# Educational Activities

Fun activities to do at home or at school to learn about rivers and related issues.

These sets of activities were first developed as part of our Home Education programme launched during the first Covid 19 lockdown.

Each set includes a series of six activities around a different theme. Four themes are covered altogether. They include:

1. River Wildlife
2. River Features
3. Saving Water
4. Rainwater
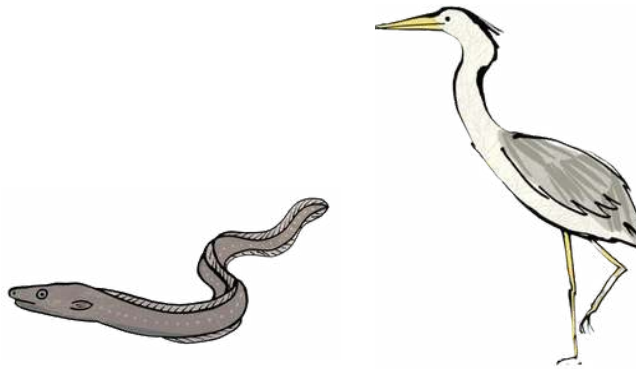
Activities have been designed by a qualified teacher, include a learning objective and are curriculum-linked. They are aimed at 7-9 year-olds with a 'Support' idea for younger children and a 'Challenge' suggestion for older children. A grey heron will direct you to these on each instruction sheet!

Before you begin

Why not create a River Journal?

Great for keeping all your work in one place!

For instructions for making one click here.

Make sure you give yours a river theme.

Additional pages can be used for river sketching, recording river finds, poems, stories or other river related activities.

We also run river education sessions as part of Project Kingfisher and have a range of fun activities for children and families to do on their visit to a river on our Junior River Ranger pages. Go to our website to find out more.

Learning objective: To describe and understand key features of a river

Instructions:

1. Print the 'River Feature Guide' from the main webpage (in the Series 2: River Features section).
2. Match each feature in the guide to a picture on this page by writing the correct letter next to each one.
3. Then, match each feature to the facts on the next page by writing the correct number next each one.

If you can't print, write the name of the feature in your River Journal and write the matching letter and number next to each one.
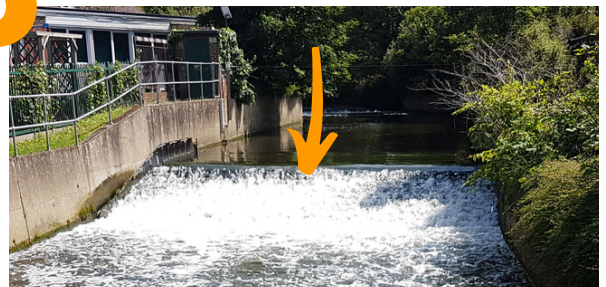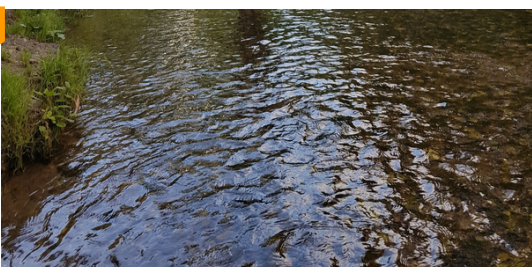
A

B

C

D

E

F

G

H

River Facts

1 Wood in the river can provide lots of places for small fish to hide from predators. This is a great place to look for fish when you visit the river!
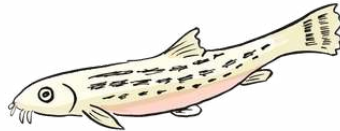
2 These walls are often used to create straight channels that are poor habitats for wildlife.

3 Plants <u>in</u> the river provide oxygen, food and shelter for river wildlife.

4 A bendy river provides a variety of habitats for animals that live in and around the river.

5 Birds, like ducks, can use riverside reeds to hide their nests. Insects use them to climb out of the water.
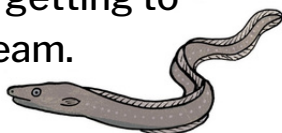
6 Kingfishers perch on branches that hang over the water to watch out for fish to eat. If you want to spot one, this is a great place to look!

7 Damming a river stops animals that live in the water from getting to useful habitats upstream.

8 When the water passes over stones, bubbles of oxygen get added to the river which is useful for all the animals that breath under water.

