



Samuel Oldknow: KS1 6 Lesson Scheme of Work

	Title of the lesson	Main purpose of the lesson
Lesson 1	Early Childhood	<ul style="list-style-type: none"> - To learn about Oldknow's childhood. - To learn about toys from the past. - To compare and contrast past and present toys.
Lesson 2	First Business Ventures	<ul style="list-style-type: none"> - To understand how Oldknow began his business ventures. - To learn about Oldknow's Stockport mill.
Lesson 3	Mellor Mill	<ul style="list-style-type: none"> - To investigate why Oldknow wanted to build Mellor Mill. - To understand Samuel Oldknow as a visionary. - To instil a passion to be the 'best that you can be'.
Lesson 4	Geography of the Mill	<ul style="list-style-type: none"> - To investigate and understand why Oldknow built his mill in the location he chose. - To look at the use of water in Oldknow's location choice.
Lesson 5	Life as an apprentice	<ul style="list-style-type: none"> - To learn about what life would have been like as an apprentice in the mills. - To decide whether Samuel was a kind employer to his apprentices.
Lesson 6	Oldknow's Legacy	<ul style="list-style-type: none"> - To understand the word 'legacy' - To appreciate the way Samuel changed the face of Marple. - To decide whether Samuel was a good businessman.



Samuel Oldknow: KS1 Lesson 1

Title: Oldknow's Childhood

Learning Objectives:

- Can I learn about toys and games from the past?
- Can I talk about Samuel Oldknow's childhood?
- Can I tell the difference between past and present?

Resources required:

- Large timeline at the front of class – this could be a washing line with pegs on or something more elaborate!
- Toys from past and present
- PE hoops with laminated objects
- Access to outdoor area or collected sticks
- Different colour paint

Specific N.C. History Links:

Pupils should develop an awareness of the past, using common words and phrases relating to the passing of time. They should know where the people and events they study fit within a chronological framework and identify similarities and differences between ways of life in different periods.

The lives of significant individuals in the past who have contributed to national and international achievements.

Links to other curriculum areas:

Maths – counting in multiples and addition.
Science – everyday materials.

Lesson outline:

- Introduce Samuel Oldknow and talk about his childhood.
- Discussion of past and present.
- Place important events on a large class timeline.
- Venn diagram comparing past and present objects.
- Look at the materials that our toys are made from.
- Talk about toys from the past.
- Collect some sticks and make Spillikins.
- Write a letter to Oldknow with instructions on their game.
- Discuss which toys might be around in the future.

Notes: Assessment/ Next steps etc.



Lesson plan suggested script (if required)

Tell the children that we are going to be learning about someone very famous in the local area, who not only had an impact on Marple and Stockport, but Manchester and the United Kingdom.

Children are to think about how long ago 1756 was. Talk about the differences between past and present.

Have a large blank timeline set up at the front of the class. This will be a working timeline with us adding key events through the unit. Put on anything the children may know already – when they were born, when their school was built, when the last Olympics was, any periods in history they may already have studied. This will help them have an idea of chronology and will also link to maths objectives for partitioning numbers looking at the thousands, hundreds, tens and units in years but also more and less, bigger and smaller numbers.

Play a Venn diagram game with the children. Have two PE hoops on the floor and laminated photos of objects we have now, objects that were around in 1756 and objects that overlap the time periods. Then show the children some toys that we have today (before the unit ask the children to bring in a favourite toy for a 'Modern Toys' exhibition.)

Children are then to think about, after a discussion about how there would have been no electricity, no plastic etc, which games Samuel might have played as a child. Discuss the materials that our toys are made from as a link to materials in the KS1 curriculum.

Some games from the time include; Chess, backgammon, quoits, cricket, bowls, shove ha'penny, skittles, jacks, hopscotch, early badminton, conkers, marbles, dominoes, dolls, card games, toy soldiers, skipping, archery, hoop and stick.

Children are then to play spillikins – Pick up Sticks.

