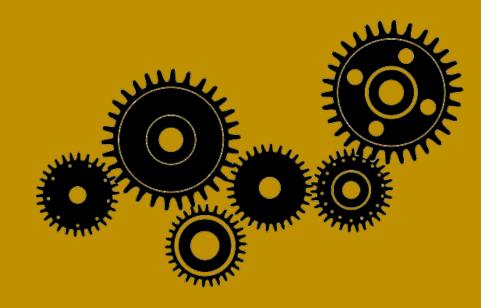


History goes English: Arbeitsblätter zur Industrialisierung

Twists & Turns – The Industrial Revolution
Not only in Great Britain but also in Thurgau

8th grade+ Englisch, Geschichte



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Historisches Museum Thurgau, 2020 Konzept, Inhalt: Barbara Stucki Redaktion: Melanie Hunziker

Twists & Turns – The Industrial Revolution

Arbeitsblätter zur Industrialisierung

Im offiziellen Lehrmittel Open World Iernst du in der Unit 12 die Arbeitssituationen und Lebensumstände der britischen Bevölkerung vor und während dem Viktorianischen Zeitalter kennen. Mit dieser Arbeitsblätter-Reihe kannst du dein Wissen über die Industrialisierung vertiefen und deinen englischen Wortschatz erweitern.

Twists & Turns = Drehungen und Wendungen

Vocabulary background:

- a) Bedeutungen von 'twist' als Nomen:
 - Drehung, Verdrehung, Verwindung, Stopfgarn, Faden aber auch: überraschende Wendung
- b) Bedeutungen von 'turn' als Nomen:
 - Umdrehung, Drehung, Wegbiegung, Kurve aber auch: Umschwung, Wendung, Wende

Guideline zu den Worksheets (WS)

WS 0: Puzzle

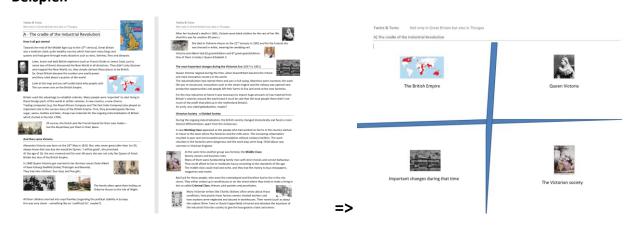
Übersicht zu den 4 industriellen Revolutionen





Schneide die einzelnen Teile aus und klebe sie an der richtigen Stelle auf den Zeitpfeil.

WS 1–4: Texte plus Placemats Beispiel:





Lies den Text durch. Unterstreiche neue Wörter und trage sie in dein Wörterbüchlein ein. Notiere die wichtigsten Infos als Zusammenfassung auf dem Placemat.

WS 5 Crossword



Dieses Kreuzworträtsel beinhaltet die Wörter von WS 1–4.

Trage die gesuchten Wörter ein.

Zur Sicherheit findest du sie im unteren Textfeld.

* Challenge: Verdecke die Wörter beim Ausfüllen 🝪 .



WS 6a: Inventor Quiz



Hier geht es um die Erfindungen des 19. Jahrhunderts. Kreuze die richtige Antwort in der Multiple choice an und

übertrage den entsprechenden Buchstaben in die Zeile unten.

Die richtigen Lösungen ergeben ein Sprichwort.

* Challenge: Recherchiere, welche Erfindungen die hier nicht-gefragten Damen und Herren gemacht haben.



WS 6b: Endless domino (24 Karten)

Noch einmal ein paar coole Erfindungen.



Schneide die Karten aus. Du kannst das Domino mit jeder beliebigen Karte beginnen.

=> Die letzte Karte muss die Antwort der ersten Karte enthalten.

Arrangiere die Karten so, dass sich ein Rechteck ergibt.

Vorschlag: 4 Karten nach unten, 8 Karten nach rechts, 4 Karten hoch, 8 Karten nach links.

Mögliche Spielform: Du schliesst die Augen, nimmst eine der Karten aus dem Rechteck und legst sie verdeckt auf den Tisch. Kannst du anhand der liegenden Karten sagen, welche Lösung und welche Frage auf dieser Karte stehen?



