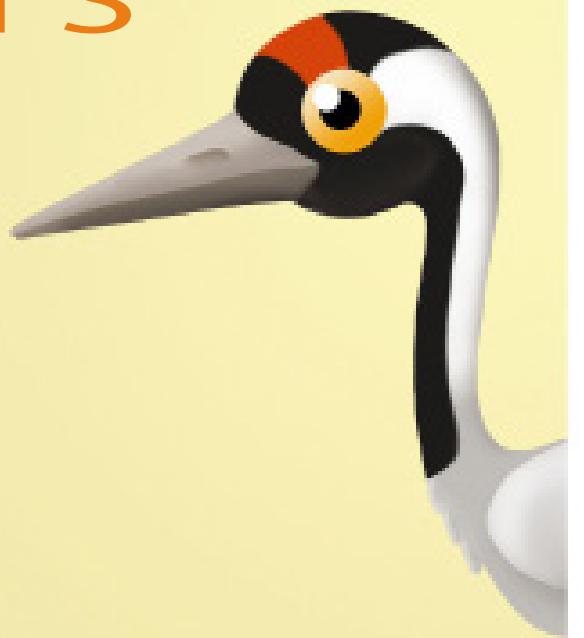
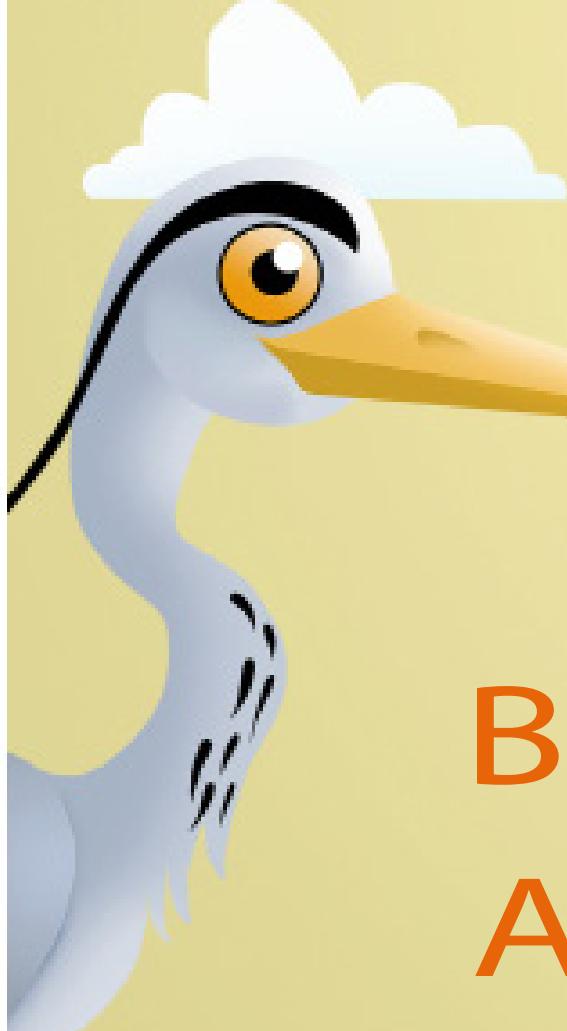


SCHOOL WORK SHEETS



BLOCK 1:
**BECOME
A GOOD
BIRDWATCHER**





BLOCK 1: BIRDS LIVE NEAR OUR HOMES

Background: Atmosphere is built in the classroom by placing depictions of birds (drawings, photographs or models) around the classroom and providing a basket with binoculars, a photo camera, a scope and bird guides. After each return from the field the decoration can be changed (with participation from the children) - only the bird species seen in the field are retained.

