



**BEAVER
TRUST**

KS2 Geography: Teacher notes



Cohabiting with beavers: beavers and our waterways

This comprehensive and easy-to-follow unit provides pupils with an understanding of beaver reintroductions to Britain's waterways.

These lessons directly link to the KS2 Geography National Curriculum in England.

These lessons/activities are appropriate for

- Use as isolated lessons
- Use in conjunction with cross-curricular learning (**see other subject/lesson packs and plans from Beaver Trust**)
- Use as a final write in a longer teaching sequence (the lesson plan provided can be extended and adapted)

Unit Description

Firstly, the unit provides a foundation for pupils' geographical understanding: it introduces the water cycle and explores the journey of a river, using the example of a river with a wild beaver population.

From this point, the unit focuses on the influence of the Eurasian beaver on Britain's waterways. Developing mapping skills, pupils discover where beavers have been reintroduced in Britain and following this, pupils will explore reasons why they have been reintroduced. Pupils will also consider how land use and economic activity can be affected by beaver reintroductions.

There is also an opportunity for pupils to embark upon a local geographical fieldwork study. For information and guidance on this, please see our resource pack titled: **KS2 Geography Fieldwork Resource Pack**.

National Curriculum (England) Links

- **Locational knowledge:** Name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers)
- **Place knowledge:** Understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom, a region in a European country.
- **Human geography:** Types of settlement, land use and economic activity; distribution of natural resources including water.
- **Physical geography:** Rivers and the water cycle.
- **Fieldwork:** Use fieldwork to observe, measure, record and present the human and physical features in the local area.

Unit Endpoints

By the end of the unit, pupils making a good level of progress will:

- Be able to describe and explain the stages of the water cycle.
- Be able to describe and explain the journey of rivers (source to sea)
- Understand that river systems are ever-changing and can transform surrounding landscapes.
- Understand the place, impact and importance of the Eurasian Beaver on Britain's waterways.
- Understand how land use and economic activity can be affected by beaver reintroductions.

This pack contains 4 lessons:

Lesson 1	What is the water cycle?
Lesson 2	What is the journey of a river like?
Lesson 3	Why are beavers being reintroduced to Britain's waterways?
Lesson 4	Where have beavers been reintroduced in Britain?
Lesson 5	How do humans manage beavers?

Key Vocabulary

Term	Definition
Eurasian Beaver (<i>Castor fiber</i>)	Europe's largest rodent (distinguished from the American beaver (<i>Castor canadensis</i>)).
Keystone species	An organism that supports and helps to define an entire ecosystem.
Wetland	An area of land either seasonally or permanently inundated by water.
Dam	A barrier to hold back water.
Ecosystem	A biological community of organisms that interact and their physical environment.
Key water cycle-specific vocabulary:	Evaporation, condensation, precipitation, rain, cloud, cycle, sun, steam, transpiration, upstream, downstream, meander, river bank, erosion, estuary, oxbow lake.

Lesson 1: What is the water cycle?

Learning Outcome

I can describe and explain the stages of the water cycle.

Use accompanying Beaver Trust KS2 Geography teaching slides for this lesson.

Lesson plan

- 1 Pose the question "What is the water cycle?" to the pupils**
Elicit and record prior knowledge and understanding of the water cycle.
- 2 Watch the Met Office animation explaining the water cycle**
Ask pupils to explain the process to their peers and the class.
- 3 Use subsequent slides to clarify understanding**
- 4 Pupils to complete matching exercise**
This can be completed by cutting out the word/definition or by drawing a line to match the word/definition.
If cutting out word/definition, pupils should wait until answers are given on the next slide before sticking.
- 5 Pupils to draw their own diagram of the water cycle using the example projected on the screen**
Pupils should make sure to include key vocabulary and label diagrams.

Lesson 2: What is the journey of a river like?

Learning Outcome

I can describe and explain the journey of rivers from source to sea.

Use accompanying Beaver Trust KS2 Geography teaching slides for this lesson.

Lesson plan

- 1 Pupils to complete the matching exercise.**
This can be completed by cutting out the word/definition or by drawing a line to match the word/definition. If cutting out the word/definition, pupils should wait until answers are given on the next slide before sticking.
- 2 Work through the slides provided,** which take the pupils on the journey of the River Otter in East Devon, which has a population of wild beavers on it.
- 3 Complete Activity 1 and/or Activity 2 provided on the slides.**
This could be embarked upon over the course of two lessons. A template for Activity 2 is provided.

Lesson 3: Why are beavers being reintroduced to Britain's waterways?

Learning Outcome

I know the impact and importance of beavers on Britain's waterways. I know that river systems are ever-changing and can transform surrounding landscapes.

Use accompanying Beaver Trust KS2 Geography teaching slides for this lesson.

Lesson plan

- 1 Recap learning** from the previous lesson, where pupils encountered beavers who live on the River Otter in Devon.
What can pupils remember about the journey of a river from source to sea?
What can they remember about the beavers?
- 2 Pose the questions** what are beavers? Why are beavers being reintroduced to Britain's waterways?
- 3 Work through four slides** outlining beaver characteristics and activity.
- 4 Watch the animation 'Beavers: Nature's Ecosystem Engineers'**
What did the pupils learn from the video?
- 5 Work through the following slides** which outline how beavers went extinct, how beavers are being reintroduced across Britain and the benefits of their presence.
- 6 Watch the animation 'Beavers and Wildfire: A stop motion story'**
- 7 A suggested activity is making a beaver dam**
Instructions are on the slide.
- 8 Beaver Trust's KS2/3 Writing Lesson Pack** has a range of activities to follow this lesson.

Lesson 4: Where have beavers been reintroduced in Britain?

Learning Outcome

I can locate where beavers have been reintroduced. I know the impact and importance of beavers on Britain's waterways.

Use accompanying Beaver Trust KS2 Geography teaching slides for this lesson.

Lesson plan

- 1 Explain to pupils** that beaver populations in England are slowly being restored (see teaching slides). And that they were never on the island of Ireland so are not being reintroduced there.
- 2 Use the Beaver Trust map** on the slides to decipher some of the closest beaver reintroductions to your school.
- 3 Explain the difference** between wild and enclosed populations of beavers in Britain and identify the distribution of each on the map.
- 4 The activity** for this lesson is for pupils to locate some beaver populations in Britain on a map.
Using digital mapping, such as Digimaps for Schools, would be perfect for this task.
Extensions are provided on the activity slide.

Lesson 5: How do humans manage beavers?

Learning Outcome

I know the challenges of restoring beaver populations and the impact and importance of beavers on Britain's waterways.

Use accompanying Beaver Trust KS2 Geography teaching slides for this lesson.

Lesson plan

- 1 Recap learning** from the previous lessons, including why beavers are being reintroduced to Britain and the benefit of restoring beaver populations.
- 2 Using accompanying teaching slides**, explain that restoring beavers to their original locations can be a challenge. The reasons for this are outlined on the teaching slides.
- 3 Share the lesson activity with pupils** (see teaching slide). Pupils can generate ideas as a group/class prior to making their poster independently. There is an accompanying knowledge organiser to support this activity.