Support Use the symbols on the feature guide to help you match the features to pictures. Ask an adult to read the facts. As they read, find words that match up with the river feature definitions.

Challenge Once you've completed the activity, ask a friend to read out the facts and see if you can recall the matching river features without looking at the River Feature Guide.

Learning objective: To complete two word puzzles about river features

River Word Puzzle 1 - Wordsearch

Instructions:
Find the names of these river features and river wildlife in the puzzle.

Words are hidden ➡️ ⬇️ and ↘️
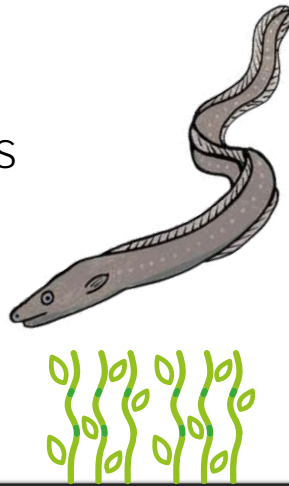
AQUATIC PLANTS	DAMSELFLY
BUILT RIVERBANK	DRAGONFLY
MEANDER	EEL
OVERHANGING TREES	GREY HERON
RIFFLE	KINGFISHER
VEGETATION	OTTER
WEIR	ROACH
WOODY DEBRIS	WATER VOLE

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O  B  U  I  L  T  R  I  V  E  R  B  A  N  K  E  K  W
T  E  K  K  R  O  A  C  H  X  A  B  Q  K  L  Y  I  O
D  Q  L  V  E  G  E  T  A  T  I  O  N  A  M  F  N  O
L  C  B  D  R  A  G  O  N  F  L  Y  J  T  E  Q  G  D
W  A  T  E  R  V  O  L  E  M  I  F  E  E  A  S  F  Y
A  D  N  Z  L  R  I  F  F  L  E  V  J  E  N  Y  I  D
V  B  Y  J  G  R  E  Y  H  E  R  O  N  L  D  T  S  E
O  V  E  R  H  A  N  G  I  N  G  T  R  E  E  S  H  B
I  D  A  M  S  E  L  F  L  Y  J  S  B  F  R  Q  E  R
S  V  W  R  X  G  J  P  S  M  W  E  I  R  V  A  R  I
U  H  R  B  O  T  T  E  R  G  A  Y  V  J  I  G  V  S
W  G  O  A  Q  U  A  T  I  C  P  L  A  N  T  S  T  V
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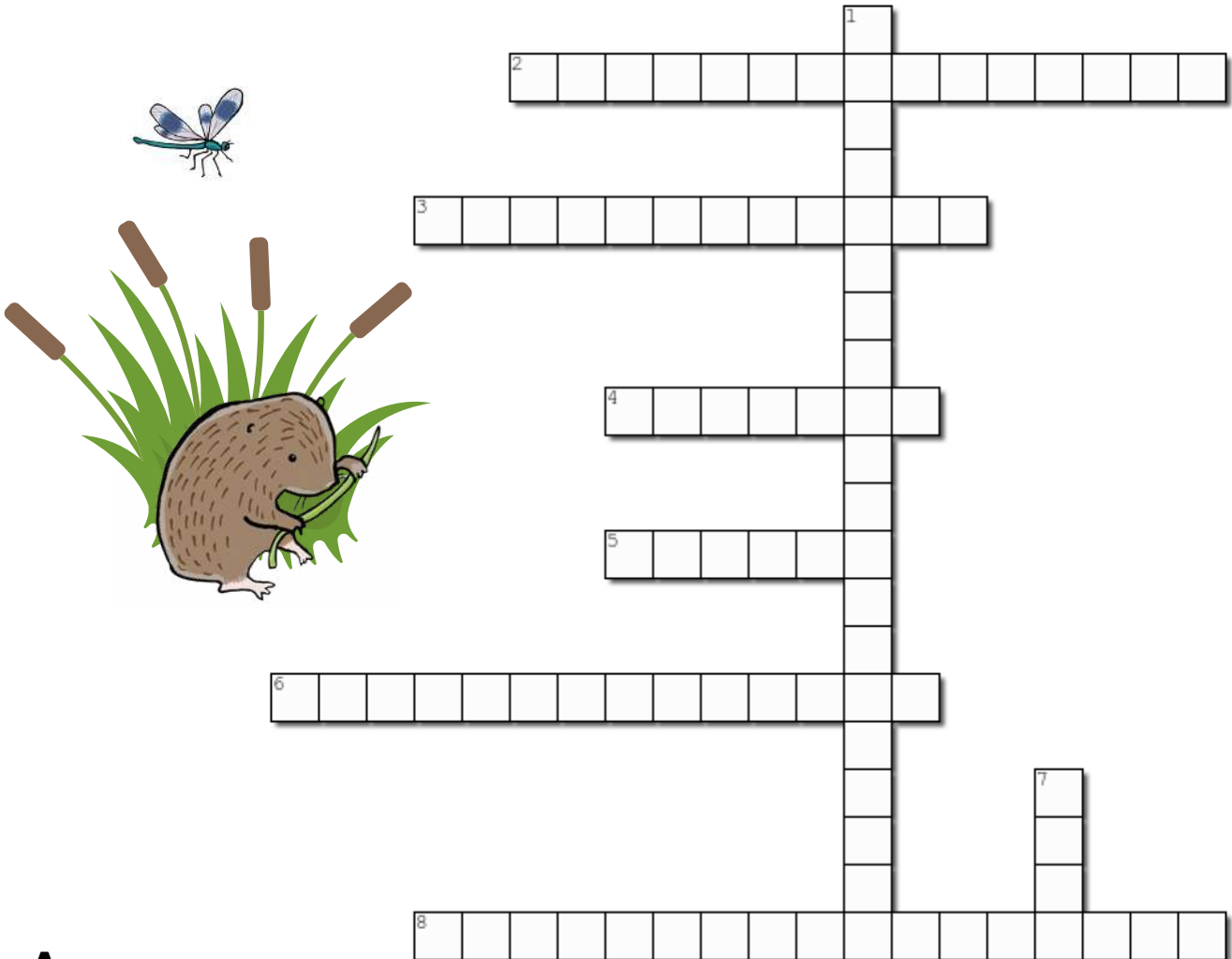
River Word Puzzle 2 - Crossword

