

School Work
SHEETS



BLOCK 10:

**FOREST
BIRDS**





Block 10: PTAKI LEŚNE

Background: Build an atmosphere in the classroom with a model of a forest. After coming back from the field class, the decoration can be completed (with participation of the children) with animals that you saw or observed. You can also add the treasures that you brought from the forest.

DETAILED PROBLEMS:	WHAT IS A FOREST?	WHAT SPECIES OF BIRDS CAN YOU MEET IN THE FOREST? WHAT ANIMALS (INCLUDING BIRDS) USE THE FOREST?	HOW ARE THE ORGANISMS LIVING IN THE FOREST INTERCONNECTED?
<p>Outdoor observations and experiments</p>	<p>Go for a trip to the forest. Pay attention to the trees that are found there. Choose a tree and hug it. Be mindful, close your eyes and take a deep breath. Listen to the voices of nature. Can you see the diversity that surrounds you? Try to identify the trees that grow there using an atlas. Think about the type of the forest that you are visiting. Is it a coniferous or a deciduous forest?</p>	<p>During the trip, try to identify the encountered birds. An atlas of forest birds (10/B/1) will be helpful here. (The version with characteristic features and birds ordered by size can be printed out and taken to the field)</p> <p>Woodpeckers are a group of birds the unique anatomy of which makes them able to drill hollows in trees and break wood in search of invertebrates. Thanks to these features, their role in the forest ecosystem is very important and essential to the existence of other animal species. While in the forest, together with children look for traces of woodpeckers using the sheet: Become a woodpecker tracker (10/B/2).</p>	<p>Dead wood plays a very important role in the forest. It is home to many organisms and takes part in the circulation of elements or in forest regeneration. When in the forest with children: look for a dead tree (10/C/1) and inspect its dwellers.</p>
<p>Indoor observations and experiments</p>		<p>One of the typical forest inhabitants is the Tawny Owl (UK & Europe, rare in Ireland). Together with children, think what a year of the Tawny Owl is like (10/B/3). The worksheets can be laminated and used in the field.</p>	<p>Woodpeckers are known for drilling holes. Typically, a woodpecker builds a new hollow before the breeding season. This way hollows are created that could become home to other animals. Together with children, think which animals use hollows made by woodpeckers using the sheet: woodpeckers as home builders (10/C/2).</p>
<p>Art and graphomotor tasks</p>	<p>Use the forest findings collected during the trip in the task: create your own forest (10/A/1).</p>	<p>During the trip collect leaves to make leaf animals (10/B/4), to present forest inhabitants.</p>	<p>Make a poster on the occasion of the International Forest Day (21 March), showing the importance of old and dead trees.</p>



School Work Sheets block 10

<p>Language and writing tasks</p>	<p>While in the forest, enhance the curiosity of the children and train their creativity by asking a question to the forest (10/A/2). Remember that in this task it is not the answer but enhancing mindfulness through asking questions that is the most important..</p>	<p>One of the typical inhabitants of the forests is the tinctus. Think with your children what it looks like a year from the life of the Tawny Owl (S10 / B / 3). Triangular cards can be laminated and use in the field.</p>	<p>Being aware of the woodpeckers' role in creation of breeding sites for other birds, write a letter of request to hire a hollow (10/C/3).</p> <p>Together with the children, think about what the role of deadwood is by telling stories matching pictures (10/C/4).</p>
<p>Math tasks</p>	<p>There are many treasures in the forest that can be used to exercise forest maths (10/A/3).</p>	<p>Find and count forest animals using the sheet (10/B/5).</p>	
<p>Games and competitions</p>		<p>bill against a tree. A woodpecker can also be heard while hitting a tree to find food. This sound is very different from the drum and consists of single and loud strikes. Play woodpeckers with the children (10/B/6).</p>	
<p>Additional information for the teacher</p>	<p>„MYSTERY FOREST” - https://books.google.pl/books?id=FD_XNJV_-GC&pg=PA113&lpg=PA113&dq=ptaki+le%20c5%9bne&source=bl&ots=fo4e09ywlm&sig=vthc861n-gpuueo_dpeh1cnaxjw&hl=pl&sa=x&ved=0ahukewjo1rj_xktvahudpfakhydjcq44hhdoaqgrmae#v=onepage&q=&onepage=1&scjs=0</p> <p>„THE SECOND LIFE OF A TREE” - http://awsassets.wwfpl.panda.org/downloads/drugie_zycie_drzewa_wwf.pdf</p>		



OBSERVING THE FOREST

What you need?

