The National Tramway Museum

Teachers' Resource Pack

Early Years and Key Stage One

Contents

EARLY YEARS AND KEY STAGE ONE

Introduction

The National Tramway Museum's collections and site are an exciting and accessible resource for Early Years and Key Stage 1 teaching and learning.

The Museum encompasses far more than trams. As well as the tram fleet there is a period street with street furniture and historic buildings that have been painstakingly rebuilt on site. The Woodland Walk and Sculpture Trail offer opportunities to discover plants, minibeasts and a wide variety of habitats; explore and investigate our Sculptures; and provide excellent views across the Derwent Valley and the World Heritage Site.

The Museum's website is a valuable resource with a large image database presenting a fascinating visual document of everyday life in towns and cities from the late nineteenth century. http://www.tramway.co.uk/library-collections/photographic-collection/

The Pack

This pack aims to enable Early Years and Key Stage1 teachers make the most of a visit to the Museum. It is designed to provide everything needed for a self-guided visit. There are suggestions for pre and post visit work and photocopiable worksheets to use both at the Museum and in the classroom.

Curriculum Links

Early Years Foundation Stage
The Museum offers a wealth of inspiration for activities that fit with the Early Learning Foundation Stage Framework.

Children can develop their communication and social skills, gaining confidence in their own abilities and an understanding of appropriate behaviour in different situations.

There are opportunities to explore, observe and find out about people, places, technology and the environment.

Key Stage 1
The Museum can support programmes of study across a number of subjects at Key Stage 1. In addition to the materials here, school groups can take advantage of our facilitated Education Sessions which provide interactive learning linked to specific topics. Further details can be found in the School Teachers' guide and on our website; http://www.tramway.co.uk/learning/

English: Pupils can utilise the interpretation boards, exhibits, artefacts and collections to engage in meaningful discussions across all areas of the curriculum.

History: Pupils can explore transport and journeys, comparing past and present.

Maths: Numbers and shapes are everywhere around the Museum – on and in the trams, the shops, the depots and the exhibitions.

Science: Pupils can explore everyday materials in the street and on the trams. On the Woodland Walk they can investigate living things and their habitats, environments and food chains.

Geography: Children can use appropriate vocabulary to describe key physical and human landscape features. There are opportunities for developing mapping and observational skills.

Art and Design: The Museum provides a variety of opportunities to stimulate creativity and imagination for all age groups. From the collections to the Sculpture Trail and the Woodland Walk, children can explore colour, shape, pattern, space and texture.

Teachers' notes

For the purpose of the pack, the Museum has been divided into two areas, the Village and the Woodland Walk. This has been done to help make planning easier, and to help focus different curriculum areas.

The children should begin to develop their own thoughts about social history, the development of transport and the effects of different historical events on the people of the time. Thinking about their own situations will enable them to compare and contrast their lives with the lives of others in the past. They will also be able to compare the differences between town and country, explore environmental issues and investigate art and design.

The Trams, Street and Exhibitions

Many children will never have seen a tram, whilst some will have ridden on modern tram systems.

We do not keep our collections in glass cases, our visitors are encouraged to interact with them through riding a tram or touching a lamppost. This doesn't mean they are any less precious than an Egyptian mummy or Rembrandt painting, each tram is special and may be the last of its kind in the world; our buildings and street furniture all have stories to tell.

The Woodland Walk and Sculpture Trail

The woodland walk offers opportunities to explore science, environmental issues, art and design, literacy and more.

The woodland here is upland, mixed ash wood and is part of the limestone landscape of the Peak District, as is our calcareous grassland.

The woodland supports an abundance of flora and fauna, with some species particular to our landscape.

The sculptures along our trail are created by sculptor Andrew Frost. He has an outdoor studio at the start of the Woodland Walk and can often be seen at work.

The very nature of the sculptures means that they decay and rot. Fungus grows in the cracks and can look quite spectacular. As one sculpture disappears another one appears, so the trail is always changing. There are constants, the wood ant, the green man and the troll (now reborn from the original), are always here.

Preparing for a visit

Look at images of public transport: buses, trains, minibuses, trams and underground trains. Ask the children to consider which might be best for long journeys, short journeys, a few people, a lot of people, a city centre, travelling through the countryside. Look at how each form of transport works and how they are powered.

Discuss the types of transport the children know and use. What kinds of transport do they use to go shopping, go to school, to go swimming, etc? How do their parents travel to work?

Discuss why public transport is important. What would happen if everyone used a car (pollution, traffic jams, lack of exercise, lack of social contact, accidents)?

Show children photographs of tramways and tramcars. A range of different images can be downloaded from the Museum website.

Involve children in planning the journey to the Museum: what different kinds of transport could they use? Why not a tram? Which will be the best for the class? How long will the journey take? Look at a map to see where the Museum is in relation to the school.

Background information

Horse powered trams

Horse tramway systems were first introduced in the 1860s, helping to meet the transport needs of the growing industrial working classes. Before this, most people wanting to travel walked. Railways provided efficient, long distance and suburban transport from the middle of the nineteenth century, but could only be afforded by the better off. The introduction of horse buses in 1829 provided cheaper transport for the middle classes in towns, but was limited by the number of people they could carry and the speed at which they could operate.

Horse trams spread throughout the UK from the late 1860s becoming a popular method of transport, especially for travelling to work. They were more efficient than horse buses as the rails gave a smooth ride over uneven roads. The rails also reduced friction, enabling horses to pull larger vehicles and carry more passengers so allowing lower fares.

In 1880 there were over 12,000 horses and 1,610 trams, and by 1885 these numbers had increased to over 25,000 horses and nearly 3,000 trams.

Almost as soon as horse tramways started to develop the search for alternative forms of traction began.

Cable tramways were introduced in the United States in 1873 but were never widely established in Great Britain. One of the few cable tramways in this country operated in Matlock between 1893 and 1927.

Steam powered trams

Steam powered road vehicles began to appear from the 1830s, but in the 1860s their operation was hampered by legislation requiring a man carrying a red flag to walk ahead of each vehicle.