Children are to go out into their environment, choose some sticks and paint the ends different colours. Whilst they are waiting for them to dry they are to write Samuel instructions on how to play the game and are to decide on a points system for the different coloured sticks. Children are to play the game using their mathematical skills to add the number of points. If sticks are worth 2,3,5 and 10 points this will also hit the counting in multiple objectives for both year groups.

Plenary and follow up ideas:

Talk about the games that we play today and decide which of these games the children believe may well be around in another couple of hundred years.

As a follow up activity the children could write a letter to a child in the future telling them about the games that they enjoy today or make a time capsule for a child in the future.

Brief background knowledge:

Samuel Oldknow was born on 5 October 1756 in Anderton, near Chorley, Lancashire. He was educated at Rivington grammar school and he then served as an apprentice at his Uncle's drapers shop. Here he learned some of the skills that he would use in later life when he set up his own businesses making cotton.

Georgian toys and objects





Modern toys and objects







Samuel Oldknow: KS1 Lesson 2

Title: Early Business Ventures

Learning Objectives:

- Can I investigate different materials and learn what muslin is?
- Can I investigate different materials and learn

Resources required:

- Box of materials
- Blank map of the UK
- Materials to build the mill

Specific N.C. History Links

Pupils should develop an awareness of the past, using common words and phrases relating to the passing of time. They should know where the people and events they study fit within a chronological framework and identify similarities and differences between ways of life in different periods.

The lives of significant individuals in the past who have contributed to national and international achievements.

Links to other curriculum areas:

Geography – Identify and name capital cities of the UK

Science – everyday materials.

DT – technical knowledge

Maths – 2D and 3D shapes

Lesson outline:

- Look at the materials in the box.
- Decide what they are and what they would be used for.
- Which are modern materials, and which could be used in Georgian times?
- Which material was Samuel Oldknow famous for?
- What was muslin used for?
- Make the model mill.
- Compare with the real mill.

Notes: Assessment/ Next steps etc.



Lesson plan suggested script (if required)

Introduction:

Children are to have a box in front of them with lots of different materials in (link to Science curriculum – Everyday materials) Talk about what each material can be used for today and also discuss which materials they think would have been around in Georgian times. Would the plastic have been used for anything? Why?

Children are to discuss what is in the box and then talk about the muslin in the box. Ask the children which material in the box they think that Samuel Oldknow is famous for. Reveal the linen. Explain what it was and what it was used for. A good way to explain muslin to small children is to tell them it was an exceedingly fine material, similar to chiffon but even finer, and used to make floaty dresses for women (see attached picture)

Explain that Samuel Oldknow had a penchant for greatness – he wanted his muslin to be the best in the world, the finest quality. It was, and it was soon sought after in London. Show children a map of the UK and ask them to identify London (Geography link to capital cities). Teach the children the background knowledge and discuss Samuel's first mill in Hillgate. Tell the children that this was the first business venture that Samuel Oldknow had.

Children are to use their DT skills to construct a junk/clay/plasticine model of what they imagined a mill to look like. They are to consider which materials they would need and how they would make it a strong and stable structure. Children can design their mill first, bringing in maths links to 2D and 3D shapes. As they are designing, they are to consider the time period that the mill was being constructed in and think back to their material knowledge; which materials would have been around in 1784? Children think back to the introduction where they sorted modern and Georgian materials from the box.

Time dependent the children could use a motor to create a working water wheel in their mills.

Plenary and follow on ideas:

Teacher is then to reveal the real mill to the children and they are to compare their drawings and junk models to the actual mill and discuss any similarities and differences they may see. Do the children notice any symmetry in their mills? What about the real mill?

Design a perfectly symmetrical mill in their maths books. Use measure to ensure that all parts are symmetrical. Compare Samuel's mill to other mills of the time. What are the similarities and differences?



Brief background knowledge

In 1779 Samuel purchased a number of spinning mules suitable for use in the manufacture of muslin. He obtained finance of £1,000 from Abraham Crompton, Esq of Chorley Hall with whom he had both church and seemingly some family connection. By 1781 Oldknow had entered into partnership with his brother, Thomas, and he returned to live at Anderton in 1782, expanding into the manufacture of cotton goods. The Oldknow brothers' fabrics became favoured in London, where they formed a business agreement with the merchant Samuel Salte. This was the start of his rise to great success.

