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Teacher Overview

[Go directly to student-facing materials!](#)



SQ 3. What historical circumstances and geographic context led to the Industrial Revolution in Great Britain?



Unit Essential Question(s): Do the benefits of innovation outweigh the costs? For whom? [Link to Unit](#)

Supporting Question(s): What historical circumstances and geographic context led to the Industrial Revolution in Great Britain?

Objective(s):

- **Describe** the changes brought about by the Agricultural Revolution in Great Britain.

Vocabulary

The following words are introduced or reinforced in this lesson. Reference the unit vocabulary tracker for more information. [Click here](#) for the New Visions Global History glossary.

Word/Phrase (part of speech)	Definition
Age of Exploration	a period of global history that started in the 15th century and continued into the 18th century in which Europeans sailed around the world, discovering new routes to Asia, and new lands including North and South America which were unknown to people in the Eastern Hemisphere.
Agricultural Revolution	(mid 1700s- 1800s) the transformation of agriculture from traditional medieval farming to more productive, efficient, and

	mechanical methods of farming through scientific innovation and new techniques
cause	a reason something happens
coal	a black or dark brown rock that burns easily when set on fire
colonial	related to colonies
colony	an area under the control of another country or empire, usually far away
combustible	burns easily when set on fire
complex	consisting of many different and connected parts
contextualization	the act of describing where an event took place, what led to it, and why
economic	related to the use a country or region's wealth and resources
efficient	operating well without much waste
factory	a building or set of buildings where products are made by machines
fertilizer	a natural or chemical substance that you add to soil to make it better for growing plants
finished goods	products that are ready to be sold to customers
geographic context	where a historical event took place and why it took place there; includes location, location relative to other places, geographic features, and climate
geographic feature	naturally occurring landforms, bodies of water, or ecosystems
good (n.)	something that is bought and sold
Great Britain	the main island of the United Kingdom, located off the northwest coast of France and occupied by England, Scotland, and Wales; Great Britain
harbor	a safe area of water where people can leave their boats
historical circumstances	the events that led to an event; includes the time period and larger historical trends as well as causes
Industrial Revolution	the period in which the production of goods shifted from hand production methods to complex machines. This period of industrialization resulted in social and economic changes. The Industrial Revolution started in Great Britain around 1750. The process of industrialization spread throughout the world in the following centuries.
Industrialization	the process of developing manufacturing on a large scale
innovation	a new method of addressing a problem
irregular coastline	a coastline that is not smooth, and has many natural harbors which led to the development of ports and harbors allowing

trade, sea travel, and cultural diffusion to occur.

James Watt

location	the place or position of something
machine	a piece of equipment with a system of parts that work together to do or make something
manufacture	the process of making a large number of something
market	an area for buying and selling goods
mechanization	the process of making something more mechanical or automatic by introducing machines
migrate	to move from one place to another
migration	movement from one place to another
natural resource	materials that occur in nature and can be used for economic gain (to make money) like forests, water, fertile land, oil, or coal
overseas	across any of the oceans
population	the number of people in a particular area
productivity	the ability to produce large amounts of goods or crops
raw materials	an item (usually a natural resource) used to create manufactured goods
seed drill	(1701) invention created by Jethro Tull that planted seeds more efficiently than hand sowing
social	having to do with society, people living together in large groups
spinning jenny	(1770) machine invented by James Hargreaves that spun wool into yarn
steam-engine	a machine that heats water, then uses resulting steam to move machinery. Though others invented the steam engine, James Watt's version of it was popular during the Industrial Revolution.
water wheel	a machine that uses the energy of flowing water to power machinery
water-frame	(1768) a machine invented by Richard Arkwright that used water power to turn wool into yarn

Formative Assessment Possible Responses

These responses represent possible answers to the formative assessment tasks in this lesson. They are not the only correct answers. Create your own list of possible responses before using this resource with students to anticipate student misconceptions and adjust your instruction.

Use the checklist below to assess the use of important content and vocabulary in the unit.

Self Yes/No	Teacher Yes/No	Did you use the content and vocabulary below in your response?
		natural resource
		location
		colony (colonies)
		innovation

Task: Explain the historical circumstances and geographic context that led to the Industrial Revolution in Great Britain.