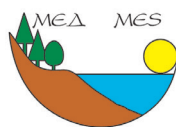
- shoebox, or similar,
- observation card.

Tasks and questions:

1. Carefully observe the forest around you. Are there animals hidden between the plants?
If so, write down your observations in the observation card.
2. Collect treasures of the forest to your shoe box. Warning! Collect only specimens lying on the ground. Do not take away others.
3. Organize collections and observations by creating a mock-up of forest layers.

Take a look at the example below of completing the observation card.

FOREST LAYER?	LOCATION?	WHAT ANIMALS DID YOU OBSERVE?
Forest canopy	Deciduous tree	Squirrel
Ground layer	Mushroom	Snail





OBSERVATION CARD

FOREST LAYER?	LOCATION?	WHAT ANIMALS DID YOU OBSERVE?



ASK A QUESTION OF THE FOREST

What you need?

- a group consisting of a minimum of 5 people
- a forest object that you like very much. It can be a tree, trunk, shrub, holes in the ground, a woodpecker hole, whatever is what interesting to you.
- possibly something to sit on.

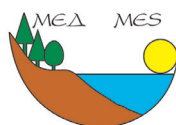
Tasks and questions:

1. Sit around the chosen object and look at it for a moment.
2. Think about the question you can ask him.
 - o Are there any holes in this tree? If so, what does this mean?
How old is this tree? How can you know the age of a tree?
 - o If the tree is many years old, do you remember any history-related event?
 - o Did this hole originate naturally? etc. etc.
3. Speak out loud questions so that others can hear in the circle.

You can ask questions you want. There are no bad questions here.
Anyone can ask any number of questions. Follow what your imagination tells you.
4. You finish the fun when ideas run out.

Consider:

- Was it an easy task?
- What question did you like best and why?
- Do you know the answer to any of the questions?





FOREST MATHEMATICS **FOREST HARVEST**

What you need?

- various forest treasures (leaves, seeds, cones, fruits, sticks, etc.)
- plastic trays

Tasks and questions:

1. Gather your forest treasures together.
2. How can you separate them?
3. What other collections can you come up with?



AXIS OF SYMMETRY AND MIRROR REFLECTION

(px)

What do you need:

- leaves of different species – each species 3 leaves
- card
- scissors
- glue or double sided tape
- crayons

Tasks and questions:

1. Look closely at the leaves. What shape, color do they have?
2. Cut each leaf along the primary vein.
3. Half of the leaf glue to the paper and draw the missing piece as if the leaf looked in the mirror. Remember also about the color.
4. Leaves of what kind of trees did you draw?
5. Which leaf was the easiest to draw, and which one was the most difficult?

FOREST MEASUREMENT

What do you need:

- different types of measures
- an object in a forest for example a tree

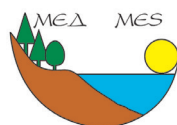
Tasks and questions:

1. Measure the object using a measuring tape.
2. Measure the object using something other than the measuring tape. You can use sticks, your feet, elbows and other things you can think of.
3. What did you use to measure?
4. In how many ways did you measure the object?



MEASUREMENT METHOD	THIN TREE	THICK TREE
MEASURE (CM)		

4. Is the result for a thin tree smaller in every measurement than for a thick tree?
5. What does this mean?





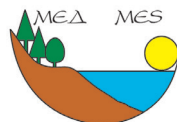
BECOME THE WOODPECKER'S SPOTTER

Go to the forest and seek out the woodpeckers. The card illustrating their traces will help you. Please, mark your observations in the appropriate box.

	 <p>(Lz)</p>	
<p>Feathers of the Great Spotted Woodpecker</p>	<p>A nut pecked by the woodpecker</p>	<p>A pine cone hammered by the woodpecker</p>
		
<p>A spruce cone hammered by the woodpecker</p>	<p>Place hammered by the woodpecker</p>	<p>Traces of feeding in an ant-hill</p>
		 <p>(dk)</p>
<p>The Eurasian Green Woodpecker's faeces</p>	<p>The Great Spotted Woodpecker's hollow</p>	<p>The Black Woodpecker's hollow</p>

Consider:

- What traces did you observe? Compare your observation cards.
- Does the woodpecker live in this area? What does this mean?





