

Gegenstand: GGP

Thema: The Industrial Revolution

Farbcode:

Blau hinterlegt. = Bloom'sche Taxonomie angewandt.

Grün hinterlegt = Scaffolding angewandt

Activity type(s)	<ol style="list-style-type: none"> 1. Jigsaw-reading (=understanding & remembering) 2. Mind mapping (= understanding, analyzing) 3. Summarizing 4. Watching a video and taking notes 5. Comparing and discussing the findings (= understanding, analyzing) 6. Completing a crossword puzzle (=understanding & remembering) 7. Creating meaningful sentences with the help of a substitution table (=creating)
Classroom format	Individual work, whole class, pair work
Time	2-3 lessons
Procedure	<ol style="list-style-type: none"> 1) Students read parts of a text about the Industrial Revolution, exchange information and talk about unknown words. 2) Flip your classroom: Students read the whole text at home and prepare a mind map with the most important information. 3) With the help of their mind maps, students summarize the text in pairs. 4) Students watch the video "25 Facts About the Industrial Revolution" and write down 5-6 facts as well as take additional notes. If necessary, they watch the video a second time. 5) Students compare their findings and discuss them. 6) Students complete a crossword puzzle. 7) Students make meaningful sentences using the words and phrases given.
Resources	Handout
Content-related learning outcome	Students understand the different aspects of the Industrial Revolution.
Language-related learning outcome	<ul style="list-style-type: none"> ➤ Students can read for gist and detail. ➤ Students can watch and listen for gist and detail. ➤ Students can extract information from a text and create a mind map. ➤ Students can summarize a text. ➤ Students can talk about the various aspects of the Industrial Revolution.
Source(s)	http://www.history.com/topics/industrial-revolution (accessed 13/05/2020) https://www.youtube.com/watch?v=WfZv-ePv36I (accessed 13/05/2020) Bilder: https://commons.wikimedia.org/wiki/File:PSM_V39_D306_Hargreave_improved_spinning_jenny.jpg https://commons.wikimedia.org/wiki/File:Modern_Power_Loom-marsden.png https://commons.wikimedia.org/wiki/File:Bessemer_Converter_-_Kelham_Island_Industrial_Museum.jpg https://commons.wikimedia.org/wiki/File:Newcomen6325.png https://commons.wikimedia.org/wiki/File:Locomotive_trevithick.svg https://de.wikipedia.org/wiki/Adam_Smith

Lehrplanbezug HTL: Geografie, Geschichte und Politische Bildung (einschließlich Volkswirtschaftliche Grundlagen) III. Jahrgang, 5. Semester (Kompetenzmodul 5); Bereich Geschichte: Technische Entwicklungen und ihre Auswirkungen; Industrialisierung und gesellschaftlicher Wandel; Arbeitswelten; Umweltgeschichte in Beispielen ab der Neolithischen Revolution; Entwicklung von unterschiedlichen Wirtschafts- und Sozialsystemen; wirtschaftliche, soziale und ökologische Auswirkungen des sektoralen Wandels. (HTL Lehrplan 2015, S. 31)

Lehrplanbezug HAK: III. Jahrgang, 6. Semester (Kompetenzmodul 6); „Veränderungen der Arbeitswelt und der Sozialstrukturen durch Industrialisierung und Globalisierung Wirtschaftsordnungen und deren ideologischen Grundlagen:

Liberalismus und Kapitalismus, Marxismus, Christliche Soziallehre Idealtypische Modelle: Zentralverwaltungswirtschaft, Marktwirtschaft“ (HAK Lehrplan 2014, S. 80. https://www.hak.cc/files/syllabus/Lehrplan_HAK_2014.pdf)

Lehrplanbezug HLW: III. Jahrgang, 5. Semester (Kompetenzmodul 5); „Europa und die Welt von 1814 bis 1914: Liberalismus, Nationalismus, Revolutionsjahr 1848, Imperialismus. Industrialisierung, Soziale Frage und Lösungsideen.“ (HLW Lehrplan 2014, S. 57. https://www.hum.at/images/aktuelles/formulare/SV_Beilagen_Lehrplaene_Hum/SV-Beilage_HLW_ohneAM_27_2_2014.pdf)

Lehrplanbezug BAfEP: IV. Jahrgang, 7. Semester (Kompetenzmodul 7); „im Bereich „Kultur/Wissenschaft“ - die Industrielle Revolution und deren Auswirkungen interpretieren“ (BAfEP Lehrplan 2016, S 39. https://bafep10.at/wp-content/uploads/2016/03/VO-Lehrplan-neu-Juli-2016_Deckblatt.pdf)

List of icons:

read by faisalovers from the Noun Project
discuss by businessicons13 from the Noun Project
Mindmap by Leslie Tom from the Noun Project
Video by Allen Wang from the Noun Project
finding answer by ProSymbols from the Noun Project
write by Adrien Coquet from the Noun Project

Task 1a:



Read one of three texts on the Industrial Revolution as fast as possible, that means without pausing and without looking up any words. Your teacher will tell you which text to read. Skim through the text in about 1 minute to get the general idea. You do not need to understand every single word.