WS 7: Boardgame (mit Lösung)

Ein Boardgame alleine zu spielen, ist für einmal etwas anderes.

Du brauchst: eine Spielfigur und einen Würfel (das Lösungsblatt ist verdeckt!)



Variante 1:

Du erklärst kurzerhand jemanden in deiner Familie zum Spielleiter. Würfle und rücke entsprechend viele Felder vor. Lies die Frage im Feld

und beantworte sie. Dein «Spielleiter» kontrolliert deine Antworten und unterstützt dich, wenn nötig.

Variante 2:

Würfle und rücke entsprechend viele Felder vor. Lies die Frage im Feld und beantworte so etwa 10 Fragen in schriftlicher Form. Überprüfe deine Antworten mithilfe des Lösungsblattes.

Variante 3: Ein Memory für Bastelfans

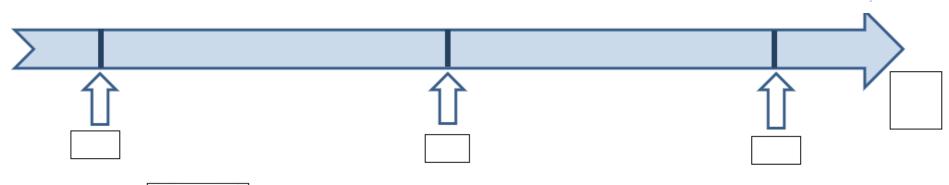
Drucke den Spielplan und das Lösungsblatt auf 2 verschieden farbigen Blättern aus.

Schneide alle Felder aus und fertig ist das Memory (3)!

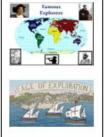


Twists & Turns WS 0

The Industrial Revolutions











Industry 1.0

Industry 2.0

Industry 3.0

Industry 4.0

The fourth industrial revolution (4.0) is based on Cyber-physical systems (CPS).

The second industrial revolution (2.0) then introduced mass production with the help of electric power.

The third industrial revolution (3.0) used electronics and IT to improve automations of manufacturing.

The first industrial revolution (1.0) was the mechanisation of production using water and steam power.

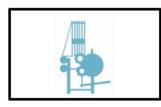
Digitalisation

Electrification

Automatisation

Mechanisation







Twists & Turns WS 1a

1 – The cradle of the Industrial Revolution

How it all got started

Towards the end of the Middle Ages (up to the 15th century), Great Britain was a medium-sized, quite wealthy country which had seen many kings and queens and had gone through many disasters such as wars, famines, fires and diseases.





Later, brave and bold British explorers (such as Francis Drake or James Cook, just to name two of them) discovered the New World in all directions. They didn't only discover and mapped the New World; no, they simply claimed these places to be British. So, Great Britain became the number one world power



Look at the map and you will understand why people said: The sun never sets on the British Empire.

and they ruled about a quarter of the world.



Britain used this advantage to establish colonies. Many people were 'exported' to start living in these foreign parts of the world in settler colonies. A new country, a new chance.

Trading companies (e.g. the Royal African Company and The East India Company) also played an important role in the success story of the British Empire. First, they provided goods like tea, sugar, spices, textiles and later, cheap raw materials for the ongoing industrialization of Britain which started in the late 1700s.



Of course, the Dutch and the French feared for their own trades – but the Royal Navy put them in their place.

And then came Victoria

Alexandra Victoria was born on the 24th May in 1819. She, who never grew taller than 1m 50, always knew that one day she would be Queen. 'I will be good', she promised. At the age of 18, she was crowned and for over 60 years she was not only the Queen of Great Britain but also of the British Empire.

In 1840 Queen Victoria got married to her German cousin Duke Albert of Saxe-Coburg-Saalfeld (today Thüringen and Bavaria). They had nine children: four boys and five girls.







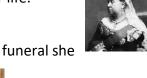
The family often spent their holiday at Osborne House on the Isle of Wight.

All their children married into royal families (regarding the political stability in Europe, this was very clever – something like an 'unofficial EU', maybe?).