A YEAR IN THE LIFE OF A BARN OWL

What you need:

- Cut out cards; A year from the life of a Barn Owl
- Story:

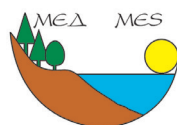
It was the beginning of May 2014. Evening was approaching. I went to a tree, an old maple, on which an owl family lived. The silent voices of offspring suddenly died away when an adult female appeared and made discreet warning cries. Curious chicks began to look at me intensely, characteristically, in a circular manner, they took turns to view me. For a long time, the birds remained silent, and as soon as the female flew away to hunt, they began to call again with short shouts. Time after time the female came back with captured insects and fed the chicks.

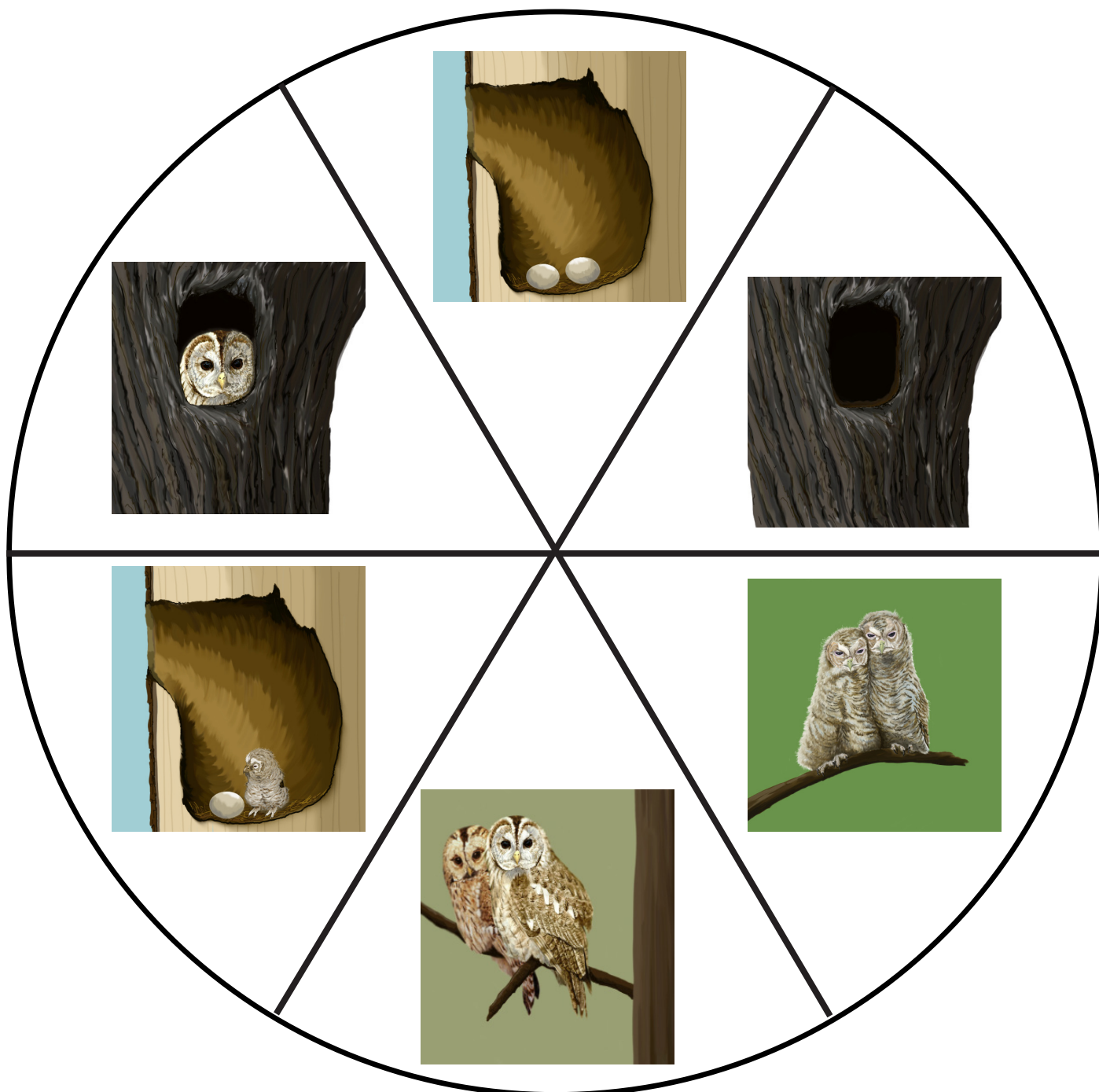
It got darker and night came. The time of night when all nocturnal hunting creatures, such as bats and barn owls are actively looking for food.