His next step to success was his own factory in Hillgate, Stockport. With a loan of £3,000 from Richard Arkwright he built his mill employing three hundred workers. He built a house here and although his business in Anderton was still up and running he focused his attention on his new venture in Stockport. At this time Samuel was the greatest muslin manufacturer in the UK.





Samuel Oldknow: Lesson number 3

Title: Mellor Mill and Bottoms Hall Farm

Learning Objectives:

- Can I create a dish using ingredients that would have been grown from Bottoms Hall Farm?
- Can I say why Oldknow built a second mill in Mellor?

Resources required:

- Ingredients for the children to prepare a soup
- More exotic foods
- World Map
- Soil and planting materials
- Root Vegetable seeds

Specific N.C. History Links:

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The lives of significant individuals in the past who have contributed to national and international achievements.

Links to other curriculum areas:

DT – cooking and nutrition
Geography – Map work – continents, countries and seas
Science - plants

Lesson outline:

- Teach children about Mellor Mill.
- Explain that this mill was bigger and designed to mass produce cheaper cotton.
- Talk to the children about where our food comes from. Have some exotic fruits and vegetables.
- Look on a world map to find where these come from. How do we get them to the UK? Plane or boats.
- Explain that not much was imported in Georgian times and often diets were quite poor.
- Samuel wanted his workers to be healthy as well as to use their wages in his shop so set up Bottoms Hall Farm.
- Food hunt!
- Children are to think about what grows in the UK and are to plant some of their own root vegetables.
- They are then to make a vegetable soup/pie/stew using the vegetables that the workers would have grown and write out the recipe.

Notes: Assessment/ Next steps etc.



Lesson plan suggested script (if required)

Introduction:

Teach the children about Samuel's next venture – Mellor Mill – using the information below. Talk to the children about why would he want a new mill? It would cost lots of money to build – try to elicit the idea of profit from the children. Discuss that Samuel didn't have lots of his own money so he used Richard Arkwright's. Ask the children what they think about borrowing money. Would they ever need to borrow money for anything? What do people borrow money for now? Add the dates of the new mill to the large timeline.

Talk to the children about what they thought that people ate 300 years ago. What do we eat now? Show the children the exotic fruits and vegetables with their countries labelled. Find these places on the world map taking note of the oceans and the continents that they are near or part of. Discuss with the children how we get these foods to the UK. Did the Georgians have planes, trains and lorries? Mention that Georgian people generally only ate food that was grown very locally and often wasn't the best quality. Samuel Oldknow wanted the best for his workers and also wanted to keep hold of some of his workers' wages so he created a farm called Bottom's Hall. This was one of the best of the time, with places to keep cattle and therefore produce milk; it grew barley, wheat, oats and even had fruit trees. The workers were given tokens for the food grown at the farm instead of part of their wages so Samuel ensured that what he had grown was sold.

Children are to have lots of photographs of different foods dotted around the room. They are to decide if they think that food could be grown in England or whether it would be grown elsewhere in the world and sort them into piles. Children are then to plant their own root vegetables linking to the plants Science curriculum.

Tell the children the variety of vegetables that were grown at Bottoms Hall Farm. Children are have a think about what dishes contain lots of vegetables and decide (with teacher guidance) what they could make from these. Cook a dish predominantly using vegetables and children are to write the recipe for their books alongside photographs of their cookery experience.

Plenary and follow up ideas:

The children could evaluate their dish, decide what would make it better and research other recipes that they could make as a worker in the mill. These could then be compiled into a Mellor Mill Recipe Book for school websites, possibly using computing skills.