After her husband's death in 1861, Victoria wore black clothes for the rest of her life. (And this was for another 40 years.)



She died in Osborne House on the 22nd January in 1901 and for the funeral she was dressed in white, wearing her wedding veil.



Victoria and Albert had 42 grandchildren and 87 great-grandchildren. One of them is today's Queen Elizabeth II.

The most important changes during the Victorian Era (1837 to 1901)

Queen Victoria reigned during the time, when Great Britain became the richest and most innovative country in the world.



The industrialisation had started there and was in full swing. Machines were invented, the work life was re-structured, innovations such as the steam engine and the railway way opened new production opportunities and people left their farms to live and work at the new factories.

For the new industries at home it was necessary to import huge amounts of raw material from Britain's colonies around the world (and it must be said that the local people there didn't see much of the profit that piled up in the motherland Britain).

An early, one-sided globalization, maybe?

Victorian Society – a Divided Society

During the ongoing industrialisation, the British society changed dramatically and faced a more distinct differentiation, apart from the aristocracy.

A new **Working Class** appeared as the people who had worked on farms in the country started to move to the town where the factories and the mills were. The increasing urbanisation resulted in poor and overcrowded accommodation without sanitary facilities. The work situation in the factories were dangerous and the work days were long. Child labour was common in Victorian England.



At the same time another group was formed, the **Middle Class:** factory owners and business men.

Many of them were hardworking family men with strict morals and correct behaviour. They could afford to live in moderate luxury according to the standards of the age. The middle class could read and write, and they had the money to buy newspapers, magazines and novels.

Bad luck for those people, who were the unemployed and therefore had to live in the city slums. They either ended up in workhouses or on the street where they tried to make a living in the so-called **Criminal Class**; thieves, pick-pockets and prostitutes.



Many Victorian writers like Charles Dickens often wrote about these conditions, how poorly mean factory owners treated workers and how orphans were neglected and abused in workhouses. Their novels (such as about the orphan Oliver Twist or David Copperfield) mirrored and attacked the injustices of the industrial Victorian society to give the bourgeoisie a bad conscience.

Twists & Turns WS 1b

1) The cradle of the Industrial Revolution



The British Empire



Queen Victoria



Important changes during that time



The Victorian society

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Twists & Turns WS 2a

2 – Machines made Switzerland go round



Industrialisation boom in Thurgau due to textiles

During the first industrial revolution, the manual craft, which was usually done at the worker's home, was replaced by machine work in factories.

Apart from complex economic production systems and machines, entrepreneurs needed a lot of creativity and the readiness to take risks to succeed.

There was a dynamic development within the industrial revolution! And this gave reasons for hope but also fanned fear: the constant worry to lose the job.

The Swiss ticket for entering the global trading was the combination of the successful textile industry and the skilled dye-works. It started in the 17th century with the linen production in Hauptwil. Later printed and dyed cotton fabrics (called 'Indiennes') were more popular.

How fabrics are produced

- Yarn must be spun. (from flax, from wool, from cotton)
- The yarn must be twisted. (to make it stronger and tear-proof)
- The yarn must be woven. (on weaving looms)
- The fabric must be refined. (dyed or printed)



Spinning yarn manually

Spinning wool or flax was once a popular evening 'hobby' in earlier times. But for some homeworkers, it meant that they could earn necessary extra money with their spinning wheel.





But then Spinning Jenny came!

Believe it or not: this first mechanic spinning wheel was a milestone within in the industrialisation. Invented by the cotton weaver James Hargreaves (1721– 1778) in 1764, this spinning wheel could handle eight spindles at the same time and therefore one worker could replace 8 others.

Curse or blessing? You can certainly see this from different angles.

This English spinning machine «Spinning Jenny» increased the production by the fourfold.

=> Therefore the yarn got cheaper. => The quality of the yarn improved.

What about the weaving looms

Weaving looms had been known and used a long time before.

(In China weaving of silk has been practised since about 3500BC!)

The weaving looms were hand-operated by men, wooden constructions, either narrow or wide.

Then the 'Flying shuttle' was invented, later the 'Power Loom'. And weaving became a lot faster. By 1850, 260,000 power looms were in operation in England.





