

THE VICTORIANS

Teacher's Notes by Tim Byrne

Age 7 - 11

The online content can be found at: <http://www.bbc.co.uk/programmes/p05908yt>

| | |
|---|----|
| Introduction | 1 |
| 1. The Trapper | 2 |
| <i>Find out about the life of a young boy working in a coal mine</i> | |
| 2. Street children | 5 |
| <i>Find out about the lives of children living rough on the streets of London</i> | |
| 3. Chimney-sweeps | 8 |
| <i>Find out about the life of a boy working as a chimney-sweep</i> | |
| 4. Working in service - The Maid | 11 |
| <i>Find out about the life of a young girl working 'in service' as a maid</i> | |
| 5. A wealthy Victorian family | 14 |
| <i>Find out about the life of a girl living in a wealthy Victorian family</i> | |
| 6. Victorian railways | 17 |
| <i>Find out about the invention of steam locomotives and the railways</i> | |
| 7. Victorian inventions | 20 |
| <i>Find out about The Crystal Palace, the telephone and the phonograph</i> | |
| 8. Famous Victorians: Isambard Kingdom Brunel | 23 |
| <i>Find out about three of Brunel's defining engineering projects</i> | |
| 9. Famous Victorians: Mary Seacole | 27 |
| <i>Find out about the life of Mary Seacole during and after the Crimean War</i> | |
| 10. Famous Victorians: Dr David Livingstone | 30 |
| <i>Find out about Livingstone's famous explorations in Africa</i> | |

Titles in blue have been hyperlinked so that you can navigate easily to the online content by clicking on the titles



Introduction

The content for 'The Victorians' comprises 31 audio clips, exploring many aspects of life during the Victorian era and with an emphasis on the lives of children during the period. Typically there are three clips for each topic, which can be used either individually or as a sequence. Clips are usually about 5 to 6 minutes in length.

Lesson plans

Lesson plans are provided with one overall learning intention for each topic area, which is addressed through one key teaching point and listening focus for the topic. The Lesson plans included in these notes consist of:

Learning intention 'We are learning to...'

This is the overall learning intention to share with the children and guide the teachers' delivery of the lesson.

Assessment criteria 'What I'm looking for...'

This describes the key evidence that the teacher is looking for from the children to demonstrate their understanding of the lesson's learning intention.

Before listening: one key fact to discuss

This section describes the most important contextual information to discuss with the children before listening to the episode. There is a discussion question to encourage the children to think about the content of the episode before listening.

During listening: one question to focus on

- Key question: a single open-ended discussion question to ask the children to think about while listening to the episode - eg 'What... How... Why...'
- Instruction: a description of what the children might usefully make a note of while listening to the episode - eg 'Make a note of...'

- Answers: suggested answers to the key question in note form.

After listening

This section describes a suggested longer follow-up activity that might take place after listening. The activity is designed to be easy to access, yet provide an open-ended challenge for the majority of children in Years 4, 5 and 6.

Differentiation and teacher support for SEN / Focus group / Whole class

This section suggests how a teacher might offer support to learners in selected groups or as a whole class.

Challenge for gifted and talented learners

This section details the additional challenge teachers may set to extend gifted and talented learners.

Plenary and assessment

This section suggests questions that might usefully conclude the lesson, assist the teacher in evaluating the children's work and set the scene for future learning.

Where to find the content

All of the audio content can be found on the School Radio website, arranged by topic area. Simply go to the [Victorians homepage](#) and then click on the topic you wish to explore - for example '[Street children](#)'.

Titles in blue have been hyperlinked: if you click on the title you will open the correct web page (assuming you are connected to the internet).

All of the content will remain available on the website, allowing teachers to plan with confidence.



1. THE TRAPPER

The content for 'The Trapper' consists of three episodes - each about 6 minutes long - which can be listened to individually or sequentially. A synopsis of each episode clip is below.

Lesson plan

Learning intention 'We are learning to...'

We are learning to understand what life was like for children working in a mine in the Victorian era.

Assessment criteria 'What I'm looking for...'

As an outcome I am looking for a labelled picture that shows three key features of a mine where children worked in Victorian times.

Share and discuss a listening focus for each episode by asking the key question and instructing the children to make the following notes.

Resources needed: note-making paper and pencil.

1. Jimmy's first day

Before listening: one key fact to discuss

- No electricity. In a coal mine during the Victorian era there were no electric torches or lights on the ceiling, only candles and lamps that burnt oil.

Discussion question: 'What would it be like to be underground with no electric light?'

During listening: one question to focus on

- Key question: 'What different parts of the mine are named in the programme?'

- Instruction: 'Make a note of names for different parts of the mine.'
- (Answers: cage, seam, trapdoor.)

2. Jimmy falls sick

Before listening: one key fact to discuss

- *Firedamp*. One big danger in the mine was 'firedamp,' gasses that could build up and explode if lit by candles or oil lamps.

Discussion question: 'What else would you worry about if you were working down a mine?'

During listening: one question to focus on

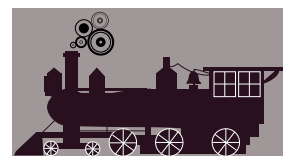
- Key question: 'Why does Jimmy want go to work even though he is ill?'
- Instruction: 'Make a note of reasons you think Jimmy wants to go to work.'
- (Answers: to earn money for food; to look after the family.)

3. Danger in the mine

Before listening: one key fact to discuss

- *Trappers*. Children worked as 'trappers', opening and closing doors that controlled the circulation of air in the mine tunnels. They often sat completely alone for up to 12 hours.

Discussion question: 'How would you feel if you were left on your own in the dark for hours?'





During listening: One question to focus on

- Key question: 'What are the dangers of working down the mine?'
- Instruction: 'Make a note of the dangers of working down a mine.'
- (Answers: Firedamp leading to explosions; collapse, flooding, etc.)

After listening

Activity: draw what you think the mine looks like above ground and below ground. Three things to include in your drawing:

- cage - lowered from the surface by a big coal powered engine
- seams - where the coal is mined from
- trap-doors - in tunnels away from the seam to control the way the air moves

Differentiation and teacher support for SEN / Focus group / Whole class

Teacher to model drawing what the mine looks like on a piece of paper or whiteboard to provide hints and starting points for children's own drawings.

Challenge for gifted and talented learners:

When drawing your mine tunnels can you imagine how the tunnels could be set out so that air could be pumped in from the surface? Where would you need to put trap doors so the air would move?

Plenary and assessment

In table groups or as a class, share and compare drawings of the mine. Give the children an opportunity to improve their drawings after making comparisons.

Episode synopses

The content explores the life of a young 'trapper' called Jimmy Turton, working in the coal mines of the North East in the 1840s. There are three episodes, which may be listened to independently of each other.

1. Jimmy's first day

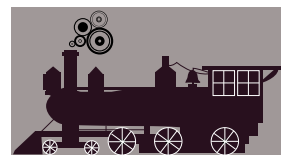
Jimmy Turton introduces himself. He's twelve years old and he's about to start his first day working in the mine as a 'trapper' - working alone in the pitch darkness, opening and closing trap doors to allow coal carts along the tunnel. Jimmy is feeling anxious as he enters the 'cage' with his brother Benjamin and an older miner called William - he's been in the mine often enough before, but not since his father died in an explosion about a year previously.

Jimmy tells us about his work as a trapper, but the episode ends on a sombre note with Jimmy imagining the explosion that killed his father.

2. Jimmy gets sick

Jimmy has been working as a trapper for some months when he falls ill and must take some time away from the mine sick. His mother is anxious about how the loss of his earnings will affect the family. She arranges some herbal medicine for him.

Jimmy is so worried about not earning his wages that - in a fever - he wanders to the mine and somehow finds his way down the shaft. Then he is involved in one of the most common types of mining accident: being struck by one of the coal carts. Jimmy's injuries place an additional burden on the family and as soon as he is well enough he must go back down the mine.

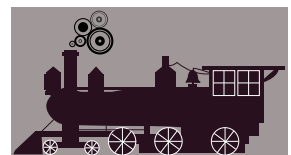




3. Danger in the mine

Jimmy is becoming accustomed to his life as a trapper. When he hears Benjamin and William approaching with a coal cart he opens his trap door as usual to let them through. Suddenly they hear a trickle of water - a very bad sign - and the shaft begins to flood. They are unable to open the trap door so they have no option but to follow the water towards its source.

Jimmy and Benjamin struggle against the flood until they make it to the surface...where they learn that a sudden summer rainstorm has flooded the mine, drowning many miners including several children.





2. STREET CHILDREN

The content for 'Street children' consists of three episodes - each about 6 minutes long - which can be listened to individually or sequentially. A synopsis of each episode clip is below.