A few bats flew out of the old barn. Two of them flew so close to an adult owl that it was no wonder that the bird jumped into a silent flight and flew in the other direction. The second bat, who had seen all this, made loud alarm sounds with tickling or smacking noises. Moments later, loud noises of excited chicks could be heard as the parent owl once again returned with a feast for her young. (Based on http://enstories.blox.pl/tagi_b/408063/puszczyk.html)

Tasks and questions;

1. Talk about what was happening in the owl family in May.
2. Which drawing fits our story?
3. What happened before in the family of the forest trees?
Arrange the events in the life of the owl according to the clockwise direction.
4. Discuss drawings depicting the life of the owl.
5. When are they breeding?
6. When do they build hollows/nests?







MAKE LEAFY FOREST ANIMALS

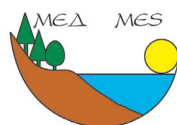
Make your forest animals from leaves

What you need:

- different leaves, fruits, seeds, sticks, twigs
- sheet of paper
- glue
- scissors
- marker
- you might need moving eyes

Assignments and questions:

1. Choose the materials you will make your favourite animals from.
2. You can cut, glue together, glue to the paper your leaves to shape your favourite animal. Follow your imagination.
3. What animal did you make?
4. What natural materials did you use?
5. Did you enjoy this assignment?

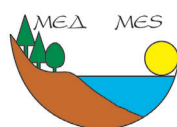




FOREST MATHEMATICS

Tasks and questions;

1. Many species of life live in the forest. Can you find them and name them?
2. How many different birds did you find?
3. How many mammals did you find?
4. How many birds live in a hollow tree?
5. How many birds are in flight, how many are on the ground, and how many are sitting on the bushes?
6. Which animals are facing the left and which are in the right?
7. Arrange the task of animals from the illustration. Take action and count.





WOODPECKER GAME

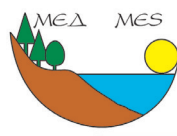
Location: Woods if possible, but also a park.

What you need:

- blindfold,
- one thick stick

Assignments and questions:

1. Choose one person to be the woodpecker.
2. The woodpecker person should find a thick stick, which won't brake during hitting the tree.
3. The rest of the group walks away and puts on the blindfolds.
4. When the children are ready, the woodpecker starts to peck the tree. Children with the blindfolds try to find the woodpecker following the sounds he makes.
5. Decided on a signal that a child reaching the goal will give e.g. holding an arm.
6. Children who have accomplished the game earlier can take their blindfolds off and watch the rest of the group still playing, trying not to disturb the others still taking a part in the game.





EXPLORING A DEAD AND LIVING TREE

What you need?

- magnifying glass
- containers for storage of finds, eg jars, plastic boxes, etc.
- observation card
- pencil

Tasks and questions:

1. Examine the dead tree carefully, answering questions from the table.
2. If you find something interesting, move it carefully to the containers and look through the magnifying glass.
Remember to release living creatures after observation.
3. Save your observations in the table.
4. Do the same for the growing tree.

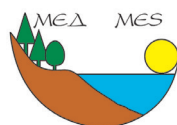
Consider:

- What is the difference between a dead tree and a living tree?
- Can the same organisms be found on both trees?
- Do both spurs smell the same?
- What does it mean that the tree is dead?
- Are dead trees needed in the forest?

Observer name:		
Date:		
Problems to investigate	dead tree	living tree
Is there an odour?		
Is it hard or soft?		
Is there something under the bark?		
What organisms live on the tree?		
Are there any traces of animals feeding on the bark?		
Any questions:		