Imbalance: Yarn and weaving capacity

Due to the increased capacity of the weaving looms, there was a lack of yarn which was still produced manually.

By 1790, the first machine-produced yarn arrived in east Switzerland.

=> Many workers at spinning plants lost their jobs.

Another hype: Laces and embroidery

Switzerland's economy was and is extremely dependent on the export.

Flexible sidestepping to niche markets and concentrating on luxury goods have proved successful. The embroidery in east Switzerland is one of these successful stories that still holds its ground to the present day.

In the 19th century, when embroidery machines replaced the expensive handcraft, this exclusive luxury became affordable for the middle-class women.

From 1860 on, companies like Saurer in Arbon or Martini in Frauenfeld invested in the development of embroidery machines.

- a) the hand-operated embroidery machine (1850)
- b) the Shuttle embroidery machine (1890)
- c) the shuttle embroidery automaton (1919)

Lesson to be learnt: Don't put all your eggs into one basket.

A turn for the companies' policy was needed at the beginning of the 20th century when laces and embroidery went out of fashion.

And so, it came that companies in Thurgau turned from the textile industry to machine engineering (which is another successful story (3)).



Energy sources to operate the machines

In the 18th century, mechanic devices were operated by muscle-power.



Later in the 19th century, natural energy sources like wind and water were used. Wind and Water wheels powered mills and machines.

That's why it was important for these factories to be located near a river or a pond.



During the 1700s and 1800s, the major energy source was coal.

Steam-powered engines basing on coal boilers generated the energy to operate the machines. Switzerland and coals? There wasn't any, so it had to be imported.

Some were lucky – some were not

Factory owners had to be brave and courageous and when they were lucky, they could make huge fortunes. But the downside of this success was the situation of the workers, who had to suffer misery, exploitation and long working hours in dangerous conditions for poor wages.



2) Machines made Switzerland go round



Industrialisation boom in Thurgau



How fabric is produced



Different machines and their use





Energy sources

Twists & Turns WS 3a

3 – The price of fashion hypes

How fashion-conscious are you? Do you follow fashion hypes?

People followed fashion-hypes in the 17th century

In Europe noble ladies still wore clothes made of rough and uncomfortable linen fabrics which was unpleasant to wear on the skin.

Relief was in view with the soft and artfully printed cotton fabrics from India, called 'Indiennes'. 'Indiennes' are the soft, artfully dyed and printed cotton fabrics and everybody went crazy for them.

In 1670, the Dutch Trading Company imported 1,300 painted fabrics from India to Amsterdam. Only 8 years later, they imported 14,200.

All over Europe, people wanted this innovative product so that the governments had to put a stop to the import and the production to protect their own economy.

Basing on the production-ban in many countries, many French dyers came to Switzerland where the **secret** of **blue dyeing** (Indigo) also arrived at companies in Thurgau (Islikon, Bürglen). Specialised in producing and dyeing Indiennes, they satisfied the European demand and taste of the high society. The trade with Indiennes gradually became the most successful industrial sector.

Dark shadow: There is nothing to whitewash about it; fabrics from Switzerland represented a large amount of the Indiennes which were produced to finance the slave trade as these fabrics were used as payment method.

Dyeing poisons people and environment

Due to the skill of Indigo and Turkey red dyeing at the numerous dyeing factory along the rivers and ponds in Thurgau, the production sites were successful.

The downside of the success: the used and dirty water (=sewage) flew back directly and polluted the environment substantially.

During the heyday of the industrialisation there were

- neither any sewage treatment plants
- o nor any laws for environmental protection.

Regulations to protect the worker were only of minor interest.

Acids which were used to clean the textiles caused sore hands. Various vapours, such as sulphuric fumes, simply stank terribly and even worse, endangered and damaged the health of the workers.

What was the situation in Bradford like in the 19th century?

Basing on the industrial success of dyed and woven wool, Bradford grew very quickly.

The town wasn't a healthy place to live:

- o the waterways were polluted,
- o the sewage ran in open drains,
- black smoke filled the air,
- o rubbish piled up in black pits everywhere
- diseases endangered the people who lived there.