Lesson plan:

Learning intention 'We are learning to...'

We are learning what life was like for city children working to survive in the Victorian era.

Assessment criteria 'What I'm looking for...'

As an outcome I am looking for a short piece of writing that describes three key features of working life for a child in Victorian times.

Share and discuss a listening focus for each episode by asking the key question and instructing the children to make the following notes.

Resources needed: note-making paper and pencil.

1. Maddy's story: finding the 'pure'

Before listening: one key fact to discuss

- Mortality. There were few chances to find any medical help during the Victorian era. People often died suddenly because they were not looking after their health.

Discussion question: 'What would you do if you were ill and you couldn't afford to see a doctor?'

During listening: one question to focus on

- Key question: 'What is "the pure"? (Dog excrement collected from the streets to be

sold to tanners for use during the process of softening cow's hide into leather.)

- Instruction: 'Make a note of any other words you hear that might be slang words.'
- (Answers: Pick-pockets; Dip, knick, swipe, filch. Run away; scarper, leg it, caught, nabbed, transported to Australia, sent across the herring pond.)

2. Jacko's story: dogs and rats

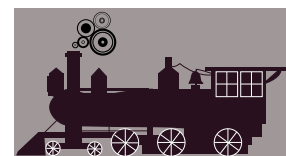
Before listening: one key fact to discuss

- Disgusting jobs. Poor children wanted to work for money because otherwise they would go hungry. Better jobs were often taken by older people so poor children were forced to do the worst jobs of all or starve.

Discussion question: 'What jobs are done for you in your life that you find disgusting?'

During listening: one question to focus on

- Key question: 'Why were rats caught?'
- Instruction: 'Make a note of all the reasons why the rats were caught, notice what they are used for after they are captured.'
- (Answers: Caught to protect the grain stores; sold afterwards to fight against dogs in betting contests.)





3. Gyp's story: mudlarking

Before listening: one key fact to discuss

- Slang words. People, places and things are sometimes known by names different to their usual name. These names might be very different to names on signs.

Discussion question, 'What names have been invented around your school for different play-grounds or parts of the building?'

During listening: one question to focus on

- Key question: 'Why would people go into the sewers?'
- Instruction: 'Make a note of reasons for and against going into the sewers.'
- (Answers: lots of valuable items lost down the drain might be sold to buy food; dangerous gases; controlled flooding to clean the sewers and rats.)

After listening

Activity: write a description of life for poor children living in cities in the Victorian Era. Three things to include in your description:

- possible jobs - pure-finder, rat-catcher, mudlark, sewer-hunter
- how it feels to do those jobs – working conditions might be hot, cold, smelly, scary, dark, wet, dirty, painful, etc
- dangers of that sort of work – disease, bites, drowning, etc.

Differentiation and teacher support for SEN / Focus group / Whole class

Teacher to model phrases beginnings of sentences that would be useful to guide writing. Such as, 'One job is called... I would describe the job as... It is dangerous because...'

Challenge for gifted and talented learners:

When describing the different jobs can you compare them to each other and decide which jobs are the best and the worst giving reasons for your answer?

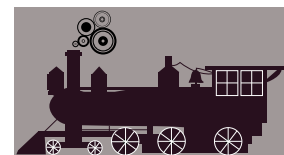
Plenary and assessment

In table groups or as a class, 'interview' a member of the group or class for one of the jobs. Ask them why they want to do the job and why they think they would be good at it.

Episode synopses

It's been calculated that in 1848 there were as many as 30,000 homeless children living on the streets of London.

This programme focuses on three 'street children', each sleeping rough at Billingsgate Fish Market. Each describes how they have come to be homeless, living with the many other street children at the market. The three stories may be listened to independently of each other or as a sequence.





1. Maddy's story: finding the 'pure'

Maddy introduces herself and describes how she came to be sleeping rough at Billingsgate. She used to work with her father, a pick-pocket.

One day they are at a public execution outside Newgate prison when Maddy's father picks a pocket too many and is caught. Maddy escapes from the scene and goes to find her grandfather.

Maddy's grandfather explains that her father will probably be transported - taken to Australia. If Maddy wants to stay with him she will have to earn her keep, helping him to 'find the pure'.

'Pure-finding' was a popular Victorian occupation and involved collecting dog faeces to sell to the tanneries that used it in the process of making leather. The job required no skill and so became very popular...leading to a dramatic fall in the value of a bucket of pure.

Maddy has no choice other than to do as her grandfather urges. However, when he dies suddenly she is left homeless and goes to join the other children on the street.

2. Jacko's story: dogs and rats

Jacko is another of the children sleeping rough in Billingsgate Market. He recounts how he used to work with a rat-catcher called Vic. Their job is to keep the granaries in the London dockyards free from vermin.

Jacko's job is to attract the rats out of their hiding places a steer them over to Vic, who places them in a large basket. Jacko describes how Vic was very particular about catching the rats alive and not harming them...because the rats will later be taken to a pub in Soho where they will

be slaughtered in a dog pit - and the best rats achieve the best prices.

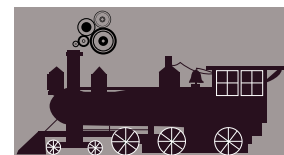
One day Jacko arrives at the granary to find Vic convulsing. Jacko decides to continue with the Soho trade, but when he is paid off with a fraction of the usual price he decides to pick a punter's pocket. He is nearly caught and now, without any occupation, arrives at Billingsgate to join the homeless children.

3. Gyp's story: mudlarking

Gyp recalls how she used to work with her uncle Dick 'mudlarking' on the shore of the River Thames - that's to say, picking up any items they can find to sell (usually pieces of coal). It is dirty, smelly work. But it gets even dirtier...

One day Dick tells Maddy that he's met a man called 'Tosher' who works in the filthy sewers underneath the city...and that they'll do the same. Tosher shows them how to prod in the filth to find anything valuable that has been washed into the sewers.

Unfortunately one day they stray up one of the tunnels washed out by the opening of the sluice gates: Tosher and Dick perish in the flood, but Maddy is somehow miraculously carried back to the bank of the Thames.





3. CHIMNEY-SWEEPS

The content for 'Chimney-sweeps' consists of three episodes, each about 6 minutes long, which can be listened to individually or sequentially. A synopsis of each episode clip is below.

Lesson plan:

Learning intention 'We are learning to...'

We are learning what life was like for city children working as chimney sweeps during the Victorian era.

Assessment criteria 'What I'm looking for...'

As an outcome I am looking for a short piece of drama describing the work of a chimney sweep.

Share and discuss a listening focus for each episode by asking the key question and instructing the children to make the following notes.

Resources needed: note-making paper and pencil.

1. Climbing boys

Before listening: one key fact to discuss

- Chimneys. Chimneys are long, narrow, stone passages to carry smoke from coal fires up to the roof where it can escape into the sky. Discussion question, 'How could you get hurt doing this job?' (Damage to knees, elbows, eyesight, breathing.)

During listening: one question to focus on

- Key question: 'What do you need to be a good chimney sweep?'
- Instruction: 'Make a note of what Charlie learns about being a good chimney sweep.'

- (Answers: You need to be, small, fit and strong. You need to climb with your elbows and legs spread out using your feet to push yourself up the chimney.)

2. The grand London house

Before listening: one key fact to discuss

- Sweeping. The only heating in houses came from coal fires that needed chimneys to carry away the smoke. Discussion question, 'What is soot?' (Sticky black dust left in chimneys by smoke from coal fires.)

During listening: one question to focus on

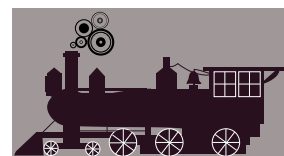
- Key question: 'What dangers did sweeps put up with?'
- Instruction: 'Make a note of the dangers of sweeping chimneys.'
- (Answers: getting stuck, suffocation, breathing diseases, falling, etc.)

3. Thomas Barnardo

Before listening: one key fact to discuss

- Charity. Charities were very important in the Victorian era. There was little free education, medical care or housing without them.

Discussion question: 'What basic services are provided for us now that did not exist in the Victorian era?' (Schools, hospitals, housing, fire service, etc.)





During listening: one question to focus on

- Key question: 'Why does Thomas Barnado help the children?'
- Instruction: 'Make a note of all the reasons why Barnardo set up his charity.'
- (Answers: Barnardo set up his charity instead of leading a Christian missionary project to a different country.)

After listening

Activity: individually, or in pairs, create and perform a short drama about chimney-sweeping. Three things to include in your drama:

- the skills and dangers a sweep might be thinking about as they climb a chimney
- a problem or accident that might happen while working
- what the master sweep might do to solve the problem; help the sweep by trying to climb up, set a fire to encourage the sweep to move, or send another sweep up to help them.