Instructions: Use the clues to insert the river features from the River Feature Guide into the crossword.

Across

2. This man-made wall along the river's edge can make a poor habitat for river creatures.

3. Sticks, logs and branches in the river that make a great hiding place for fish.

4. This bend in the river provides a variety of habitats for river wildlife.

5. This feature helps add oxygen to the river as the river bumps over stones and pebbles.

6. This vegetation <u>in</u> the river provides food, oxygen and shelter for river wildlife.

8. These provide branches for birds like kingfishers to perch on while they are hunting.

Down

1. Plants like these at the river's edge are useful for birds and insects.

7. A wall across the flow of the river that can stop animals from reaching habitats upstream.

Learning objective: To develop mapping skills using symbols, a key and coordinates

① Complete the KEY of the map on the next page by adding a symbol next to each river feature. You can copy the symbols from the River Features Guide or make up your own.

② Follow the instructions below to draw the symbols on the map at the correct locations.

Using Coordinates

Look at the map. You should see dotted lines that divide the whole map into little squares. You can find each square using coordinates.

Across the bottom of the map, each column has been given a letter.

Across the left hand side of the map each row has been given a number.

To find a square, go across the bottom to find the column and then up the side to find the row.

3

2

1

Eel Avenue

A   B   C
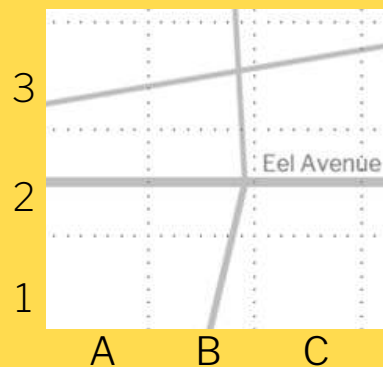
The words 'Eel Avenue' are in square: (C, 2)

On the map, 'Kingfisher Park' is written in (E,7). Can you find it?