And today?

Unfortunately, the problems like poisoning and pollution that people had to face during the early industrialisation haven't vanished — they have just been 'outsourced' (= shifted) and can now be found abroad.



We still love cotton today:



A little background: Nice to know

- The cotton fabric to sew jeans is white and called DENIM.
 (Originally, the fabric was produced in Nîmes, and as it came from there de Nîmes = it was called Denim (3). The outer part of the fabric is dyed with Indigo, but the core of the fabric remains white.
- The name "Jeans" origins from the fact, that sailors of the Italian town Genoa, in French it is called 'Gêne', used to wear trousers made of cotton. => Denim jeans.
- In 1848, the trader Levi Strauss, born in Germany, emigrated to San Francisco and with him he brought this idea of this sturdy trousers. People who didn't work as cowboys, were crazy for gold (Goldrush) and needed practical clothes.

The long journey of your pair of jeans: 50,000 km!!!!

Trace the travel on the map:





Twists & Turns WS 3b

3) The price of fahsion hypes



Fashion hype in the 17th century



Poisonous dyeing



Situation today



We still love cotton

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Twists & Turns WS 4a

4 – Wanted: Workforce

Economic booms usually go along with significant changes, basing on several factors;

new opportunities, new demands, new equipment and new jobs.

Wanted: Skilled embroiderers

After 1900, the embroidery production was successful, the embroidery factories in Thurgau worked up a good turnover and the export boomed.

Many people decided to work as an embroiderer, as this was prestigious and relatively well paid. Muscle-power as well as intelligence and skills were essential.

The organisation in the factories was easy:

Every embroiderer was paid according to the number of the stitches and less money for low quality work.

The embroiderer brought their own assistants (often wives and children).

But: The factory owners controlled their workers strictly (good behaviour, punctuality, loyalty etc). Basing on the new regulations in the factories (1877), child's labour and Sunday work was banned. But still the working conditions in the sticky rooms were terrible.

Wanted: Embroidery home-studios



Many workers (at least those who could afford it) bought their own embroidery machines and started working at home in so-called home-studios (like modern home offices today (3)!).



Now they were independent from factory owners and their regulations. The whole family had to help: operating the machine, filling the spools, threading the needles. These were long working days – especially for the children.

It was essential that the complete family contributed their share because they were paid by the piece, the number of stitches: the more, the better.

For the children, this meant that they had to help threading from an early age: before they went to school, when they came home from school, sometimes even until late at night.

There was no time for homework or to play and the lessons at school were the only time they could relax.

Wanted: No more embroidery

In the following years of 1910, more than half of these home-workers lost their job (11,000 => 5'000) because of the employment of the new embroidery automaton and the changing fashion trends.

=> Embroidery work was not asked for anymore.

There was quite a hopeless attempt to get rid of the many embroidery machines: For a certain sum of money, the owners were asked to make their machines unusable or to destroy them.



Wanted: Better work and life situation

There are several reasons for people to migrate:

economic reasons: to escape a hopeless job situation social reasons: hope for a better quality of life political reasons: to flee from war or persecution

environmental reason: famines, natural disasters

Wanted: Immigrants

In 19th century, the booming industry in Switzerland attracted many Italian immigrant workers.

Most of them (the men) worked in the field of tunnel constructions, the railway and on buildings sites. They worked very hard and lived under awkward conditions in crowded places.

Integration was not really what they wanted and as a result, they lived among their own kind with their food, their traditions and their habits.

Swiss people also had to fight during this time of change. They competed with the immigrants because of the jobs.



Wanted: Innovation and workplaces due to immigration

In 2017, Switzerland ranked among the most innovative economies world-wide. This success is based on a long history of foreign influence.

Immigrants also brought innovation, skills and knowhow into our country: Watchmaking, fabric print, new kinds of textile production, food development.



