

KS1 Example Work Unit

Canals & Rivers



canalrivertrust.org.uk/explorers

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Planning Grid

KS1 Themes

- **Water in the Environment**
- **Transport (Canals & Rivers)**
- **The Natural World**
- **Art & Design**

Key Questions

- **What** are the differences between canals, rivers and ponds?
- **Why** were canals built?
- **Where** do the canal and river go from/to?
- **What** lives in and around our canals, rivers and ponds? How does this change throughout the year?
- **How** have we used canals in the past and how do we use them today?
- **What** specialist art, crafts and design can be seen on the canals?

Learning Outside the Classroom

- Visit to your local canal and/or river (see [Visit Planning Guide](#) help on Canal & River Explorers website)
- Visit to the [National Waterways Museum](#), Ellesmere Port.
- Visit to the [National Waterways Museum](#), Gloucester.

Recommended Books and Websites

'**Splish, Splash, Splosh**' by Mick Manning

'**Muddy Waters**' series of books by D H Clacher

'**Snowy**' by Berlie Doherty

www.historic-liverpool.co.uk for old maps

www.canalriverexplorers.org.uk

www.wateraid.org.uk for world water day resources

An important first step will be to discover the name of your local canal and river. Use the Canal & River Trust's website to find background information on your waterway.

We use the example of the Leeds & Liverpool Canal throughout this document.



Planning Grid cont...

KS1 NC Links **MATHS**

- **Pupils learn** to compare, describe and solve practical problems related to length, height, mass, capacity and time.

KS1 NC Links **GEOGRAPHY**

- **Pupils understand** geographical similarities and differences through studying the human and physical geography of a small area of the UK.
- **Pupils use** basic geographical vocabulary such as ocean, river, soil, vegetation, season, city, town, village, factory, farm, port, river and canal.
- **Pupils use** locational and directional language.
- **Pupils use** aerial photographs, plans and maps.
- **Pupils use** basic fieldwork and observational skills to study the geography of their school and the key human and physical features of its surrounding environment.

KS1 NC Links **SCIENCE**

- **Pupils identify** and name a variety of common plants and animals, and their habitats.
- **Pupils describe** and compare the structure of a variety of common animals.
- **Pupils identify** that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different animals and plants, and how they depend on each other.
- **Pupils observe** changes across the four seasons.

KS1 NC Links **ENGLISH**

- **Pupils read** accurately and read aloud.
- **Pupils listen** to and read fiction and non-fiction.
- **Pupils write** short narratives about real events and about the experiences of real people.
- **Pupils answer** and ask questions.

KS1 NC LINKS **HISTORY**

- **Pupils learn** about events beyond living memory such as the industrial revolution.
- **Pupils learn** about significant historical events, people and places in their locality, such as the Leeds & Liverpool Canal.

KS1 NC LINKS **ART/DESIGN & TECHNOLOGY**

- **Pupils learn** about the work of a range of artists, craft makers and designers.
- **Pupils build** structures and explore mechanisms.

Writing opportunities across the curriculum:

- **Poetry:** the course of a river, sensory poetry.
- **Reports:** fact files/comparison tables for rivers and canals, tourist brochures, wildlife surveys.
- **Recount:** describe their journey from school to the local canal or river, write an ordered sequence of events from a visit day.
- **Narrative:** write a story about life on the canal, plan and write a story about a familiar character, use a journey stick to tell the story of a walk/visit.
- **Instructions:** write instructions on how to stay safe near water.

Week one

Learning Objectives:

- **Know** that canals are man-made.
- **Understand** why canals were built.
- **Know** where the Leeds & Liverpool canal goes.
- **Know** about different types of boats used on canals, their cargos and capacities, including how to measure this.