DETAILED PROBLEMS	WHAT IS A BIRD? HOW TO KNOW THE PRESENCE OF BIRDS IN THE FIELD?
Activities in the field	<p>Animals use different methods of camouflage, which is why observations require attention and concentration. Practice perception in the natural environment with the help of a card.</p> <p>Be a sharp observer of nature (S1 / A / 1).</p> <p>Work in the field requires compliance with certain rules.</p> <p>Practice them in the field using the card.</p> <p>How to observe birds in the field? (S1 / A / 2).</p> <p>Birdwatching requires patience, knowledge and a bit of luck. An important part of it is the ability to see the traces of their presence. The most common are footprints - that is, the footprints of a bird left on a soft surface such as mud, damp sand or snow. It is worth collecting various artifacts that are other traces of the presence of birds or document them photographed.</p> <p>Collector's guide (S1 / A / 3) may be helpful.</p>
Observations and experiments in rooms	<p>The exercise is designed to reveal the children's personal knowledge - Which animals are birds? (S1 / A / 4) Children can return to this exercise after solving problems and see if there is anything to improve.</p> <p>Multimedia presentation provokes observation and thinking about what a bird is? (S1 / A / 5)</p> <p>Even the youngest children can use optical equipment.</p> <p>However, observation in nature can pose some difficulty.</p> <p>Practice with children how to use a pair of binoculars (S1 / A / 6) in especially simplified conditions.</p>
Artistic tasks	Performing a drawing with descriptions of the characteristic parts of a bird's body can be a brilliant learning exercise.
Literary tasks	Suggest to children the fun of arranging nursery rhymes to help you remember the characteristics of birds, for example: Big or small, every bird has Two legs, two wings and one beak and feathers are countless, Look carefully, do not shout
Math tasks	Other animals hidden among the birds (S1 / A / 7), find them and count them.



BE A SMART NATURE OBSERVER

Task 1. Tracing hidden animals (P)

Let children look for small animals in a garden or park – butterflies, ants, grasshoppers, flies, bees, wasps, spiders, or bigger animals like birds, frogs, toads or mice. They should try answering the following questions:

- What is this animal doing?
- Is this animal trying to hide?
- How is it doing it?

Pay attention to the colours and patterns on the bodies of the animals. They use them to look like their surroundings, to be less visible. Talk about camouflage.

Task 2. "Find me" game.

What do you need?

- several models of snails cut out of paper in the colours of nature (green, brown, grey), distributed around the garden
- several vividly coloured ladybirds (yellow, red, blue)
- a small bag for collecting paper animals, for every child

Tasks and questions

In five minutes, the children should collect as many hidden animals as possible. The child that collects the biggest number of animals is the winner.

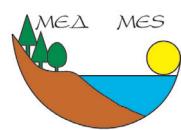
Which of the paper animals were the easiest to find, and which ones where the hardest? Why?

If the children haven't found all the animals, give them another 5 minutes to find the remaining models. You can use any way of giving clues leading to the places the animals are hidden.

Think:

What do the children think about the meaning of camouflage now?

Why do animals use camouflage?



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School Work Sheets

Attachment S1/A/2

HOW TO OBSERVE BIRDS?

What does a good observer need?

Think which objects will help observing birds?



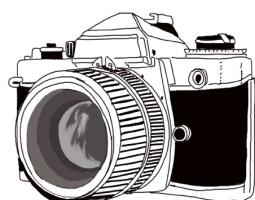
(mk)



(mk)



(mk)



(mk)



(mk)



(mk)

What to look at?

1. What size and shape is the bird? Is it big? small? long? round?
2. What colour is it? Does it have characteristic traits on the back, belly or head?
3. What shape and colour is the beak? Long? Short? bent?
4. What is it doing? Is it high in the trees? Is it looking for food on the ground? Is it fluttering its wings?
5. Is it making any sounds? If it is, what does its song sound like?
6. If you hear a bird singing, get your binoculars and start looking to see where the song is coming from.

Who will be less visible to the birds?



(jm)



(kk)

How will you dress, to hide from the inhabitants of the forest or meadow?

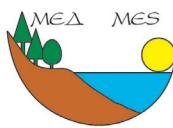


School Work Sheets

Attachment SI/A/2

How to behave?

1. Always go with an adult. If you get lost, stand where you are and wait for them.
2. Don't behave loudly, don't sing, don't shout.
3. Don't run, don't jump. Don't attract attention.
4. Walk slowly and with caution. If you spot an interesting bird stop and stay as calm as you can , so you don't scare it .
5. Don't go close to nests or nesting colonies.
6. Don't litter. Take everything you brought along, back with you!!



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TRACES OF BIRDS – FIELD GUIDE

What You Need?

- plastic boxes (lunch boxes); string bags.
- tweezers
- magnifying glass
- bags
- quick drying plastermould for making bird feathers

These will be useful:

Laminating machine and laminating foil or ziplock bags, camera.