The situations have changed – but not so the worry to lose the job:

- 200 years ago, people were afraid of losing their jobs because of the new machines.
- o 100 years ago, immigrant workers occupied many jobs.
- And today? We are afraid of losing our jobs because of a lack of training/skills foreign competitors the fact that jobs can move to cheaper markets immigrants who work for less automation and robots



Twists & Turns WS 4b

4) Wanted: Workforce



Skilled embroiderers



Everybody helps



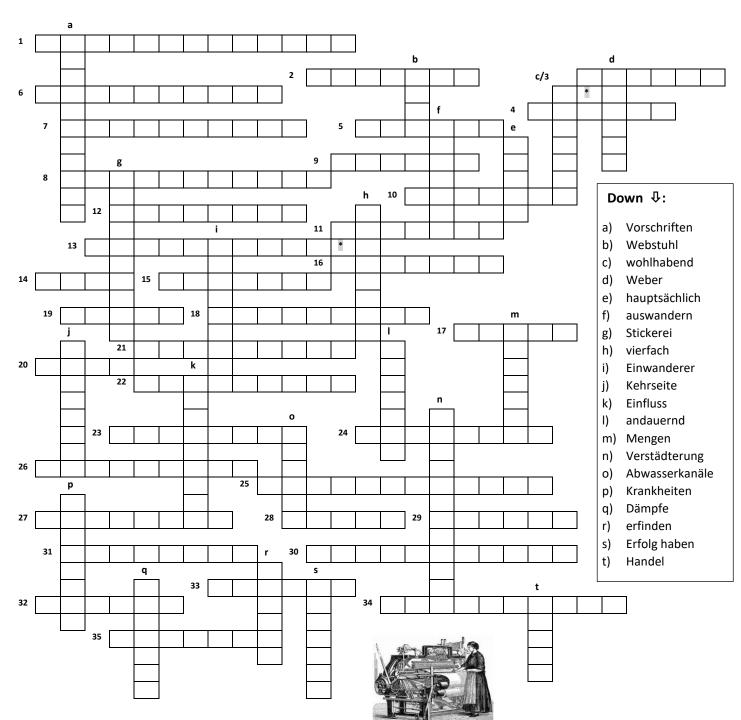
Migration and immigrants



Today's situation

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Twists & Turns WS 5

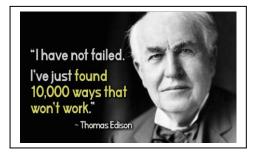


Across ⇒:

The Inventor Quiz

Who invented these inventions in the 19th century? Answer these questions correctly and you will get an English proverb.