Suggested activities

- Use the UK map in the topic pack to help pupils discover where their local canal goes from/to. They could plan a journey by boat; using the 'Types of boats' section to decide which boat would be best suited to take their class on this journey. They could develop a story around their journey, create a sketch map and work out how long the journey would take using the RCR website.
- Pupils could design a tourist leaflet about their local section of the Leeds & Liverpool Canal.
- Use the Travel & Transport lesson plan which is supported by the topic pack.
- Investigate tolls and gauging (the process of measuring weight/volume of cargo by displacement of water). An example of a gauging stick can be loaned from National Waterways Museum, Ellesmere Port. Information on tolls is in the Building & carrying topic pack.

Resources:

- Explorers volunteer led '[Build a Canal](#)' workshop
- [Explore our Waterway Past](#) poster
- [Travel & Transport](#) lesson plan
- [Building & Carrying](#) topic pack
- [All About the Leeds & Liverpool Canal](#) teacher/pupil resource packs
- www.rivercanalrescue.co.uk/route-planner

KS1 NC Links

- **Geography:**
Pupils use basic geographical vocabulary.
Pupils use locational and directional language.
Pupils use maps.
Pupils use basic observational skills to study key human features in their environment.
- **History:**
Pupils learn about significant historical events and places in their locality.
- **English:**
Pupils write short narratives.
- **Maths:**
Pupils learn to describe and solve practical problems related to capacity and time.



Week two

Learning Objectives:

- **Know** how to get to the Leeds & Liverpool canal from their school.
- **Understand** how to plan a visit.
- **Know** how to stay safe near water.
- **Identify** significant features of a canal such as bridges and tunnels.

Suggested activities

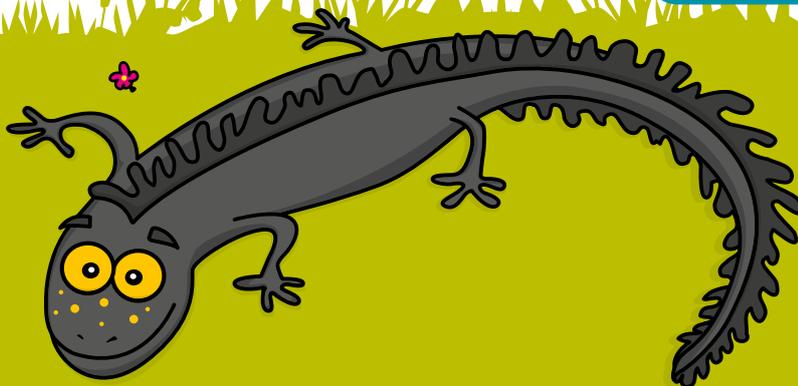
- Use Google Maps to plan the route you will walk to the canal from your school. Pupils could spot potential dangers and plan how they can stay safe – opportunity for road safety message.
- Use our Explorers volunteers to deliver the water safety message to pupils. Pupils could make a water safety poster designed to help others stay safe, or a set of instructions.
- Use the Build a Trail activity as part of planning your journey. Mark bridges on your map.
- Investigate different types of bridge using the Building Bridges lesson plan. The children could guess what type(s) of bridge they will see across the canal. They could have a go at designing and building their own bridges.
- Investigate the canal as a habitat, using the Habitats topic pack. Predict what creatures/plants they might find, as well as threats to the habitat.
- Visit the local canal. Use CRE activities to investigate.

Resources:

- [Google Maps](#)
- [Visit Planning](#) document
- [Build a Trail](#) activity
- [Building Bridges](#) lesson plan
- [Canal & River Habitats](#) topic pack
- [Water Safety Assembly](#)
- [How to book](#) visit
- [Field Study Council](#) identification guides

KS1 NC Links

- **Design & Technology:**
Pupils build structures and explore mechanisms.
- **Geography:**
Pupils use basic geographical vocabulary.
Pupils use maps.
Pupils use basic fieldwork and observational skills to study the key human features of their environment.
- **Science:**
Pupils identify and name a variety of common plants and animals, and their habitats.
Pupils identify that most living things live in habitats to which they are well suited.
- **History:**
Pupils learn about significant historical places in their locality.
- **English:**
Pupils answer and ask questions.
Pupils write instructions.



Week three

Learning Objectives:

- **Compare** the canal and school environments.
- **Investigate** the effects of the canal on the local area.

