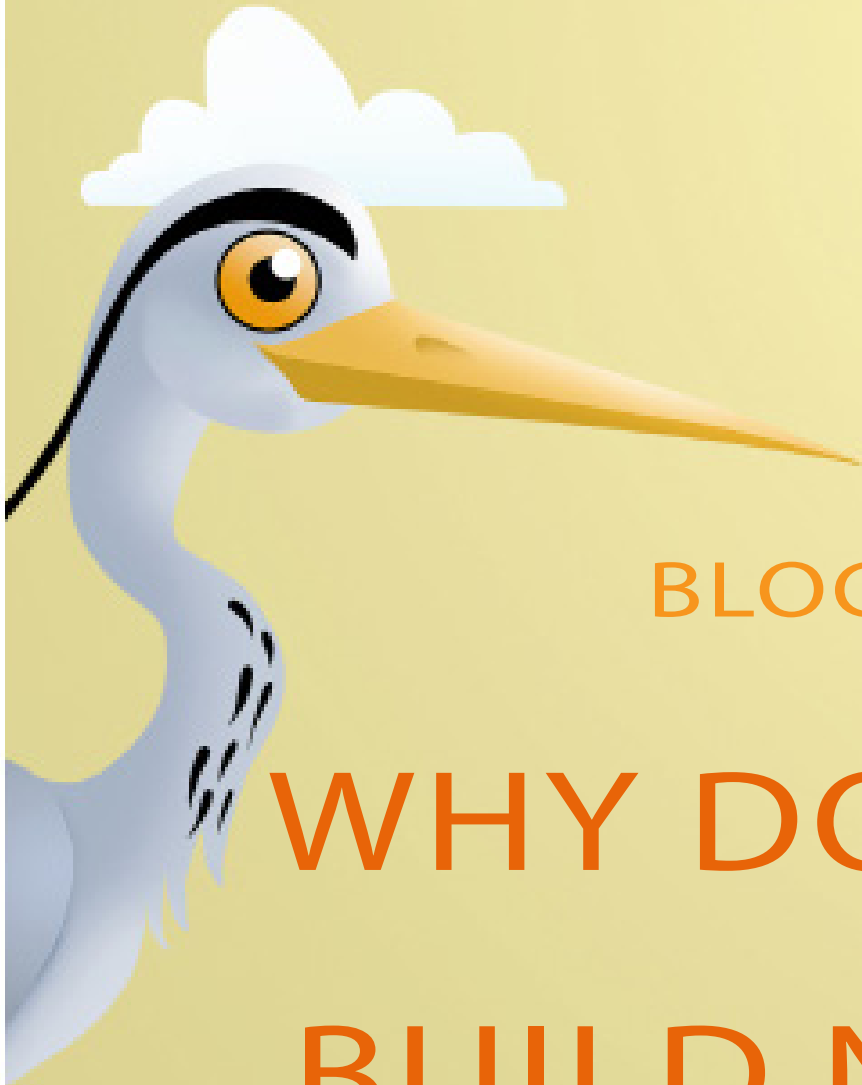


School Work
SHEETS



BLOCK 7:

**WHY DO BIRDS
BUILD NESTS?**





Block 7: WHY DO BIRDS BUILD NESTS?

Context: Decorate the room with pictures / illustrations of various people's homes, eg. a cottage in the village, a black hut, an igloo, a skyscraper, a house under the city, a yurt, a hut, etc. and various bird nests.

Use this material to talk to your children about why birds build different nests.