	1			
1	Who improved the principle of the steam engine in 1776?	a) Alessandro Volta (E)	b) James Watt (N)	c) Karl Benz (M)
2	Who invented the dynamite in 1866?	a) Albert Einstein (I)	b) Samuel Colt (E)	c) Alfred Nobel (O)
3	Who invented the first light bulb in 1879?	a) Thomas Edison (T)	b) Alexander Bell (D)	c) James Watt (R)
4	Who created the first blue jeans in 1873?	a) Coco Chanel (U)	b) Levi Strauss (H)	c) Dolce&Gabbana (B)
5	Who invented the alternating current (AC) motor in 1882?	a) Claude Burdin (E)	b) Nikola Tesla (I)	c) Georg Simon Ohm (L)
6	Who prepared the first cornflakes in 1894?	a) W. K. Kellogg (N)	b) Peter Durand (K)	c) Ruth Wakefield (L)
7	Which brothers could fly in their first hot air balloon in 1783?	a) Grimm (T)	b) Cartwright (Q)	c) Montgolfière (G)
8	What was the name of the first mechanical spinning wheel (1764)?	a) Spinning Vicky (A)	b) Spinning Jenny (*)	c) Spinning Brenda (N)
9	Who invented the telephone in 1876?	a) Alexander Bell (V)	b) Henry Ford (N)	c) Samuel Morse (S)
10	Which invention based on Edmond Cartwright's initial ideas?	a) the spinning frame (U)	b) the refrigerator (C)	c) the Power Loom (E)
11	Who was called the 'Father of the railways' in the 19 th century?	a) George Stephenson (N)	b) Michael Faraday (B)	c) Robert Thomson (L)
12	Who invented the first lift (elevator) in 1853?	a) Robert Yeates (D)	b) Elisha Graves Otis (T)	c) Joseph Gayetty (A)
13	Who invented the 'Moving pictures' in 1894?	a) the Brontë sisters (O)	b) Wright brothers (E)	c) Lumière brothers (U)
14	What did Christopher Sholes invent in 1868?	a) the typewriter (R)	b) the zipper (P)	c) the chewing gum (H)
15	In 1849, concrete was developed. By who?	a) Albert Einstein (M)	b) Joseph Monier (E)	c) Nancy Johnson (S)
16	Who invented the first photo camera basing in 1839?	a) W. F. Talbot (D)	b) K.P. Macmillian (A)	c) Ernst Litfass (R)
17	Who was the inventor of Sherlock Holmes and his tricky cases?	a) Agatha Christie (Y)	b) Ian Rankin (L)	c) Arthur Conan Doyle (*)
18	What did the inventor of Coca Cola (1886) work as?	a) teacher (U)	b) chemist (N)	c) doctor (M)
19	Who invented the first hemstitching machine in 1893?	a) Isaac Singer (P)	b) K. F. Gegauf (O)	c) Elias Howe (F)
20	Who invented the first revolver in 1836?	a) D. M. Williams (C)	b) P. + W. Mauser (N)	c) Samuel Colt (T)
21	Who invented canned food in 1810?	a) Nicolas Appert (H)	b) Napoleon Bonaparte (T)	c) Peter Barlow (U)
22	What did the American Thomas Adams invent in 1871?	a) jelly bears (T)	b) chewing gum (I)	c) ice cream (A)
23	Who invented and produced the famous 'Aspirin' tablet in 1853?	a) Justus von Liebig (J)	b) Alexander Parkes (L)	c) Charles Gerhardt (N)
24	Who invented the first matches in 1826?	a) John Walker (G)	b) Josef Ressel (R)	c) Joseph Henry (B)
25	Who invented the stamp in 1834 (in use from 1840)?	a) Louis Pasteur (Y)	b) Agatha Christie (T)	c) James Chalmers (*)
26	In 1825, an important element was discovered. Which one?	a) Natrium (O)	b) Aluminium (G)	c) Magnesium (S)
27	Who invented the battery by 1800?	a) Mr Volta (A)	b) Mrs Ampère (W)	c) Luigi Galvani (I)
28	In 1844, the telegraph was invented. By who?	a) Louis Braille (V)	b) Samuel Morse (I)	c) J. L. Baird (M)
29	Who discovered the radioactive Radium and Polonium in 1898?	a) Mary Treat (E)	b) Clara Barton (T)	c) Marie Curie (N)
30	Who invented the 'Ovomaltine' in 1863?	a) Georg Wander (E)	b) Henri Néstle (I)	c) Julius Maggi (Y)
31	Who found a way to convert iron into steel in 1854?	a) James Starley (T)	b) Henry Bessemer (D)	c) Martin Heinrich (L)
1	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	7 18 19 20 21 2	2 23 24 25 26 27	28 29 30 31



⇒ "Wer nicht wagt, der nicht gewinnt."

William Fox Talbot

Who improved the principle of the steam engine in 1776?



James Hargreaves

Who invented the telephone in 1876?



Karl Friedrich Gegauf

Who invented the battery by 1800?



Nicolas Appert

Who invented the 'Moving pictures' in 1894?



James Watt

Who invented the dynamite in 1866?



Alexander Bell

Who was called the 'Father of the railways' in the 19th century?



Alessandro Volta

Who invented the 'Ovomaltine' in 1863?



Lumière brothers

Who had the first ideas for the 'Power Loom' in 1830?



Alfred Nobel

Who invented the first light bulb in 1879?



Georges Stephenson

Who invented the first lift (elevator) in 1853?



Georg Wander

In 1844, the telegraph was invented. By who?



Edmond Cartwright

Who prepared the first cornflakes in 1894?



Thomas Edison

Who created the first blue jeans in 1873?



Elisha Graves Otis

In 1849, concrete was developed. By who?



Samuel Morse

Who found a way to convert iron into steel in 1854?



William Keith Kellogg

Who discovered the Radium and Polonium in 1898?



