

School Work  
**SHEETS**



BLOCK 11:

**WETLAND  
BIRDS**





# Block 11: WETLAND BIRDS

**Background:** Construct a wetland in the classroom (in a fish tank or a bowl), including plants, or make a model of a wetland. Create posters showing various types of wetland, e.g. a river valley, a pond, etc.

DETAILED PROBLEMS	WHAT ARE WETLANDS AND HOW TO IDENTIFY THEM?	WHAT BIRDS ARE THERE NEAR PONDS, WET MEADOWS AND STREAMS? WHY DO WETLAND BIRDS HAVE LONG BILLS?	WHAT THREATS ARE THERE TO BIRDS? WHAT HUMAN ACTIVITIES THREATEN BIRDS?
<p><b>Outdoor observations and experiments</b></p>	<p>When on a meadow, pay attention to what plants there are and find the ones that are typical of wet meadows. Try to identify them with the atlas: Is your meadow a wet meadow? (11/A/1).</p>	<p>During the trip, identify as many bird species as possible. Use the bird atlas of wetlands (11/B/1) and the atlas of meadow and field birds (8/B/1).</p> <p>During the trip, note the shape and length of their bills and pay attention to their feet. Watch their prints in wet soil - use the collector's guide (5/A/1).</p>	<p><b>A natural river means natural diversity, as it is home to many animals. Because humans have been settling closer and closer to rivers, they started to regulate them. As a result, the rivers are not as wild as they used to be. Check with the children: Is your river a wild one? (11/C/1)</b></p>
<p><b>Indoor observations and experiments</b></p>	<p>Carry out experiments to illustrate what wetlands are (11/A/2) and what happens with the soil when it rains. (11/A/3).</p>	<p>Check how birds are adapted to foraging in wetland: what do birds need long bills for? (11/B/2).</p>	<p>Field observations can stimulate thinking about what threats to birds there are. Do the task: Changing rivers? (11/C/2). You can do similar tasks by comparing ponds: Field ponds (8/A/2). Why does drying wetland pose a threat to birds (11/C/3).</p>



# School Worksheets block 11

<b>Art and graphomotor tasks</b>	Use the mud left from the experiments and let the children draw with it (11/A/4).	<b>MUD ANIMALS (11/B/3).</b> <b>FELT BIRDS (11/B/4).</b>	Design a poster promoting the World's Wetland Day (2 February).
<b>Language and writing tasks.</b>		Using felt birds, play scenes from the life of a wetland.	
<b>Math tasks</b>	<b>Exercise math tasks using the sheet winding river (11/A/5).</b>	<b>Exercise the concept of symmetry axis and mirror reflection: birds in flight (11/B/5).</b>	



## IS THERE A WET GRASSLAND NEAR YOU?

### What you need?

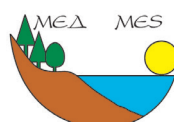
- Paper
- Strainer

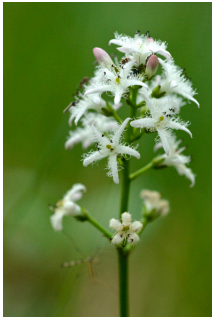
### Tasks and questions:

1. Do you leave footprints when standing on the meadow and then walking away?
2. Do your footprints fill with water?
3. Do you feel a dampness while putting a piece of tissue on the surface of the meadow and pressing with your hands?  
Is the tissue soaked?
4. Does the water appear when putting a strainer on the surface of the soil and then pushing it into the surface?
5. Put your hands between the plants and push them aside? Did the plants return to their place after taking your hands out?
6. Look at the plants growing in the meadow. Will you find among them some of those that are depicted in the following photographs?

### Consider:

- What application can you draw?
- Why?
- How do you answer the question asked at the beginning of the card?