DETAILED PROBLEMS	WHY DO BIRDS SING? WHY DO BIRDS BUILD NESTS IN SPRING AND NOT IN AUTUMN? HOW DO BIRDS USE A NEST? WHY THERE ARE DIFFERENT NESTBOXES FOR BIRDS?	WHAT IS THE STRUCTURE OF THE BIRD'S EGG? IS THE SHAPE OF THE EGG IMPORTANT?
<p>Field activities</p>	<p>Go for a walk to a park, wood or city gardens and count how many bird calls you can distinguish. Go for a walk again after learning how to identify bird songs.(7/A/1)</p> <p>In your neighbourhood, look for nests (7/A/2) of a Magpie, Rook, Collared Dove or Wood Pigeon. Carry out observations every 2-3 days. [A Magpie builds a nest in the end of March/beginning of April; a Rook - in the second half of March, a Wood Pigeon - in the second half of April and a Collared Dove - in March]</p> <p>Game: Collecting material to build a nest. Children collect various materials in bags. They will be used in a classroom activity.</p>	<p>Prepare Kinder surprise eggs and put math tasks into them. Give children baskets and ask them to find eggs</p>
<p>Observations and experiments</p>	<p>Let's learn bird songs.(7/A/3)</p> <p>Presentation (7/A/4) inspires children to answer the question why birds build nests and why they do that in the spring.</p> <p>Observation (7/A/5) of on-line transmission from a selected nest, e.g. of storks or peregrines. If you miss any important moment you can always get back to the saved images from a given nest.</p> <p>Hanging nest boxes is a form of help to birds in finding a place to build a nest. Memories (7/A/6) from the trip and examples of nestboxes will make it easy to the children to answer why there are different types of nestboxes.</p>	<p>The bird egg is perfectly adapted to protect the embryo chick and ensure its normal development.</p> <p>Bring a suitable number of raw hen's eggs (one for a pair of children). You will also need small bowls or plates and magnifying glasses. In addition, bring an egg without the shell. To get one, put an egg in a jar, pour vinegar over it and soak the egg in a closed jar for two days. Take the egg out of the jar just before the demonstration, rinse it carefully with tap water and put in a bowl.</p> <p>Look at the structure of an egg. (7/B/1) Ask the children questions and let them look for answers on their own by asking additional questions.</p> <p>Optionally, if it is possible, also prepare a Quail's, Goose's and Ostrich's egg.</p> <p>Together, look for an answer to questions in worksheets (7/B/2) and (7/B/3).</p>








School Work Sheets Block 7

Art and graphomotor tasks	Building bird's nests (7/A/7) will stimulate creativity and manual dexterity. It also trains children to cooperate with one another	Bring sheets of paper, crayons and paints. Ask the children to cover the whole area of the sheet with the colours and patterns of their choice. Next, distribute eggs cut out of white paper and ask the children to decorate them so that they are as cryptic as possible when put on the coloured sheet.
Language and writing tasks.	Writing announcements for birds with an offer of nestboxes for rent. (7/A/8)	
Math tasks	Building paper nestboxes using a ready design. (7/A/9)	Solving problems hidden in Kinder surprise eggs. Solving problems (how many, more, less) (7/B/4)
Games and competitions	Game - tossing a cuckoo's egg into nests built by other birds. Cuckoo's running around nests i.e. pairs of children holding hands and trying to toss their eggs into nests, pretending to be Cuckoo's running around nests dropping eggs without being noticed.	



OBSERVATION CARD OF BIRD SONGS


Which bird was heard during the walk? Put X in the appropriate field.

Song heard?			DID YOU ALSO SEE THE BIRD?
Blackbird	 (JV)		
chaffinch	 (JV)		
nuthatch	 (JV)		
great tit	 (JV)		
blue tit	 (JV)		

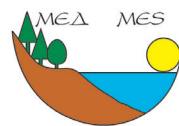


School Work Sheet

Attachment S7/A/1

Song heard:			DID YOU ALSO SEE THE BIRD?
Song thrush	 (JV)		

Compare your score with observations of other children in the class / group.



Publikacja została zrealizowana przy wsparciu finansowym Komisji Europejskiej.
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OBSERVATION CARD - CONSTRUCTION OF THE NEST

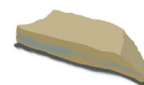
GATUNEK PTAKA

What you need?