Levi Strauss

Who inventted the alternating current (AC) in 1882?



Joseph Monier

Who invented Coca Cola in 1886?



Henry Bessemer

Who invented the first matches in 1826?



Marie Curie

Who invented the typewriter in 1868?



Nikola Tesla

Who inventted the first mechanical spinning wheel in 1764?



John Pemberton

Who invented the first hemstitching machine in 1893?



John Walker

Who invented canned food in 1810?



Christopher Sholes

Who invented the first photo camera in 1839?





Twists and Turns





Name two companies which were founded in the 19th century and still exist. This proverb describes the situation during the industrialization. Why and how? Don't put all your eggs into one basket.

What did the first factory regulation from 1877 forbid?

your job.

Roll the dice and move backwards.

You have lost

What was the downside of the dyeing factories? (not only in Thurgau)

What kind of work did the children have to do?



Where were the two most successful dyeing factories in Thurgau? How did the industry in Thurgau react when embroidery was out of fashion?

Which today's popular piece of clothing is made of cotton? What else do you know about it?

free question

What is 'sewage'?
Explain in English.

What was the 'dark shadow' that hung over the successful Swiss production of Indiennes?

Why did European governments put a stop to the import of 'Indiennes'?



called?

What are the different steps in the textile production?



Name five countries that belonged to the British Empire. What is a 'boom'?

Explain in English.

was energy generated in the 18th century? Why did many people leave the farms and went to the towns?

ree

free question

Why did many French dyers come to Switzerland? You treated your workers badly.



Move backwards.

Which social class resulted from this time? Why?



What's the name of this invention?

Why were many people afraid of the immigrants?

What is the meaning of 'overcrowded'?

Explain in English.

What are 'Indiennes'?

Explain in English.

Why did some

workers hate

the new

machines?

What are workhouses? Explain in English.

How did Great Britain benefit from the British Empire? What was life like for the workers in the factories? (Bradford, Bürglen, etc.) Which textile production was successful in Hauptwil in the 17th century?

Start



Twists and Turns





ISA in Amriswil, BERNINA in Steckborn The companies and factories had to be flexible. They succeeded when they were ready to take risks and to change their policy according to the situations.

- 'only' an 11-hour working day
- no Sunday workno night work
- no child labour (under 14)

You have lost your job.



Roll the dice and move backwards.

The waste water ran back to the rivers in untreated form and polluted the environment. Unhealthy working conditions for the workers.

They had to thread the needles.



Bürglen and Islikon (Greuterhof)

They started developing machines and were successful in engineering.

Jeans

- de Nîmes = Denim
- Gêne = from Genoa
- Levi Strauss designed the first Jeans
 production journey = 50,000 km



free question 'Sewage' is polluted waste water that comes from factories and towns.



'Indiennes' were a common paying method in the slave trade.

They were afraid that these cotton fabrics could harm their own economy.



Laces or embroidery

- Yarn must be spun and twisted.
- Yarn must be woven.
- Fabric is refined (dyed or printed).

Canada, Australia, New Zealand, India, South Africa,

Bahamas, Kenya, Guyana, Ceylon, Ghana, Hong Kong, Jamaica, Singapore, Sudan, Trinidad, Zanzibar 'boom' as a noun: a period of economic growth

'boom' as verb = to grow quickly



Energy was generated by muscle-power.

Many jobs were offered in the new factories and they hoped for a better live.



free question

Many European countries banned the import and the production of dyeing Indiennesbut Switzerland didn't. You treated your workers badly.



Move backwards.

The middle class was formed: factory owners, businessmen.



Spinning Jenny

Some immigrants were not interested in integrating into the Swiss way of life. They lived among their own kind and occupied jobs.

This means that too many people live at the same place, causing probems.

Indiennes are soft printed cotton fabric from India.

They were afraid of losing their job.

Dreadful to live fo unemplo neonle of the people of the peopl



Dreadful places to live for unemployed people or orphans.

- They got special goods from the British colonies.
- Trading companies
- Access to cheap raw material.
- terrible working conditions
- long working days
- low wageschild labour

production and refinement of linen