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MENYANTHES TRIFOLIATA - BOGBEAN



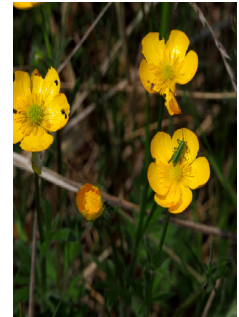
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PERSICARIA BISTORTA - COMMON BISTORT



(im)

BULLRUSH/CATTAIL - TYPHACEAE



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RANUNCULUS REPENS - CREEPING BUTTERCUP



(im)

LYTHRUM SALICARIA - PURPLE LOOSESTRIFE



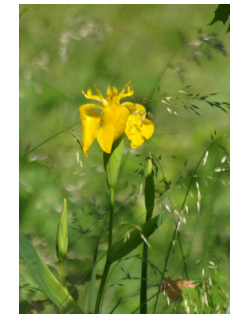
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WATER FORGET-ME-NOT - SCORPION GRASSES



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EQUISETUM FLUVIATILE - WATER HORSETAIL



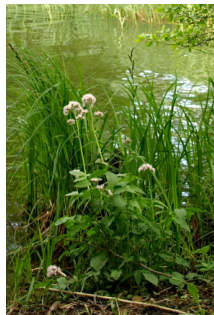
(im)

IRIS PSEUDACORUS - FLAG/YELLOW IRIS



(ck)

COTTON GRASS/BOG COTTON - ERIOPHORUM



(im)

FILIPENDULA ULMARIA - MEADOWSWEET



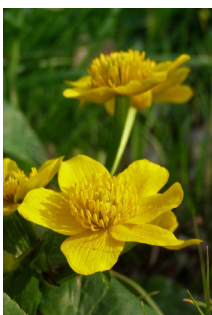
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SALIX SPP. - WILLOW



(im)

SYMPHYTUM OFFICINALE - COMMON COMFREY



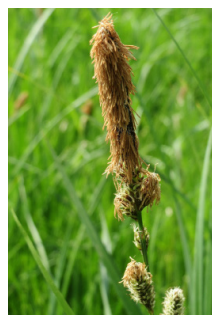
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CALTHA PALUSTRIS - MARSH-MARIGOLD



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PHRAGMITES AUSTRALIS - COMMON REED



(ck)

CAREX SPP. - SEDGE



## HOW TO MAKE A SWAMP AND A LAKE?

### YOUR ASSUMPTION









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#### What you need?

- 4 plastic bowls
- horticultural soil
- plastic cup
- bottle of water
- paper towel

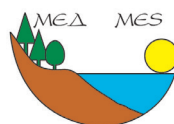
#### Tasks and questions:

1. Measure up to 4 bowls for the same amount of garden soil cups. Select your choice on the work card.
2. How much water do you need to add to the soil to create different types of humidity?  
Check your ideas and check the information on the card.

<p>BOWL 1 - SOIL DRY LAND (EARTH)</p>  <p>WATER</p> 	<p>BOWL 2 - SOIL WET</p> <p>LAND (EARTH)</p>  <p>WATER</p> 
<p>BOWL 3 - SOIL WET</p> <p>LAND (EARTH)</p>  <p>WATER</p> 	<p>BOWL 4 - SOIL VERY WET</p> <p>LAND (EARTH)</p>  <p>WATER</p> 

#### Consider:

- In which bowl was the wetland, and in which lake?





## WHAT WILL HAPPEN TO THE WETLAND WHEN IT RAINS?

**BE ADVISED!** Prepare and dry the mud in a bowl earlier. It may take a few days to do so.

### YOUR GUESS:

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### WHAT MATERIALS YOU WILL NEED:

- \_\_\_\_\_ 1 bowl full of dry mud (prepared earlier)
- \_\_\_\_\_ 1 bowl full of recently prepared mud
- \_\_\_\_\_ a watering can full of water

### TASKS AND QUESTIONS:

1. Carefully touch the surface of the dry mud and examine it. What do you feel?

2. What will happen when you pour the same amount of water into each bowl?

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3. Carry on the experiment and observe.

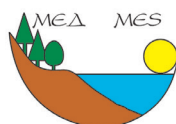
4. What happens when, suddenly, a lot of rain falls down to earth?

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### Think:

- \_\_\_\_\_ What will happen when the wetlands dry up?
- \_\_\_\_\_ Is it safe to construct homes in the direct vicinity of a river?
- \_\_\_\_\_ How do animals fare during a rain?