From 1875 the steam tram was the main rival of horse drawn trams and helped to establish the principle of mechanical traction on the roads; changes to the law meant they no longer needed someone to walk ahead of the vehicle with a red flag.

Electric powered trams

By 1885, horse trams had reached the limit of their development. It was expensive to feed, stable and maintain the horses to pull the trams. While the horse tram had brought mobility to many, it was still not cheap enough for the vast majority of the urban working population. Steam trams also had their limitations, having to stop frequently to take on water and clean out the fires.

Between 1898 and 1906, electric tramways were introduced into nearly all urban areas of the British Isles, providing cheap efficient transport for everyday needs.

The electric tram was the main method of public transport in British towns and cities from 1900 to the 1930s. As their use widened, comfort and safety become more important. Tramcars were fitted with cushioned seats, hanging straps, boxes for used tickets and safety gates. Signs and notices set the standards of behaviour for passengers.

Most tramway systems used overhead wires to carry electricity to the tramcars. A small number used alternative methods, although the expense and problems associated with these meant they were never widely adopted.

In central London, a ‘conduit’ system was used until 1952. This carried electricity along a concrete trough (the conduit) underneath the road and a current collector on the tramcar picked up the current through a slot between the rails. The conduit often became blocked with rubbish or sand; causing the collector to jam and separate from the tramcar.

Another system was the stud contact system. Large metal studs were set between the tramway rails and as the tramcar passed over the studs, the electric current switched on and passed to a collector underneath the tramcar. Sometimes the switches failed, stranding the tramcar, or would not turn the current off, leaving the studs live and dangerous to passers-by or to horses with iron shoes.

The widespread introduction of tramway systems had a huge impact on the way of life in towns and cities. Instead of living close to their work, in the congested, unhealthy inner cities, people were able to move out to newly developed housing estates and travel into work by tram.

Trams were used for leisure as well as work. In the 1900s trams able to carry more than 50 passengers could be hired for as little as 3 shillings (15 pence) and schools, clubs and societies took advantage of this cheap form of transport for outings and visits.

In Belfast, the tram route serving one of the largest shipyards in the world was probably one of the most heavily used in the British Isles with trams in a non-stop procession throughout rush-hour. Trams were hired for sporting events and services operated to venues such as Aintree for racing, Wimbledon for tennis, Murrayfield and Cardiff Arms Park for rugby and many football venues around the country.

During the First and Second World Wars women were recruited as conductors and drivers to replace male workers who had enlisted. There was considerable resistance to this, especially during the First World War, and many arguments against female employees were put forward. Some companies believed that women did not have the stamina to do the job and that the working environment was unsuitable. Unsocial hours and the lack of suitable facilities at tramway depots were also given as reasons against employing women.

However, in most areas, a female workforce proved a great success as well as a necessity when companies were losing male employees to the war effort. By December 1918, there were 11,671 women conductors as opposed to 2,906 men, a statistic that reflects the real turnaround in thinking about women's roles in society during the war years.

Decline and Revival

The decline of trams and tramways in the UK began in the late 1920s and 1930s as motor buses began to offer efficient competition. Trams were abandoned because they were thought to be old fashioned and uneconomic. Tramways began closing down as early as the mid-1920s and their decline increased through the 1940s and 1950s. By 1962, apart from Blackpool and the Isle of Man, not a single electric tramway system remained in the UK. Overseas, France took a similar view and most of their tram systems disappeared too. Elsewhere, including the United States and what was the Soviet Union, the tram was highly regarded and continued to be modernised.

Since the late 1980s however, the perception of trams and tramways has changed in the UK. They are increasingly seen as one of the best ways of regenerating inner city areas and making an important contribution to alleviating traffic congestion. Electric tramways are also considered to be more environmentally friendly than buses or private cars.

In 1980, 'super-trams' were introduced as part of a new underground metro system in Tyne and Wear and in 1987, the Docklands Light Railway was opened as part of a scheme to develop London's Docklands. Other cities have followed, including Manchester, Sheffield, Nottingham and Edinburgh. The new trams are quick, clean and designed to allow good disabled access.

While it is unlikely that new tramway systems will ever be established on the scale of the early 20th century, trams now have a future as a clean, safe and quiet alternative to oil powered transport.

The Street

The street at the Museum provides the context in which our trams run. Some of the buildings are original quarry buildings, some have been brought from elsewhere and rebuilt here and some have been built to fulfil a specific purpose at the Museum.

Original buildings include the Forge Shop, Stephenson's Discovery Centre and the Learning Centre. This was the smithy for the quarry. Our Eagle Printing Press is also housed in one of the quarry buildings.

The Red Lion public house was originally situated opposite the Tramway Offices in Stoke-on-Trent. Tramway workers were paid in the bar.

The façades of the Burnley Tramway Office and Yorkshire Bank were saved from demolition by a Museum volunteer. The Museum's library, archive and offices are housed behind them.

The Derby Assembly Rooms were completed in 1774 to house a ballroom, supper and card rooms. The interior was destroyed by fire in 1963, and the façade brought to the Museum in 1972. The smoke blackened stonework can still be seen. At the top of the building are carvings of musical instruments.

The cast iron bridge was made in 1844 to cross an ornamental lake on the Bowes Lyon Estate in Hertfordshire, the childhood home of Queen Elizabeth the Queen Mother. The bridge was given to the Museum in 1971 and rebuilt on top of stone pillars.

As with the buildings, our street furniture comes from all over the country and makes up one of our Designated (of national importance) Collections.

The Police Box was donated by the Metropolitan Police. The boxes were used by beat 'bobbies' to write reports, contact their station and take refreshment breaks.

The Bundy clock was used by tramway managers to check on the service. Drivers inserted a key which recorded their departure time on a roll of paper.

The red and white telephone box is one of the earliest designs of public telephone boxes, as is the pillar box. Pillar boxes were originally green, but the public complained they were difficult to see.

The tall stench pipe outside the sweetshop was a common feature of Victorian and Edwardian streets, and can still be found if you look carefully. They were installed to release the build-up of foul smelling gas from the sewers, discharging it high into the air so avoiding the stench invading the streets. This one was above a public toilet in Birmingham.