Brief background knowledge

In 1790 Oldknow decided to build a bigger mill in Mellor to weave lower quality cotton for mass production. Mellor Mill was crowned with a central triangular pediment containing a piece of oval stonework. This stone was carved with Oldknow's initials, a weaver's shuttle and the year 1790. It is believed that this date refers to the year that construction commenced, as records show that the mill was not fully completed until 1793. The stone now lies in Memorial Park – a lovely thing to see if there is a visit to Mellor Mill site. The main mill building was an imposing structure with a central section six storeys high, 42 feet wide and 210 feet long. At each end of this was a further three storey section bringing the total length to 400 feet. The mill was constructed from locally quarried stone and bricks that were probably made on the site, or nearby. At its peak, the mill employed over 550 people. Samuel also built housing for the workers and ensured the roads were safe for the workers to get to the mill.

In 1800 Oldknow built Bottoms Hall and the adjoining farm and outbuildings. As with everything he did Oldknow was a perfectionist and his farm was no exception. It is said that it was a model farm in front of its time, with excellent accommodation for cattle and a small waterwheel for driving machinery such as chaff and turnip cutters. He was an outstanding agriculturist and encouraged his tenant farmers to improve the quality of their land by draining, manuring and liming. The farm provided produce for the workers in the mill, ensuring that they had a good diet – Samuel was a kind employer of the time. He also used to pay his workers, at least in part, with tokens for the farm shop as small coinage was difficult to obtain.

The sort of thing that Samuel grew in the gardens includes but is not limited to: Turkey long pod beans, marrow peas, speckled kidney peas, Cos lettuce, cabbage, lettuce, long prickly cucumber, green turkey, cucumber, sugar loaf cabbage, Italian broccoli, Welsh onion, Salmon radish, early Dutch turnip, new Strasburg onion, orange carrot, white beet, potatoes.



Mellor Mill with the stone super imposed



Bottoms Hall

NB: Bottoms Hall is one of the only Oldknow buildings that remains intact today. A trip to Mellor Mill would fit perfectly before teaching this lesson.



Samuel Oldknow: Lesson number 4

Title: Geography of Mellor Mill

Learning Objectives:

- Can I explain why Samuel chose the location for Mellor Mill?
- Can I use a map?

Resources required:

- Maps of the area
- Materials to add a water element to the children's models

Specific N.C. History Links:

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Links to other curriculum areas:

Geography – Map work
English – Speaking and Listening

Lesson outline:

- Discuss with the children how it would feel if a large mill was going to be built in their local area.
- Children are to make for and against arguments for the mill.
- Children are then to look at the location of the mill and discuss why Samuel chose to build it there.
- Children are to discuss how water wheels worked and add to their existing model mill.
- Children are to formulate questions that they might wish to ask Samuel.

Notes: Assessment/ Next steps etc.



Lesson plan suggested script (if required)

Introduction:

Ask the children how they would feel if a huge mill was going to be built in their local area. Would they want the mill? Would they oppose it? Try and link to a recent event in your locality e.g when Marple college was going to be turned into a large ASDA superstore – lots of people were very supportive but many people opposed it and protested about it.

Split the class into two groups. One group on a large piece of paper are to jot down all the reasons that people of the time might have really liked the idea of a new mill; better roads, more jobs for people, might make the area famous for its industry etc. The other group of children are to think about why people might not want the mill; they might come up with reasons such as more noise, more people moving into the area, pollution etc. The children are then to present their arguments to the other group of people in a debate format. Take photos of these two large sheets as evidence for books.

After this, the teacher is to decree that there will in fact be a new mill built and that all of the children are now employed to work there.

Give the children Map 3. Ask the children to make a choice about where they think a new mill should go and ask them to write their reasons in their topic books.

Then give the children a map of the area (see below) from the ordnance survey map 1910 (which shows the location of the mill) and the modern map so that they can see where the canal, mill pond and roads are. Ask the children if you were Samuel, why would you choose this location for your mill? Ask questions such as; what did the mill need? What powered the mill? Provide a photograph of the mill with the water wheel if required. Allow the children to look at their models of a mill with a water wheel.

When the children have elicited that Samuel needed his mill to be near water explain to the children how water wheels worked. Children could add a mill pond element onto their existing model mills using tissue paper or cellophane in order to demonstrate how the wheels worked.