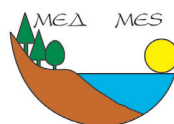
- binoculars,
- observation card,
- Pencil,
- something stiff to be put under a piece of paper.
- enthusiasm for work and curiosity :)

Tasks and questions:

1. Look in the area of the nest during construction. Do not get too close and keep silent!
2. What bird builds a nest?
3. Where does a bird build a nest?



4. Do pairs of birds build nests together?.....
5. What are they building a nest with?.....
.....
6. How do the birds behave?
.....
.....
7. Check in a few days what changes occurred on the construction site of the nest.





CAN YOU RECOGNIZE THE BIRD FROM ITS SINGING?

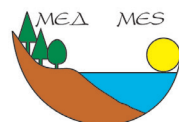
What you need?

- 2 people sitting in the middle of class / hall
- blindfolds
- recordings of birds' songs
- a note sheet, something to write on

Tasks and questions:

1. Two people from the class sit on chairs.
2. Blindfold them.
3. One pupil sings a short song. The task of children who are blindfolded is to guess who is singing and name the person.
Was it possible to recognize colleagues from their voices? Why do you think it is so?
4. Listen to the voices of birds singing in the spring forest - can you recognize them?
5. What should you do to make this possible?
Plan your activities for the following birds:
blackbird, finch, nuthatch, great tit. Now go and observe the birdsong

Write your plan here:





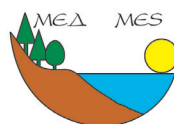
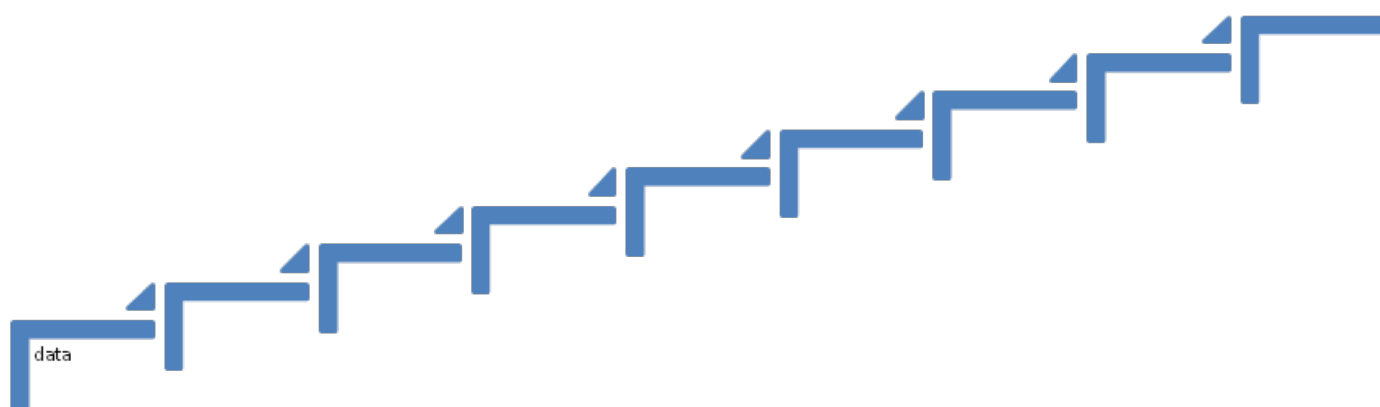
OBSERVATION CARD – NEST ON-LINE

What you need?