Exhibitions

There are three exhibition areas at the Museum:

Stephenson's Discovery Centre – This exhibition describes the beginnings of the Museum, our links to George Stephenson and the development of the first tramways. Over the glass bridge is the Workshop Viewing Gallery where our dedicated team of staff and volunteers service and restore our running fleet.

The Great Exhibition Hall – A Century of Trams from 1860 to 1960, from early horse trams to steam and electric, through to the last of the first generation of trams. Follow their development and decline and what was happening in the world during each decade.

The Assembly Rooms – The Survive and Thrive exhibition charts the resurgence of tramways to our cities, with a light wall showing first and second generation tramways. Our temporary exhibition space is also housed here.

You can also see much of the Museum's tram collection in the Depots.

The Woodland Walk

The Museum is in the heart of the Peak District, on the edge of the Derwent Valley.

The geology of the Peak district has influenced the industry of the area from Roman times. Rich mineral veins are contained within the exposed carboniferous limestone, making them relatively easy to extract, resulting in extensive mining and quarrying.

Lead Mining

The Derbyshire lead field was the largest and most productive in Britain. Lead was exported throughout the Roman Empire to be used for pipes, baths, roofing and coffins. Lead pigment was used in paint and face powder.

By the 14th century lead was England's leading export. Production slowly declined but continued to supplement the incomes of agricultural workers in the area.

Relics of lead mining can be seen all over the Peak District; the Museum is home to the remains of a lead smelter and houses a small display by the Peak District Mining Historical Society which runs a Museum in Matlock Bath.

Quarrying

The limestone quarries of Derbyshire have provided employment in the area for over a thousand years and Derbyshire is still the UK's largest limestone and lime producer.

The Museum is built on part of what was once Cliff Quarry, one of four quarries in Crich. The other part of the quarry was worked until 2012 and the abandoned machinery can be seen when taking a tram ride.

The purity of Crich lime was renowned and brought George Stephenson here in the 1830s, when he was looking for lime to use as flux to smelt the iron to build his Midland Railway.

Many household products contain limestone in one form or another, from toothpaste and pills to the adhesive holding the tiles to our kitchen and bathroom walls. Roads, roof tiles, carpets, window glass and glass food jars and bottles are all dependant on limestone. It is added to the soil to help increase crop yields and to animal feeds, so finding its way through the food chain to the bones in our bodies.

Woodland

The woods at the Museum are mixed ash woodland, common to limestone areas. Ash colonises open ground vigorously and many ash woodlands in Derbyshire are a rich mixture of ancient and new trees.

Besides ash, sycamore, alder and birch can be found. The shrub layer consists of a wide range of species including hazel, wych elm, wild rose, elder and hawthorn. The light shade provided by the ash canopy provides a diverse ground flora with primrose, wild garlic, early purple orchid, cowslip, wild strawberries, ladies bedstraw, wild marjoram and more. Many different lichen species can be seen adorning the bark of old ash trees which in turn provide plentiful habitats for minibeasts.

Our woods are home to an abundance of small creatures including spiders, bees, grasshoppers, moths, butterflies, wood ants and common lizards. The wood ants can be seen marching along the side of the path carrying leaves and sticks back to the nest.

Wrens bob in and out of the dead hedges, woodpeckers tap at the tree trunks, peregrines screech near the cliffside, sparrows, greenfinches and blue tits feed and nest all along the woodland walk. Take a look at the back of the Green Man's head – there is a perfectly round hole that was pecked away by woodpeckers making a cosy home to bring up their young.

Ideas for activities

Class displays

Make a large frieze of a tramcar. Each child can draw or paint a self-portrait for the frieze, as a passenger, driver, conductor on the tramcar, or standing in a queue beside it.

Make a collection of objects relating to public transport. Include postcards, maps, photographs, tickets, timetables and leaflets. Encourage the children to add to the collection, looking in particular for items concerning tramways. Discuss why there are so few items relating to tramways. Most tramway systems today are in Europe although they are now being reintroduced in the United Kingdom.

Make a display comparing public transport 100 years ago and now. Which are still in use, which have disappeared? Why?

Making models

Children could make and decorate their own tramcar using a cardboard box.

They could make their own destination blinds, using paper and cardboard tubes and could experiment with different colours. Discuss why most destination blinds are black with white lettering.

Make a route map floor painting for the models to run on. Use thread or wool for overhead wires and artists' wire or cocktail sticks for trolley poles.

Safety

Discuss why safety rules are important on public transport. What safety signs and announcements have they seen or heard?

Children could discuss the safety rules for tramways, e.g. not leaning out over an open top car, keeping away from the side of the tramcar. One argument against trams in the 1950s was people being hit by cars when alighting because trams ran down the middle of the road.

The 8 foot rule: this was a warning notice on the side of tramcars in New York, to keep vehicles away from stationary tramcars. Children could measure the distance (about 2.25 metres) and compare this with similar safety rules at railway stations, e.g. the yellow lines at the edge of railway platforms.

What rules would children have for their tramcar company?

How things work – how things move

Play with toys that use different energy sources, e.g. wind-up, cord-pull and battery, to understand that an energy source is needed to make something move.

Experiment with pulling things: what happens when things are pulled without wheels, with wheels, on and off rails? How can different surfaces assist or hinder movement.

Wheels can skid if a road is icy or wet. Tread on tyres increases their friction with the road. Sand was dropped on the tram rails to help the tramcars to brake and grip the rails in the wet.

Electricity and lighting

Make a simple circuit using batteries and bulbs to show that electricity needs to travel in a circuit and that a circuit can be broken. Use this to show how a tramcar works.

Look at reflective materials and compare these with the kind of headlamps used on tramcars and other vehicles.

Materials

Collect examples of the different materials used to make tramcars: wood, glass, fabric,

steel and brass. Examine each material's characteristics. Talk about where the different materials are used on a tramcar.

Compare the range of materials used on horse drawn, steam and electric tramcars and look at how new materials were introduced to make tramcars more comfortable and attractive.

Drama and role-play

Children can act out travelling by tramcar: putting a hand out to stop the tramcar, climbing on and sitting down, being the conductor or driver, paying the fare, moving along, turning the seats round at the end of a journey.