When?

date, year, era, "before __," "after __"

1750s

Where?

continents, regions, countries, geographic features nearby, describe the geography if relevant

Great Britain, northwest of Europe, surrounded by the Atlantic Ocean, North Sea and English Channel
Irregular coastlines, good harbors

Why?

use words and phrases like "led to," because, and so to show connections between events and to explain why

Great Britain's location was good for shipping goods, it had an irregular coastline which meant good harbors, it had rivers that were good for shipping and powering factories, the Agricultural revolution led to people moving to cities and an increase in the population, new inventions were created and GB's colonies both brought in raw materials and gave factory owners a place to sell their goods. There was also a lot of coal which was used to power engines in factories.

Combined Contextualization:



Why did it happen **when** and **where** it happened?

The Industrial Revolution started in Great Britain in the 1750s because Great Britain had natural resources and geography that made it a good place for factories to start and be profitable. The island's rivers provided power and a means for shipping goods, which could be shipped further because of Great Britain's location close to Europe and easy access to the Americas and Asia through the Atlantic Ocean. In addition, there was a lot of coal in Great Britain which was later used to fuel engines that ran factories.

NYS Social Studies Framework

Key Idea	Conceptual Understandings	Content Specifications
10.3 CAUSES AND EFFECTS OF THE INDUSTRIAL REVOLUTION: Innovations in agriculture, production, and transportation led to the Industrial Revolution, which originated in Western Europe and spread over time to Japan and other regions. This led to major population shifts and transformed economic and social systems. (Standard: 2, 3, 4; Themes: MOV, TCC, GEO, SOC, ECO, TECH)	10.3b Factors including new economic theories and practices, new sources of energy, and technological innovations influenced the development of new communication and transportation systems and new methods of production. These developments had numerous effects.	Students will analyze the factors and conditions needed to industrialize and to expand industrial production, as well as shifts in economic practices.

Social Studies Practices

NYS Social Studies Practices	New Visions Student Social Studies Practices	
Gathering, Using and Interpreting Evidence (A2, A5) Chronological Reasoning and Causation (B3, B5)	 Contextualize	 Connect Cause and Effect

NYS Common Core Learning Standards

Reading	Writing	Speaking and Listening
Craft and Structure: CCSS.ELA-LITERACY.RH.9-10.4: Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.	Text Types & Purposes: CCSS.ELA-LITERACY.WHST.9-10.1: Write arguments focused on <i>discipline-specific content</i> .	Comprehension and Collaboration: CCSS.ELA-LITERACY.SL.9-10.1: Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9-10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.

Associated Classroom Posters

[Student Social Studies Practices Poster](#)
[New Visions Enduring Issues Tips and List](#)