Use the symbols from your key to add these features to your map.
1. Meander in (D,8)
2. Overhanging trees in (C,6) and (D,9)
3. Built riverbank in (D,4) and (D,3)
4. Riverside vegetation in (C,5) and (D,5)
5. Riffle in (D,6)
6. Aquatic plants in (C,10)
7. Weir across the river in (E,2)
8. Woody debris in (D,7)
9. Another riffle in the river from (F,2) to (F,1)
10. More aquatic plants in the river on the edge of (F,1) and (G,1)
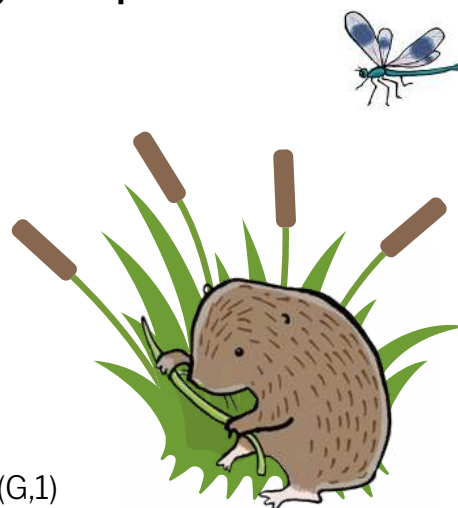
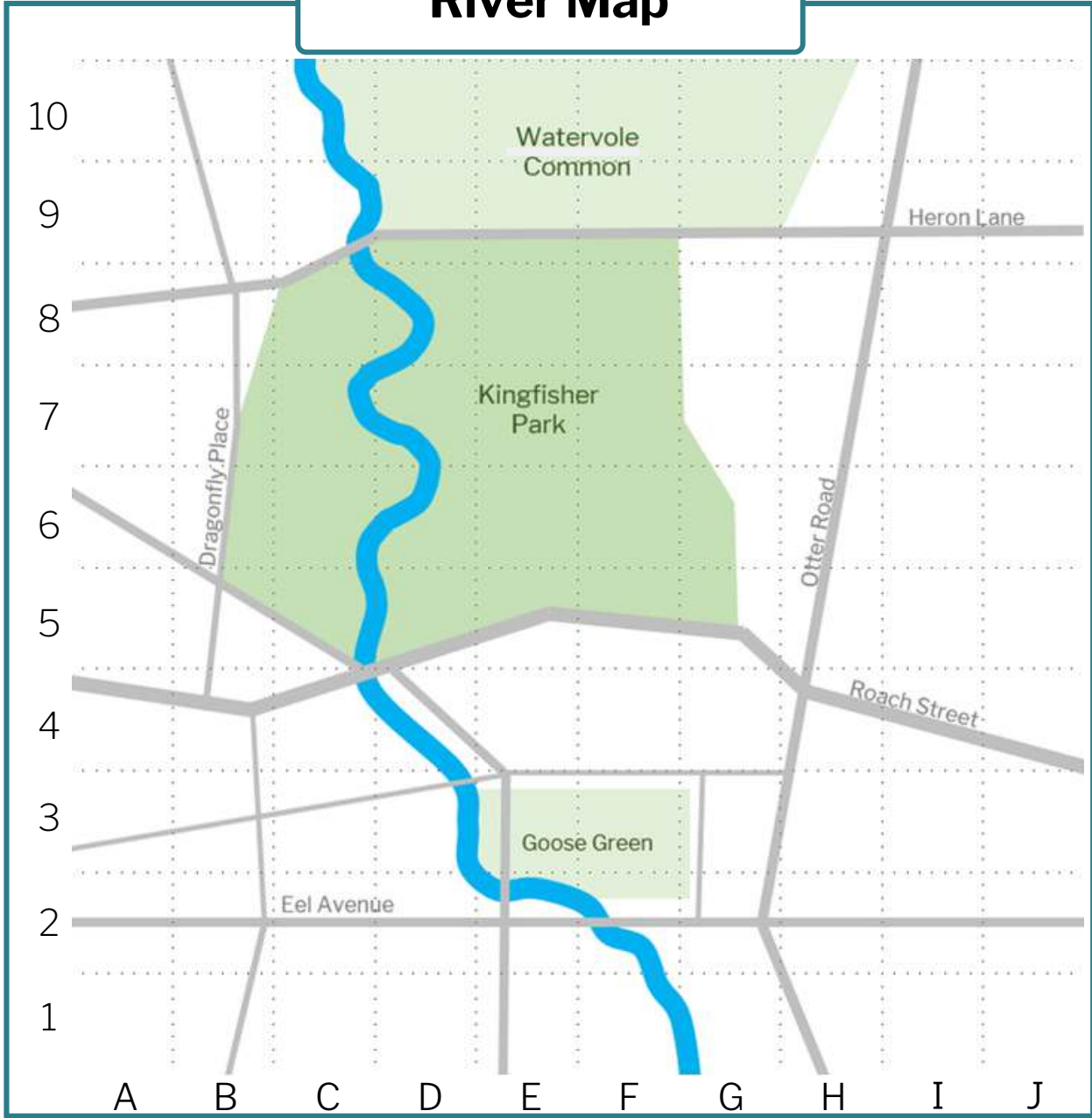**Support** Only complete steps 1-6.