Tasks and Questions:

Your task will be to document the traces that birds leave in the field. The task lasts for the entire school year, but some of the traces (nests, hollows, feeding tracks, tracks) will be most easily documented in the winter. It is up to your perceptiveness to determine how rich your collection will be. The Collector's guide below will help you with the task.

Practical considerations for the collector:

- The egg shells you find should be well-preserved in the described boxes - eg boxes or jars.
- If you find an empty bird nest dropped to the ground, eg. by the wind, you can take it for display in the class room.
NEVER TAKE A NEST DOWN FROM SHRUBS OR TREES EVEN IT APPEARS EMPTY. IT MAY ALWAYS BE USED AGAIN BY ANOTHER BIRD OR ANIMAL.



School Work Sheets

Attachment SI/A/3

I. COLLECTION OF BIRDS EGGS

In the spring and summer, an attentive observer can find egg shells ejected from the nests after the young ones have hatched.

Maybe you can find and recognize some of them?

EGGS BIGGER THAN A COIN		
 Magpie (33-24 mm) (mk)	 Blackbird (29,5-21,5 mm) (mk)	 Wood pigeon (29-20 mm) (mk)
 Mallard (60-44 mm) (mk)	 Rook (40-29 mm) (mk)	 Song thrush (27-20 mm) (mk)
EGG SIZE OF 50 GR COINS		
 House Sparrow (21,2-14,6) (mk)	 Great tit (17,2-13,4 mm) (mk)	 House martin (18,5-12 mm) (mk)

QUESTIONS AND TASKS:

1. Where was the shell found?
2. When was it found?
3. What did the shell look like?



School Work Sheets

Attachments SI/A/3

II. FEATHERS

Bird feathers can be found throughout the year. Some of them are easy to recognize due to their color and pattern.

		
(mk) Jay has lost this feather.	(mk) The Great spotted woodpecker feather.	(mk) The Goldfinch feather
		

Questions and tasks

1. Where was the feather found?
2. When was it found?
3. Was it a single feather or more?



School Work Sheets

Attachments SI/A/3

III. NESTS

Winter is the best time to investigate how many nests birds have built in the vicinity.

Bring binoculars and a notepad.

Look around carefully - look at the trees and shrubs. When there are no leaves on them, you can clearly see the abandoned bird nests.

Count how many of them there are and draw them where you can see them.

Look at them carefully (if you need to; through binoculars) – maybe you can recognize what bird they belong to.

REMEMBER! DO NOT REMOVE NESTS FROM TREES AND SHRUBS.

		
YOUNG MAGPIES GREW UP HERE.	YOUNG SONG THRUSHES GREW UP HERE	THIS IS THE NEST OF A GREAT SPOTTED WOODPECKER
 (mk)	 (mk)	 (mk)

(jv)

(jv)

(jv)



School Work Sheets

Attachments S1/A/3

 (mk)	 (jv)	 (jv)
<p>Sand martins nest in earthen or sandy banks by burrowing small holes.</p>	<p>Generally birds nests are built so that only the host species can easily access them.</p>	<p>Swallows often nest in barns, sheds or old houses. They glue mud together with salivary deposits stuck to the under side of an eave or rafter</p>
 (jv)		  (jv)



School Work Sheets

Attachments SI/A/3

IV. FEEDING HABITS

PERHAPS YOU CAN OBSERVE TRACES OF FEEDING BIRDS.

	
<p>Cones embedded in the bark of a tree and a lot of cones looking ruffled lying at its base could be a trace of the woodpecker's activity.</p>	<p>Holes cut in walnuts and acorns could be the work of a great tit</p>
	
<p>Walnut husks lying on the ground can be evidence of crows feeding, they break the nuts by dropping them from a great height onto hard ground.</p>	<p>Large irregular holes in nuts may indicate the meal of a woodpecker.</p>
	
<p>Apples with eaten pulp and peel leftovers - probably indicate the feast of a blackbird or fieldfare.</p>	<p>Bird feathers scattered in disarray - a bird probably provided a meal for some predator here!</p>



School Work Sheets

Attachments SI/A/3

V. FOOTPRINTS

Birds walking on wet muddy/sandy ground (eg the sea shore, lakes, rivers) or on snow leave prints which can provide clues for us to figure out which species was present and even what direction they were going.