Plenary: Children are to think of any questions that they might want to ask Samuel about the building of his new Mellor Mill linked to forming historically valid questions. If confident, the teacher could answer these in role or some of the children could suggest answers.

Children could create maps of their local area noting any features of interest like Samuel will have had to have done when choosing the location for his mill. This would link with creating and reading keys in Geography. They could also write letters from Samuel to the local council asking for permission to build the mill, discussing its perfect location and mentioning all of the positive aspects it would bring to the area.

Brief background knowledge

How do water wheels work?



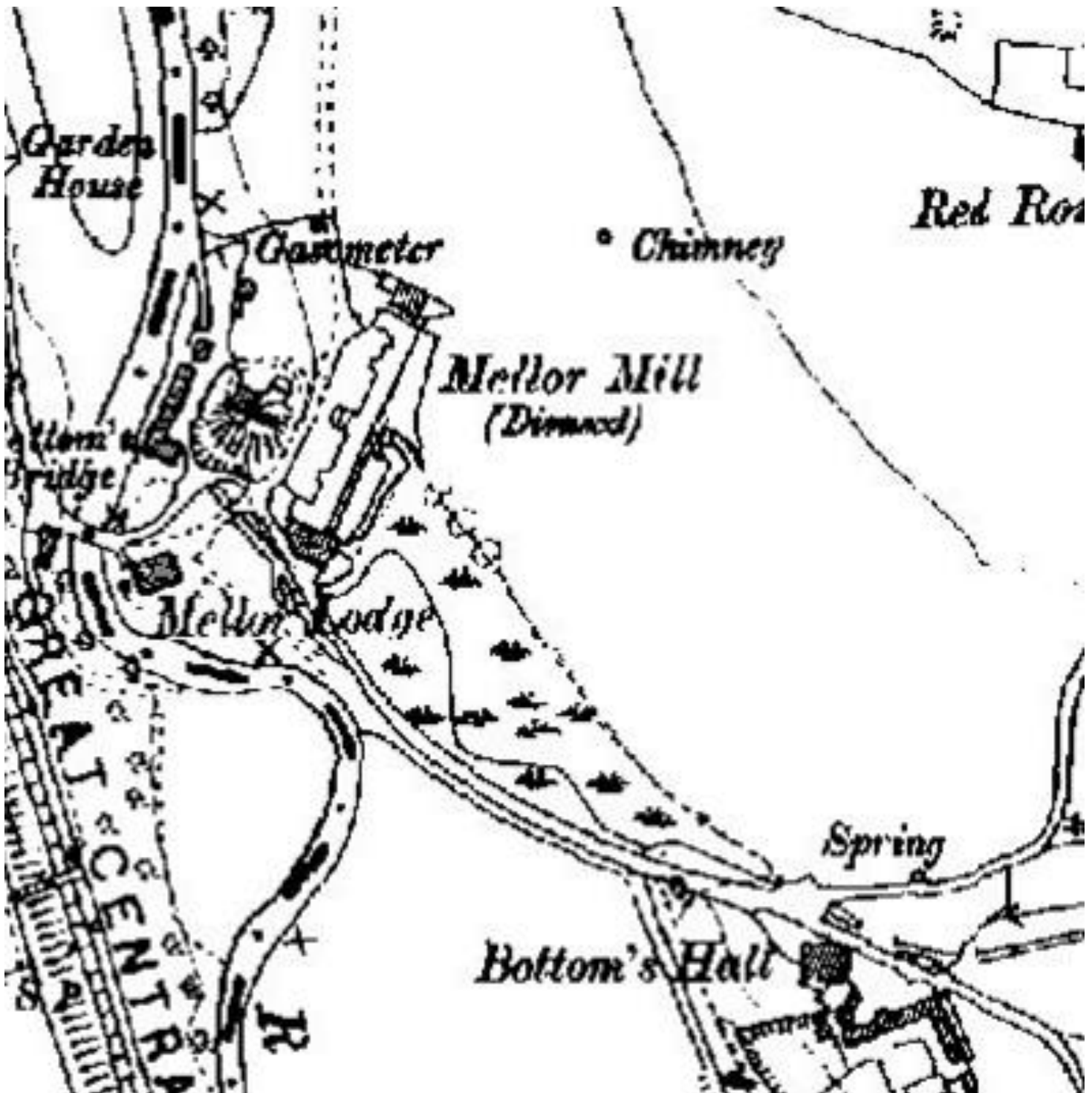
Example of an 'undershot' Water Wheel



Example of a 'overshot' water wheel

Water wheels consist of large wooden or metal wheels which have paddles or buckets arranged around the outside rim. The force or the weight of the water on the paddles or buckets turns the wheel. The axle of the wheel also turns, and this is used to drive the machine by way of belts or gears. The