Challenge Using squared paper, draw your own river map.
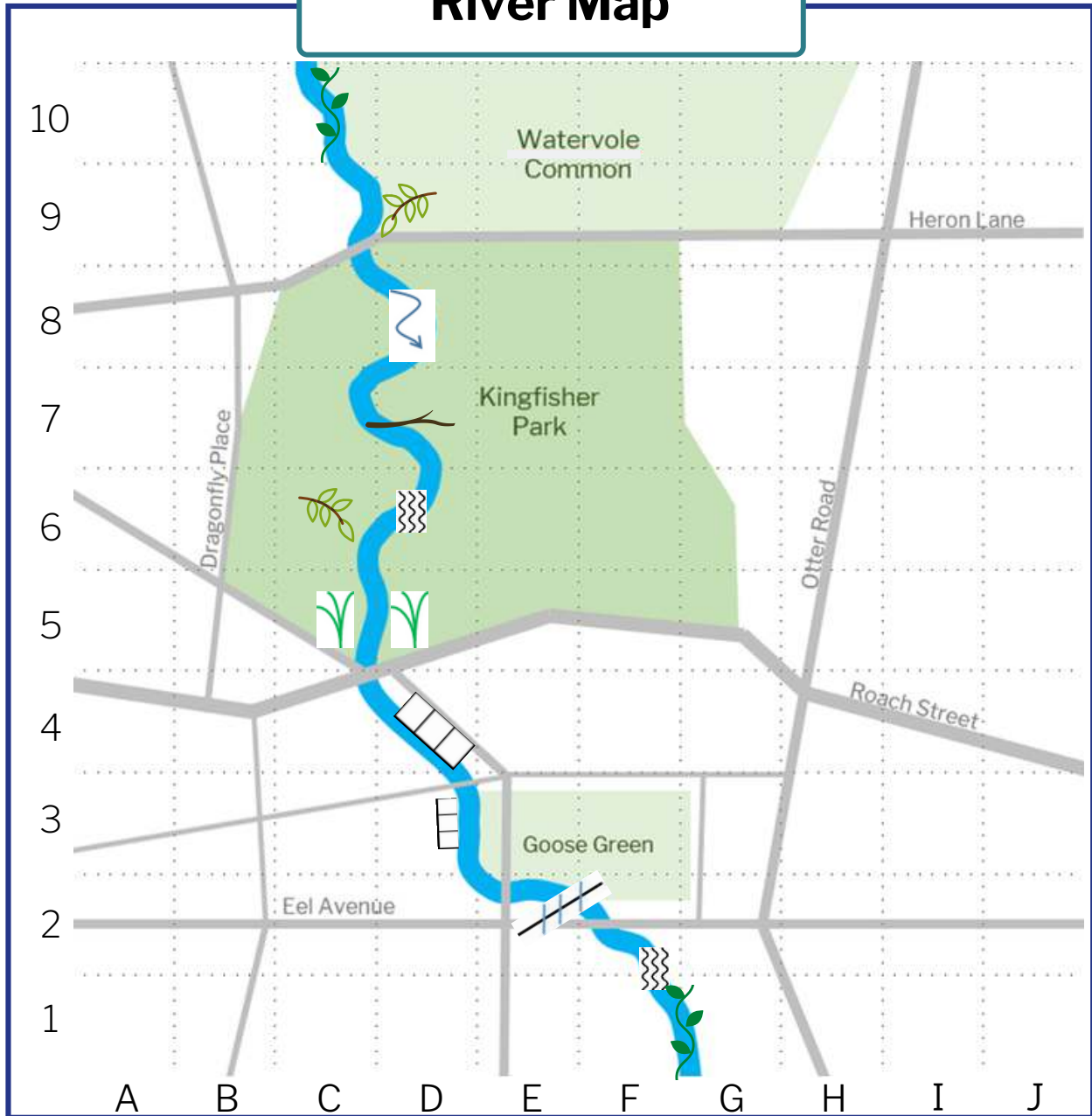
River Map