1. Examine the prints of your feet. To do this, prepare wet sand or use fresh snow - leave traces of your feet (shoes) on it, going forward, jumping on both legs, running, walking as if you were looking for something. Take a picture or draw it, like your footprints look.

WE WERE MOVING FORWARD	WE ARE RUNNING	WE ARE JUMPING	WE WERE LOOKING FOR

2. Now let's read the message left by the bird's feet on the seashore:



(mk)

QUITE A LOT OF THIS INFORMATION, RIGHT?

The bird walked in different directions
- probably looking for food.

There is a membrane impression between
the fingers (webbed feet)
- it is a water bird.

Traces are of one kind
- it was probably one bird



School Work Sheets

Attachments SI/A/3

3. This bird also went on the beach. What can you read from these tracks?



(mk)

Questions and tasks:

1. How many birds were there?
2. Did the bird run, or maybe jump?
3. Is it a water or land bird?
4. Did he move forward or circulate - perhaps in search of food?



School Work Sheets

Attachments SI/A/3

4. And what do you read from the following traces?



(mk)

Questions and tasks:

1. How many birds were there?
2. Did the bird go, run or maybe jump?
3. Is it a water or land bird?
4. Did he move forward or circulate - perhaps in search of food?

Below: A place to draw the tracks that you found.

What did you read from them?



VI. YOU CAN MAKE BIRDS FOOT PLASTER CASTS

What you need?

- a clear imprint of the bird's foot
- quick-setting gypsum
- bowl
- water
- cardboard strip
- Paper clips
- spoon for mixing gypsum
- cutting board

Tasks and questions:

1. Gently clean the trail where the footprint was found from twigs, leaves, etc.
2. From the cardboard strip, prepare a ring slightly larger than the trophy (pin it with a stapler).
Prepare the prepared ring in the ground around the trail.
3. Mix the plaster with water, adding (a little) enough to make the mush.
4. Then pour the reconstituted plaster into the ring.
5. Now it's time to wait patiently - after about 15 minutes the plaster will get tough.
6. Carefully lift the plaster with the ring and put it on a hard surface (eg chopping board)
Show the class and put it down until the next day.
7. The next day, tear off the cardboard and clean the casting.

What did you see?

