



## Video/English/Subject Lesson Plan and Guide

Turn our videos into exciting and informative ENGLISH as well as subject experiences using our lesson plan below.

Where does the video go when it's not on the home screen? New and recent videos appear on the home screen. But then they always go to, and stay, in the subject areas. So it is always accessible when you want it, provided you have a membership.

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# The first factories

This Lesson Plan and Guide matches the video in Victorians and Georgians history sections, as well as Georgian times and How Life changed in Victorian times history video books.

This video covers one of the most important parts of history – the start of the Industrial Revolution.

The Industrial Revolution was a combination of new machines and new transport. The first new transport was the Canal Age, and that is partly covered here, while the next transport revolution was in the 1830s and 40s, and that was the train, which is later than our current story.

Note that the factory brought with it a change of location for making things (cottage to factory), halted the growth of people in the countryside in its tracks, turned people into minders of machines instead of being skilled, and made them work to the machine. And all that happened in a few years.

Many of these factories created what were really new towns, even though they were not formally planned.

Most of the early factory buildings have been lost, but there are some survivors, and those are shown here.

So this is about

- Geography : where did they build, and its implications for the growth of towns and cities?
- History: when did it happen and who was involved?
- Social science: what were the social consequences of this change?

All of these things can be interwoven into a study of non-fiction English, so they can be covered in English curriculum time.

Here are some questions that require facts and also competence in English. Feel free to use them as the basis of what you want to do. There is certainly no need to do them all. But if you are studying transport or Victorian times, this is a fantastic video to begin with (as well as telling

you that the Industrial Revolution was before, not in, Victorian times).

1. Print the picture of a child working in a factory, or show it on a whiteboard.

2. Play the video right through without stopping. Tell the class they are going to learn about:



## Factories

Making things by machine

How factories changed the way people lived

Watch the video through completely, then watch it again with this worksheet to answer the following questions:

1. What was the area before the factories were built?
2. What were these early factories for?
3. What was the first source of power?
4. What was this source replaced by?
5. What was the importance of canals?

6. Imagine you are a small child working near one of the machines in the factory. This picture shows a real child on a real machine.

Write a diary entry to say what your day might have been like, how long it was, how noisy it might have been, how interesting it was, how safe it was, where you lived and more. Start it this way

Dear diary: I write this to you by candlelight...

7. Look at the picture. Are there any clues as to whether this boy was well off or not?

8. Where would a boy of that age be now during the day?

9. Do you think it was right that he was working in a factory? What reasons might he have worked at his age?

10. Make a small pamphlet telling visitors what they can see.

11. Make up a poem about the mill.

It might start:

I start work again today...

12. What does the word 'repurpose' mean?

13. Can you make up any other sentence using the word 'repurpose'?

14. What other word could be used instead of repurpose?

Teacher supplementary questions:

And here are some generic gps questions you could add yourself:

15. Find and copy an example of a \_\_\_\_\_ from the video. (Noun, verb, fronted adverbial, adjective, conjunction)
16. Why do the words \_\_\_\_\_ have capital letters?
17. Write down a sentence from the text that contains punctuation. What is this punctuation used for?
18. The word \_\_\_\_\_ is a compound word. Write down the two root words it is made from.
19. Make a list of synonyms for the word \_\_\_\_\_
20. Write down any word that has a prefix in the text. Then think of two other words that have the same prefix.
21. Choose any word from the text and add a suffix.
22. Find a sentence that contains a subordinate clause. Write out the sentence and underline the clause.
23. Write down three words that come from the same word family as \_\_\_\_\_
24. Write the word \_\_\_\_\_ as a noun.
25. Write down all the compound words that have the word \_\_\_\_\_ in them that you can think of (ex: way)
26. Write down three adjectives from the text. Describe what each of them means.
27. Are there any modal verbs in the text (verbs that help to modify other verbs).

Transcript for you to extract text to go with questions above:

[Block capitals indicates emphasis. Double dash indicates dramatic pause.]

# The first factories

You are looking at factories built in a clearing in a forest two hundred years ago.

Before the factories, there was nothing here except a river with rapids and dense forest.

These factories were built in the 1820s to make textiles – things like bed linen and clothes – using what were then new-fangled machines, and even newer ideas of factories.

The use of a building fitted out with many machines was NEW. -- Before this small machines were hand powered and kept in people's homes. So making things was scattered all over the countryside in villages. It was not very efficient, and so textiles were costly.

The world's VERY FIRST factory was built at Cromford in Derbyshire, England in 1772 because a new kind of powered machine had been invented by Richard Arkwright. This could make far more textile than could be done by hand. -- It was the FIRST in the world. -- It changed EVERYTHING.

This was a five-storey mill. From its opening, the mill ran day and night with two twelve-hour shifts. So it needed many workers, and because people walked to work, workers' houses had to be built nearby.

It was the start of the industrial town, -- and it happened almost overnight. That is why it was such an important part of the INDUSTRIAL REVOLUTION.

The mill turned out to be a fantastic design, and was quickly copied across Britain and America, and then in other countries across the world almost unchanged.

In the early years of the Industrial Revolution, the main source of power was still water, because steam engines had not been developed that were big enough to power large machines.

Later the main source of power was changed to coal.

But in both cases factories, like the ones you see here, had to be close to water. To begin with that was to give the machines power via waterwheels. Later on it was to give a cheap way of moving coal to the steam engines.

You see it all beautifully preserved here. The factories came FIRST at this place – Lowell, and the workers houses were built around them. So factories were at the heart of this town. They still are.

The factories all needed water power for the machines, so they jostled one another for space at the riverside.

In this case, the fastest water, and so the most power, came from rapids. So this is where the factories and town grew up.

When coal power replaced water power, the rapids were, of course, a problem, because barges could not get up fast-flowing rivers. As a result locks and canals were built, again still preserved beautifully here.

At that time factories worked by gravity. Raw materials were hoisted up to the top floor, and machines worked them into finished goods which came out at the bottom.

But there was another reason factories were tall. The machines were run by long belts attached to the shaft of a waterwheel, and later a steam engine. So all the machines had to be close to the engines. You could do this best by building high, so that machines were stacked above the shaft that drove them. Today we use electricity for machines, so they can be placed anywhere we like. But that was not possible in those days.

Five to seven storeys was high in the days before reinforced concrete, so these factories were as high as you could safely build in brick, and even so they had iron frames.

So here you see the tall factories with machines driven by belts sitting next to a place where the river formed rapids, and bypassed later by a



canal. The factories are ALL clustered so as to get near the rapids, and they are ALL in the middle of the town because they came FIRST. It is a classic Industrial Revolution to 19th century town layout.

Today the buildings you see here have been repurposed for town centre offices and homes, which is one reason the magnificent heritage of this early Industrial site lives on. It is very important to repurpose buildings if we want to preserve them, or in many cases there will not be the money to keep them maintained. So while parts can be kept as museums for us all to enjoy, allowing offices and homes in the other parts helps pay for the parts we enjoy.

And think of this, too. The first factories were built in the reign of King George III when America was still a colony of Britain. At the same time as the American Revolution saw Britain lose its colonies, the first factories were being developed. Most Americans at this time still had roots in Britain, and this connection between the two lasted across the Revolution, so that as soon as things settled down, the ideas of factories were transferred across the Atlantic to the new United States. The idea of peaceful trade, it seems thankfully, can outlast times of turmoil.