Describe scenarios which can be acted out: what happens if the electricity supply fails? What happens if you are travelling in an open topped tram in the rain?

Numbers and shapes

What shapes can children find in the tramcars at the Museum? Look at windows, headlamps, wheels, destination boxes, seats, logos, tram stop signs?

What different numbers are there on tramcars and what do they mean - destination numbers, numbers of seats available, ticket numbers, tramcar number?

Children can count and compare the number of people that could be carried by different tramcars.

Children can find out about tramcar fares: how are these written down? How are they different to fares today?

The past and present

If possible children could travel on a modern tram to explore the advantages and disadvantages of tramway transport.

Use the images in the pack or download some from the Museum's website to compare travelling by tramcar in the past and present. The images also provide an opportunity to explore general similarities and differences between past and present, e.g. streets, buildings, people, clothes.

Children could talk about why they think tramways and tramcars are being reintroduced into some towns and cities now.

Language

Read poems about tramcar rides (see Classroom Activity Sheet 2). Write a class poem based on the pupils' experience of their tramcar ride at the Museum. This could be recorded.

Think about tramcar language and use the instructions, warnings and rules that they see written inside the tramcars to make up a dialogue between a conductor and passengers. This can be acted out and/or recorded.

Children can practice asking for a ticket, explaining where they want to go and where to get off.

Signs and symbols

We use language, colour and symbols to communicate information. Destination blinds tell you where a tram or bus is going. Colour and design indicates the tram company.

Talk about the signs, warnings and instructions needed on a tramway system. Think about: overhead wires, special traffic lights for trams, tram stops and tramway crossings.

Children could design signs for their classroom or school to ensure that people can move safely around the school.

Use a line drawing of a tramcar and let the children design a colour scheme and logo for a tramway system.

Resource sheet one

Powering the Trams

Horse tram

Steam tram

Electric Tram

Resource sheet one

Powering the Trams

Suggested questions and discussion points:

How does each of these trams move?

Where would the driver stand?

Why is the front and back of the horse and electric tram exactly the same?

What would the horse tram companies need to keep the trams running?

How do the photographs help you to understand about how the tram worked?

What would travelling on these trams have been like?

What differences are there between the steam tramcar and the horse drawn tramcar?

Why do you think people preferred electric trams to steam and horse powered trams?

Resource sheet two

Screw Elevating Geared Tower Wagon

Resource sheet two

Screw Elevating Geared Tower Wagon

Tramway companies had to maintain their tramway system as well as their tramcars. This included the rails and overhead wires that needed to be repaired, serviced and replaced regularly.

The Screw Elevating Geared Tower Wagon was an important piece of equipment, both for installing and repairing overhead power lines. The wagon in the photograph was horse drawn with a collapsible tower. The wagon is equipped with brakes and is designed to hold the tower in place once it has been raised. Later towers were mounted onto petrol or diesel vehicles.

Suggested questions and discussion points:

How would this wagon have moved?

What kind of work might this wagon have been used for?

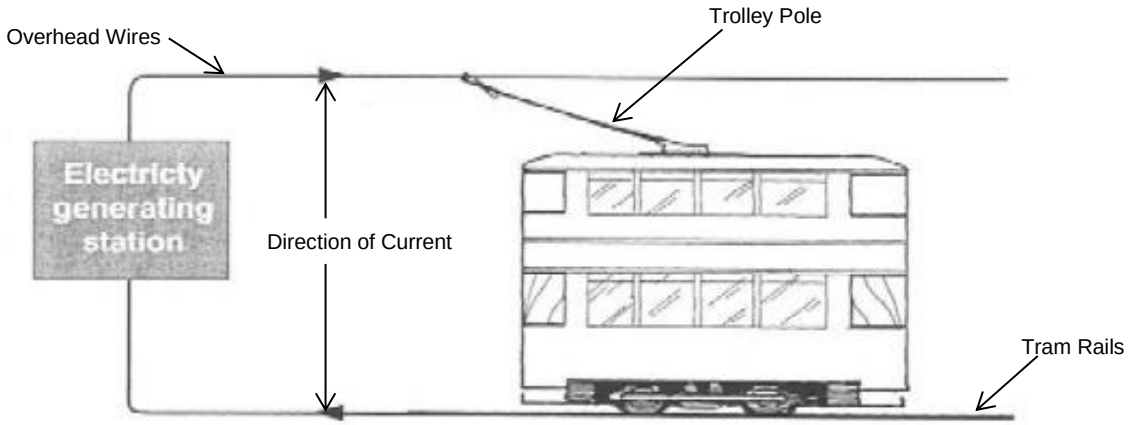
Do we use anything like this today? What for?

How tall do you think the tower would be when it was raised up?

Look at the displays at the back of the exhibition hall. What other kinds of equipment would a tramway company have needed to keep its tramcars running?

Resource sheet three

How a tramcar works



A tramway is like a large electric circuit. Electricity travels from a generating station through overhead wires and is collected by the tramcar through a current collector. The electricity is then returned from the tramcar along the tramway rails.

The electricity voltage in the overhead wires is about 550 volts; the voltage is very low once it has passed back into the rails. Most trams in the Museum collect electricity from overhead wires through a trolley pole. One end of this has a small wheel that runs along the overhead wire; the other end is attached to the roof of the tram. Occasionally a trolley pole would detach from the wires, breaking the circuit. In the 1930s, as a solution to this problem, the trolley pole was replaced by the bow collector. The most common type of collector used today is the pantograph which is a modern version of the bow collector.

The driver usually stands on the front platform of the tram, although a few trams have separate cabs. The driver operates the tramcar using a controller and brakes. The controller is usually operated with the left hand and governs the amount of electricity passing to the motors, therefore setting the speed of the tram. The brakes are operated with the right hand. Older trams have mechanical brakes worked by a large brass handle, newer trams use air brakes. If it is raining and the rails are slippery, the driver has a foot pedal to drop sand on to the rails to give the wheels a better grip when the brakes are applied.

Suggested questions and discussion points:

At the terminus, how does the tram turn round?

Resource sheet four

Taking a tram ride

Trams are run on rails like railway trains. The rails are set in the road surface so that trams run along streets used by other vehicles.

