them to take visual notes on the concepts and vocabulary. Throughout the slides, there are examples for discussion and individual activities that students can complete in their individual journal.

***Unplugged variation –** Print a copy of the PPT for students. They will do the same activities writing down their responses to questions and activities in their physical journals.

Part 2: This section (slides 15-22) of the PPT focuses on the relationship between investment and growth. Allow students time to analyze primary and secondary sources, discuss with peers and record responses in their journal. Slide 19 should be done as an individual activity but it would also be beneficial for students to share their completed budgets and discuss their choices.

***Unplugged variation –** Students will do the same activities writing down their responses to questions and activities in their physical journals. For slide 19 students who cannot research expenses online could use their knowledge of average costs in the city where they live. For slide 22, the article can be printed and given to students to analyze.

Part 3: This section contains the final knowledge checks for the lesson in 2 parts.

Story time: Students will participate in a read aloud of *The Lorax* by Dr. Seuss or watch the original 1972 animated TV special. During the story time students should complete the following tasks in their journals:

1. Describe 3 decisions the Onceler made using the terms from this lesson.

2. What could the Onceler have done to improve his decisions for better outcomes?

***Unplugged variation for story time –** Students can select any story they have on hand (television shows, regular or picture books, movies, real life event, etc.). and replace the Onceler with a character in the story they have to complete the same tasks.

The second section of the knowledge check is to consider what they have learned through the lesson and apply it to decisions they will make after graduation.



Student Learning Supports

Ideas for Differentiation:

Our goal is for all students to be actively engaged using speaking, writing, illustrating. reading, and listening. Below are changes to the lesson to help achieve that goal for students who need additional support. Note: Be careful using these lessons for all students. If students are able to complete the activities on their own, it would be best to let them do this independently.

- Consider <u>providing the PPT</u> and articles in advance so student can follow along and enlarge text or images as necessary.
- Considering allowing students to record their answers in a Flipgrid or another format to complete tasks.
- Consider allowing students to record their summative task orally.

Opportunities for Extension:

Encourage students to explore information relevant to future decisions from the following articles:

- "Occupational Outlook Handbook" https://www.bls.gov/ooh/
- "Education and training assignments by detailed occupation" <u>https://www.bls.gov/emp/tables/education-and-training-by-occupation.htm</u>
- * "The Game of Life vs. Real Life" <u>https://www.bls.gov/careeroutlook/2018/article/game-of-life-vs-real-life.htm</u>
- Occupation Profiles https://www.bls.gov/oes/current/oes_stru.htm
- * High-wage occupations by typical entry-level education, 2017 <u>https://www.bls.gov/careeroutlook/2019/article/high-wage-occupations.htm</u>

To provide extensions for unplugged students, select one of the articles above (noted with *) to print for student review.

Evidence of Student Success

Information for diagnostic, formative, and summative assessments are described within the Instructional Design.

Engaging Families

<u>Materials included to support unplugged learners</u>: Scarcity and Making Rational Decisions PPT, article "Revealed: how your county compares on renewable investment" 2011

<u>Materials not included to support unplugged learners</u>: book-movie-tv show for analysis, journal or paper, pens/pencils



Scarcity and Making Rational Decisions Lesson Checklist

Part 1:

- 1. In your digital/physical journal, answer the question "What should you consider when making a major life decision?" Try to include appropriate visuals in your response. This will be the essential question for the lesson
- 2. Review and complete activities for slides 1-14 of the Scarcity and Decision Making PPT. Take visual notes in your journal on the concepts and vocabulary in the PPT. Throughout the slides, there are discussion questions and activities. Complete those activities in your journal.

Part 2:

- □ 3. Slides 15-22 of the PPT focuses on the relationship between investment and growth. Take time to analyze the primary and secondary sources and record responses in your journal.
- □ 4. For slide 19 if you cannot research expenses online, use your knowledge of average costs in the city where you live. You can use family members as an additional source of information.
- 5. For slide 22, read the included article and answer the questions in your journal.

Part 3:

- 6. This section contains the final knowledge checks for the lesson in 2 parts.
 Story time: Select any story you have on hand (television shows, regular or picture books, movies, real life event, etc.) and complete the following tasks in your journal: 1) Describe 3 decisions the main character made using the terms from this lesson on slide 24. 2) What could that character have done to improve their decisions for better outcomes?
- 7. For the second task, consider what you have learned throughout the lesson and apply it to a decision you will make after graduation.



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Revealed: how your country compares on renewable investment



China made the biggest investments into renewable energy during 2010

A breakdown of how major countries compare on their success in attracting investment in wind, solar and other forms of renewable energy in the past year

China saw \$54.5 billion invested into its clean energy sector, mostly to wind power projects, according to analysis by the <u>Pew Charitable Trusts</u>. Germany was second with \$41.2 billion of investment, largely in small-scale solar. Some of the biggest growth in investment was in India and Latin America.