Differentiation and teacher support for SEN / Focus group / Whole class

Teacher to model example of monologue phrases. Children can be given the role of sweep or master sweep to encourage interaction and support dramatic performances.

Challenge for gifted and talented learners

Can you create a realistic but surprising ending to your drama?

Plenary and assessment

Choose individuals or pairs to perform for the class and ask the class to identify what they thought was good about each performance.

Episode synopses

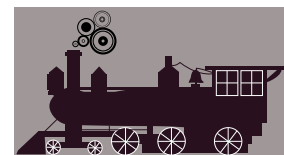
The three stories in this programme focus on the life of a young chimney-sweep called Charlie. In the first two episodes Charlie tells us how he became a chimney-sweep and some of the dangers he faces, before finally being discharged from his work. In the final episode he is reunited with Maddy, Jacko and Gyp, this time at Covent Garden fruit market. While scavenging for food they meet Thomas Barnardo.

1. Climbing boys

Charlie is another of the children sleeping rough at Billingsgate Market. He explains how he started out at Covent Garden, where his father was a street act with a special trick - allowing bystanders to break a stone on his chest with a sledge hammer. But one day it all goes wrong... and Charlie is left an orphan.

Charlie spends a final night in the cramped lodging house where he lived with his father. A boy there offers to help Charlie find a job as a sweeper, only to steal Charlie's jacket. Then a passing sweep spots Charlie and seeing that he's about the right size to become a 'climbing boy' offers Charlie a job working with him.

Charlie then recounts his early experiences as a chimney-sweep - the constant choking from soot, the cramped spaces, the painful knees and elbows, the fear of being trapped...





2. The grand London house

In the second episode Charlie recounts a visit to sweep the chimneys of a grand London house. Charlie is climbing in the last chimney when he becomes stuck in the flue...and begins to panic.

George, the master sweep, suggests he does it 'in the buff' - but Charlie is completely stuck and fears he is about to endure every climbing boy's worst nightmare. Eventually George manages to push Charlie up through the flue and Charlie carries on out on to the roof of the house. But when he gets down again he is summarily dismissed: he's too big for sweeping work now.

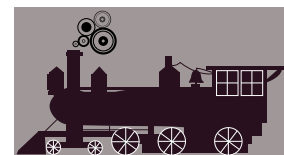
3. Thomas Barnardo

In the final episode we meet Jacko, Gyp and Maddy again (characters from 'Street children'). Charlie takes them to Covent Garden to scavenge on the rotting fruit - a serious health hazard.

While there they meet Thomas Barnardo who confronts the children and tells them they could enjoy a better life with food and schooling if they will come with him to his home for destitute children. The street children are initially dismissive of the idea, but gradually the fear of ending up like 'Carrots' - an unfortunate child that Barnardo tells them about - and the lure of something decent to eat begins to work on them.

Thomas Barnardo came to London from Ireland in 1866. He was intending to travel to China to be a missionary. However, after seeing the conditions in London he decided to stay and devoted his time to improving the lives of destitute children. In 1867 he set up his first 'Ragged School' where children would receive a decent meal for attending school. Then he founded the first of many homes where street children could sleep the night.

Barnardo said that the story of John Somers - nicknamed 'Carrots' - was an important influence on him. The death of 'Carrots' prompted Barnardo to decide that no destitute child would ever be turned away from one of his homes again.





4. WORKING IN SERVICE - THE MAID

The content for 'The maid' consists of three episodes, each about 6 minutes long, which can be listened to individually or sequentially. A synopsis of each episode clip is below.

Lesson plan:

Learning intention 'We are learning to...'

We are learning what life was like for domestic servants during the Victorian era.

Assessment criteria "What I'm looking for..."

As an outcome I am looking for a diagram or mind map showing a range of different roles and their functions within a typical Victorian household.

Share and discuss a listening focus for each episode by asking the key question and instructing the children to make the following notes.

Resources needed: note-making paper and pencil.

1. Martha's first day

Before listening: one key fact to discuss

- Jobs and Ranks. There was no electricity supply to most houses during the Victorian era. There were no vacuum-cleaners or washing machines.

Discussion question: 'What different jobs do you think needed to be done in a large Victorian house?'

During listening: one question to focus on

- Key question: 'What different jobs are done in the house?'

- Instruction: 'Make a note of the different jobs you hear about during the episode.'
- (Answers: Martha Tibbot - Chambermaid, Mrs Arnett - Housekeeper, Mr Jones - Head Butler, Sally - Scullery Maid.)

2. Martha's duties

Before listening: one key fact to discuss

- Rules and Duties. In the Victorian era it was popular to be very strict about rules and politeness.

Discussion question: 'What rules and duties do you think a Victorian maid needed to stick to?'

During listening: one question to focus on

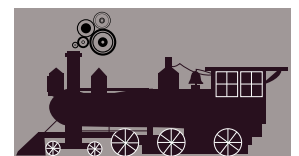
- Key question: 'What rules does Martha have to follow?'
- Instruction: 'Make a note of the rules that servants had to follow.'
- (Answers: curtsying or bowing, making space, not speaking unless spoken to, pay for all breakages, honesty at all times.)

3. Christmas for servants

Before listening: one key fact to discuss

- Celebrations. In the Victorian era it was unusual for workers to be given holidays.

Discussion question, 'How different do you think Christmas celebrations were in the Victorian era?'





During listening: one question to focus on

- Key question: 'How are the Christmas celebrations in the Victorian era different from Christmas celebrations today?'
- Instruction: 'Make a note of any differences you notice between now and then.'
- (Answers: No time off, separate parties for different classes of people.)

After listening

Activity: create a diagram or mind map of the different jobs within a large Victorian house. Three things to include in your diagram or mind map:

- the different jobs in the household (Martha Tibbot - Chambermaid, Mrs Arnett - Housekeeper, Mr Jones - Head Butler, Sally - Scullery Maid, etc.)
- extra information about rules servants had to follow, rules during celebrations and how the law applied to servants.

Differentiation and teacher support for SEN / Focus group / Whole class

Teacher to model the skeleton of a diagram and provide the names of the roles for children to put into place. The Master and his family above the Head Butler who was superior to the Housekeeper who was in turn superior to the Chambermaid and the Scullery Maid of whom the Scullery Maid is the lowest ranked.

Challenge for gifted and talented learners

Can you add additional information to your diagram about the different roles of each worker? What do you think the difference is between the work of a Chambermaid and a Scullery Maid?

(A Scullery Maid's would be mostly responsible for the room where most of the washing took place. A Chambermaid would be mostly responsible for cleaning rooms and serving in the house.)

Plenary and assessment

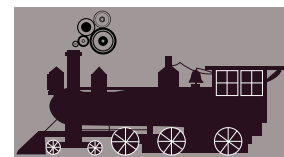
Select and share examples of diagrams with the class. Ask children to point out highlights from each other's work.

Episode synopses

The three episodes in this programme follow Martha Tibbot as she begins a new life as a maid in a big country house in the 1870s.

One of the most common jobs for a girl in Victorian times was going 'into service' - which meant becoming a maid in the house of a wealthier family. Servants were common in Victorian times and a wealthy family in a large house might employ several different servants - butlers, housekeepers, cooks, gardeners and several different types of maid - while even middle class families often had one maid, called a 'maid of all work'.

Girls often went into service aged just 12 or 13, sometimes younger. Girls from rural villages were in demand as maids, as it was often thought that they would work harder than children from cities. It was common for young girls to be placed in a house 30 or 40 kilometres away from their family home because it made it harder for her to run away to be with her family again.





1. Martha's first day

It is Martha's first day as a maid. She arrives at 'the big house' at 7 in the morning and is met by Mrs Arnett, the housekeeper. She changes into uniform and is introduced to Mr Jones - the butler - and to Sally, a chambermaid.

When Sally plays a trick on Martha by spreading ash on her pinafore she knows her new life is going to present some challenges...

Mrs Arnett and Mr Jones take pity on Martha. While carols are being sung upstairs, the servants downstairs organise their own Christmas celebrations...and at the height of the celebrations Martha's family arrive at the servant's entrance.

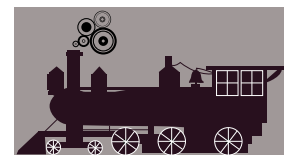
2. Martha's duties

It is a little later and Sally has begun to learn her daily routine as a maid: up at 6, then constant work until about 10 in the evening, with just half a day off on Sunday to recover. She has also learnt some of the rules of being in 'service' from Mrs Arnett: always 'give room' to the members of the household; never speak to any of them unless asked a question; no friends or family to visit.