Tramcars are either single or double decked. The earliest double deck trams did not have roofs, so passengers and crew were exposed to all weathers.

Most trams can be driven from either end and do not have to turn around at the end of the line. On many trams, the seats can be turned around so the passengers face the way the tram is going. The earliest trams had wooden Seats but later cushioned, upholstered seats were introduced to give greater comfort.

Suggested questions and discussion points:

Look at the shape of the current collector which connects the tram to the overhead wires. What shape is it?

What materials is your tram made from?

Are your seats comfortable or uncomfortable? What are they made of?

Do the seats turn around or are they fixed?

What words would you use to describe the way your tram moves?

What different noises can you hear during your tram ride?

What different people are helping to run the tram?

What can you see inside the tram? Outside the tram?

Resource sheet five

The Street

The Edwardian street at the Museum features buildings and street furniture from all over the country; some moved from their original location and rebuilt here.

The children will be familiar with many of the everyday items found on the street, but may never have thought about them. Discuss what they can see on their street, and what has changed over the last hundred years.

Look out for:

Red Lion Public House
The red lion on the roof would have helped people to identify the 'pub' from a distance.

Police Box
Not for time travel! Police boxes like this were used by police officers in cities.

Bundy Clock
These clocks helped tramway companies keep their trams running on time.

Post Box
This is one of the earliest designs of post box. The first post boxes were green, but there were complaints that they were difficult to find, especially in the country.

Stench Pipe
Pipes like this were erected to help release foul smelling gas from the new underground sewers. They were tall to discharge the gases high into the air and not offend the public.

Suggested questions and discussion points:

Discuss how the style of buildings and the materials used have changed and why they think this has happened.

Consider street signs and road markings; materials used for pavements and roads; bricks, tiles and concrete in buildings; doors and windows; telephone boxes; post boxes; litter bins; public toilets; posters and hoardings; shop windows and displays.

Ask the children to compare and contrast what they see in their neighbourhood with streets of the past.

Classroom Activity Sheet 1

Avoid the jam – take the tram!

You have been asked to design a new poster to advertise a new tramway system that is being introduced in your town.

The poster should make people want to use the tramway instead of private cars.

Think about:

- Parking
- Pollution
- Fuel costs
- Traffic jams

Classroom Activity Sheet 2

The Tramway

The Tramway

Along the highways
And over the hills,
Down the valleys
Past tall darkened mills,
Through squares full of people
On market day,
Past theatre and steeple,
You would find the tramway.
Where steel rails were laid
And wires above hung,
Where cheap fares were paid
And two bells rung,
Where car after car would glide
From dawn till night each day,
Packed tight with people inside,
You would find the tramway.

Dennis Gill

Read the poem out loud.

How does the poem sound?

Can you name some of the buildings that the tramcar goes past in the poem?

What words in the poem do you think help to explain what it would feel and sound like to travel by tramcar?

Do you think the writer of the poem liked the tramway?

Find the tramway rails and the trolley pole in the photograph.

What else does the photograph tell you about travelling by tram?

Draw a picture to go with the poem.

Classroom Activity Sheet 3

A New Tramway Route

Use a large scale photocopy of the map on the next page, or a large scale map of the local area around your school.

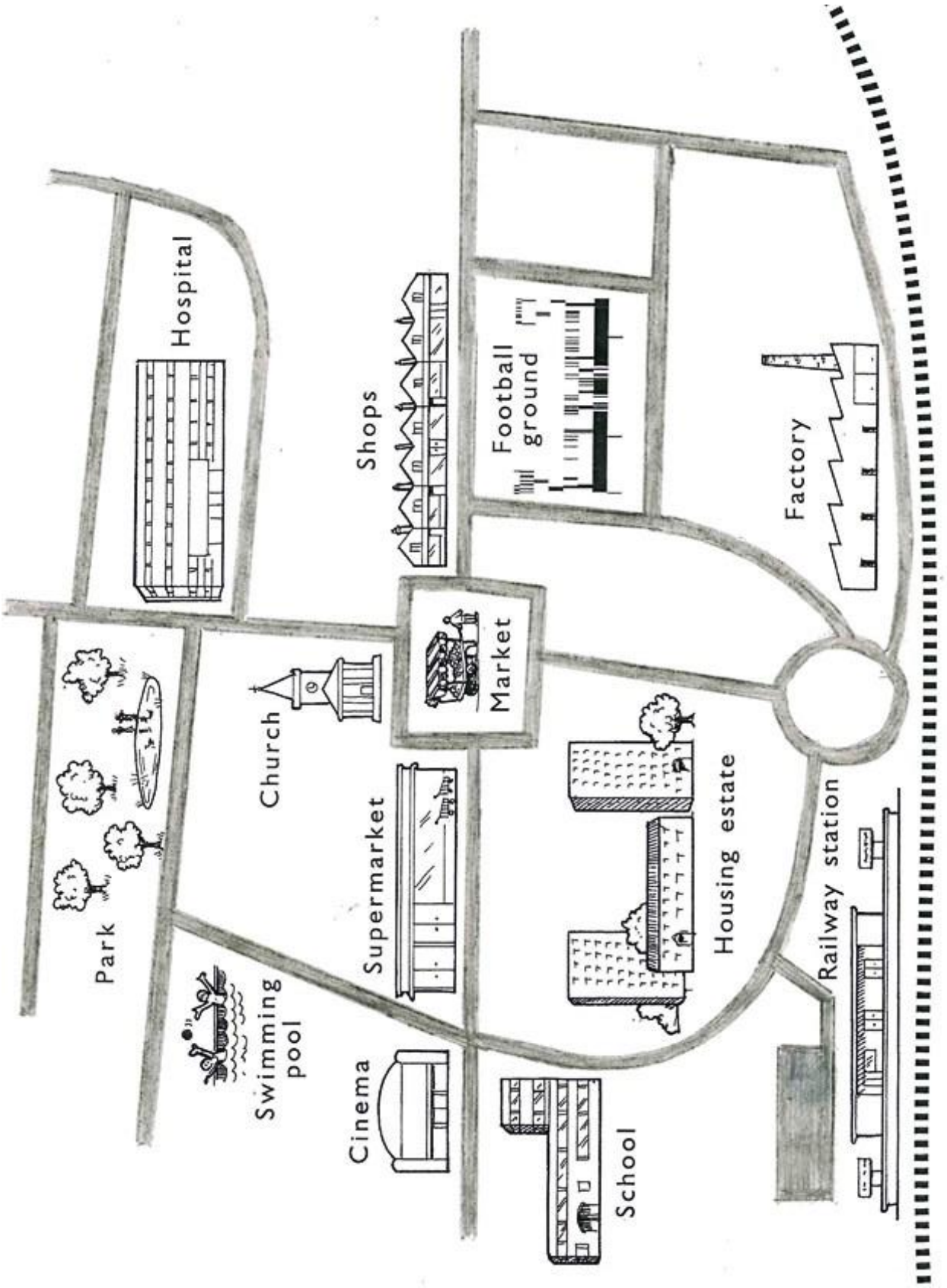
You have been asked to plan a new tramway service for the town in this map.