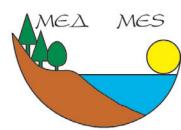
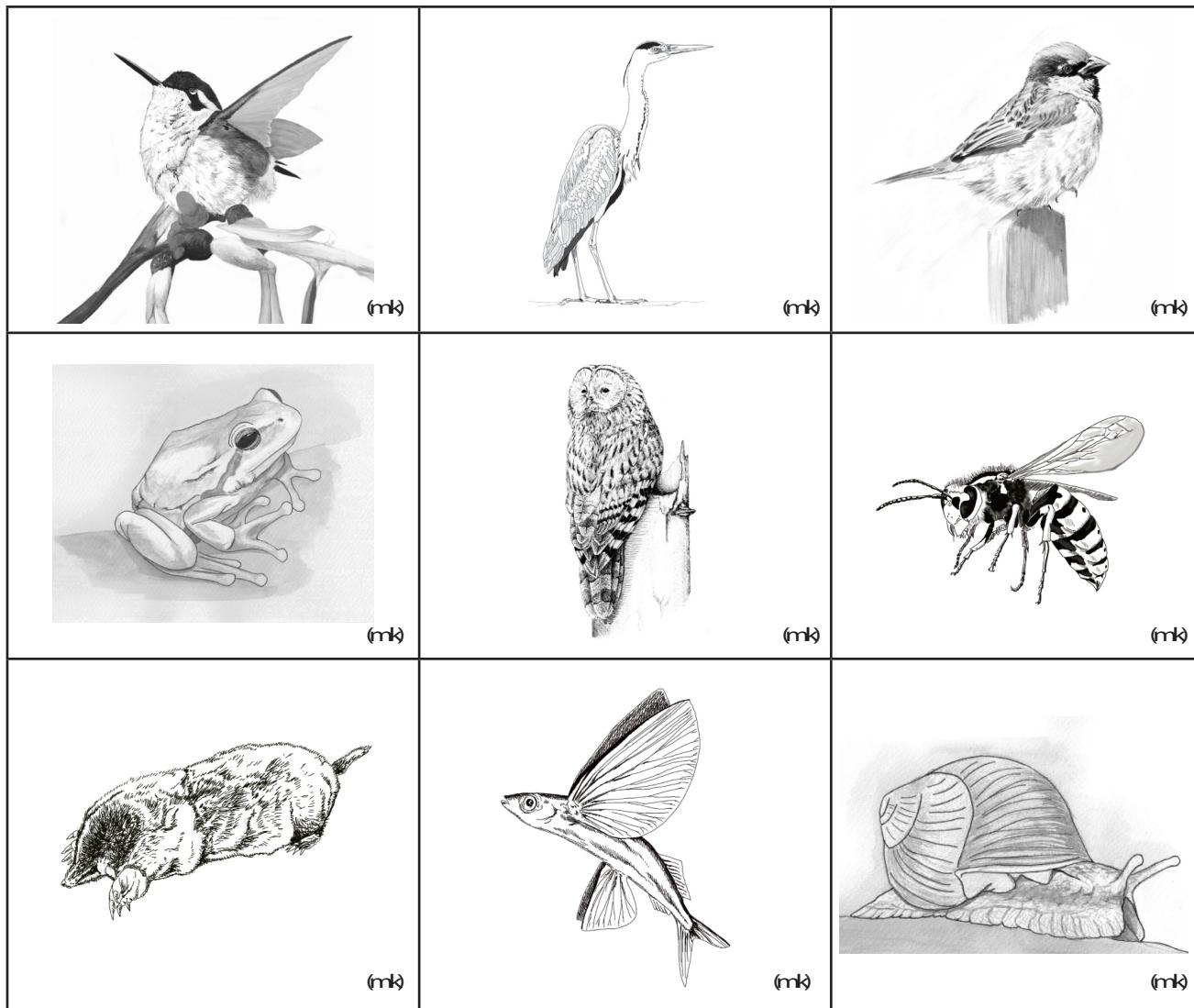
¹Based on R. Brown et al., Tracks and traces of birds, W-wa 2006



School Work Sheets

Attachments S1/A/4

WHICH OF THESE ANIMALS ARE BIRDS ?



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HOW TO USE BINOCULARS ?

Task 1. Observation with a limited field of view

What will you need?

- Several objects in different sizes
- A4 and A3 sheets of paper, rubber band

Tasks and questions:

1. Roll a piece of paper into a tube and secure it with a rubber band .
2. Find the object indicated by the teacher, using the paper tube you have prepared.
3. What can you see? Can you find the object you are looking for? When using the tube, can you also see other objects?
4. How fast can you find the friend you are looking for?

Task 2. Observing an unknown shape

What will you need?

- 10 boards with drawings of any chosen small and simple objects
- binoculars

Tasks and questions:

1. Explain to the students how to use the binoculars and how to focus the image.
2. Tell the children to stand 15 steps from the boards. Ask them to look through the binoculars and tell what they can see in the picture.
3. Change pictures and let the children try several times.

Task 3. Searching in the distance

What will you need?

- 10 charts with drawings of animals
- binoculars

Tasks and questions

1. In selected places hide drawings of animals familiar to the children.
2. Make the children stand at a distance of 30 steps. The task is to recognize as many animals as possible in 3 minutes.
3. You can propose a competition for 3-5 person teams.



School Work Sheets

Attachments S1/A/6

Task 4. Bird watching

What do you need?

- 2 tables – attached below
- binoculars

Tasks and questions:

Prepare pictures of birds and position them at a distance of 15 steps from the observation point. Ask the pupils to use the binoculars and answer the following questions:

1. Which bird has the longest neck?
2. What differences can you see between bird 1 and 2?

below you will find:

- a drawing of a male and female mallard duck
- a drawing of a male and female blackbird (or other birds)



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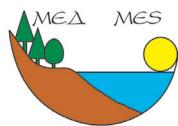


School Work Sheets

Attachments SI/A/7

OTHER ANIMALS ARE HIDING AMONGST THE BIRDS..

Can you find them? How many are there? How many birds are there in the picture? How many beaks do they have? How many pairs of legs do the birds in the picture have? How many bird legs are there? Which bird has got the longest beak?



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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 bird protection societies - BirdLife International.