flowing channel of water is called a 'mill race'. The race that brings the water from the 'mill pond' to the wheel is called the 'head race' and the channel that carries the water away is the 'tail race'. Both horizontal and vertical water wheels have been used, with the vertical type much more common and efficient. Of these, two common designs are the 'undershot water wheel' and the 'overshot water wheel'.

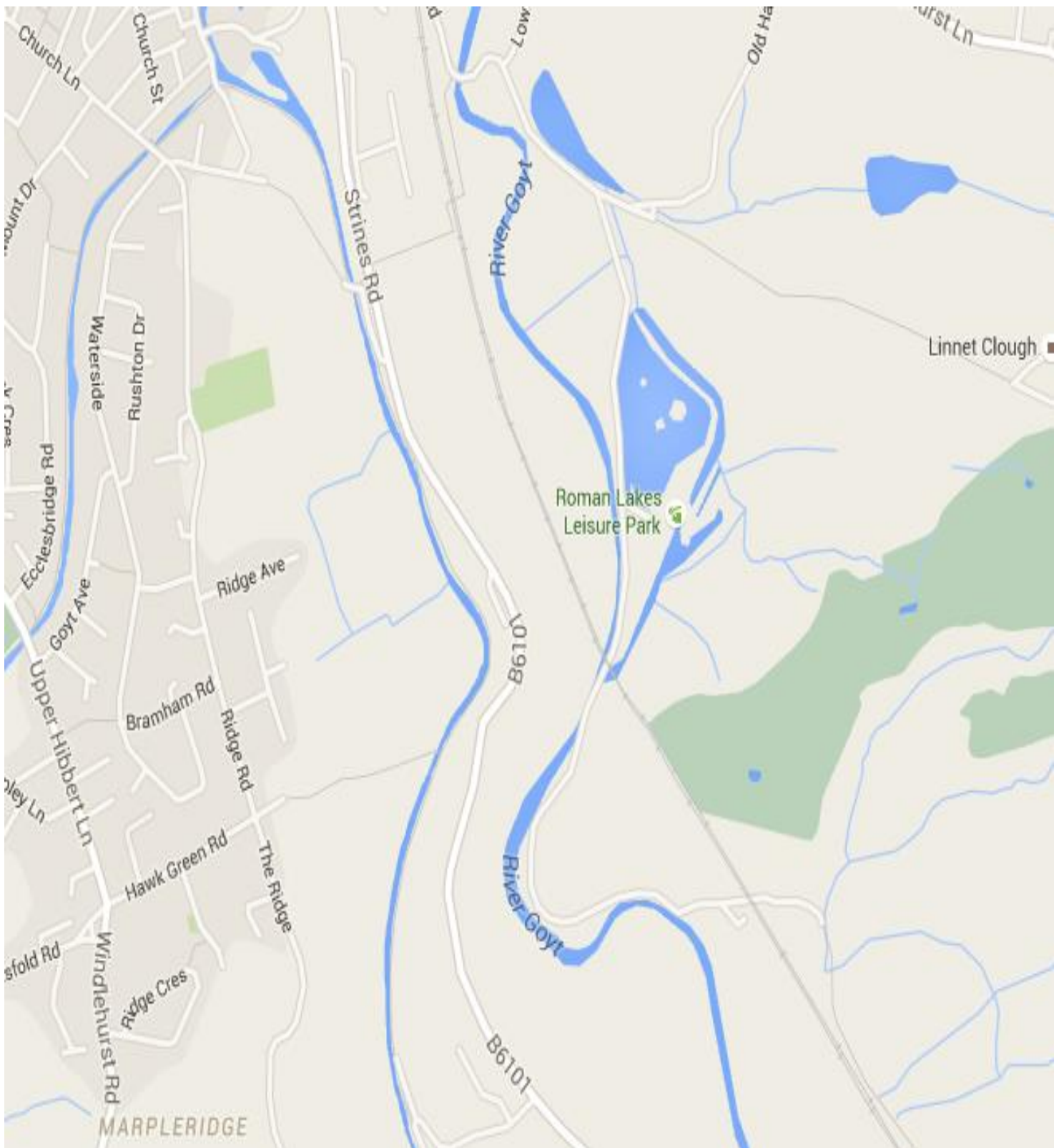
In order to supply water to Mellor Mill's water wheel Oldknow literally reshaped the landscape and the Cheshire/Derbyshire county boundary formed by the River Goyt. The river was re-routed along a new cutting and a weir, sluice gate and leat were constructed to divert water into a large millpond. This fed into a second large millpond to the rear of the mill. This pond was also fed by stream from a third smaller pond constructed at Linnet Clough. The largest of these millponds later became a huge tourist attraction and was christened "Roman Lakes" in Victorian times. If you are thinking of taking a visit linked to the Oldknow project you can see the foundations of the wheel and also the Roman Lakes as they are today.