A computer, tablet or smartphone with internet access

Tasks and questions:

1. The nest selected for observation is in
This is the nest
2. Give yourself 15 minutes each day to observe the bird's nest online.
3. Observe events from the family life of birds. Put them on the diagram:
 - Arrival of the first parent
 - Arrival of the other parent
 - Laying of the first egg
 - Laying of the last egg
 - Hatching eggs
 - Emergence of the first hatchling
 - Emergence of the last hatchling
 - Feeding the young
 - The first fledling from the nest

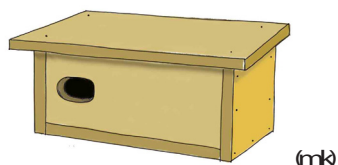




WHY DO DIFFERENT BIRDS BUILD DIFFERENT NESTS?

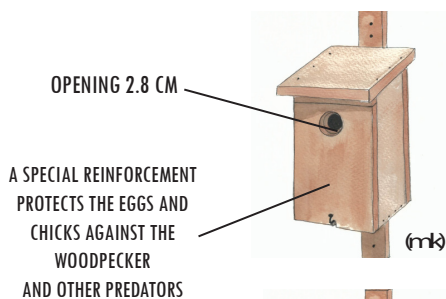
During the summer I came to the Forest Education Center. I saw there a range of bird nest boxes. I was surprised by their diversity. After reading the descriptions near the booths, I already know why building various bird boxes is important. Can you work out the answers to these questions?

A NEST FOR SWIFTS



Swifts are very sociable, they build nests near other swifts, in rock gaps or in the hollows of old tall trees. It is difficult to find such places in the city.

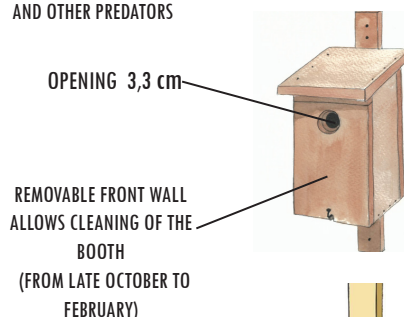
A BOOTH FOR BLUETITS



Blue tits establish nests in deep hollows at 20-30 cm with a small inlet opening.

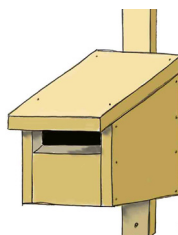
A small hole in the booth limits its access by larger birds.

A NEST FOR THE GREAT TIT



The great tit, like the blue tit, prefer nests in deep hollows at 20 - 150 cm. Because it is bigger than the blue tit, it has a wider hole to the entrance.

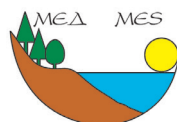
BLACK REDSTART NEST



Black redstart builds nests in the crevices of rocks or hollows of the wall, always sheltered from the top by some sort of covering.

Consider:

- Why are the nest boxes for both tits similar?
- What other birds can choose nest boxes for building a nest?





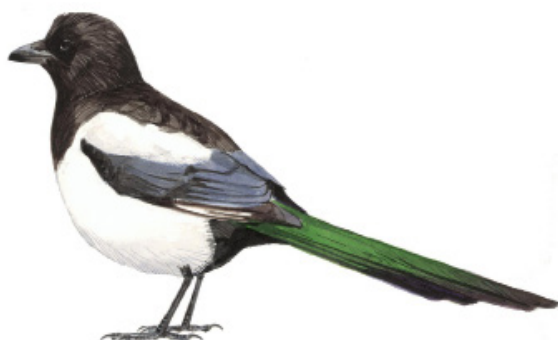
CONSTRUCTION OF THE NEST BOX

What you need?

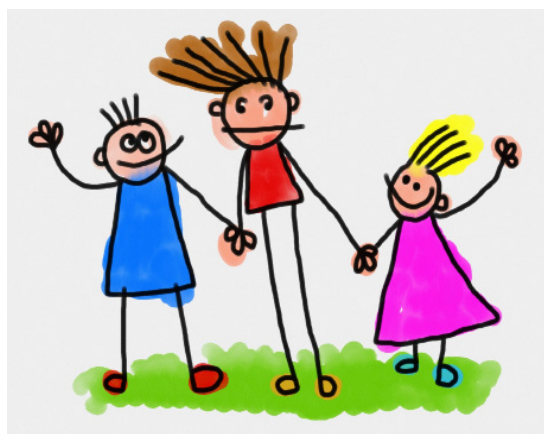
- various materials collected during a field trip
- tweezers (replace the bird's beak)

Think with the children:

- What parts of its body does a bird use to build a nest?
Select those body parts in the diagram.
In the drawing of children, select their equivalents.