KEY

	Riverside vegetation		Weir
	Meander		Built riverbank
	Woody debris		Aquatic plants
	Riffle		Overhanging trees

ANSWERS

River Map

KEY

Riverside vegetation		Weir	
Meander		Built riverbank	
Woody debris		Aquatic plants	
Riffle		Overhanging trees	

River Feature
Dance Routine
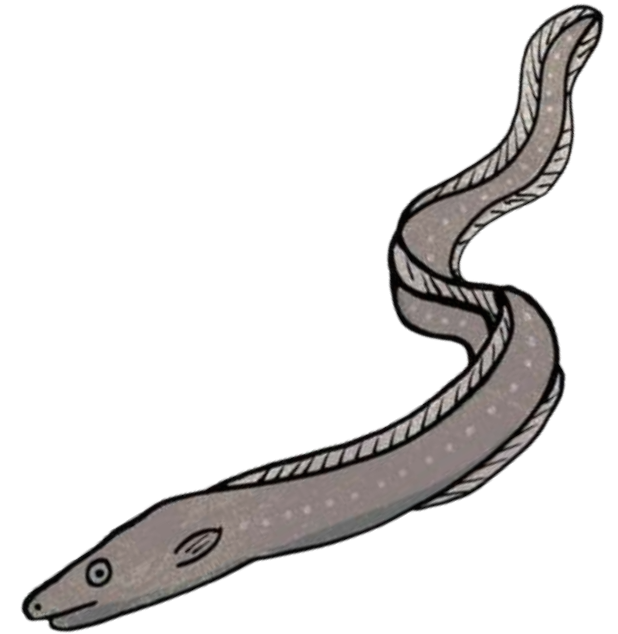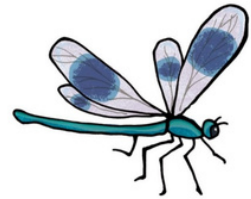
Follow the instructions in this:

video
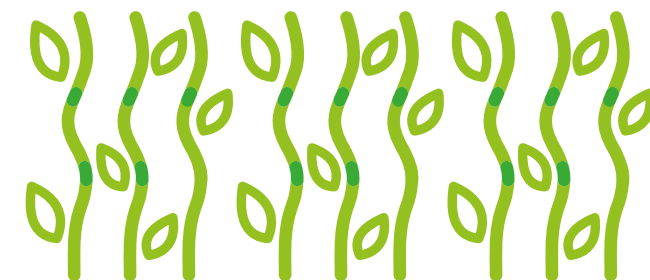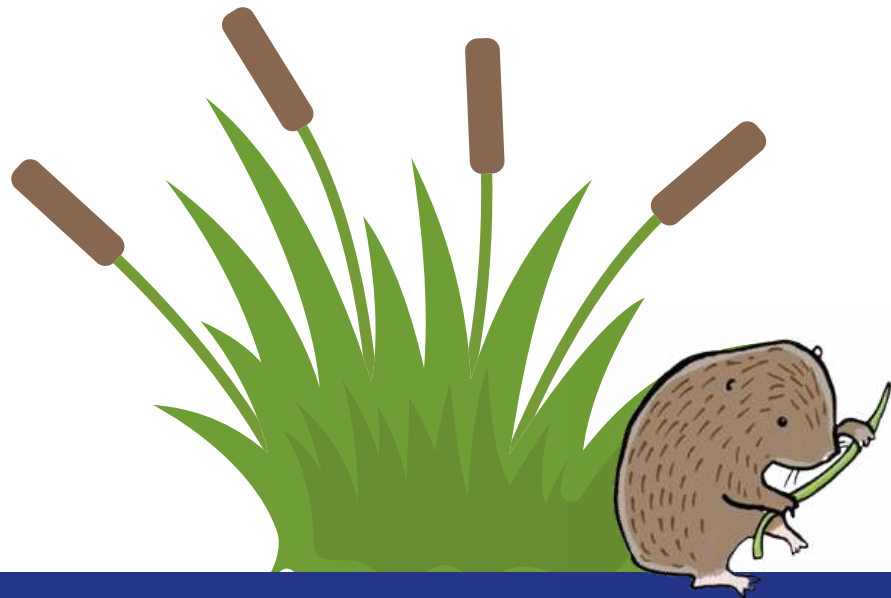
Learning objective: To apply river feature knowledge to make a model of a river

Create a 3D model of a river that includes at least <u>5 of the features</u> listed in the River Feature Guide. Use whatever you can find around your house.

