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| Name: |  | Date: |  |

## Purpose

In this lesson, you’re introduced to the factors that led to the positive and negative impact industrialization had on different nations and communities within these nations. In this activity, you’ll use the Gapminder tool to assess how industrialization has led to increased income and longer life expectancy in most regions of the world. By examining the data from a variety of regions, you’ll be able to visually assess these changes and make connections across both time and space. In addition, you’ll compare the impact of industrialization on different nations and look at how industrialization shaped both global and local history in the nineteenth and twentieth centuries.

## Process

In this lesson, you’ll learn about different regions such as Egypt and Japan that began to industrialize in the nineteenth century. This activity provides a visual introduction to this lesson while also incorporating data from a variety of regions of the world. This will help you see how industrialization often led to an increase in income and life expectancy in those regions that began to industrialize, but you’ll also see that some regions industrialized much later than others.

1. Think about the answer to the following question: What regions of the world began to industrialize first?
2. Your teacher will introduce you to [the Gapminder tool](https://www.gapminder.org/tools/#$chart-type=bubbles&url=v2) and the different ways to visualize data using it.
3. After this introduction, your teacher will have you work in pairs or small groups to use the Gapminder tool.
4. You’ll compare data from the UK or the US with that of other nations. Your teacher will assign groups either the US or the UK to compare to one nation from each of the lists below. For each of these nations, you’ll be comparing “Income” and “Life Expectancy” between the UK or US and your other assigned nations.

Nations that industrialized later (those that did not begin industrializing until the mid-nineteenth to twentieth centuries):

* + Chile
	+ China
	+ Egypt
	+ India
	+ Japan
	+ Mexico
	+ South Korea
	+ Uruguay

Least developed nations (defined by the United Nations as “low-income countries confronting severe structural impediments to sustainable development”).

* + Afghanistan
	+ Bangladesh
	+ Cambodia
	+ Ethiopia
	+ Sudan
	+ Uganda
	+ Vanuatu
	+ Yemen
1. You’ll compare your assigned nations from the “Industrialized Later” category, using “Income” for the y-axis, and then pressing Play to see the data that unfolds from 1800 to 2018.
2. Then, you’ll do the same thing for your assigned nation but instead use “Life Expectancy” for the y-axis.
3. After each comparison, answer the questions on the worksheet.
4. You’ll do the same thing to compare either the UK or the US and your assigned nation from the “Least Developed Nations” category for both “Income” and “Life Expectancy,” and answer the questions on the worksheet for this comparison.
5. Once all groups have finished completing the worksheet, each group will share out some of their findings.
6. After all groups have shared out, think about any patterns that emerged. Why do you think some regions of the world industrialized later than others? What historical events or processes might have contributed to some regions becoming wealthier and more industrialized than others?

By the end of this activity, you should have a better idea of how those nations that industrialized first had (and continue to have) advantages over those that either took longer to do so or have not achieved industrialization on the scale seen in other regions of the world. You’ll also assess the reasons for the lack of growth in some regions of the world and become aware of how industrialized nations used resources from many of these lesser developed regions for their own success.

**Directions:** Use the Gapminder tool to compare your assigned nations and evaluate the data for “Income” and “Life Expectancy” across time (1800-2018). Then, answer the following questions for each of your comparisons.

**Data Analysis Questions:**

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| Countries in your first round of comparison: |  |

1. For the “Income” category of analysis, record the decade(s) when there was a steady rise in income. Why do you think income began to increase during this period of time?

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1. Were there any dips or significant drops in income from 1800 to 2018? What might be some explanations for these decreases?

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1. For the “Life Expectancy” category of analysis, record the decade(s) when there was a steady rise in life expectancy. Why do you think life expectancy began to increase during this period of time?

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1. Were there any dips or significant drops in life expectancy from 1800 to 2018? What might be some explanations for these decreases?

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1. Do a quick Internet search to find out when your assigned nation began to industrialize. Does this information match your data? If it doesn’t, is there an explanation for why the data and your research seem to indicate two different things?

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| Countries in your second round of comparison: |  |

1. For the “Income” category of analysis, record the decade(s) when there was a steady rise in income. Why do you think income began to increase during this period of time?

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1. Were there any dips or significant drops in income from 1800 to 2018? What might be some explanations for these decreases?

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1. For the “Life Expectancy” category of analysis, record the decade(s) when there was a steady rise in life expectancy. Why do you think life expectancy began to increase during this period of time?

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1. Were there any dips or significant drops in life expectancy from 1800 to 2018? What might be some explanations for these decreases?

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1. Do a quick Internet search to find out when your assigned nation began to industrialize. Does this information match your data? If it doesn’t, is there an explanation for why the data and your research seem to indicate two different things?

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**Data Analysis Follow-Up Questions:**

Answer the following questions after you’ve completed your analysis and be prepared to share your answers with the class.

1. What advantages do nations that industrialized early have over ones that industrialized later? Use the data from the activity to support your thinking.

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1. What advantages do industrialized nations have over ones that are the least developed? Use the data from the activity to support your thinking.

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1. To what extent is examining the level of industrialization (through income and life expectancy) a good method for comparing nations?

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