One day Martha is helping Sally when a mirror belonging to her ladyship – smuggled into some bedclothes – falls to the ground and smashes. Clearly Sally was trying to steal the mirror but she attempts to put the blame on Martha. Mrs Arnett is able to deduce what has happened and Sally is dismissed on the spot.

3. Christmas for servants

Martha's first Christmas is approaching and she is feeling lonely. She would like to be spending Christmas Day with her family just a few miles away, but this year Martha will be expected to work throughout the festivities.





5. A WEALTHY VICTORIAN FAMILY

The content for 'A wealthy Victorian family' consists of three episodes, each about 6 minutes long, which can be listened to individually or sequentially. A synopsis of each episode clip is below.

Lesson plan:

Learning intention 'We are learning to...'

We are learning how life was different for rich children and poor children during the Victorian era.

Assessment criteria 'What I'm looking for...'

As an outcome I am looking for a table of differences between the life of rich children and poor children.

Share and discuss a listening focus for each episode by asking the key question and instructing the children to make the following notes.

Resources needed: note-making paper and pencil.

1. Emily's life

Before listening: one key fact to discuss

- Education for wealthy boys and girls. Boys from wealthy families would commonly be sent away to boarding school. Girls were commonly educated at home by a governess.

Discussion question: 'What would it be like to be taught on your own by a teacher that lived in your house?'

During listening: one question to focus on

- Key question: 'What are the differences between the ways wealthy boys and girls were taught?'
- Instruction: 'Make a note of the different things that girls and boys were taught.'
- (Answers: Girls educated at home, embroidery, Boys educated at boarding schools to learn about the wider world.)

2. Emily and the beetle

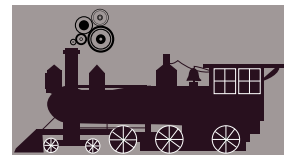
Before listening: one key fact to discuss

- Discipline. In the Victorian era girls and boys were expected to behave in very different ways to each other. Both boys and girls were expected to obey their parents and teachers without any disagreement.

Discussion question: 'What would it be like to live with parents and teachers being very strict all the time?'

During listening: one question to focus on

- Key question: 'What choices do wealthy children have in the Victorian era?'
- Instruction: 'Make a note of things that you think Emily would like to do even though she is not allowed.'
- (Answers: Look after her brother's beetle, travel to India, learn about the wider world at school.)





3. Emily at the seaside

Before listening: one key fact to discuss

- Holidays. Trips to the seaside were made popular by the recently created railway network. Before that time horse drawn carriages were the best way to travel. They made travel slow, uncomfortable and expensive.

Discussion question: 'How is a trip to the seaside today different from a trip in the Victorian era?'

During listening: one question to focus on

- Key question: 'What are the differences between a trip to the seaside now and a trip to the seaside in the Victorian era?'
- Instruction: 'Make a note of things you might do differently if you were going to the seaside.'
- (Answers: travel by car or train; children allowed to run and play; allowed to watch children's shows; allowed to bathe in the sea without a bathing machine.)

After listening

Activity: compare the lives of wealthy Victorian children with children today. Divide your page into two columns entitled 'Wealthy Victorian children' and 'Modern children'. Write a few sentences in each column for each of these subheadings:

- education for girls (Victorian: at home, arts and crafts; Modern: at school, all subjects)
- education for boys (Victorian: at boarding school, boys only; Modern: living at home, sharing school with girls)
- discipline (Victorian children: absolute obedience; Modern children: using discussions to be fair and make agreements)
- Day trips to the seaside (Victorian: train, walking and sitting only, bathing carts;

Modern: car or train, entertainment allowed, bathing and playing encouraged)

Differentiation and teacher support for SEN / Focus group / Whole class

Teacher to demonstrate on paper or a white board how to divide up the page and where to place subheadings. Sentence starters may be provided to support individuals, groups or the whole class - eg 'Wealthy Victorian children had to..' 'Modern children are more likely to..'

Challenge for gifted and talented learners

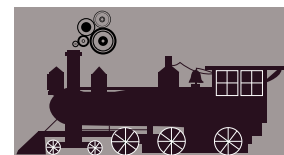
Under each subheading can you make a guess at why the people in Victorian times behaved so differently? You need to think about how technology has changed and how people feel about being seen having a good time.

Plenary and assessment

In table groups or as a class, share and compare sentences written for each subheading. Are there any overall conclusions about differences between now and then? (Strictness, differences between boys and girls, modesty and dignity.)

Episode synopsis:

The three episodes in this programme are about a girl - Emily Anne Barr - who lives in a well-off family with servants and a governess. If you were a child in Victorian times much depended on whether you came from a poor family or a rich one. If you came from a poor family you might expect to be sent out to work as young as 6 years old. Before 1870 you would probably have little or no schooling. And you could look forward to a tough life trying to make enough money to live.





However, things were very different for children born into wealthy families. Children would live at home and spend their time in the nursery, looked after by a nanny. When they grew older boys would usually be sent away to boarding school.

Girls would stay at home and be educated by a governess, who would teach skills like reading and writing, music and needlework. Children would not see much of their parents: often they would spend much of their time in the upstairs rooms, only coming down to see their parents for a period in the evening before bedtime.

1. Emily's life

As we meet Emily she is just finished off her 'sampler' - an elaborate piece of needlework. Her brother Bertie has just returned to boarding school and so Emily is now alone in the house, spending her time in the school room with her governess - Miss Stevens. In the evening Emily is allowed downstairs to show her parents her sampler and to say good-night. It's a rather stern and formal occasion. Upstairs again, Emily says her prayers before bed. She appreciates that she is fortunate to have a comfortable life...but she also feels very restricted in the things she is allowed to do.

2. Emily and the beetle

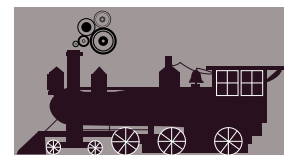
Emily is in the school room with Miss Stevens playing her scales on the piano. Later she takes out a little beetle that she and Bertie caught in the garden on the day that Bertie went back to school - Emily has promised to look after it for him until he returns. When Miss Stevens sees the beetle she is horrified and demands that Emily returns it to the garden at once. Emily refuses - saying that she has made a promise to Bertie to look after it. Miss Stevens tells her that if she will not obey she will have to account to her father for her disobedience that evening.

Evening comes and Emily is summoned to see her father. Her parents are very disappointed with her behaviour. Emily must apologise to Miss Stevens when she goes to bed. Emily suddenly sees Miss Stevens in a different light, as a rather sorry and lonely figure, without a family of her own.

3. Emily at the seaside

In the final episode Emily is granted a rare treat: a visit to the seaside, albeit in the company of her mother and Miss Stevens. They make the journey by train, the new railway network having made such day trips now possible.

At the seaside Emily discovers there is a new list of the things she mustn't do: no sunbathing, no Punch and Judy, no taking her hat off. Finally Emily is allowed to take off her boots and run down to the sea to paddle...and try to enjoy herself like other children.





6. VICTORIAN RAILWAYS

The content for 'Victorian railways' consists of three episodes, each about 6 minutes long, which can be listened to individually or sequentially. A synopsis of each episode clip is below.

Lesson plan:

Learning intention 'We are learning to...'

We are learning to understand the important developments in rail transport that took place throughout the Victorian era.

Assessment criteria 'What I'm looking for...'

As an outcome I am looking for a labelled picture that shows a length of railway line featuring a locomotive, carriages and a bridge. Features of the picture should be labelled accurately.

Share and discuss a listening focus for each episode by asking the key question and instructing the children to make the following notes.

Resources needed: note-making paper and pencil.

1. Iron horses

Before listening: one key fact to discuss

- Railways. Just before the start of the Victorian era railways were developed and tracks were built all over the country.

Discussion question: 'Where is the nearest station to our school and where can you catch a train to?'

During listening: one question to focus on

- Key question: 'What are the most important achievements of George Stevenson?'

- Instruction: 'Make a note of all the things George Stevenson achieved.'
- (Answers: Engineer; inventor; 'father' of the locomotive; lamps that work underwater; 'iron horses' - trains.)

2. Without Equal

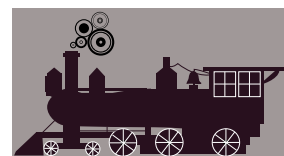
Before listening: one key fact to discuss

- Rainhill Trials 1829. When new tracks were being laid down between Liverpool and Manchester there were several ideas about how locomotives should be built. A contest was held between different inventors to determine who could build the best locomotive.

Discussion question: 'What would you have to keep the same to make a fair test between railway engines?' (Same track, same amount of coal, same weight of train, same load to be pulled, etc.)