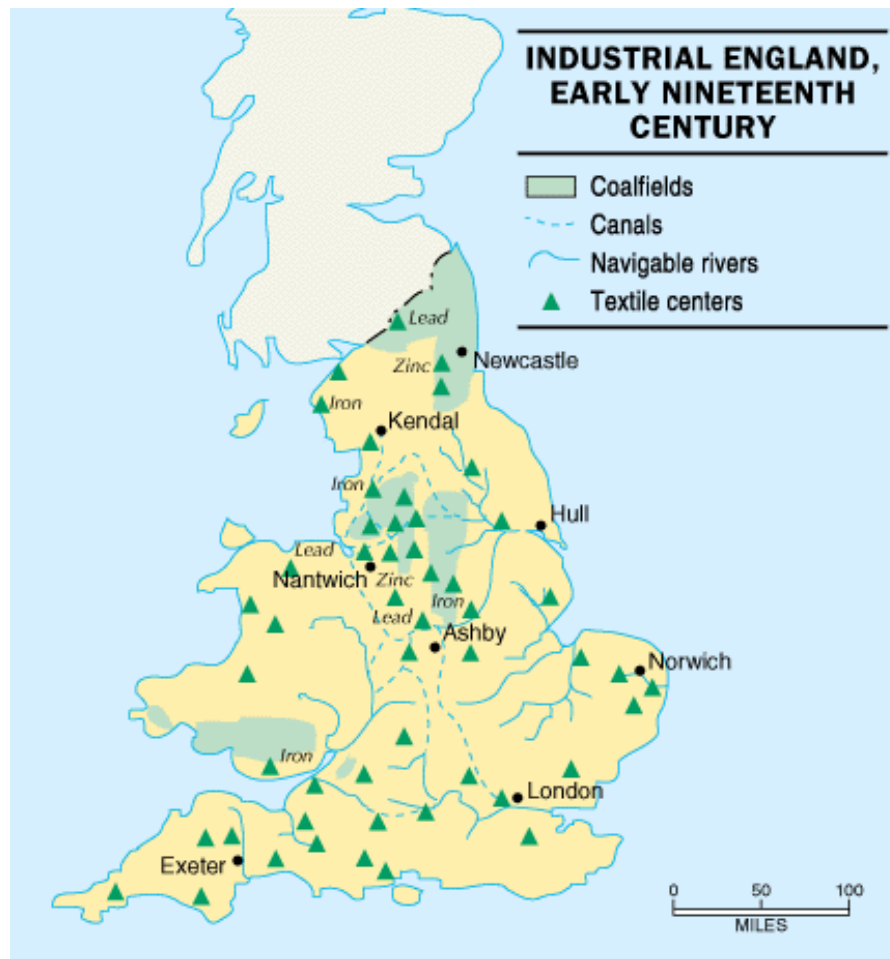
What historical circumstances and geographic context led to the Industrial Revolution in Great Britain?

Objective:

- **Explain** the historical circumstances and geographic context that led to the Industrial Revolution in Great Britain.

Introduction

➡ **Directions:** Examine the map below, then complete the tasks on the right.



[Image](#) is courtesy of ablongman.com

See

List at least **three** things you *see* on this map.

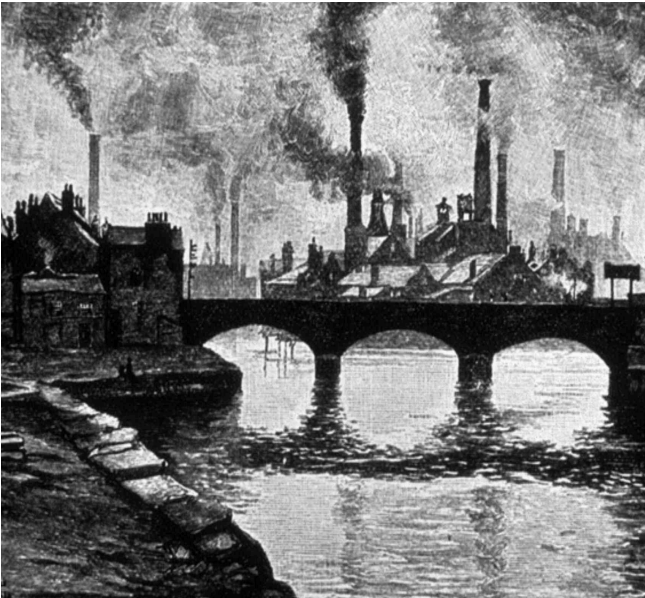
Think

List at least **two** things you *think* about the locations of textile centers (factories).

Wonder (1)

Write down at least **one question** you have about the map.

The Industrial Revolution (1750 -1850)



Factories that came to dominate the city skyline in many rapidly expanding cities across.

[Image](#) is courtesy of aria systems

The **Industrial Revolution** was the period in which the production of goods shifted from hand production methods to complex machines. This period of **industrialization** resulted in social and economic changes.

The Industrial Revolution started in **Great Britain** around 1750. The process of industrialization **spread throughout the world** in the following centuries.



Manchester from Kersal Moor by William Wyld

[Image](#) is courtesy of wikimedia commons and is in the public domain



Connect Cause
and Effect



Identify
Patterns

Why did the Industrial Revolution start in Great Britain in the 1750s? What historical circumstances and geographic context led to the Industrial Revolution in Great Britain?

➡ **Directions:** As you read through the following documents take notes in the graphic organizer below to help you answer the questions above.