## MUD PAINTING

### What materials you will need:

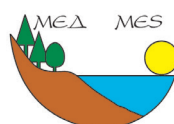
- plastic containers / bowls/ jars
- mud
- water
- dye / liquid watercolour / natural dye
- dishwashing liquid (optional)
- thick paper/cardboard
- brushes

### Tasks and questions:

1. Put the mud into the plastic containers.
2. Add a different dye and several drops of dishwashing liquid to each of them.
3. Add water and stir everything until you get a mixture which may be used as a paint.
4. When the muddy paints are ready, you may use them. Paint whatever comes to your mind. Good luck! ☐



- What was it like to paint with the muddy paints?
- What colours did you manage to create?

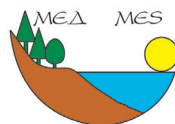






## MEANDERING RIVERS

1. Count how many times the river turns left and how much to the right.
2. Count how many islands there are.
3. Where is the river narrower and where is the wider river?
4. Arrange your own task for illustration.





## WHY DO WATERBIRDS HAVE LONG BEAKS?

Your guess :

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What do you need ?

- 1 plastic bowl or aquarium
- mud
- short and long tweezers
- some grains of rice or pasta

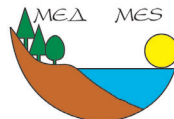
Tasks and questions

1. Fill the bowl with a mud
2. Add rice and mix
3. Which tweezers are more useful to pick rice from the mud ?

.....  
.....  
..

Imagine

- Why birds do have different lenght of beak ?
- Can a mallard feed the same as common snipe ?





## MUD ANIMALS

### What do you need ?

- a bowl
- mud
- water
- small wooden sticks , stones, leaves,etc.

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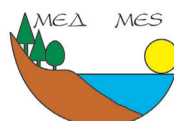
### Preparation

- mould your favourite bird using the mud.
- You can prepare wings, feet etc. using leaves, small stones or sticks.



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Try to be precise in making details. The bird can be for example black tailed godwit or a mallard.





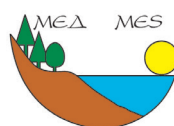
## FELT BIRDS - HERON AND KINGFISHER

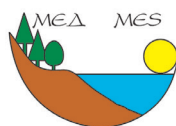
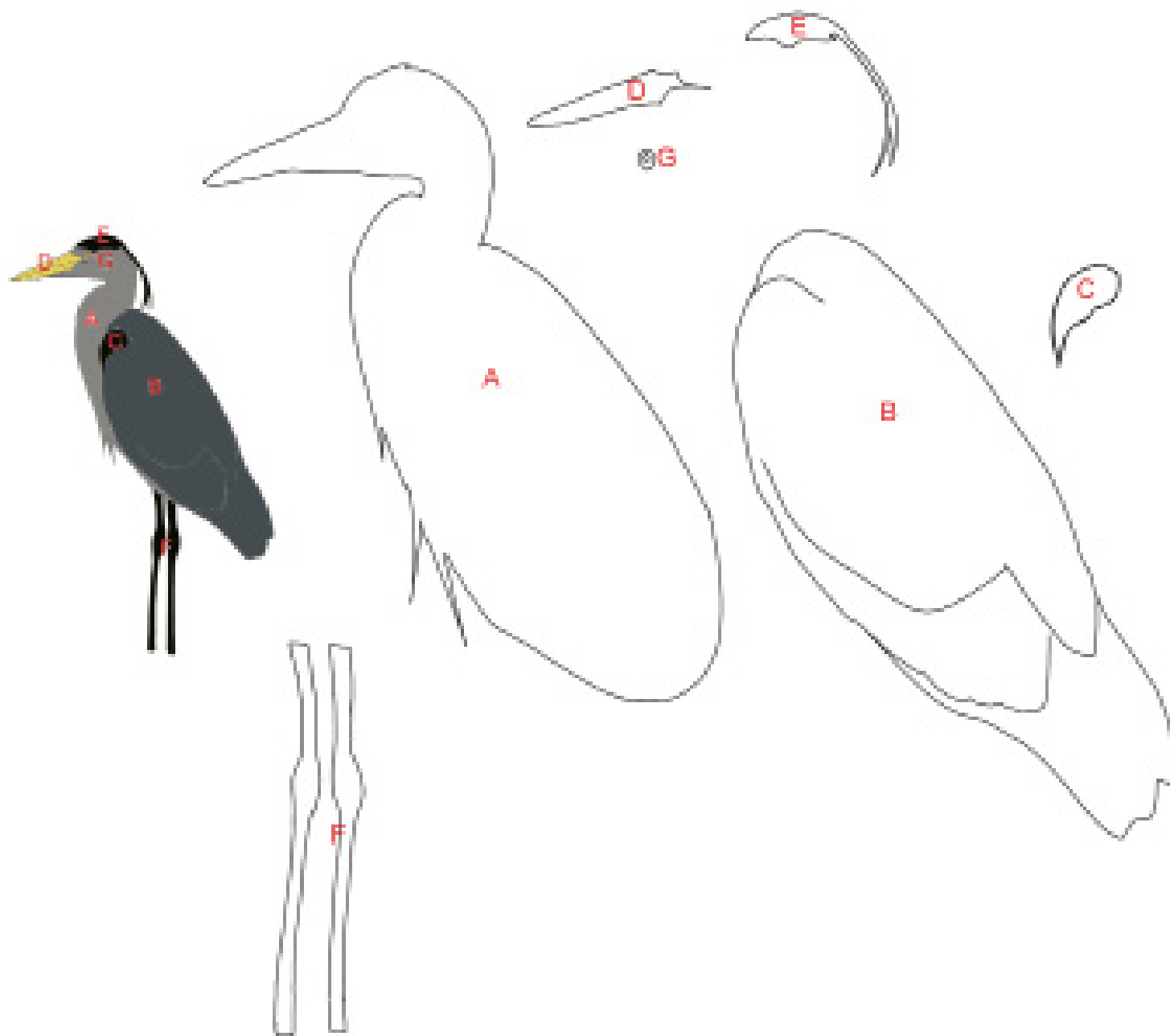
### What do you need?