During listening: one question to focus on

- Key question: 'Why did George Stevenson's locomotive 'Rocket' win the contest?'
- Instruction: 'Sketch what you imagine a steam locomotive might look like.'
- (Answers: Show a picture of any steam engine, point out how some of the wheels are connected to metal bars which lead to 'cylinders' that fill with steam to turn the wheels.)





3. The Tay Bridge disaster

Before listening: one key fact to discuss

- Bridges. As the railway network grew bridges were needed to carry the railway lines across rivers and valleys.

Discussion question: 'If you were designing a bridge today, how would you be sure your bridge was safe?' (Make models; test the models; talk to experts; use computers to check the measurements.)

During listening: one question to focus on

- Key question: 'What do you think went wrong?'
- Instruction: 'Imagine and sketch a bridge that you think could carry a railway line.'
- (Answers: A twisted girder was dropped into the river during the build, which may have been responsible for weakening the bridge; the design was perhaps insufficiently strong to withstand the force of such a storm.)

After listening

Activity. A photograph of any steam locomotive and a bridge built during the Victorian era would be useful. Draw a railway locomotive and some carriages being pulled. Write labels on your drawing to point out three features:

- the Locomotive or Engine - the part of the train that pulls the carriages along. Its wheels are connected to 'cylinders' that are filled with steam to power the train.
- carriages - the parts of the train that carry passengers
- a bridge - bridges were mostly built out of iron bars or girders. The part of the bridge that carries a train track or road is called the 'span.' The bridge will be supported by stone or iron towers called 'pylons.'

Differentiation and teacher support for SEN / Focus group / Whole class

Teacher to demonstrate drawing a version of a section of railway track and a train on a piece of paper or whiteboard to provide hints and starting points for children's own drawings.

Challenge for gifted and talented learners

Bridges were built in many ways during the Victorian era. The span of the bridge could be supported by a box of steel girders or hung on strong cables from pylons or an arch of supporting girders. Can you look in books to find examples of suspension bridges? Draw a suspension bridge of your own and label the pylons, the span and the arch, if your bridge uses one.

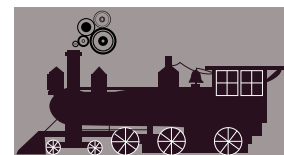
Plenary and assessment

In table groups or as a class, share and comparing drawings of the bridges. Give the children an opportunity to improve their drawings after making comparisons.

Episode synopses

1. Iron horses

It is the 1820s in North East England and three servants are discussing the arrival of a surprise visitor who has come to see their master, Mr Hindmarsh. The visitor is George Stephenson, who, twenty years previously had worked as a coal-boy, and had courted Mr Hindmarsh's daughter, Elizabeth. At that time he had been sent packing by Mr Hindmarsh, but in the meantime he has become a successful engineer and inventor, and has returned to ask for permission to marry her.





While Nancy, the youngest servant, is sent to eavesdrop on the master's conversation with his visitor, Betty reveals that she has secretly been reading Miss Elizabeth's diary account of George's achievements, including the invention of 'iron horses' that are used to pull huge weights of coal in Hetton Colliery, and which in years to come will be used to transport not only coal, but people as well. Alfred is shocked at this vision of a mechanical future, regarding it as devilish and unnatural. However, then Nancy returns with the good news that Elizabeth and George are to marry and that the master has called for wine to toast the future.

2. Without Equal

Douglas McCrae, an engineer, is writing to the Museum of Science, offering an old steam locomotive, the 'Sans Pareil' (or 'Without Equal' in English) for exhibition. He goes on to relate how, in 1829, he worked on the locomotive in the workshop of Timothy Hackworth.

One day, Hackworth informs Douglas of a public trial of locomotives at Rainhill, with a prize for the best engine over 35 miles of £500 and a contract to supply engines for the new Liverpool-Manchester railroad. Hackworth believes the 'Sans Pareil' has a chance of winning, but Douglas points out that they can't make the cylinders for the engines and have to rely on George Stephenson to cast them in his workshop. Hackworth is worried about relying on Stephenson, who is a rival of his and is also entering his locomotive, 'Rocket', in the trials.

For the first few days of the trials, the 'Sans Pareil' proves to be the equal of the 'Rocket', but on the seventh day disaster strikes when a cylinder blows on the 'Sans Pareil' and the 'Rocket' is hailed the winner.

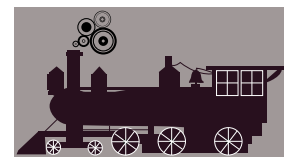
Hackworth believes Stephenson to be guilty of sabotage, although Douglas doesn't think so. However, after the trials are over, the directors of the Liverpool-Manchester railroad also buy the 'Sans Pareil' to work alongside the 'Rocket'.

3. The Tay Bridge disaster

George tells his granddaughter about an accident that happened in 1879 on the bridge that used to span the River Tay. At that time he was a young man working in the foundry that made the bolts for the new bridge over the river, which at two miles long was the longest bridge in the world and was situated right beneath his cottage. However, his wife, Nessie, never trusted the bridge, particularly as one of the girders supporting the bridge had been damaged after an accident and had been bent back into shape rather than being recast.

One day as they were travelling across the bridge on the train, they heard an ominous noise. When they reached St Fort, on the other side of the bridge, they warned the stationmaster, who calmed their fears. However, that evening there was a storm and, from their cottage, they could hear the girders of the bridge straining. They hoped that the evening mail train would have been stopped, but then they heard it approaching the bridge. They strained to hear what happened to it, but couldn't hear much above the howling wind.

The next morning they discovered that there had been a terrible accident: the bridge had collapsed and the train had fallen into the river with the loss of all 70 or so passengers on board.





7. VICTORIAN INVENTIONS

The content for 'Victorian inventions' consists of three episodes, each about 6 minutes long, which can be listened to individually or sequentially. A synopsis of each episode clip is below.

Lesson plan:

Learning intention 'We are learning to...'

We are learning to understand developments in technology during the Victorian era.

Assessment criteria 'What I'm looking for...'

As an outcome I am looking for a diagram that shows modern inventions sorted into groups to show the Victorian inventions that came before them.

Share and discuss a listening focus for each episode by asking the key question and instructing the children to make the following notes.

Resources needed: note-making paper and pencil.

1: The Crystal Palace

Before listening: one key fact to discuss

- The Great Exhibition of 1851 was staged in a giant special building made of sheets of glass fixed on steel girders.

Discussion question: 'What buildings do you know that look like they are built of metal and glass?'

During listening: one question to focus on

- Key question: 'What did the other engineers think would go wrong with the Crystal Palace?'

- Instruction: 'Write down the problems that the other engineers thought would come up.'
- (Answers: The building might not stand up; the steel might bend; the glass might break; the sound of the orchestra might shatter the glass.)

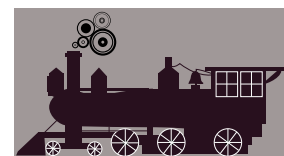
2. The telephone

Before listening: one key fact to discuss

- The telephone - patented by Alexander Graham Bell in 1876. The first telephones sent sounds from one place to another through a wire. They could not send pictures, play music, send messages or work without wires the way that mobile phones do. Discussion question, 'Can you think of something you did this week that would not be possible without using a telephone?' (Long distance calls, making arrangements to meet quickly, etc.)

During listening: one question to focus on

- Key question: 'How does a telephone send sound from one place to another?'
- Instruction: 'Draw or write down how you think a telephone can send sound from one place to another.'
- (Answers: The sound is converted into an electrical signal by the phone that is sending the sound. The phone that is receiving the signal changes the electrical signal back into sound.)





3. The phonograph

Before listening: one key fact to discuss

- Recording sounds. Before the 1870s there were no recorded sounds.

Discussion question: 'How many modern machines can you think of that play back recorded music?' ('Radios, televisions, computers, mobile phones and CD players.')

During listening: one question to focus on

- Key question: 'How is the sound recorded and played back?'
- Instruction: 'Draw or write down how you think the phonograph recorded the sound.'
- (Answers: When sound goes into a phonograph machine, the machine makes marks on a cylinder of silver paper. When the marks on the paper are read by the phonograph the sound is played back.)

After listening

Activity: Draw groups of different inventions that you think would not be possible without the telephone and the phonograph. Some inventions will fit into more than one group. Some groups of inventions you might use are:

- inventions that play recorded sounds: CD player, computer, MP3 player, answer-phones
- inventions that send sounds over a distance: telephone, mobile phone, computer
- inventions that make sounds electronically: keyboard, drum machine, computer, etc. (These are also based on the technology of the telephone and the phonograph.)