Document Title	Notes: Why did the Industrial Revolution start in Great Britain in the 1750s? What historical circumstances and geographic context led to the Industrial Revolution in Great Britain?
Cause #1: Geography-Location, Geographic Features, and Natural Resource	
Cause #2: Agricultural Revolution	
Cause #3: New Technology	
Cause #4: Colonial Markets for Raw Materials and Goods	

Cause #1: Geography- Location, Geographic Features, and Natural Resources

Location

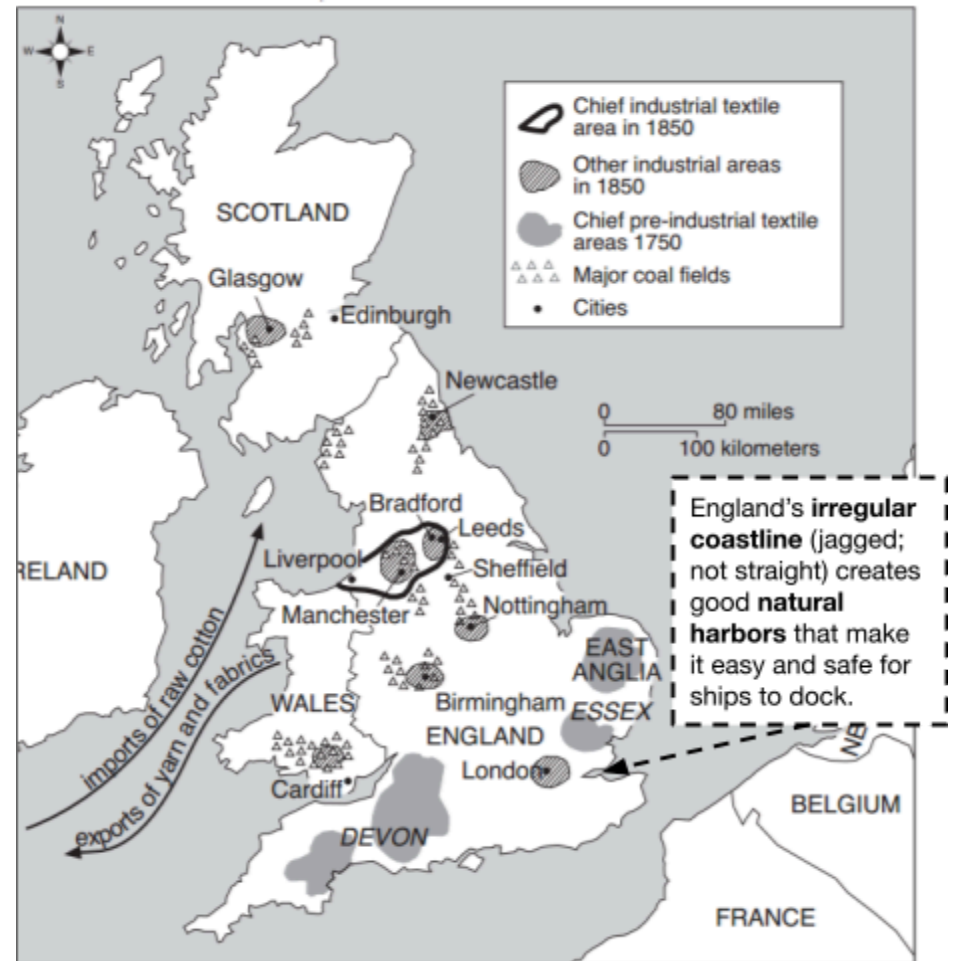
Great Britain is the main island of the modern-day country called the United Kingdom and is located northwest of mainland Europe. The Atlantic Ocean is to the west, the North Sea is to the northeast and the English Channel separates Great Britain from France. Because of its location close to mainland Europe and surrounded by major bodies of water, Great Britain was a leader in overseas trade with connections to the Mediterranean Sea and the rest of Europe and to the Americas across the Atlantic Ocean and to Asia around the tip of Africa. As the Industrial Revolution progressed, Great Britain's location made it easy to ship raw materials to factories and finished goods to other places to be sold.