Things to consider:

- How many routes do you want to include. One route may take too long for trams to get round.
- Where will the tram stops be?
- The best place for a tram depot.
- How the tramway system can link to the railway.
- Whether there is anywhere on the map that the tramway cannot go.

Once all these things have been decided the tramway routes, tram depot and tram stops can be drawn in. Invent names for the town and each stop.

Classroom Activity Sheet 3



Classroom Activity Sheet 4

Taking a Tram Ride

This photograph shows passengers getting on to a tramcar.

Talk about what other things you can see happening in the photograph.

Activity

An empty tram leaves the depot

- Tram stop 1 – at this stop 5 people get on
- Tram stop 2 – at this stop 2 people get off
- Tram stop 3 – at this stop 1 people get off
- Tram stop 4 – at this stop 2 people get on
- Tram stop 5 – at this stop 1 people get on
- Tram stop 6 – is the end of the line

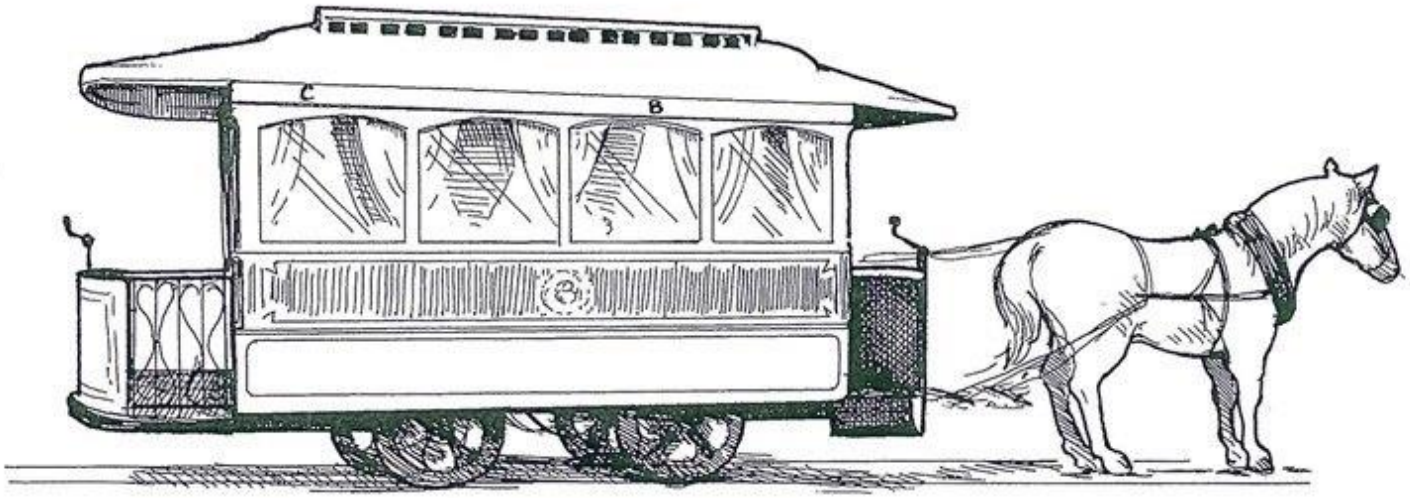
Everyone gets off and the tramcar is turned around

- ❖ How many people get off at the end of the line?
- ❖ How many tickets did the conductor sell?

Work in groups to make up your own number story about a tramcar ride. Each group can try out their story on other groups to test the answer.

Worksheet 1

Chesterfield and Brampton Tram



What makes this tram move?

Where would the driver stand?

How many wheels does it have?

Look at the writing on the side of the tram. Fill in the missing letters here.