Below is a breakdown of how ten countries compare on the investment they attracted:

Brazil

Brazil is ranked 6th among the G20 with 3.9 per cent of total investment and second only to China among emerging markets. In 2010 this equated to \$7.6bn with 40 per cent going to biofuels, 31 per cent to wind and 28 per cent going to other sources. When it comes to policy, Brazil does not have a carbon cap or market, but does enforce a renewable energy standard and has clean energy tax incentives as well as having the world's 7th largest installed clean energy capacity of 14 Gigawatts.

Canada

Standing one place behind Brazil among the G20, Canada's total green energy investment for 2010 came to \$5.6bn. Fifty-two per cent of this was channelled into wind energy, while 24 per cent went to solar projects. Canada also stands at 12th among G20 for installed clean energy capacity, with 7.6 gigawatts, but 4th globally for percentage of GDP invested. The leading beneficiaries are wind and small hydro systems, which receive strong support from provincial governments, which have a much more significant say in energy policy than national government.

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China

China saw a 39 per cent growth in its 2010 clean energy investment, bringing in a world-record of \$54.4bn. In 2009 it surpassed the US to claim the number one spot for installed clean energy, with a substantial \$45bn going to wind, enabling a drive to install an additional 17 gigawatts of wind capacity. China's wind sector has accounted for 72 per cent of its renewable investment between 2005 and 2010. It has set a new 2020 goal of 20 installed gigawatts of solar energy, which saw \$4.7bn of investment in 2010. In addition to this, China is also the world's leading manufacturer of renewable energy technology, producing 50 per cent of wind turbine and solar module shipments.

France

France's 2009 to 2010 investment increase of 26 per cent has pushed it into 9th place within the G20, with 2 per cent of total G 20 investment. This equated to \$4bn, nine tenths of which went into small scale solar projects, which saw an investment rise of 150 per cent, however, from 2005 to 2010 52 per cent of France's clean energy investment went into wind. Policy incentives from the government include reduced VAT on renewable energy equipment as well as having a renewable energy standard.

Germany

Germany now stands at second in the G20 rankings for clean energy investment, having surpassed the United States. It saw a 100 per cent increase in its 2010 investments, reaching \$41.2bn driven largely by a significant flow of money into the solar sector. Small scale solar projects saw \$36.1bn of the Germany's total 2010 investment, which has led to a 132 per cent jump in the output of solar energy, allowing the installation of an extra 8-9 gigawatts of installed solar capacity. German policy incentives include Auto-efficiency standards, government procurement and clean energy tax incentives.

India

India is now ranked in 10th place among the G20 for renewable energy, with 2 per cent of the total investment. In 2010, India's clean energy investments rose by 25 per cent to \$4bn, 63 per cent of which was funnelled into the wind sector. The Indian government has set an ambitious target of 20 gigawatts of installed solar capacity by 2020, and currently stands 7th in the world for such capacity with 18.7 gigawatts. Policies include a preferential 15 per cent tax on renewable energy projects, compared with the standard 30 per cent

Indonesia

Unlike all the above cases, Indonesia's 2010 investment declined a not-insignificant 55 per cent, to \$247m. This places it right down at 18th among the G20 nations, with geothermal taking the lion's share of this investment. Although Indonesia does rank 4th for 5 year growth, its starting point is much lower, therefore this growth arguably amounts to a catch-up drive. However, its policy incentives include guaranteed purchase of clean energy by state utilities as well as tax incentives for clean energy projects, among others.

Japan

Japan's 10 per cent investment increase in 2010 places it just outside the top ten at 11th, with \$3.3bn, amounting to just 0.2 per cent of the G20 total. However, its five-year growth rate forces it right down to the bottom of the table, with the Japanese clean energy sector being dominated by solar, which saw 96 per cent of investment. Japan does have 20 gigawatts of installed biomass energy, and its solar investments have seen the installation of 3.5 gigawatts of capacity. Its current installed capacity is 7 per cent of the G20 total. It has set a target of 28 gigawatts of installed solar capacity by 2020 with 5 gigawatts coming from wind.

UK

The UK saw a sharp 70 per cent decline in its 2010 clean energy investments, which been possibly attributed to the uncertainty surrounding new government policy positions. The UK's 2010 investments of \$3.3bn place it 13th in the G20 table, with just 1.6 per cent of total investment. Fifty-two per cent of this went into offshore wind farms, while it currently has 7.5 per cent of installed gigawatt capacity, 2 per cent of the G20 total. Policies include tax incentives, a renewable energy standard as well as government procurement.

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USA

Although the US has seen a 51 per cent increase in investments in 2010, with \$34bn, it has dropped to third place in the G20 league, investing 17 per cent of the G20 total. It is also in 11th position in terms of its five year growth, but is the world leader for investment in energy efficiency. With regard to policy, the US has a number of tax incentives for clean energy, and although is still the dominant voice in technology innovation it is lagging in manufacturing.

http://www.theecologist.org/News/news_analysis/829664/revealed_how_your_country _compares_on_renewable_investment.html