Suggested activities

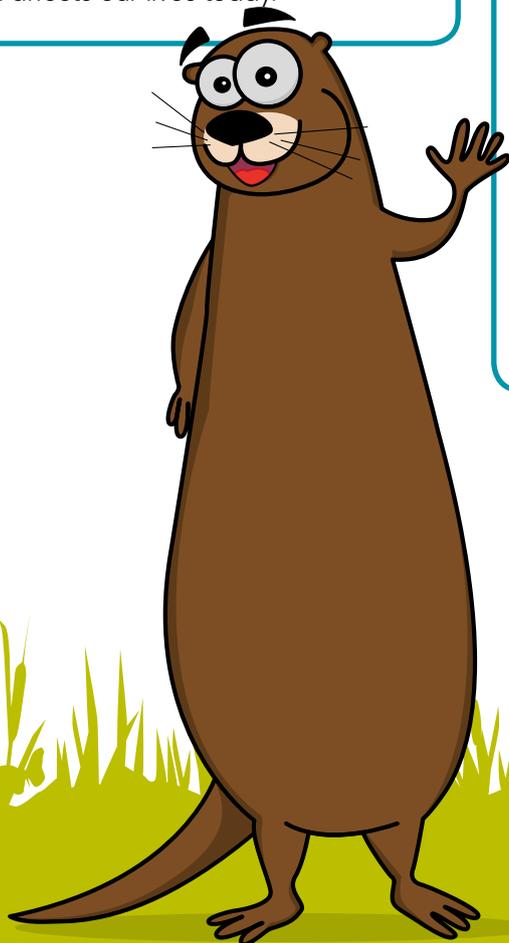
- Compare the canal map with a map/plan of the school.
- If you have a pond, compare what you find in the pond with what you found on the canal. What are the differences between these habitats? If you don't have a pond you could do bug hunts and a similar comparison.
- Investigate the history of your school. There may be links with the canal such as boating children attending.
- Use old and modern canal maps to see how your area has changed since the building of the canal. Use the local study lesson plan to investigate why these changes have happened.
- Use the Waterways Today topic pack to investigate how the canal affects our lives today.

Resources:

- Photos/maps/plans of the school and grounds.
- **Virtual Archive**
Old and modern canal maps and photos
- **Local Study** lesson plan
- **Waterways Today** topic pack
- **Canal & River Habitats** activity sheet
- **Field Study Council** identification guides

KS1 NC Links

- **Geography:**
Pupils use aerial photographs, maps and plans.
Pupils use basic fieldwork and observational skills to study the key human features of their environment.
Pupils understand geographical similarities and differences through studying the human geography of a small area of the UK.
- **History:**
Pupils learn about significant historical events and places in their locality.
- **Science:**
Pupils identify and name a variety of common plants and animals, and their habitats.
Pupils identify that most living things live in habitats to which they are well suited.
Pupils describe and compare the structure of a variety of common animals.



Week four

Learning Objectives:

- **Understand** what life was like living and working on the Leeds & Liverpool Canal during the industrial revolution.
- **Experience** the arts & crafts of the canals and **understand** how they developed.

Suggested activities

- Visit the National Waterways Museums or other close to home and take part in the activities and workshops available.
- Describe their journey from school to the museum and/or describe their visit.
- Write a letter to the museum giving feedback on your visit and ask the children to explain what they learnt.
- Use the 'Life on the English Waterways' topic pack to investigate what life would have been like for children, living on the canals, during the Industrial revolution.
- Write a diary – a week in the life of . . .
- Design a boat cabin – pupils could design the livery for the outside and the layout inside.
- Read "Snowy".