Map 1 – 1910 Tithe Map



Map 2 – Modern Day Tithe Map



Map 3 – Google Maps



Samuel Oldknow: Lesson number 5

Title: Life as an Apprentice

Learning Objectives:

- Can I describe what life would have been like for an apprentice?
- Can I write a diary entry?

Resources required:

- Apprentice clothes (if desired)

Specific N.C. History Links

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Links to other curriculum areas:

PSHE – empathy with others.

Lesson outline:

- Walk into class dressed as an apprentice as a WOW factor
- Children are to guess what you are and ask some questions (linked to asking perceptive questions from the History aims)
- Talk a little about your life in the orphanage and now your life as an apprentice
- Discuss Samuel's kindness.
- Children are to write a diary entry as an apprentice
- Contrast life as an apprentice to life as a modern child

Notes: Assessment/ Next steps etc.



Lesson plan suggested script (if required)

Introduction:

Walk into class dressed as an apprentice. Ask the children to ask some questions about what you might be dressed as or any other questions they might want to know the answers to. Record these in their books as evidence of asking perceptive questions. At the end of the session see which ones the children can answer.

In role, tell the children about your life. Tell them that you are an orphan, a child without a family (being sensitive to any situations in class). Explain that life in the orphanage wasn't nice but a man called Samuel took you from the orphanage to work in a mill.

Talk about your day in the mill. Children were either scavengers or piecers. Piecers would take the broken pieces of cotton and would twist them back together, sometimes until their fingers bled. Give children two pieces of wool or cotton and ask them to try and piece them back together to see how difficult this is!

A scavenger would climb underneath the machine to clean it – it is reported that a child could run 24 miles a day doing this job! Children could walk a mile around the school playground to see how long 24 of these would be!

Discuss the meals that you ate as an apprentice; porridge for breakfast, food from the farm for lunch and tea. Ask the children to remember what was grown on the farm and what meals do they think the apprentices could have eaten from the ingredients.

Talk about how you were treated very well, Samuel gave each apprentice £1 (a large sum of money) and on marriage another £2 to set them up for their adult life. This was not a requirement but the actions of a kind employer.

At one point Samuel had 100 apprentices working in his mill. Tell the children that you lived at Bottoms Hall Farm, in housing that Samuel had specifically created for his workers. Explain that you were treated well for a child of your time, although work was still exceedingly hard. Play the children this clip

<http://www.bbc.co.uk/education/clips/zsdw2hv> and discuss what the conditions were like. Talk to the children about how long your days were in the mill and how you even had long days on Sunday's.