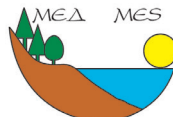
(jv)



(px)

Tasks and questions:

1. Get into a group
2. Determine which bird nest you will build. Check the book / Internet for what it looks like.
3. Choose the materials needed to build the nest - remember that just like a bird, you can not carry more than one thing at a time and that you can only use tweezers in your hand. The tweezers are to replace the bird's beak.
4. Talk with the whole class about your observations about the difficulty that the bird has to ask yourself, to collect material for the nest.
5. Build a nest bearing in mind that you are imitating birds.





ADVERTISEMENT

Prepare the announcement of the birdhouse rental.
Remember that a good advertisement must attract the recipient's attention.
It should also be written from the birds point of view.

ADVERTISEMENT

Data

Rent

(Provide a short but detailed description of the nest box)

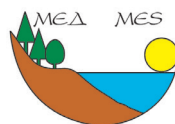
.....

.....

.....

.....

You can attach illustrations.





LETS BUILD BIRD NEST BOXES

THE TABLE LISTS THE DIMENSIONS OF BIRDHOUSES:

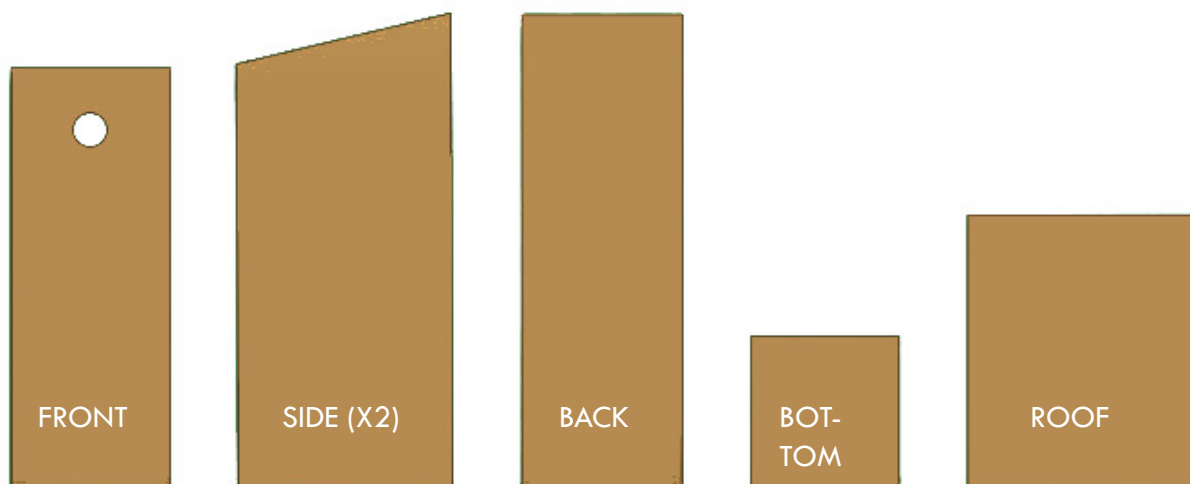
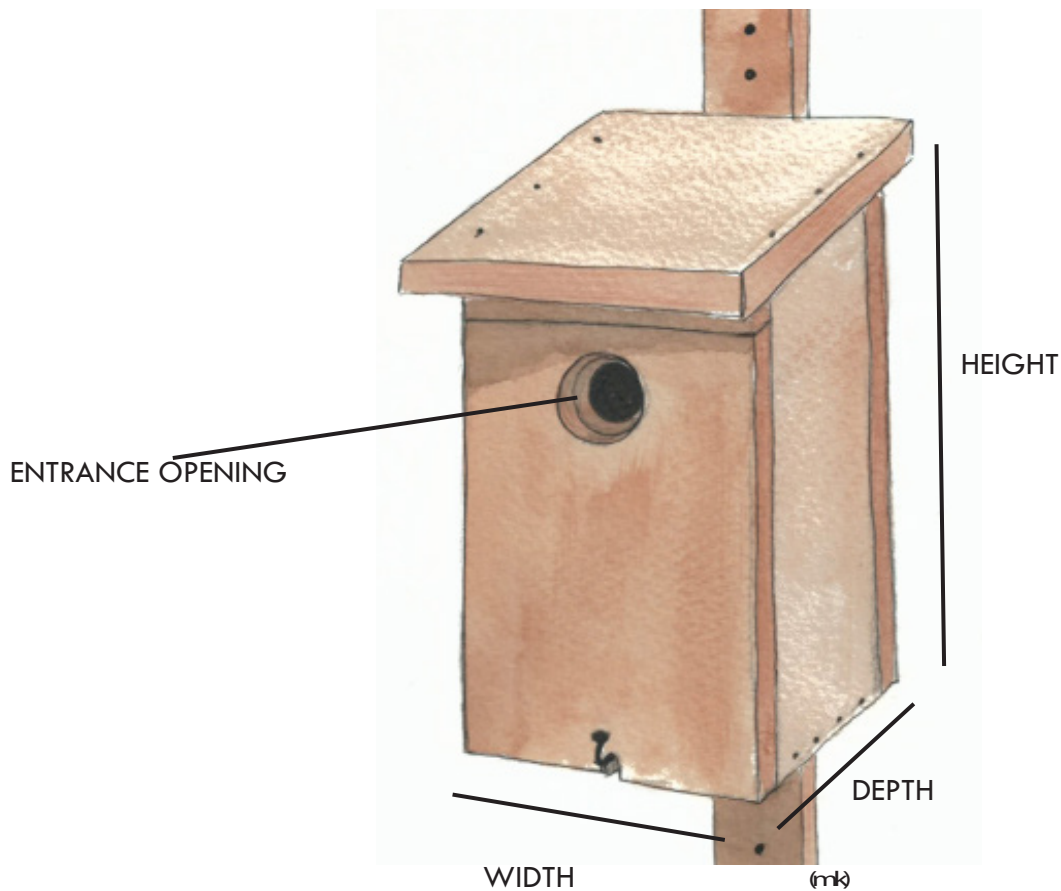
TYPE OF BOX	A	A1	B
HEIGHT	34 CM	34 CM	41 CM
WIDTH	15 CM	15 CM	19 CM
DEPTH	15 CM	15 CM	19 CM
DIAMETER OF INLET HOLE	3,30 CM	2,80 CM	4,70 CM

What you need?

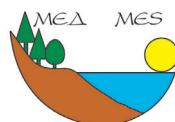
- paper sheets (card stock)
- glue, adhesive tape, two-sided adhesive tape
- scissors
- ruler

Tasks and questions:

1. Select the type of nest box model you want to build.
2. From the papers gathered in the room, choose the ones that will allow you to make the model of the booth.
3. Transfer the paper booth template taking into account the dimensions given in the table.
4. Cut individual elements of the booth.
5. Build a model from the prepared elements.



Dimensions for bird nest box construction.





WHAT IS A BIRD EGG MADE OF?

I. SHAPE OF AN EGG

What do you need?

- Fresh hen egg,
- Ping-pong or golf ball,

Tasks and questions:

1. Watch the egg carefully. Can you define the shape?
2. Put the ball on the desk and roll it. Put the egg on the desk and roll it to your friend. How does the ball behave? What about the egg?