C_____ and B_____

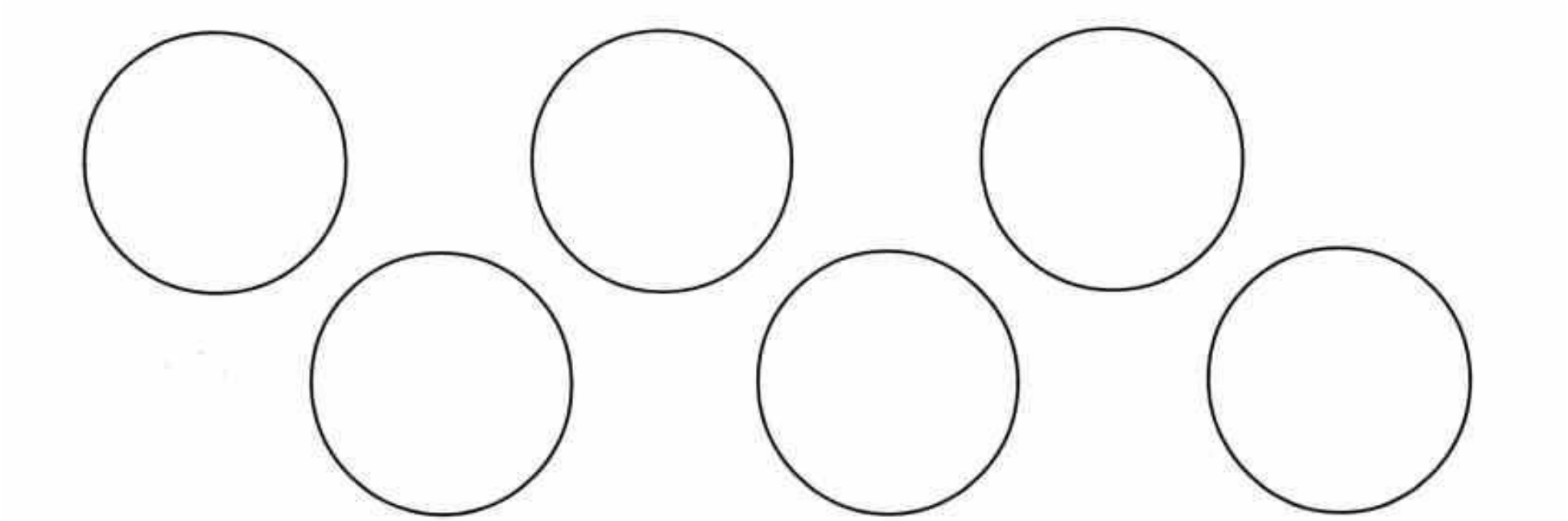
Worksheet 2

Circles

There are lots of different things in the Museum that are circle shaped.

Find 6 different circle shapes and draw a picture of each one.

What do you think each one is made of? What do you think it was used for?



Talk about what other shapes you can find in the Museum.

Worksheet 3

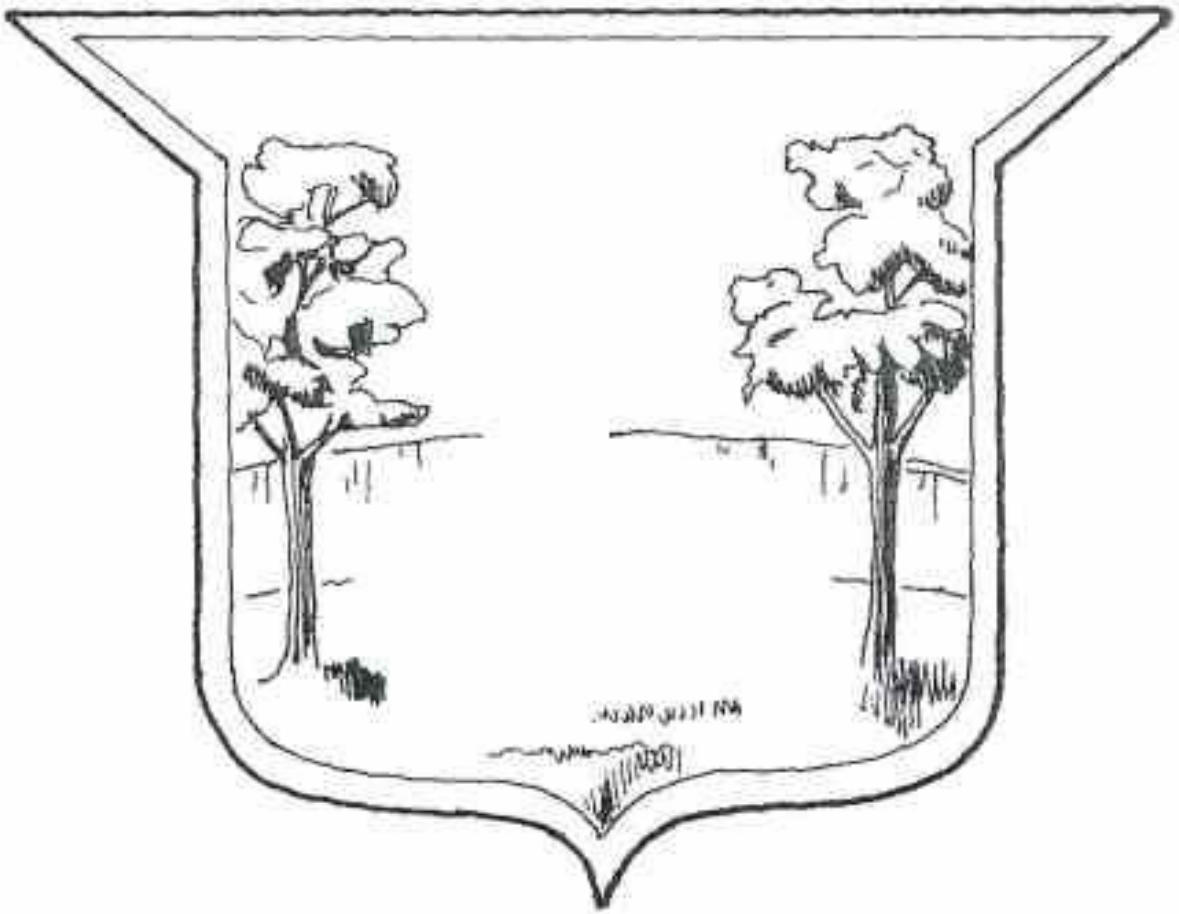
Find the Derby tramcar in the Exhibition Hall.

Can you find the badge on the side of the tram?

Draw in the animal on the badge.

What colours has the tram been painted?

Decoration



Worksheet 4

In the Street

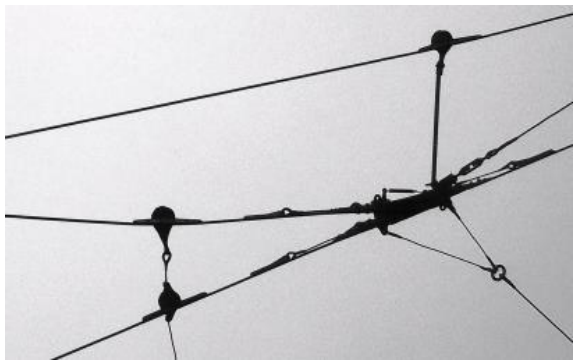
Can you find these things? Tick each one when you find it.

Talk about what you think each one was for.

Which of these things can you see in your street?

Do they still look the same?

What other things can you see?