Task 1b:

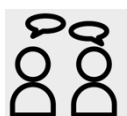


Find another **student who has read the same text** as you have and, without looking at the text again, speak about the most important facts you remember.

Task 1c:



Read the text once more, as fast as possible again, and **underline a maximum of five words** you are **not familiar** with.



Find a **new partner who has read the same text**, speak about the most important facts you remember and try to figure out **what the words**, that you **have underlined, mean**. If necessary, your teacher might help you or provide you with a wordlist.

Text 1:

The Industrial Revolution

The Industrial Revolution, which took place from the 18th to 19th century, was a period during which predominantly agrarian, rural societies in Europe and America became industrial and urban. Prior to the Industrial Revolution, which began in Britain in the late 1700s, manufacturing was often done in people's homes, using hand tools or basic machines. Industrialization marked a shift to powered, special-purpose machinery, factories and mass production. The iron and textile industries, along with the development of the steam engine, played central roles in the Industrial Revolution, which also saw improved systems of transportation, communication and banking. While industrialization brought about an increased volume and variety of manufactured goods and an improved standard of living for some, it also resulted in often grim employment and living conditions for the poor and working classes.

Britain: Birthplace of the Industrial Revolution

Before the advent of the Industrial Revolution, most people resided in small, rural communities where their daily existences revolved around farming. Life for the average person was difficult, as incomes were meagre, and malnourishment and disease were common. People produced the bulk of their own food, clothing, furniture and tools. Most manufacturing was done in homes or small, rural shops, using hand tools or simple machines.

A number of factors contributed to Britain's role as the birthplace of the Industrial Revolution. For one, it had great deposits of coal and iron ore, which proved essential for industrialization. Additionally, Britain was a politically stable society, as well as the world's leading colonial power, which meant its colonies could serve as a source for raw materials, as well as a marketplace for manufactured goods. As demand for British goods increased, merchants needed more cost-effective methods of production, which led to the rise of mechanization and the factory system.

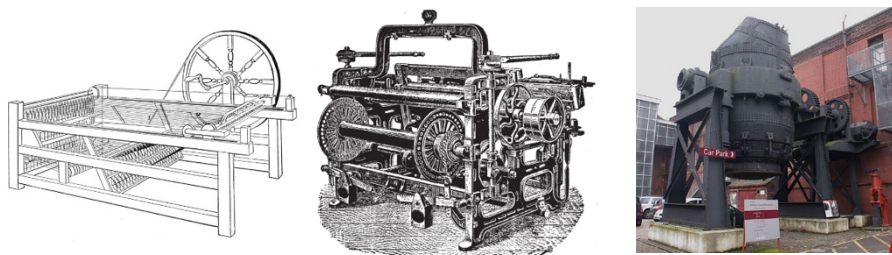
Innovation and Industrialization

The textile industry, in particular, was transformed by industrialization. Before mechanization and factories, textiles were made mainly in people's homes (giving rise to the term cottage industry), with merchants often providing the raw materials and basic equipment, and then picking up the finished product. Workers set their own schedules under this system, which proved difficult for merchants to regulate and resulted in numerous inefficiencies. In the 1700s, a series of innovations led to ever-increasing productivity, while requiring less human energy. For example, around 1764, Englishman James Hargreaves (1722-1778) invented the spinning jenny ("jenny" was an early abbreviation of the word "engine"), a machine that enabled an individual to produce multiple spools of threads simultaneously. By the time of Hargreaves' death, there were over 20,000 spinning jennys in use across Britain. The spinning jenny was improved upon by British inventor Samuel Compton's (1753-1827) spinning mule, as well as later machines. Another key innovation in textiles, the power loom, which mechanized the process of weaving cloth, was developed in the 1780s by English inventor Edmund Cartwright (1743-1823).