RESEARCH CARD

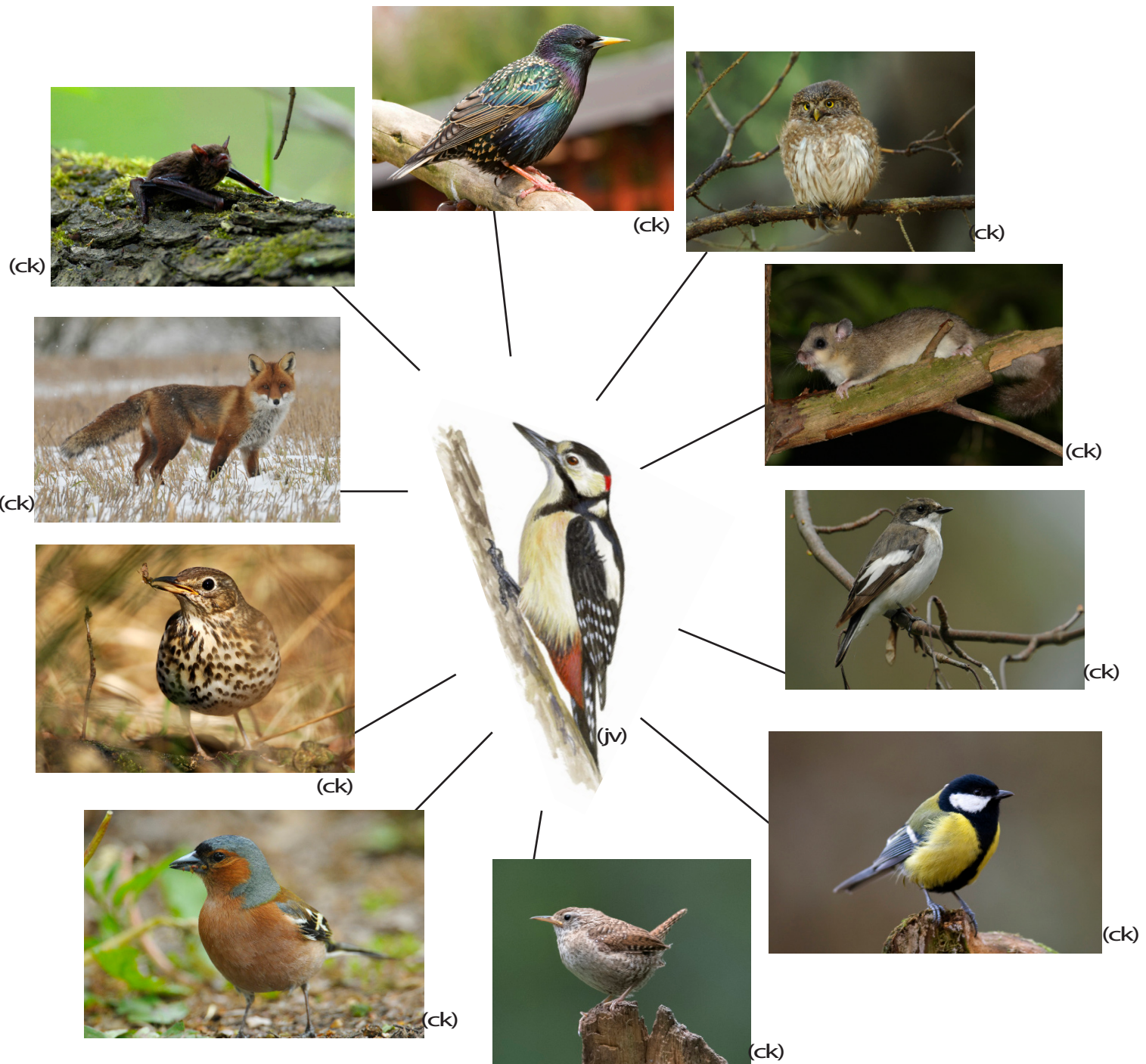




WOODPECKERS AS HOUSE BUILDERS FOR OTHERS

Tasks and questions:

- Which animals use the hollows prepared by the big woodpecker?
- Which animals use the hollows prepared by the black woodpecker?
- Look for information in various sources and select animals that use woodpeckers' hollows.





(ck)



(ck)



(ck)



(ck)



(jv)



(ck)



(ck)



(ck)



(im)



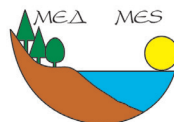
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(ck)

Consider:

- Do the hollows of the big and black woodpeckers live in the same animals?
- What would happen if the woodpeckers stopped building so many hollows?
- What would happen if there were no old large trees in this area?