Worksheet 5

Woodland Walk - using your senses





What **colours** can you see? Look for flowers, leaves, stones, trees, grass, animals. How many different shades of each colour can you see? Can you find three different shades of green? Brown? Blue?

Draw or write down 3 interesting things that you can see on the woodland floor.

Close your eyes and keep very still. What can you hear?

What can you smell?

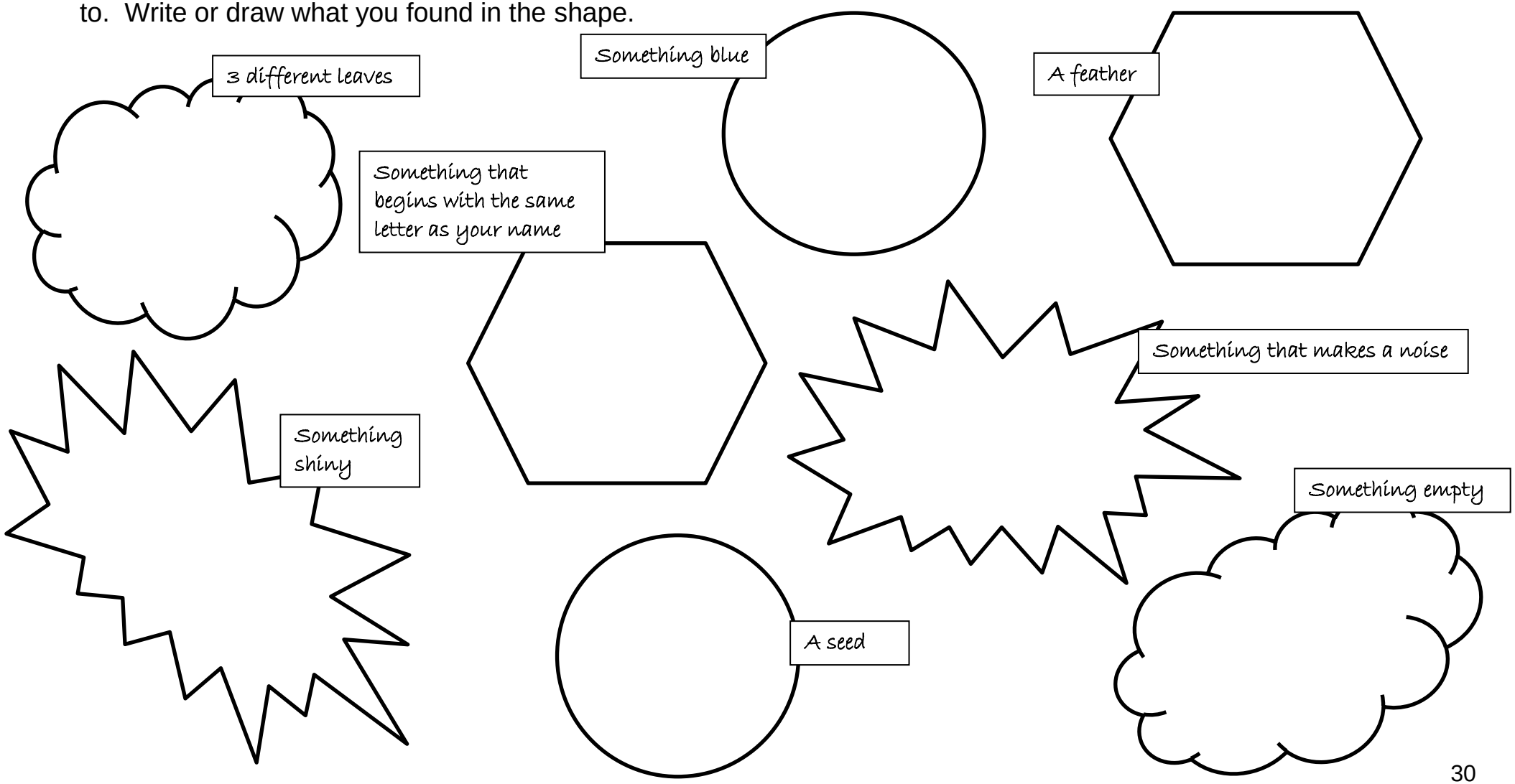
Stamp on the ground. What does it feel like? Is it soft or hard? Does it feel different in different places?

Find a tree and run your hand over the trunk. Does the bark feel rough or smooth?

Worksheet 6

Woodland Walk – scavenger hunt

Take turns to throw a small pebble or stone (gently!) onto the page then go and find whatever it lands on or nearest to. Write or draw what you found in the shape.



Worksheet 7

Woodland Walk – What's in the woods?




Look up high – what can you see?

Look up to the tops of the trees. What can you see – sky, clouds, birds, leaves, seeds? What shape are they? Do they make a noise? Do they move? What colour are they?

Look down low – what can you see?

Crouch down on the ground. Are there any stones or logs that you can look underneath? What can you see – grass, flowers, moss, roots, creatures? What shape are they? Do they make a noise? Do they move? What colour are they?

Creep around – what can you see?

Take a bug's eye view. Look under bushes, peer into the tree roots. What can you see – is anything looking at you? Running away from you?

Take a sniff – what can you smell?

Get close and personal with the woodland. Sniff the lichen, moss, wet leaves, flowers, bare soil. What does it smell like? Can you describe the smell? Is it a good or bad smell?

Worksheet 8

Woodland Walk – Nature News

Pretend you are a reporter on ‘Nature News’. Find a thick stick to use as a microphone and you are ready to report the latest news.

Have a look around you and find some interesting things to talk about in your programme.

You could talk about something interesting you have seen or describe the live action of minibeasts, birds or trees as it happens.

Interview a friend and find out what they have seen and discovered. What’s the best thing they’ve seen today?

Tell people about what they can do, see and find in the wood.

What’s the weather like? Present a weather report so that your viewers will know what to wear when they visit the woods.

Photocard 1

Horse Drawn Tramcar

Photocard 2

Steam Powered Tramcar

Photocard 3

Street Scene

Photocard 4

Glasgow

Photocard 5

Cardiff in the 1930s

Photocard 6

Manchester ‘Metrolink’