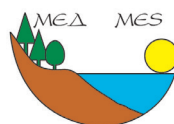
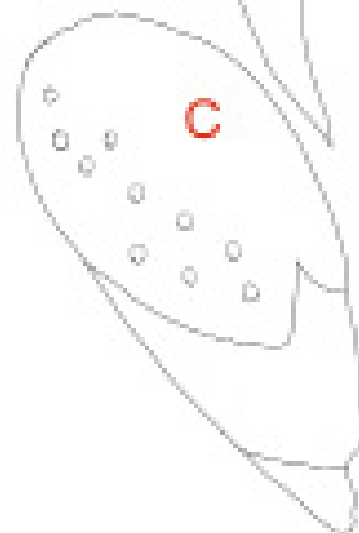
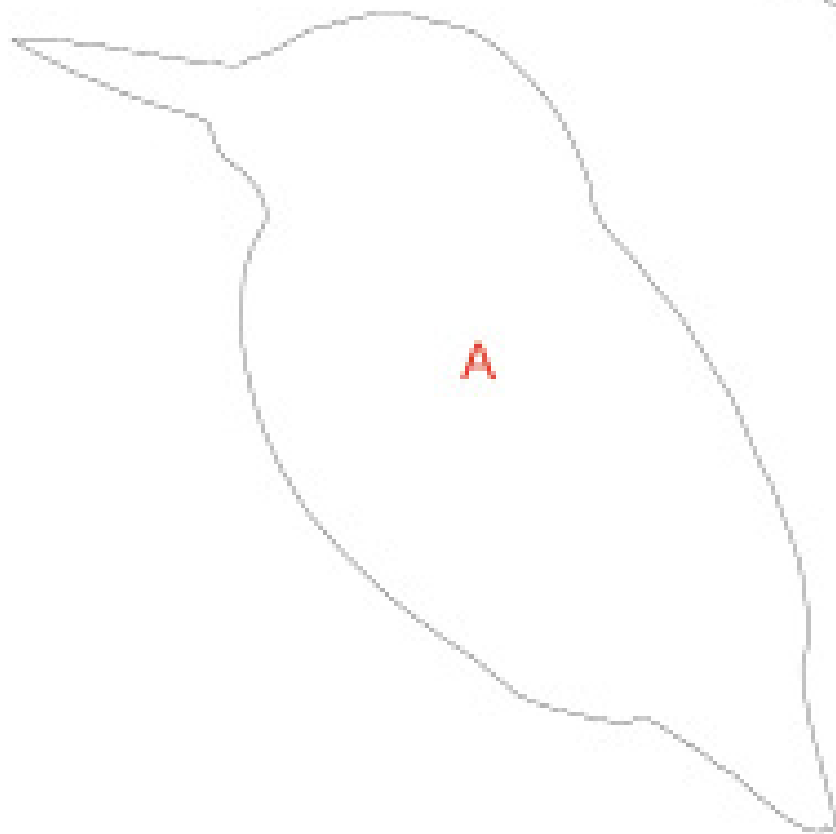
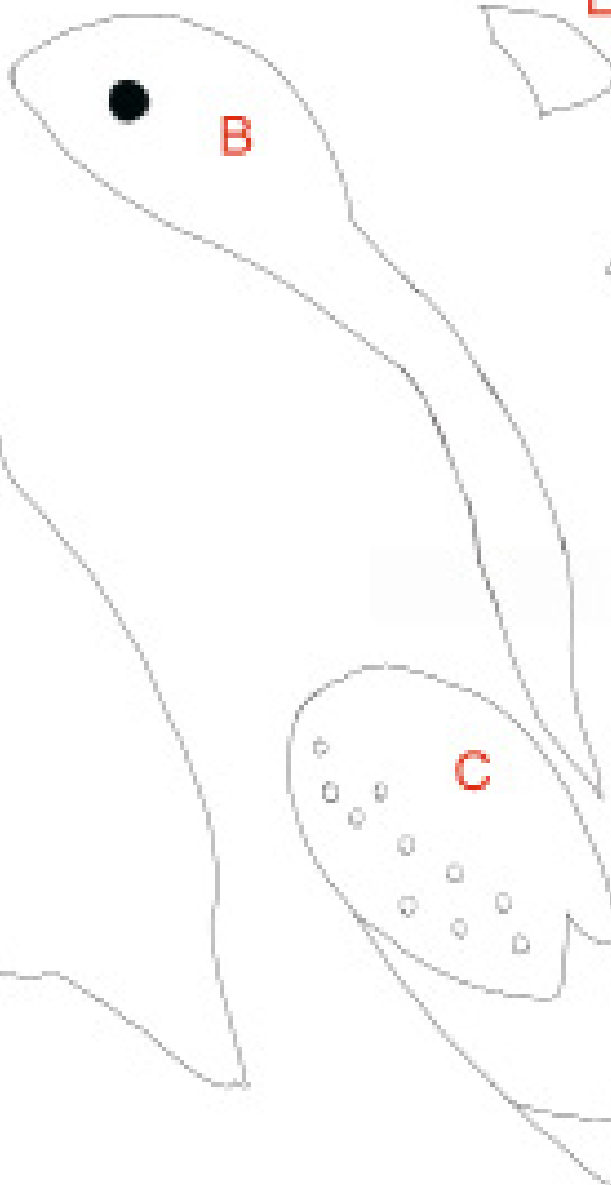
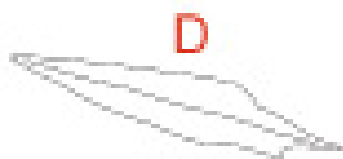
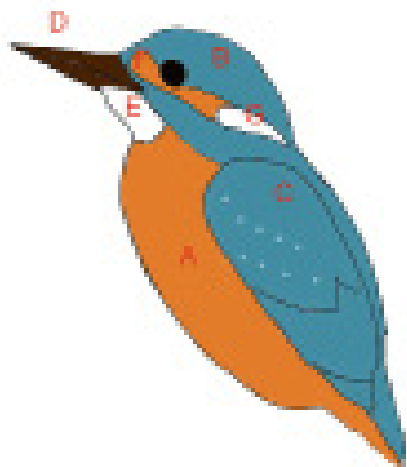
- Felt in suitable colors
- Glue
- black marker