Consider:

What does it mean for the chick growing inside an egg?

II. STRUCTURE OF AN EGG

What do you need?

- Fresh hen egg,
- Egg in vinegar (in the jar) – prepared 2 days before
- A piece of chalk
- A spoon of vinegar
- Plate/bowl,
- A hand lens (magnifying glass)
- A piece of paper,
- Oilcloth to protect your desk,
- Pencil

Tasks and questions:

1. An egg is covered by the shell. What does it look like? Watch the shell, using a hand lens. Highlight below words describing it:

soft, hard, rough, plain, monocoloured, varicoloured

2. Break the egg by hitting the shell into the edge of the bowl. Pour the contents gently into the bowl or plate you will need it in the next experiment.
3. Watch the shell from the inside. What do you see?

.....

4. Watch the shell-free egg, which was soaked in vinegar. What do you see?

.....

5. Pour a few drops of vinegar on the chalk (chalk consists of calcium). What can you observe?

.....

6. Which part of the egg is missing? What is it built of?

.....



Consider:

What is the role of egg shell?

.....
.....

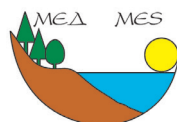
Tasks and questions:

1. Watch the egg content now. What do you see?
2. Draw and sign.

Consider:

- Which parts of the egg have to be protected and what is the reason for that?

.....
.....





IS THE SHAPE OF A BIRDS EGG IMPORTANT?

Your suggestion:

.....

What do you need?

- Modeling clay

Tasks and questions:

1. Look at the pictures below.



LAPWING

(46,5-33,4 mm) (mk)



BLACK REDSTART

(60-44 mm) (mk)

2. Can you see any differences?

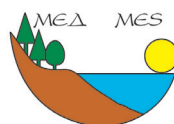
3. Make 2 eggs, one for each type. It would be the best to apply the modeling egg to the picture to get the right shape.

4. Roll the egg on the table. How does it behave?

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

Consider:

- Which egg is better to be laid directly on the ground? Why is that?
- How do birds, laying eggs directly on the ground, protect them against the predators?





WHY DO BIRD EGGS HAVE DIFFERENT COLORS?

Your guess:

.....
.....

What you need?

- cut pictures showing different bird eggs (attachment)
- cards in different colors (grass color, hay color, earth color, hollow tree color, nest box color etc. or what your imagination suggests)

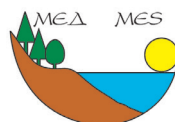
Tasks and questions:

1. Arrange the eggs on different sheets / substrates.
2. Which eggs are the most visible?
3. Which eggs are the least visible?
4. How does the background color affect how you see the egg?

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

Consider:

- Which eggs are laid on the ground (among plants, on the grass, under the bushes)?
- How does the color of eggs protect them from predators?
- Why are some egg hollows often completely white or have a white background?





A SELECTION OF BIRDS EGGS



WHITE STORK
(72,5-52 mm)



SONG THRUSH



REDSTART



WOODPECKER



LARK



BUZZARD



QUAIL

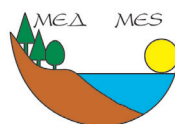


CORNCRAKE









CRANE

(mk)





Example 1.

		
(mk)	(mk)	(mk)
A	B	C
		
(mk)	(mk)	(mk)
D	E	F

Which nest contains the most eggs?

Which nests contains the same number of eggs?

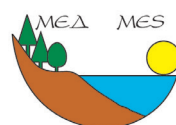
EXERCISE 2.

Do drawings for the following activities:

Lapwings built four nests on the meadow. Because they liked each other very much, they built nests next to each other.

In the second nest 2 eggs were laid, and in the third and fourth nest two times more eggs than in the previous.

Do you know how many eggs you need to draw in the first slot?





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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, 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 the BirdWatch association from 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.