Collect a selection of junk!
Use a large box or piece of cardboard as a base.
Other things you could use:
- shoe box
- egg carton
- newspaper
- bubble wrap
- scrap paper

1

Gather up some art supplies!
Things you could use:
- coloured paper or card
- poster paint
- scissors
- glue
- felt tips

2

Why not try making it out of papier mache? You can find instruction videos on Youtube!

Find toys or objects to add to your model!
Things you could use:
- plasticine
- coloured wool
- Lego trees, plants, walls
- Playmobil (river) animals
- leaves or twigs from the garden

3

Now get creating!
Choose which 5 river features you are going to include. Plan your design and build! You can see some examples on the next page.

Photos courtesy of Cumbria Wildlife Trust

We'd love to see photos of your river model. Why not upload it to the **River Club Facebook Group?**

Learning objective: To label your river feature model

There are all sorts of ways you could add labels to your model river. It depends on what is available to you at home.
Here are some ideas you could try.

1

Create handmade labels
- Create labels using bits of card.
- Attach the labels to toothpicks using tape.
- Add a blob of Blu Tack on your model.
- Stick the toothpick in the Blu Tack.

2

Use an app on a phone
I just used Gallery on my Android phone.
- Open Gallery
- Open the image you want to use
- Tap on EDIT
- Tap on Decoration
- Tap on label and type the river feature

3

Use a programme on a computer
I just used Photos on Windows
- Open Photos
- Open the image you want to use
- Click on Edit and Create
- Click on Draw
- Use the pens at tht top to add labels

How good are you with computers?
If you are up for a challenge, try using Powerpoint to create your labels.
Instructions are on the next page.

Try following these instructions to create your very own
PowerPoint Presentation!

1

Open PowerPoint and insert your picture
- Find PowerPoint by clicking the Window at the bottom left and scrolling through the list
- Open it and click on Blank Presentation
- Once its open, click on the Insert tab at the top
- Then Click on Pictures
- Choose the picture you want to insert

(You may need an adult to help you find and insert your chosen picture.)
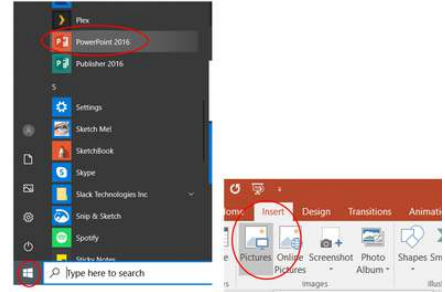
2

Add labels
- Click on the Insert tab at the top again
- Click on Text Box

- To draw a box where you want it, hold left click and drag across the screen
- Now type in the box!
- You can move the box by clicking and dragging it to where you want it

3

Change the text
- Click the Home tab at the top
- the GREEN arrow shows where you can change the colour of the text
- The BLUE arrow shows where you can change the size
- The RED arrow shows where you can change the font (style of text)
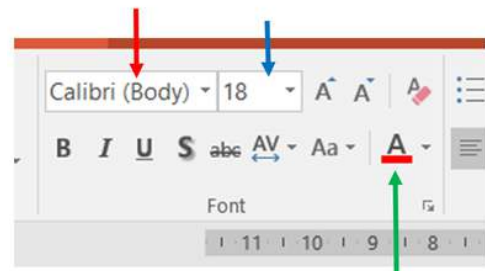
4

Add arrows
- Click the Insert tab at the top
- Choose shapes and then the arrow
- Click on your image to insert the arrow
- Once inserted, when you click on it, a dot should appear at either end. You can move these around until your arrow is in the right place.
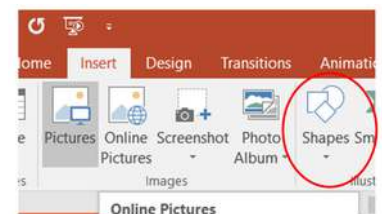
Don't forget to save your Presentation when you are done!