Geographic Features

Two of Great Britain's common geographic features made it a good place to manufacture goods and ship them. First, the island has many gently-flowing rivers which early factories used as energy sources by placing water wheels in the rivers which turned the gears in their factories to run the machines that made goods. The rivers were also used to ship goods to and from factories. The second geographic feature, is an irregular coastline which often creates safe places for ships to dock, called harbors. Great Britain's natural harbors led to the creation of cities that were centers of shipping. Boats carrying goods and people came from the Atlantic Ocean, the North Sea, and English Channel to Great Britain's harbors where their cargo was sold or shipped inland on rivers.

Natural Resources

Great Britain was rich with a natural resource that became very important later in the Industrial Revolution and is still important today, coal. Coal is a rock that is combustible, meaning that it burns easily when set on fire. Coal fueled engines that replaced water wheels as the main source of energy for factories and since it was prevalent in Great Britain, there was an inexpensive source that could be used to power factories and later, trains.



Source: Adapted from Holt and O'Connor, Exploring World History Workbook, Globe Book Company (adapted) from the NYS Global History and Geography Regents Exam, August 2007



Learn more about coal by watching this video from [Student Energy](#) entitled "[Coal 101.](#)"

Cause #2: Agricultural Revolution

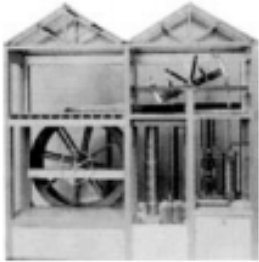
New tools, fertilizers, and harvesting techniques during the **Agricultural Revolution** increased productivity which resulted in an increase in population. Innovations, such as the seed drill, made the process of planting seeds easier and more efficient which meant that fewer farmers were needed to produce the same amount of food. Since there were fewer jobs in rural areas, many **farmers and their families migrated to cities** where factories hired large numbers of workers.

Cause #3: New Technology

New technological innovation in machinery meant that factories could produce more goods in less time, for less money. The cheaper goods were produced, the more money factory owners made and the faster the Industrial Revolution grew and spread.

... Four great inventions altered [changed] the character of the cotton manufacture; the **spinning jenny**, patented by Hargreaves in 1770; the **water-frame**, invented by Arkwright the year before; **Crompton's mule** [spinning machine] introduced in 1779, and the self-acting mule, first invented by Kelly in 1792, but not brought into use until Roberts improved it in 1825. None of these by themselves would have revolutionised the industry. But in 1769...**James Watt** took out his patent for the **steam-engine**. Sixteen years later it was applied to the cotton manufacture. In 1785 Boulton and Watt made an engine for a cotton-mill at Papplewick in Notts, and in the same year Arkwright's patent expired. These two facts taken together mark the introduction of the factory system.