Differentiation and teacher support for SEN / Focus group / Whole class

Teacher to demonstrate drawing a selection of inventions in different groups on a piece of paper or whiteboard to provide hints and starting points for children's own drawings.

Challenge for gifted and talented learners

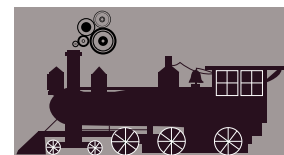
Can you use your knowledge of maths and science to sort your inventions into a Venn diagram? It might take some thinking and planning to find two groupings of inventions that overlap but have different qualities of their own. (Eg Inventions that can record sound; answer-phone; tape recorder. Inventions that can play music: CD player, MP3 player. Inventions that can do both: mobile phone, computer.)

Plenary and assessment

In table groups or as a class, share and comparing groupings of different inventions. Give the children an opportunity to improve their drawings or change their groupings after making comparisons.

Episode synopses

This programme covers three inventions made during the Victorian era, each of which had a huge impact on people's lives: the Crystal palace, built to house the Great Exhibition of 1851; the telephone; and the phonograph, which facilitated the first recording and playback of sound.





1. The Crystal Palace

John Russell, an engineer who worked on the construction of the Crystal Palace describes how it came to be built. He and the other two members of the organising committee, the famous engineer, Isambard Kingdom Brunel, and Sir George Airy, a leading scientist, were considering designs submitted for a building to house the Great Exhibition. Initially they were dismissive of the plans submitted by Joseph Paxton, a gardener, and likened his design for a large building made of glass and iron to an oversized greenhouse.

However, the public liked the idea and the committee were forced to adopt it. Despite their reservations that it should not be possible to build something so large out of metal that would bend and glass that might break, the Crystal Palace was successfully built and opened by Queen Victoria at a magnificent ceremony. When even the striking up of the orchestra failed to shatter the glass, the two engineers were forced to admit their admiration for the building...and, indeed, Isambard Kingdom Brunel based his design for his next project, Paddington Station, on the Crystal Palace.

2. The telephone

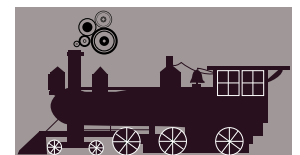
Thomas Watson, assistant to Alexander Graham Bell, tells the story of how he helped to make the first version of the telephone. Bell was an expert in sound, but had no knowledge of electricity, which Watson had. Their first breakthrough happened by accident, while they were experimenting with some apparatus consisting of two springs connected by a long piece of wire. The idea was that Bell and Watson would be in different rooms, each with a spring, and when one of them waggled their spring, the spring at the other end of the wire would waggle too.

However, that wasn't what happened. Instead, the sound of the spring twanging in one room travelled along the wire and could be heard at the spring in the other room. After further work on the apparatus, it became possible to hear the sound of their voices along the wire, although the sound was very muffled and the connection was only intermittent. It was far from perfect, but Bell decided to patent his invention anyway. He needed to act quickly as there were other inventors who could come up with the same idea, and by patenting his device, he effectively prevented other inventors from making theirs. And he was just in time, as two hours after he had taken out his patent, another inventor tried to take out the same patent and was refused. All that remained was for Bell and Watson to make the final adjustments to create a fully working device.

3. The phonograph

John Kruesi, an engineer, describes how he helped make machines designed by the inventor, Thomas Edison, and in particular the phonograph in 1877. Edison was demonstrating to John and another engineer, Harry, how a telegraph machine worked and told them that he had invented a similar machine which he thought might reproduce speech rather than the usual clicks of the telegraph. Harry and John had to make up the machine according to Edison's sketches, even though they were unsure about what it was supposed to do.

Eventually the machine was ready to be tested and John was amazed when Edison shouted the words 'Mary had a little lamb' into the machine and then was able to replay them. Edison couldn't wait to announce his invention and summoned journalists from all the New York newspapers to demonstrate his device for recording and playing back the human voice and to share his vision for how it would be used in the future.





8. ISAMBARD KINGDOM BRUNEL

The content relating to Isambard Kingdom Brunel consists of three episodes, each about 6 minutes long, which can be listened to individually or sequentially. A synopsis of each episode clip is below.

Lesson plan:

Learning intention 'We are learning to...'

We are learning to understand key developments in engineering that occurred during the Victorian era.

Assessment criteria 'What I'm looking for...'

As an outcome I am looking for a labelled picture describing key features of a railway bridge and a steam ship.

Share and discuss a listening focus for each episode by asking the key question and instructing the children to make the following notes.

Resources needed: note-making paper and pencil.

1. 'The shield' - the Thames Tunnel

Before listening: one key fact to discuss

- Machinery. In the Victorian era there were no powered diggers or drilling machines. All the work had to be done by men with spades and pick axes.

Discussion question: 'How long do you think it would take you to dig a tunnel using only hand tools?'

During listening: one question to focus on

- Key question: 'What were the problems of digging a tunnel under a river and how were the problems solved?'
- Instruction: 'Write a list of problems and solutions that occurred during the building of the Thames Tunnel.'
- (Answers: Difficulty digging through mud – solved by the 'shield'; risk of flooding - tunnel lined with watertight stone and pumped out with a steam pump; poisonous gasses from sewage - problem went unsolved.)

2. The Great Western Railway

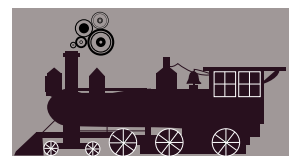
Before listening: one key fact to discuss

- Railways. The GWR was built to join London with Bristol and other cities in the west.

Discussion question: 'Why did people want to build railways?' (There were no cars only horse drawn carriages; the railway was the fastest, safest and most comfortable way to travel across land.)

During listening: one question to focus on

- Key question: 'Why was the GWR the best railway of its time?'
- Instruction: 'Write notes to explain what was unusual about the GWR.'
- (Answers: Expensive design for stations; very comfortable carriages and a smooth ride; the bridge at Maidenhead had an unusually flat design with the widest arches in the world at that time.)





3. The 'Great Babe' (the SS Great Eastern)

Before listening: one key fact to discuss

- Steam ships. Before the Victorian era ships were built of wood and powered by wind pushing the sails. Steam ships were usually built of metal and powered by steam engines that ran on coal and turned paddles or propellers.

Discussion question: 'What are the advantages of powering a ship with an engine?' (Ships could be made larger and heavier because they did not rely on the wind; ships could go faster and move when there was no wind at all.)

During listening: one question to focus on

- Key question: 'What made the Great Eastern a special ship?'
- Instruction: 'Write down and sketch things that make the Great Eastern a special ship.'
- (Answers: At the time it was built it was the biggest ship in the world; it was so big Brunel wanted to launch it sideways; it had a double hull, an extra shell of metal inside the sides and bottom of the ship - this meant it would not sink if the outer hull was cracked.)

After listening

Activity: A photograph of any Victorian steam ship would be useful to support this activity. Draw and label a steam ship. Make sure you label:

- sails - although the SS Great Eastern was usually powered by her steam engines, the ship also had huge sails that could be hoisted up masts to take advantage of favourable winds or to move the ship in case the engines did not work

- smokestacks - large metal chimneys on steam ships or steam trains to carry away smoke from coal fires in the steam engine
- paddles or propellers - how steam engines moved a ship through the water.

Differentiation and teacher support for SEN / Focus group / Whole class

Teacher to demonstrate drawing a scene featuring steam ship on a piece of paper or a whiteboard to provide hints and starting points for the children's own drawings.

Challenge for gifted and talented learners

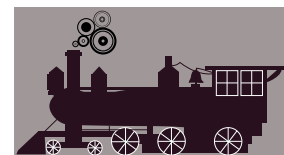
Can you draw how you imagine the steam engines were set up inside a steam ship? They needed to be fed coal to make them run. They needed a chimney to carry away the smoke from the fires and they needed to be linked to paddles or a propeller with 'drive shafts' so the ship could be pushed forward.

Plenary and assessment

In table groups or as a class, share and compare labelled diagrams. Give the children an opportunity to improve their drawings or after making comparisons.

Episode synopses

This programme explores three of the achievements of the engineer, Isambard Kingdom Brunel: the building of the **Thames Tunnel**, the first ever tunnel under a river; the construction of the **Great Western Railway**, a new railway network in the west of England and the best railway of its time; and the building of the ship, **The Great Eastern**, launched in 1858 and the biggest ship in the world.





1. 'The Shield' - the building of the Thames Tunnel

Richard Beamish, an engineer, tells of the time when he was employed by Isambard Kingdom Brunel and his father, Marc, to work on the Thames Tunnel. It was 1825 and no one had ever dug a tunnel under a river before. Beamish wanted to know how this would be achieved and Isambard explained the theory behind the 'Shield', a device that his father, Marc, had invented. The Shield was a huge metal disc with doors in it, which enabled the workmen to stand on it, open the doors and dig out sections of soil to create the tunnel, while the shield kept the rest of the earth in place.