Resources:

- Visit the National Waterways Museum at Ellesmere Port or a canal museum near you. Go to canalrivertrust.org.uk to find your closest one.
- **Life on the English Waterways** topic pack
- **Pupil/teacher resource** packs
- "Snowy" by Berlie Doherty

KS1 NC Links

- **Art & Design:**
Pupils learn about the work of a range of artists, craft makers and designers.
- **Geography:**
Pupils use locational and directional language.
- **English:**
Pupils listen to and read fiction and non-fiction.
Pupils write short narratives about real events and about the experiences of real people.
Pupils ask and answer questions.
- **History:**
Pupils learn about events beyond living memory, such as the industrial revolution.
Pupils learn about significant historical events, people and places in their locality.



Week five

Learning Objectives:

- **Plan** a visit to a local river.
- **Revisit** water safety messages.
- **Know** how rivers were formed and where the local river goes from and to.
- **Identify** significant features of a river.

Resources:

- **All About Rivers** fact file
- **Unravelling Rivers** lesson plan
- **Canal & Rivers Habitats** activity sheet
- **Water Safety** poster
- **Field Study Council** identification guides

Suggested activities

- Use Google Maps to plan the route you will walk/ drive to the river from your school. Pupils could spot potential dangers and plan how they can stay safe.
- Use the “Unravelling Rivers” lesson plan along with the “All About Rivers” fact file to investigate key features of rivers and the differences between rivers and canals.
- Visit your local river, repeating the habitat activities conducted on the canal visit. Also, identify any significant features such as meanders, courses, bridges and settlements. Pupils could sketch a map of the river, marking on the significant features.
- Pupils could compose simple poems around the course of a river.
- Pupils could create their own simple fact files showing the differences between a canal and river; or could create a wildlife survey to show similarities and differences between habitats of a canal, river and their school.

KS1 NC Links

- **Geography:**
Pupils understand geographical similarities and differences through studying the human and physical geography of a small area of the UK.
- **Pupils use** basic geographical vocabulary.
- **Pupils use** basic fieldwork and observational skills to study the geography of their school and the key human and physical features of its surrounding environment.
- **English:**
Pupils write short narratives.
- **Pupils compose** simple poems.
- **History:**
Pupils learn about significant historic places in their locality.
- **Science:**
Pupils identify and name a variety of common plants and animals, and their habitats.
- **Pupils describe** and compare the structure of a variety of common animals.
- **Pupils identify** that most living things live in habitats to which they are well suited and describe how different habitats provide for the basic needs of different animals and plants, and how they depend on each other.



Example unit of work KS1 Canals & Rivers

Week six

NB This should be a follow-up week that falls in a different season, the activities could be repeated in each season of the year

Learning Objectives:

- **Know** how to investigate seasonal changes.
- **Know** how the canal and/or river and/or school environments change during different seasons of the year.
- **Understand** why these changes occur.

Suggested activities

- Plan a fieldwork study visit to the school grounds/ local canal/local river or all of the above to take place in different seasons of the year.
- Repeat the habitat activities undertaken on previous visits and record the results, perhaps by adding to the fact files children created after their first visits.
- Pupils could sketch each location at different times of year and take photographs.
- Pupils could create simple pictograms, tally charts or tables to show numbers of animals/plants identified at each time of year.
- Investigate similarities and differences between the seasons, along with life cycles (using the "Canal & River Habitats" topic pack) to understand why these changes occur.
- Pupils could write a short story about the life of (for example) a butterfly.
- Read "From Caterpillar to Butterfly" or "The Crunching Munching Caterpillar".

Resources:

- **Canal & River Habitats** topic pack
- **Canal & River Habitats** activity sheet
- **Field Study Council** identification guides
- From "Caterpillar to Butterfly" by Deborah Heligman
- "The Crunching Munching Caterpillar" by Sheridan Caine & Jack Tickle

KS1 NC Links

- **Science:**
 - Pupils identify** and name a variety of common plants and animals, and their habitats.
 - Pupils describe** and compare the structure of a variety of common animals.
 - Pupils identify** that most living things live in habitats to which they are well suited and describe how different habitats provide for the basic needs of different animals and plants, and how they depend on each other.
 - Pupils observe** changes across the four seasons.
- **English:**
 - Pupils read** accurately and read aloud.
 - Pupils listen** to and read fiction and non-fiction.
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