THE LEASE AGREEMENT OF A HOLLOW

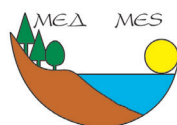
Tasks and questions:

1. The following two woodpeckers placed an ad about renting a hollow. Check out their content.
2. Based on the information in the table, write a letter to the woodpecker with a request of renting the hollow.
3. Choose an animal on whose behalf you will write the letter and to which woodpecker.
4. Be sure to write the date and place and the headline at the top. In the text of the letter justify why you want to rent a hollow. Beneath the text of the letter use a salutation and sign as an animal that wants to rent the hollow.

Ads about renting

OGŁOSZENIA O WYNAJMIE

Who: Black woodpecker	Who: Great spotted woodpecker
 (jv)	 (jv)
Accommodation conditions	Accommodation conditions
Hollows mainly in old pines. Inlet openings at the height of 8 to 20 meters.	Hollows mainly pines, birches, aspens, alders. Inlet openings at the height of 1 to 20 meters
To whom?	To whom?
stock dove, common goldeneye, goosander, boreal owl, tawny owl, pine marten, squirrel, wasps, hornets, wild bees	pygmy owl, starling, common noctule, Daubenton's bat, edible dormouse, hazel dormouse, eliomys, pied flycatcher, great tit, blue tit, wry-neck, wood nuthatch

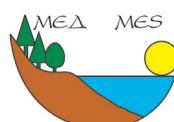
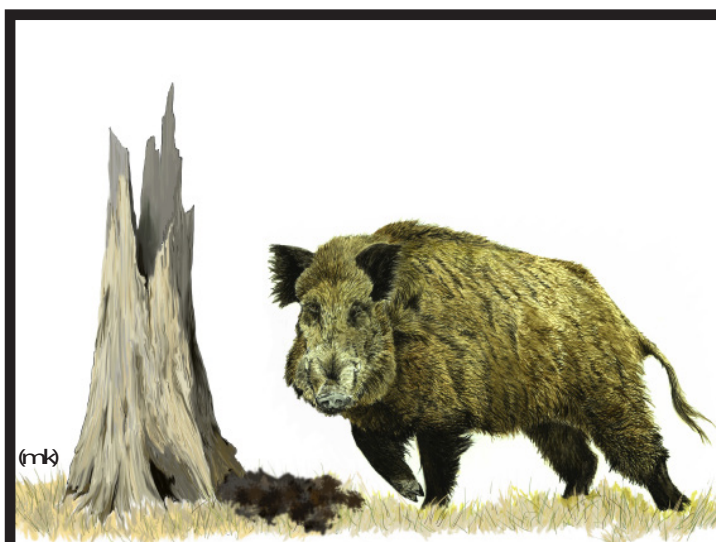