However, the River Thames contained a lot of sewage and many workmen working underground collapsed from breathing in the fumes, and there was a further problem with water constantly entering and flooding the tunnel. On one occasion Isambard himself was caught up in such a flood. He was badly hurt, but he survived; others were not so fortunate.

It was seven years before work resumed on the tunnel and it was finally finished. And, although Isambard never returned to work on the tunnel after he had recovered, he went on to other challenges and even greater achievements.

2. The Great Western Railway

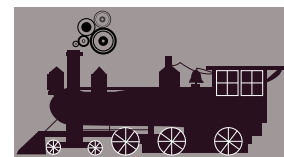
George Clark is an engineer, who has been working with Isambard Kingdom Brunel on the building of the Great Western Railway. In 1851 he is taking his assistant, Arthur, on the train from Bristol to London to visit the Great Exhibition. As they walk up to the station in Bristol, Arthur is amazed by the grandeur of the building, which was designed by Isambard.

The station cost a great deal of money; the directors had been appalled at the amount, but Isambard persuaded them that this would be no ordinary railway, it would be the finest railway in the world - and Isambard got his way.

Amid the smoke, noise and steam, Arthur grows nervous about travelling on the train. George manages to reassure him, and the journey goes smoothly until George tells him the story behind Maidenhead Bridge. Isambard had wanted to build a bridge that was low and flat, but the directors were worried about whether the bridge would bear the weight of the trains travelling over it. The directors agree to Isambard's plans, as long as the scaffolding under the bridge remained in place. Isambard agreed, but then lowered the scaffolding slightly so that it wasn't actually touching the bridge, and in fact the scaffolding was eventually washed away when the river flooded. Arthur panics about travelling over an unsupported bridge, until George points out to him that the train has already passed over it, and Arthur didn't even notice.

3. The 'Great Babe' - the SS Great Eastern

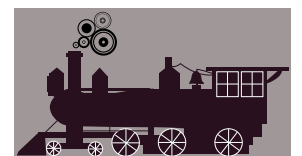
John Russell, a shipbuilder, talks of the time when Isambard Kingdom Brunel asked him to build his latest ship, The SS Great Eastern (or his 'Great Babe' as he called it) which was to be the biggest of all the ships he had designed and would be capable of sailing around the world without refuelling. Russell had been shocked to hear that Isambard wanted to launch his ship sideways, instead of the usual lengthways, because of her size. Russell pointed out that he was the one with the greater experience of launching ships, but Isambard was insistent and would not be dissuaded.





The day of the launch was a huge occasion with important people in attendance. When the moment arrived for the ship to be launched, to the consternation of all assembled, the ship refused to budge and it took several attempts before the ship eventually slipped into the water. However, The Great Eastern was soon sailing regularly across the Atlantic.

Then one day in 1862 on the way to New York she struck a rock, which caused a huge gash down one side. But, instead of taking on water and sinking, as the crew expected, the ship stayed afloat. Any other ship would have sunk, but Isambard had designed the ship with a double hull, and only the outer hull had been damaged. More proof of Isambard's extraordinary expertise in ship design.





9. MARY SEACOLE

The content relating to Mary Seacole consists of three episodes, each about 6 minutes long, which can be listened to individually or sequentially. A synopsis of each episode clip is below.

Lesson plan:

Learning intention 'We are learning to...'

We are learning to understand the life of a key historical character from the Victorian era.

Assessment criteria 'What I'm looking for...'

As an outcome I am looking for a labelled timeline diagram describing key features of the life of Mary Seacole.

Share and discuss a listening focus for each episode by asking the key question and instructing the children to make the following notes.

Resources needed: note-making paper and pencil.

1. Journey to the Crimea

Before listening: one key fact to discuss

- The Crimea. The Crimean peninsula is an outcrop of land that extends into the Black Sea, a large body of water to the east of Europe north of Turkey and close to Russia.

Discussion question: 'Who was Florence Nightingale?' (A famous nurse who organised help for soldiers during the Crimean War.)

During listening: one question to focus on

- Key question: 'What obstacles did Mary Seacole overcome to serve in the Crimean War?'

- Instruction: 'Write down the things Mary Seacole overcame to fulfil her ambition.'
- (Answers: Racism preventing travel to England from Jamaica; not allowed to serve as a nurse in the army; had to make the dangerous journey to the Crimea on her own.)

2. The Crimean War

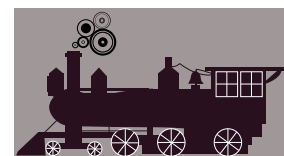
Before listening: one key fact to discuss

- The Crimean War. In the Victorian era Britain and some other countries were at war with Russia over who would be in charge in that part of the world.

Discussion question: 'What do soldiers need if they are injured fighting in a war?' (To be cleaned, bandaged, kept warm, brought food, given medicine.)

During listening: one question to focus on

- Key question: 'How did Mary Seacole help the British soldiers?'
- Instruction: 'Write notes to explain what Mary Seacole did to help the British soldiers.'
- (Answers: Providing shelter and food for injured soldiers; running the British Hotel in a dangerous area close to where the battles took place.)





3. After the War was over

Before listening: one key fact to discuss

- After the war. The British soldiers and Florence Nightingale's nurses were all brought home by the British army.

Discussion question: 'How do you think Mary Seacole should have been treated after the Crimean war?'

During listening: one question to focus on

- Key question: 'What happened to Mary Seacole after the Crimean war?'
- Instruction: 'Write a list of the things that happened to Mary Seacole after the war was over.'
- (Answers: The 'British Hotel' cost money to maintain and could not be sold; Mary Seacole had no money to live on; a reporter told her story and organised collections to reward her for her service.)

After listening

Activity: draw and label a timeline of events in the life of Mary Seacole. Make sure you mark and label:

- born 1805
- Crimean War begins 1853
- how she managed to travel to the Crimea in 1854, travelling to England from Jamaica and then finding a ship to take her to the Crimea on her own
- what she did to help during 1854 to 1856: setting up the British Hotel and helping soldiers
- what happened to her after the war: ignored at first then written about and rewarded for her work in 1857
- died 1881

Differentiation and teacher support for SEN / Focus group / Whole class

Teacher to demonstrate laying out a timeline horizontally across a blank page and placing dates and notes on the timeline to represent events.

Challenge for gifted and talented learners

Can you locate the Crimea on a map and create an illustration to show its position compared to Britain and Jamaica?

Plenary and assessment

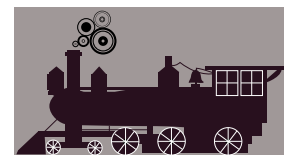
In table groups or as a class, share and compare labelled timelines. Give the children an opportunity to improve their drawings or after making comparisons.

Episode synopses

This programme covers three important episodes in the life of Mary Seacole: her unsuccessful attempt to enlist as a nurse to help Florence Nightingale in the Crimean War leads to her decision to travel to the Crimea and set up her own hospital there; her courageous work on the battlefield tending to wounded soldiers; and finally, how she spent the years after the end of the war impoverished and unappreciated.

1. Journey to the Crimea

Mary tells of her early life in Jamaica, and how her mother, a famous healer, taught her all her healing skills. In 1854, when war broke out in the Crimea, Mary travelled to England to volunteer her services to Florence Nightingale, who was setting up a hospital in the Crimea.





Even on the journey to England Mary encountered prejudice; as a Creole (with a white father and a black mother) she was considered of inferior status.

When she applied to the War Department in London to join Florence Nightingale as a nurse, she was turned away on the grounds that 'no more nurses were needed', although Mary was under no illusion that she was being rejected because of her colour. So Mary decided to travel to the Crimea and build her own 'hospital', and in spite of hearing stories about the harsh conditions she would encounter in the Crimea, she was determined to carry out her plans.

2. The Crimean War

Mary has built the 'British Hotel', which is closer to the battlefield than Florence Nightingale's hospital and she describes how she treated the wounded soldiers who needed her help. One day in 1856 a journalist called William Howard Russell from 'The Times' newspaper arrived at the British Hotel, wanting to write an article about Mary. Rather grudgingly she agreed, and he discovered how well-loved Mary was by the soldiers - they called her Mother Seacole - and how she would put aside fears for her own personal safety in order to treat wounded soldiers on the battlefield itself, and how she would treat *any* wounded soldiers if they needed her help, including enemy troops.