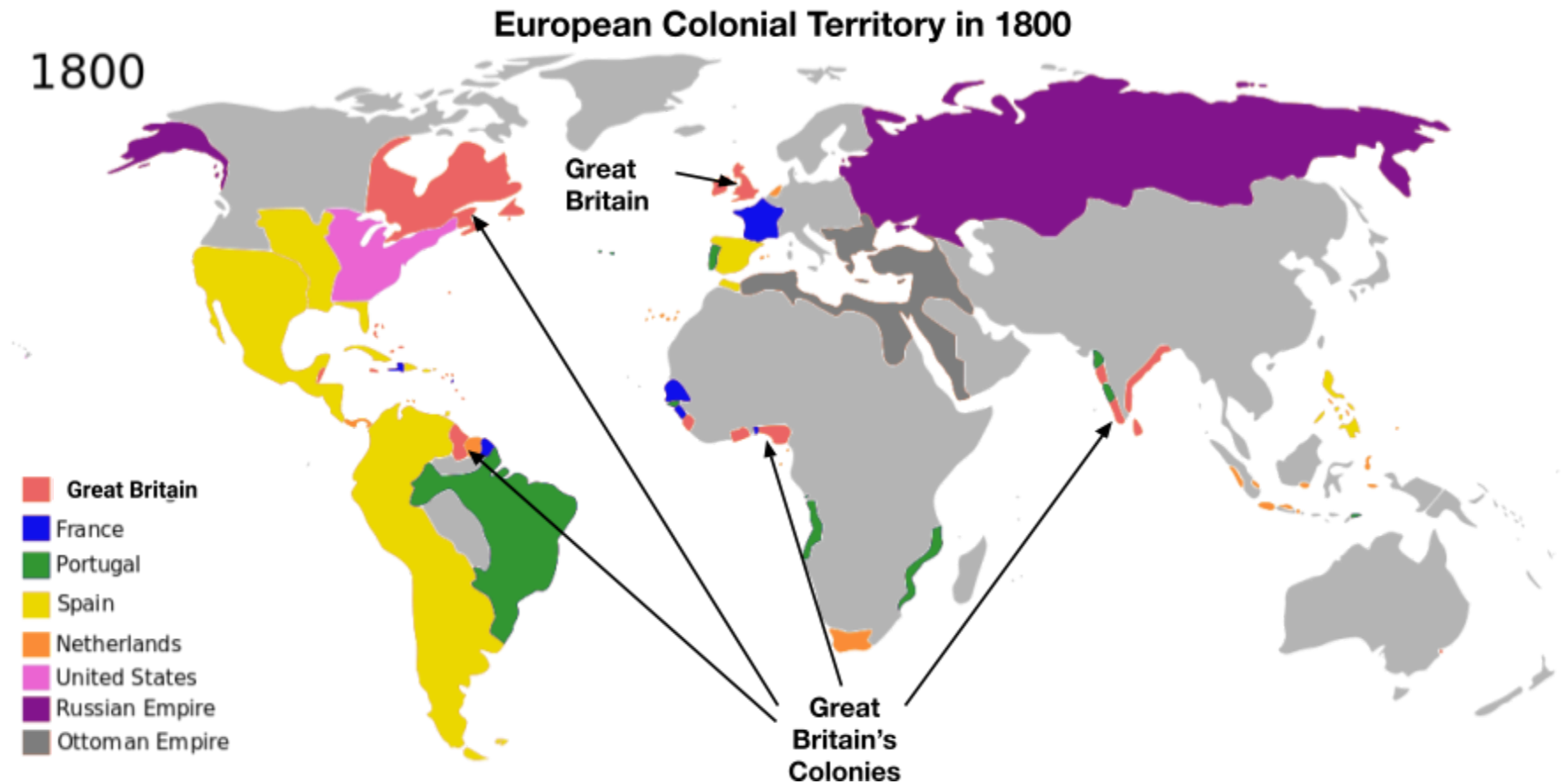
Source: Arnold Toynbee, Lectures on the Industrial Revolution of the 18th Century in England, Humboldt (adapted) from the NYS Global History and Geography Regents Exam, June 2006.

Invention	Description
 Improved steam engine (James Watt)	Improved version of steam engine that used coal rather than water power. First used to pump water from mines and to forge iron. By the late 1780s, powered machines in cotton mills.

Source: Ellis and Esler, World History: Connections to Today, Prentice Hall, 1999 (adapted) from the NYS Global History and Geography Regents Exam, January 2013.

Cause #4: Colonial Markets for Raw Materials and Goods

As a result of the **Age of Exploration**, Great Britain became wealthy and powerful, and gained **colonies** in North and South America, Africa, and South Asia. During the Industrial Revolution, English traders brought raw materials like cotton from its colonies to the factories in Great Britain where they were turned into finished goods. These manufactured goods were then sold throughout Great Britain, Europe, the United States, and back to people living in the British colonies. The money made from selling manufactured goods to Britain's colonies fueled the expansion of industry at home.



Colonial empires in 1800 by George Tsiagalakis
[Image](#) is Courtesy of Wikimedia Commons and is Public Domain

SQ 3. What historical circumstances and geographic context led to the Industrial Revolution in Great Britain?



Connect Cause
and Effect



Contextualize

➡ **Directions:** Complete the tasks below using the information you learned in this lesson and your knowledge of global history.

Content and Vocabulary Checklist

Use the checklist below to assess the use of important content and vocabulary in the unit.

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Combined Contextualization:

Why did it happen **when** and **where** it happened?