Samuel was very keen on his workers attending church so twice a day the workers made the long journey to All Saints' Church in Marple. Because this was such a long journey Samuel left a 'pee stone' for the boys to have a wee behind before the service started, another sign of his thoughtfulness. Raise the question with the children – what about the girls?!

Children are then to write a list of bullet points in teams as to what they have learned about life as an apprentice. This could be a competition for the most facts with a competitive class!

Children are then to write a diary entry as though they were a child in the mill...what is a day in the life of an apprentice like? Possibly tea stain paper for effect as a display or in books.

Plenary and follow on ideas:

Contrast the life of an apprentice to life as a modern child. What are the differences? Which life would they prefer and why? Venn diagram of old and modern childhoods. Are there any cross overs?

Brief background knowledge



Picture of apprentices for reference!



Pee stones



Samuel Oldknow: Lesson number 6

Title: Oldknow's Legacy

Learning Objectives:

- Can I explain the word legacy?
- Can I talk about how Samuel changed Marple?

Resources required:

- Coat of arms template for each child

<http://www.twinkl.co.uk/resource/t-t-198-fairytale-castle-design-a-coat-of-arms-shield>

Specific N.C. History Links:

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Links to other curriculum areas:

Art – sketching and colouring

Maths – quartering

Lesson outline:

- Discuss the word legacy
- Children are to record what they think it means
- Discuss all of Samuel's achievements and list
- Children are to design a coat of arms celebrating this (could split coat of arms into quarters for a maths link)
- Discuss what we would leave as our legacy
- Answer any questions from the topic

Notes: Assessment/ Next steps etc.



Lesson plan suggested script (if required)

Introduction:

Pose the question to the children; what is a legacy?

Ask the children to write what they think this definition would be in their books. They can then write what they know it to be at the end of the session.

A legacy is defined as; anything handed down from the past, as from an ancestor or predecessor. When Samuel died in 1828 aged 72, he left behind a lasting impression on Marple. Add this date to the large timeline.

Ask the children to draw in their books the things that they know Samuel has left for us.

Discuss with the children that are more things than we have learned of so far.

Show the children a picture of All Saints' Church in Marple. Explain to the children that the building on the left is no longer there, bar the tall tower which is now the Bell Tower, and that people now use the building on the right. Tell the children that the building on the left is the old church, that Samuel commissioned to be built for the growing population of Marple. There is still a monument to Samuel in the Bell Tower now.

Add All Saints' Church to the list of things that Samuel left in his legacy.

Ask the children if they have ever heard of lime kilns. Explain that lime kilns were huge ovens that burnt a stone called limestone. This was used for buildings and was quite valuable. Samuel orchestrated the canal being extended to the top of a hill so that he could get the limestone off the boat and put it straight into the ovens and then sell the burnt limestone. He used the front of the lime kilns to build more houses for the workers who ran the lime kilns, and some of these can still be seen today. Show the children the photo graph and add lime kilns and canal to the list.

Roman Lakes. These were actually the mill ponds to get the water from for Mellor Mill, but are now a tourist attraction that we would not have had had it not been for Samuel Oldknow. Add this to the list.

Aqueduct – Samuel built an aqueduct to transport water when there was a problem. This is still standing today and is a magnificent structure.

Children are then to design a coat of arms to remember Samuel by and to show in picture form what he did for the local community. This can then be the front cover for the scheme of work. Children can use actual pictures or symbols to represent the different elements of Samuel's legacy.

Plenary and follow on ideas:

Children are now to write what they know the word legacy to mean and record. They could answer any questions that they have asked along the way now that they have a full picture of Samuel's life.

Have a talk with the children as to what they would leave as their 'legacy'. What do they want to be remembered for?

Children could design an obituary paragraph for Samuel highlighting all of his achievements.

Newspaper report on his life and work.

Time capsule to let people three hundred years from now know what life was like in 2016.

Brief background knowledge



All Saints' Church



Lime Kilns