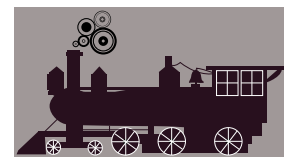
When the Russians surrendered Sebastopol to the British, Mary marched into the city with the British troops and was cheered by soldiers lining the road into the city.

3. After the War was over

After the war had ended Mary describes how she couldn't sell the British Hotel, so just had to pack up and leave. Back in London, she and Sally, her faithful maid, were very poor. Mary had debts that she couldn't pay and she couldn't afford to keep Sally on. Sally was devastated by this and was angry that everyone seemed to have forgotten how much Mary had done during the war.

Then, fortuitously, they received a surprise visit from William Howard Russell, the journalist who had written about Mary during the Crimean War. When he heard about Mary's plight, he determined to remind the British people of her work in the Crimea. He wrote a story in his newspaper and asked his friends to raise money to help her.

Finally there was a huge party to honour her and celebrate her work, with a message of congratulation from Queen Victoria.





10. DR DAVID LIVINGSTONE

The content relating to David Livingstone consists of four episodes, each 4 to 5 minutes long, which can be listened to individually or sequentially. A synopsis of each episode clip is below.

Lesson plan:

Learning intention 'We are learning to...'

We are learning to understand exploration and mapping in the Victorian era.

Assessment criteria 'What I'm looking for...'

As an outcome I am looking for a labelled free-hand map of the continent of Africa, noting the River Nile and the River Zambezi.

Share and discuss a listening focus for each episode by asking the key question and instructing the children to make the following notes.

Resources needed: note-making paper and pencil.

3. The Smoke that Thunders

Before listening: one key fact to discuss

- Exploring. In the Victorian era many parts of the world were uncharted. The only way to make maps was to visit a place and draw a map of your journey.

Discussion question: 'How do we make and use maps differently nowadays?' (Aerial photographs and satellite photography allow exploration and mapping without having to visit.)

During listening: one question to focus on

- Key question: 'How and why did Dr. Livingstone become an explorer?'
- Instruction: 'Write down the things that led Dr. Livingstone to explore Africa.'
- (Answers: He began as a missionary and as a doctor; he wanted to be the first person to map and describe the land that he explored.)

2. 'Dr Livingstone, I presume?'

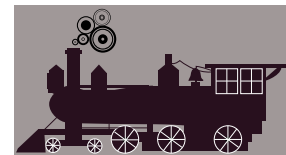
Before listening: one key fact to discuss

- The Source of the Nile. The River Nile flows north from central Africa through Egypt to the Mediterranean Sea. In the Victorian era the place where the river started was unknown.

Discussion question: 'What do you think might have made it difficult to find the place where the river starts?' (The river is hundreds of miles long; giant swamps and waterfalls made the course of the river hard to follow.)

During listening: one question to focus on

- Key question: 'Why did Mr. Stanley go looking for Dr. Livingstone?'
- Instruction: 'Write down the reasons why Mr. Stanley was looking for Dr. Livingstone.'
- (Answers: Livingstone was a famous man who had not been heard of for two years; Stanley was a reporter for a newspaper and he wanted to write about what had happened to Livingstone.)





3. Livingstone's journals: the discovery of Victoria Falls

Before listening: one key fact to discuss

- Writing style. It was important for Dr Livingstone to write about what he discovered so that people could find out about it. In the Victorian era cameras were still rare and difficult to use. It was difficult to take photographs. So it was important for Dr Livingstone to describe what he saw so that people remembered it.

Discussion question: 'What amazing landscapes or sights have you seen?' (Mountains, lakes, tourist attractions, the seaside.)

During listening: one question to focus on

- Key question: 'What do you think the Falls look like?'
- Instruction: 'Sketch the waterfall that Dr Livingstone describes.'
- (Answers: Sketches that represent islands in the river as well as river banks, rocks and rapids, a wide fall of water and water vapour rising like smoke at the foot of the falls.)

4. Stanley's journals: the meeting with Dr Livingstone

Before listening: one key fact to discuss

- Writing style. Mr Stanley was looking for Dr Livingstone so he could write about him for a newspaper. It was important for Stanley to write down everything he noticed about finding Livingstone.

Discussion question: 'If you were a newspaper reader, what would you like to know about finding the lost explorer?'

(What he looked like, if he was well, where he was staying, who he was with, what it was like when he was found, etc.)

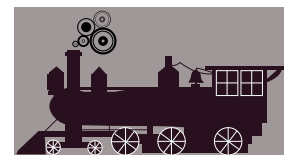
During listening: one question to focus on

- Key question: 'What does Stanley do to let Livingstone and the local village people know he and his men are coming into the village?'
- Instruction: 'Make a note of what happens when Stanley arrives at the African village where Livingstone is staying.'
- (Answers: Stanley's group wave flags, shoot guns into the air and introduce themselves to the people that come to greet them.)

After listening

Activity: An atlas or large map projected on an interactive white board showing the rivers of Africa would usefully support this activity. Sketch an outline of the African continent and draw the Zambezi and the Nile Rivers in their correct places. Use an atlas or a map of Africa find the rivers. Make sure you mark and label:

- Africa - The name of the continent
- The River Nile - including lakes and waterfalls. This river flows from central Africa, north to Egypt
- The River Zambezi - this river flows through areas of southern Africa
- Countries that the rivers flow through: Egypt, Zambia.





Differentiation and teacher support for SEN / Focus group / Whole class

Teacher to demonstrate how to draw the outline of Africa on paper or a white board to provide starting points and key ideas for learners who need support.

Challenge for gifted and talented learners

Can you locate name and add to your map the other countries that the rivers flow through?

Plenary and assessment

In table groups or as a class, share and compare finished maps. Give the children an opportunity to improve their drawings or after making comparisons.

Episode synopses

This programme tells of two significant events in the life of the Victorian explorer, Dr David Livingstone: a) his exploration of the Zambezi River in South Africa and his discovery of the Victoria Falls; b) the occasion when he met Henry Stanley, an American journalist and explorer, who went to search for Dr Livingstone after he had been missing in Africa for two years.

1. The Smoke that Thunders

Dr David Livingstone first went to Africa as a missionary in 1840, aged 27. After 15 years he has also become an explorer and recalls an occasion when he and his team set out to explore one of Africa's biggest rivers, the Zambezi. They had pitched camp for the night and Dr Livingstone told Mothusi, his helper, about the time when he was attacked by a lion and how his arm was permanently damaged in the ensuing tussle.

Mothusi remarked that the doctor would need all his strength to canoe along the river to the waterfall known as Mosi-oa Tunya, or 'The Smoke that Thunders'.

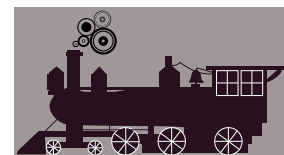
When they caught sight of the falls, the doctor was amazed by their magnificence, but Mothusi pointed out that they could not get any closer because the river currents were too dangerous.

The doctor did not want to put his team's lives in danger, but he was determined to reach the falls, so decided to continue alone. As the first European to witness this sight, he owed it to his Queen and country to describe it in detail, and to tell the world of 'Victoria's Falls'.

2. 'Dr Livingstone, I presume?'

Henry Morton Stanley, American journalist and explorer, visits Westminster Abbey in 1889 to pay his respects at the tomb of Dr David Livingstone, and recalls how he first met the famous explorer. Livingstone had not been heard of for two years and Stanley had travelled to Africa to try to find him. Finally he found the village where Livingstone was living.

Stanley was shocked at the doctor's appearance; although he would not yet have been 60, he looked a much older man. Livingstone was eager for news, as he had become cut off from the outside world, and was staggered to learn that Stanley had travelled so far especially to find him. He explained to Stanley that he could not yet return home as there was still somewhere he wanted to explore, the source of the River Nile. For a while Stanley accompanied him on his mission, but eventually had to return home, where he heard the news of Livingstone's death.





3. Livingstone's journals: the discovery of Victoria Falls

An extract from Dr Livingstone's journals, in which he describes his journey down the Zambezi River to see the Mosi-oa-tunya falls, which were later named Victoria Falls. There are dangerous currents, rapids and rocks along the river, making the journey by canoe extremely hazardous. However, the glorious scenery is well worth the risk and Livingstone struggles to do it justice in his description of the magnificent waterfalls.

4. Stanley's journals: the meeting with Dr Livingstone

An extract from Henry Stanley's journals, in which he describes the moment when he came face to face with Dr Livingstone. Stanley had looked forward to the meeting for so long, and when he first caught sight of him, he would have liked to embrace him, but in the presence of so many onlookers, he decided to greet him more formally, with the words: 'Dr Livingstone, I presume?' The use of these famous words is recorded by Stanley only; Livingstone makes no mention of them in his own journals.