Developments in the iron industry also played a central role in the Industrial Revolution. In the early 18th century, Englishman Abraham Darby (1678-1717) discovered a cheaper, easier method to produce cast iron, using a coke-fueled (as opposed to charcoal-fired) furnace. In the 1850s, British engineer Henry Bessemer (1813-1898) developed the first inexpensive process for mass-producing steel (Bessemer converter). Both iron and steel became essential materials, used to make everything from appliances, tools and machines, to ships, buildings and infrastructure.

The steam engine was also integral to industrialization. In 1712, Englishman Thomas Newcomen (1664-1729) developed the first practical steam engine (which was used primarily to pump water out of mines). By the 1770s, Scottish inventor James Watt (1736-1819) had improved on Newcomen's work, and the steam engine went on to power machinery, locomotives and ships during the Industrial Revolution.

Adapted from: www.history.com/topics/industrial-revolution



Text 2:**The Industrial Revolution**

The Industrial Revolution, which took place from the 18th to 19th century, was a period during which predominantly agrarian, rural societies in Europe and America became industrial and urban. Prior to the Industrial Revolution, which began in Britain in the late 1700s, manufacturing was often done in people's homes, using hand tools or basic machines. Industrialization marked a shift to powered, special-purpose machinery, factories and mass production. The iron and textile industries, along with the development of the steam engine, played central roles in the Industrial Revolution, which also saw improved systems of transportation, communication and banking. While industrialization brought about an increased volume and variety of manufactured goods and an improved standard of living for some, it also resulted in often grim employment and living conditions for the poor and working classes.

Transportation and the Industrial Revolution

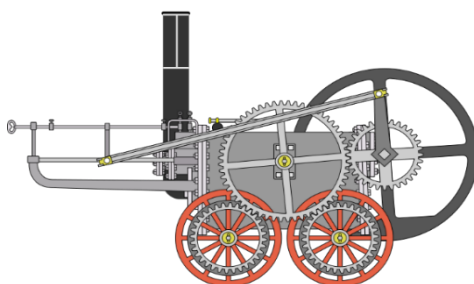
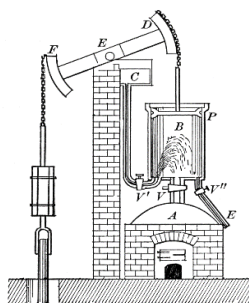
The transportation industry also underwent significant transformation during the Industrial Revolution. Before the advent of the steam engine, raw materials and finished goods were hauled and distributed via horse-drawn wagons, and by boats along canals and rivers. In the early 1800s, American Robert Fulton (1765-1815) built the first commercially successful steamboat, and by the mid-19th century, steamships were carrying freight across the Atlantic. As steam-powered ships were making their debut, the steam locomotive was also coming into use. In the early 1800s, British engineer Richard Trevithick (1771-1833) constructed the first railway steam locomotive. In 1830, England's Liverpool and Manchester Railway became the first to offer regular, timetabled passenger services. By 1850, Britain had more than 6,000 miles of railroad track. Additionally, around 1820, Scottish engineer John McAdam (1756-1836) developed a new process for road construction. His technique, which became known as macadam, resulted in roads that were smoother, more durable and less muddy.

Communication and Banking in the Industrial Revolution

Communication became easier during the Industrial Revolution with such inventions as the telegraph. In 1837, two Brits, William Cooke (1806-1879) and Charles Wheatstone (1802-1875), patented the first commercial electrical telegraph. In 1866, a telegraph cable was successfully laid across the Atlantic. The Industrial Revolution also saw the rise of banks and industrial financiers, as well as a factory system dependent on owners and managers. A stock exchange was established in London in the 1770s; the New York Stock Exchange was founded in the early 1790s.

In 1776, Scottish social philosopher Adam Smith (1723-1790), who is regarded as the founder of modern economics, published "The Wealth of Nations." In it, Smith promoted an economic system based on free enterprise, the private ownership of means of production, and lack of government interference.

Adapted from: www.history.com/topics/industrial-revolution



Text 3:

The Industrial Revolution

The Industrial Revolution, which took place from the 18th to 19th century, was a period during which predominantly agrarian, rural societies in Europe and America became industrial and urban. Prior to the Industrial Revolution, which began in Britain in the late 1700s, manufacturing was often done in people's homes, using hand tools or basic machines. Industrialization marked a shift to powered, special-purpose machinery, factories and mass production. The iron and textile industries, along with the development of the steam engine, played central roles in the Industrial Revolution, which also saw improved systems of transportation, communication and banking. While industrialization brought about an increased volume and variety of manufactured goods and an improved standard of living for some, it also resulted in often grim employment and living conditions for the poor and working classes.