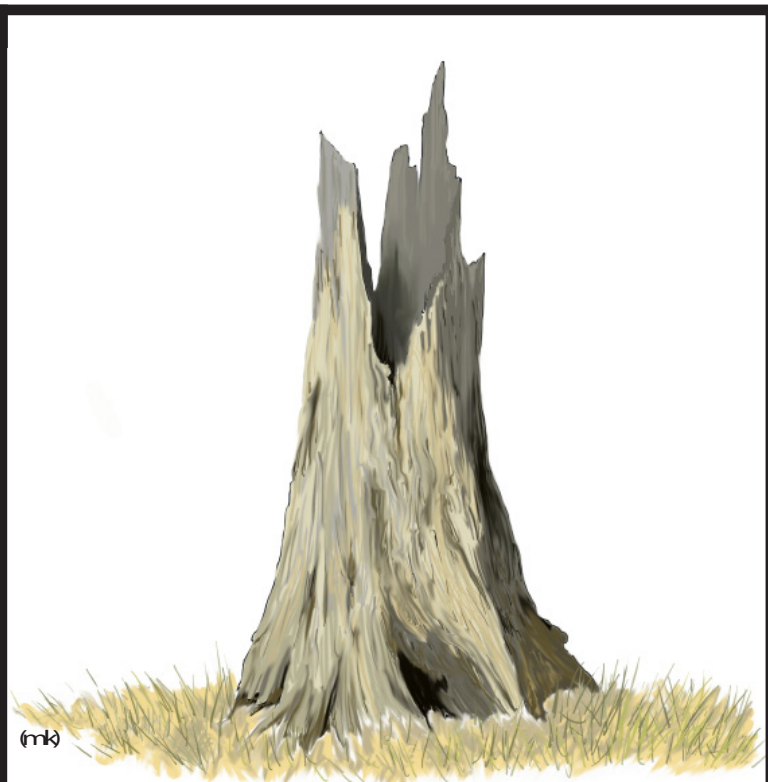
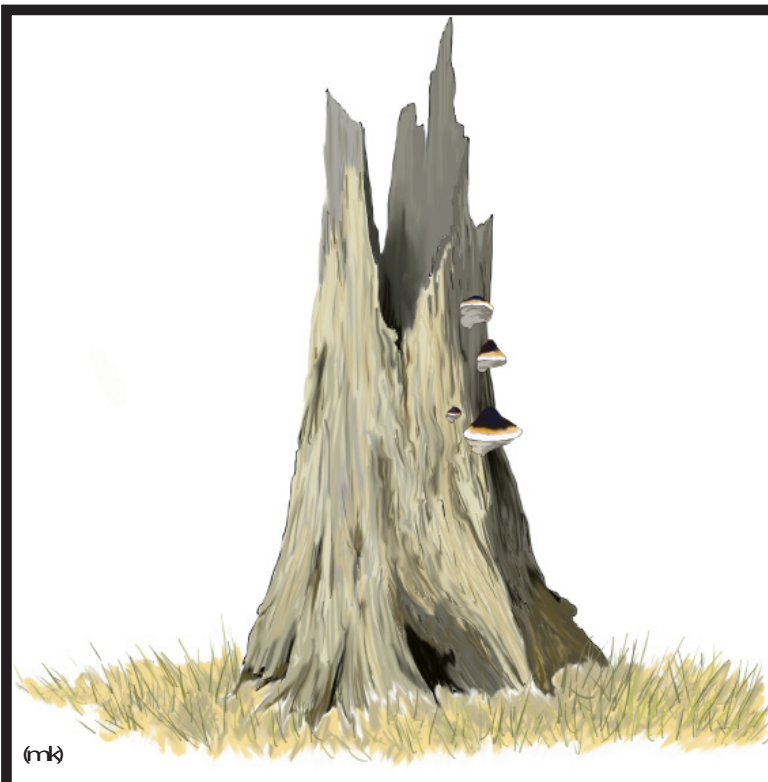


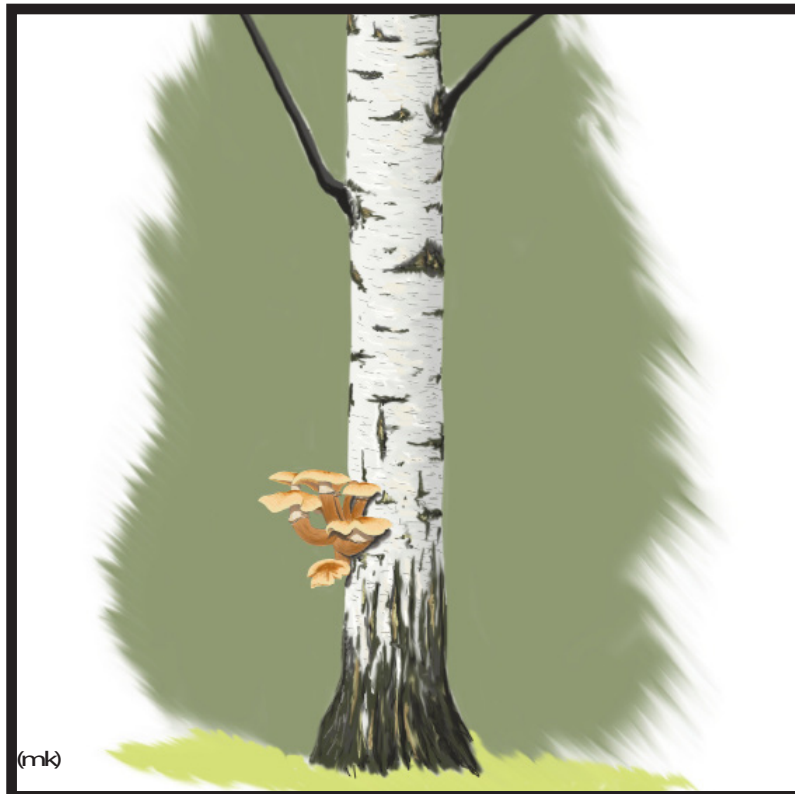
Invent your story

Tasks and questions:

1. Draw a picture.
2. Invent your own story based on the picture. Remember that every story is good because it was invented by you!
3. Present your story to other children.
4. If someone asks you a question, try to answer it.









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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, he was involved in 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.