### Preparation:

1. Cut the paper templates
2. Put them on the felt and draw
3. Carefully cut the felt in the drawn lines
4. Put on the table the biggest element first. Then apply the other elements using glue – from the smallest to the biggest one.



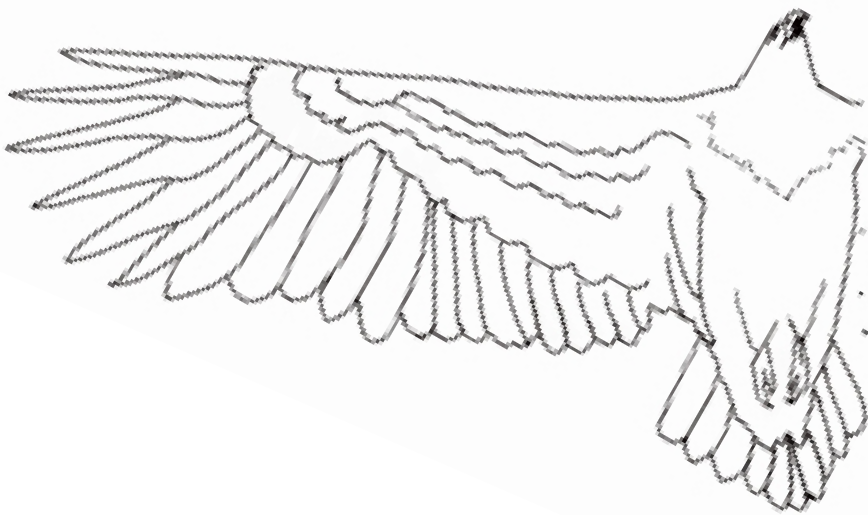






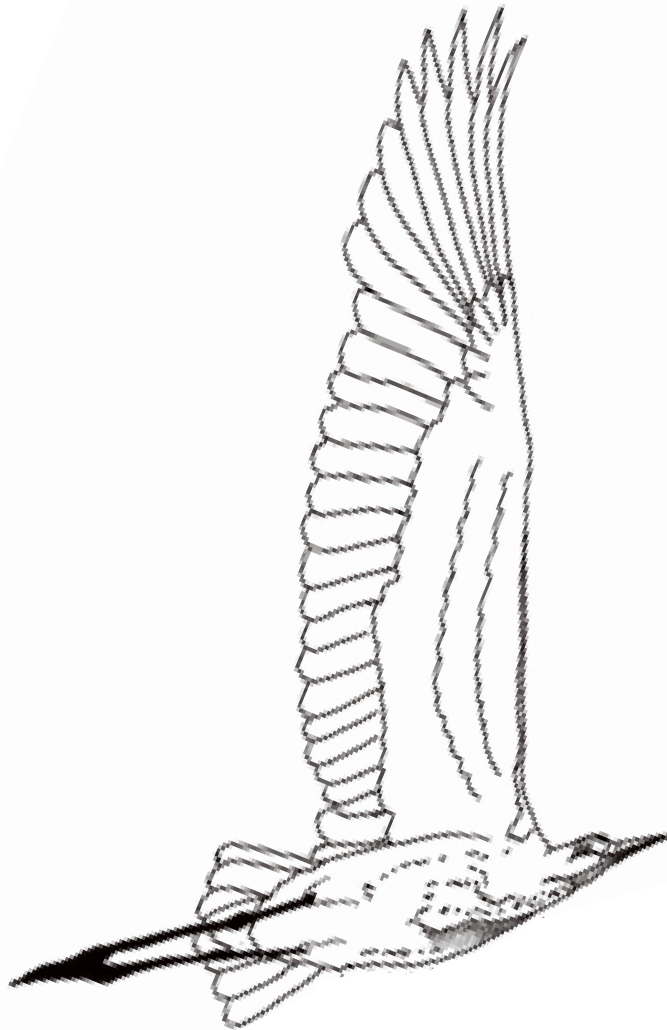
## BIRDS IN FLIGHT

Draw a mirror image of a bird in flight.