Quality of Life during Industrialization

The Industrial Revolution brought about a greater volume and variety of factory-produced goods and raised the standard of living for many people, particularly for the middle and upper classes. However, life for the poor and working classes continued to be filled with challenges.

Wages for those who labored in factories were low and working conditions could be dangerous and monotonous. Unskilled workers had little job security and were easily replaceable. Children were part of the labor force and often worked long hours and were used for such highly hazardous tasks as cleaning the machinery. In the early 1860s, an estimated one-fifth of the workers in Britain's textile industry were younger than 15. Industrialization also meant that some craftspeople were replaced by machines. Additionally, urban, industrialized areas were unable to keep pace with the flow of arriving workers from the countryside, resulting in inadequate, overcrowded housing and polluted, unsanitary living conditions in which disease was rampant. Conditions for Britain's working-class began to gradually improve by the later part of the 19th century, as the government instituted various labor reforms and workers gained the right to form trade unions.

Industrialization Moves Beyond Britain

The British enacted legislation to prohibit the export of their technology and skilled workers; however, they had little success in this regard. Industrialization spread from Britain to other European countries, including Belgium, France and Germany, and to the United States. By the mid-19th century, industrialization was well-established throughout the western part of Europe and America's northeastern region. By the early 20th century, the U.S. had become the world's leading industrial nation.

Adapted from: www.history.com/topics/industrial-revolution

Task 2 (Prepare for the lesson):



At home, read all three texts and **draw a mind map** summarizing the most important information. You will need your mind map in your next history lesson.

(You might want to use miro.com to create an online mind map if necessary).



Task 3 (during the lesson):

Get together in pairs and **discuss** what you have found the **most interesting/surprising/memorable**. Use your mind maps that help you to remember.

Task 4:



Watch a video about the Industrial Revolution. Use the grid below to **take notes on the most important facts** presented in the video.

Make a list of 5-6 facts you consider interesting / new / exciting... and add 1-2 details. You might need to watch the video twice.



25 Facts About the Industrial Revolution (video)

1	
2	
3	
4	
5	
6	

Video guide: The 25 facts are...

- | | | | |
|-----------|-------------------------------------------------|-----------|----------------------------------------------------|
| 1 | Birthplace of the Industrial Revolution | 14 | Slums spring up |
| 2 | Britain's shady dealings | 15 | Countryside left empty |
| 3 | Why didn't other countries industrialize first? | 16 | Child labor was rampant |
| 4 | A yarn spinner changes history | 17 | Machine smuggling begins |
| 5 | The Anti-Industrialists | 18 | Industrialization ends the power of Russian elites |
| 6 | Metals change the game | 19 | Industrialization fosters colonialism |
| 7 | Rise of fossil fuels | 20 | Downsides of industrialization |
| 8 | Steam starts powering the machines | 21 | Important discoveries |
| 9 | The first steam locomotive | 22 | First World's Fair |
| 10 | America jumps in the game | 23 | America takes over from Britain |
| 11 | The States dominate cotton | 24 | It may not have been such a revolution after all |
| 12 | Communication improves | 25 | Industrial Revolution's modern-day impact |
| 13 | The banking industry jumps on the wagon | | |

Task 5:

With the help of your note-grid, compare your findings **with one partner first**.



Get **together in groups of four** and discuss it again. Complete or adapt your note-grid if you find that your classmates detected extra information worth remembering or information even more relevant.

Possible Follow-ups

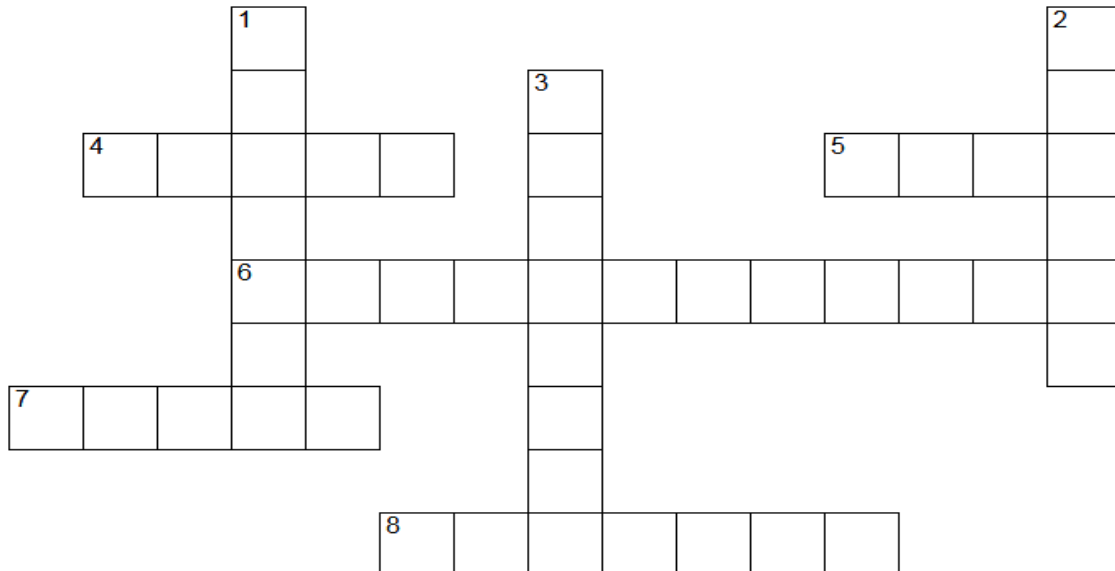
Task 6:



You can do the crossword online. Just scan the QR Code.
Or do it on paper below.

Complete the crossword puzzle on your own (or together with a partner). Compare with someone else then.

Industrial Revolution



- 1) A large enclosed container to heat something
- 2) The amount of a product or service that people want
- 3) A list of planned activities or things to be done
- 4) The opposite of urban
- 5) A piece of equipment for weaving
- 6) A short form of a word or phrase
- 7) The money earned by workers
- 8) Goods that are carried from one place to another

Task 7:


Work in **pairs**.

Make meaningful (and historically correct) **statements** using the words and phrases given in the table below.

early 1800s		Richard Trevithick		Commercial telegraph
1780s		Edmund Cartwright		Power loom
early 18 th century		James Hargreaves		Coke-fueled furnace
1850s		Robert Fulton		Steamboat
1764		Thomas Newcomen		"The Wealth of Nations"
early 1800s		Adam Smith		First practical steam engine
1712		Henry Bessemer		Railway steam locomotive
1837		William Cooke, Charles Wheatstone		Process for mass producing steel
1776		Abraham Darby		Spinning jenny

Wordlist – The Industrial Revolution

rural	ländlich
urban	städtisch
prior to	vor, früher als, im Vorfeld von
to manufacture	erzeugen, fertigen
textile industry	Textilindustrie
steam engine	Dampfmaschine
industrialization	Industrialisierung
grim	düster, trostlos
to reside	wohnen, residieren
to revolve around	sich drehen um
average	Durchschnitt
meagre	dürftig, gering
malnourishment	Unterernährung
bulk	Großteil, Mehrheit
to contribute	beitragen zu etwas
deposits of coal and iron ore	Lagerstätten von Kohle und Eisenerz
stable	stabil
demand	Nachfrage
cottage industry	Heimarbeit im 18. Jahrhundert
schedule	Zeitplan
abbreviation	Abkürzung
spool	Spule
thread	Faden
to improve	verbessern
to weave cloth	einen Stoff weben
power loom	mechanischer Webstuhl
coke fueled	mit Koks betrieben
charcoal	Holzkohle
furnace	(Hoch)ofen
integral	wesentlich

to power sth.	etwas antreiben
advent	Beginn
to haul	transportieren
to distribute	verteilen, vertreiben
freight	Fracht
macadam	Schotterdecke im Straßenbau
durable	dauerhaft, haltbar
stock exchange	Börse
to establish	aufbauen, errichten, eröffnen
free enterprise	freie Marktwirtschaft
private ownership	Privatbesitz
lack of government interference	Mangel an staatlichem Einfluss
to raise the standard of living	den Lebensstandard erhöhen
wages	Löhne
to labor	arbeiten
replaceable	ersetzbar
labor force	Arbeitskraft
to estimate	schätzen
craftspeople	Handwerker
to keep pace with	Schritt halten mit
inadequate	unzureichend, unangemessen
overcrowded	überfüllt
rampant	ungezügelt, grassierend
trade union	Gewerkschaft
to enact legislation	ein Gesetz verordnen
to prohibit	verbieten
to spread	ausbreiten

Key:
Crossword:

- 1) furnace
- 2) demand
- 3) schedule
- 4) rural
- 5) loom
- 6) abbreviation
- 7) wages
- 8) freight

Make meaningful sentences:

1764		James Hargreaves		Spinning jenny
1780s		Edmund Cartwright		Power loom
early 18 th century		Abraham Darby		Coke-fueled furnace
1850s		Henry Bessemer		Process for mass producing steel
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