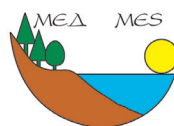
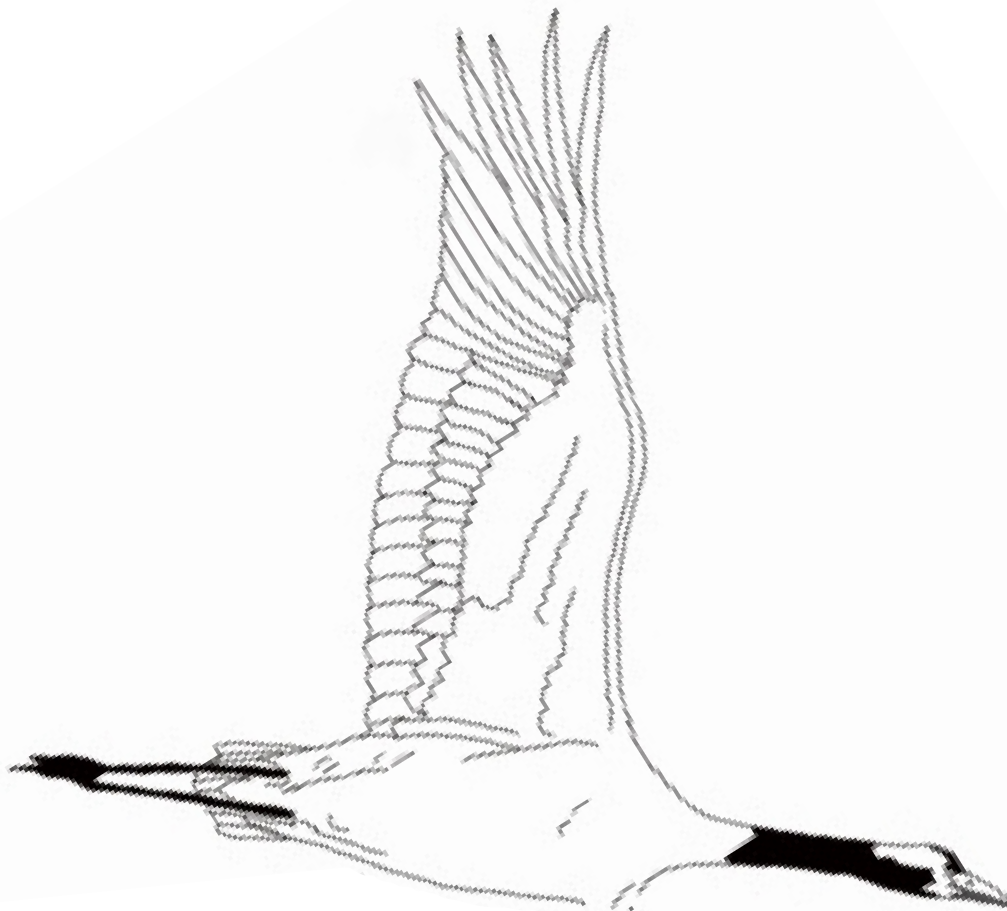














## IS YOUR RIVER WILD?

Your guess:

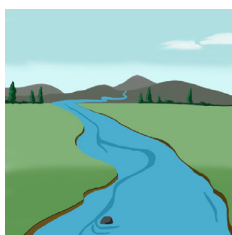
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**Tasks and Materials:**

1. Look carefully at the river over which you are standing, and then mark in the answer sheet:
2. Is the river you studied is friendly to animals, especially birds? Why do you think so?
3. What human activities threaten water birds?
4. Did you like the place you visited? Why?
5. Is the wild river dangerous?

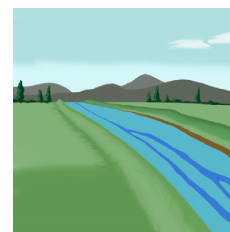
**Consider:**

- What does it mean to tame a river?
- Do you think that the floodplains are wasted space? Is it needed? For what?

<b>What type of river bed does your river have?</b>	
Natural	Walled banks
<b>What form has your river?</b>	
With Bends	Straight
<b>Are there banks in your river ?</b>	
Without banks	With Banks
<b>Are there wetlands along your river banks?</b>	
Yes	No
<b>Are there any duds along your river?</b>	
Yes	No



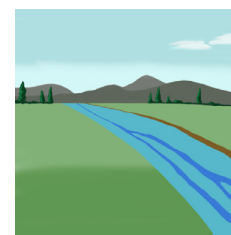
rzeka naturalna



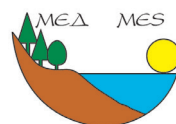
rzeka wyregulowana z wałem



rzeka naturalna z łacham



rzeka prosta





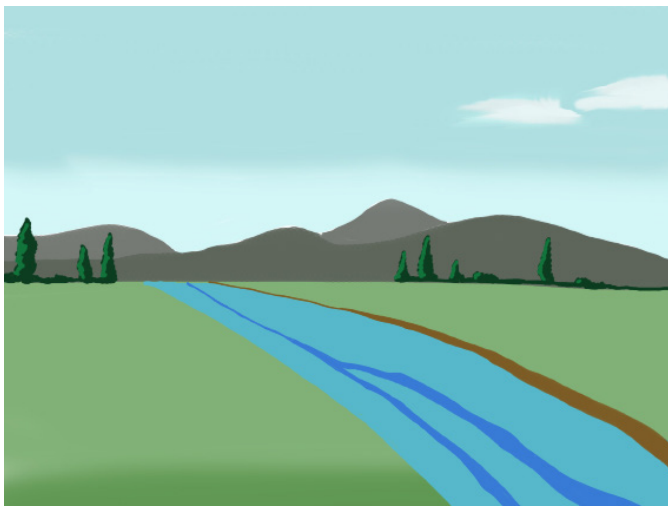
## CHANGING RIVERS

### What you need?

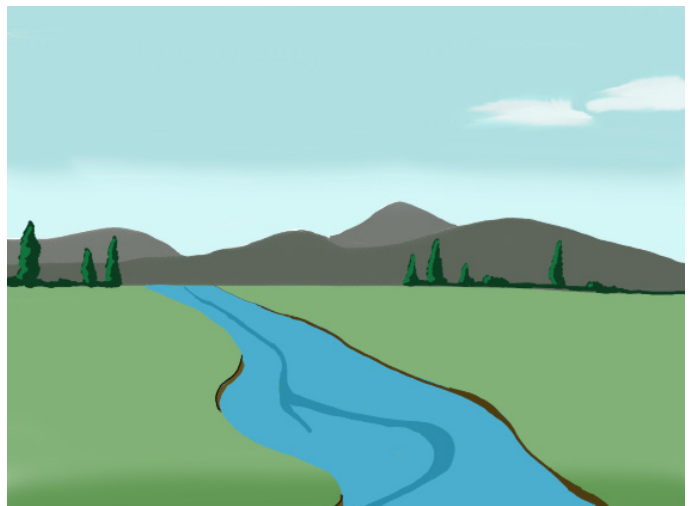
- magnifier
- containers for storing finds, eg a jar, plastic boxes, etc.
- observation card
- pencil
- rigid washer

### Tasks and questions:

Below there are two pictures of river valleys. Take a look on them. Than compare two illustrations and mark the differences.  
Which river you can find in your hometown, or which one have you noticed during a trip ?



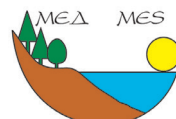
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### Consider:

- Which meadow in the river valley is more wet ?
- Where there is more variety of plants ?
- How do you think, which river is more friendly to animals ? Why do you think so ?
- Which river can take more water from the rain?





## WHY ARE DRIED UP WETLANDS THREATENING BIRDS?

Prepare the bowl beforehand with mud inside and dry it thoroughly.

Why do dried up wetlands endanger the birds ?

Your guess :

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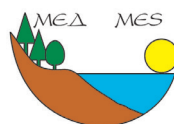
### What do you need ?

- 1 bowl with earlier prepared dry mud
- 1 bowl with fresh mud
- kebab sticks, cotton sticks, tweezers

### Tasks and questions :

1. Gently probe the surface of dry mud. What do you feel ?
2. Now put the sticks or tweezers into both bowls of mud. What do you observe ?

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This material has been prepared as part of the project; We live in harmony with nature. Educational program for teachers of pre-school and primary education.

The project involved selected non-governmental organizations involved in the protection of birds associated as part of the international BirdLife International federation. In addition to the National Society for Bird Protection, which ran the project, also involved were the Spanish Ornithological Society (SEO), the Slovak Ornithological Society (SOS), the Macedonian Ecological Society (MES), the Czech Ornithological Society (CSO) and BirdWatch Ireland (BWI). The University of Gdańsk became the substantive partner of the project responsible for creating materials for teachers.

BirdWatch Ireland is a non-governmental organization with a public benefit status, dealing with the protection of wild birds and the places where they live. The aim of the organisation is to preserve the natural heritage for the benefit of present and future generations. BWI is the Irish partner of the global federation of