Nynäshamns Naturskola

June 2006

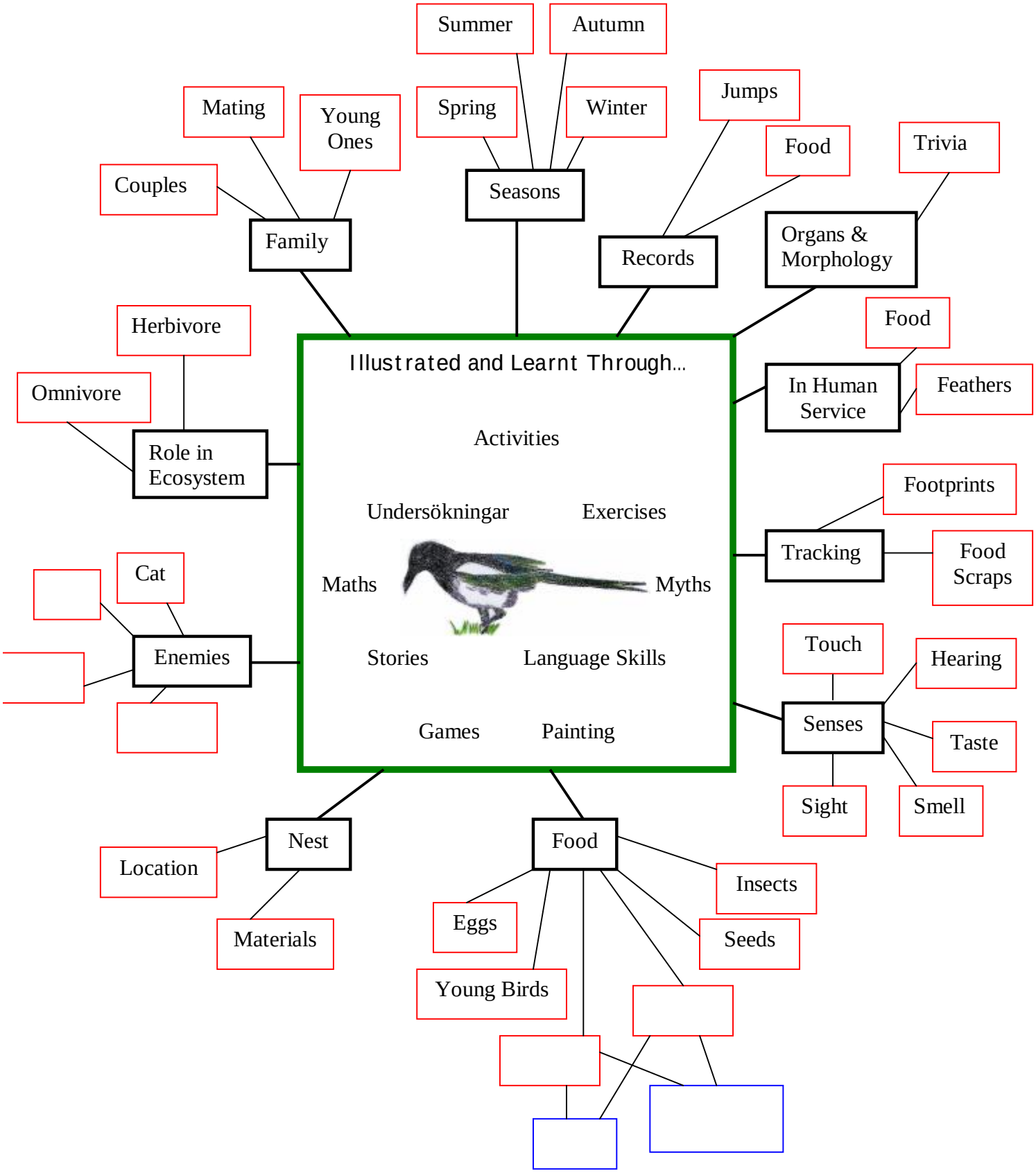
# The Magpie

## A Preschool Theme for Outdoor Learning

**Project part-financed by the European Union**


| Address | Visiting Address | Phone | Fax | Mobile | E-mail |
|---|---|---|---|---|---|
| Nynäshamns kommun<br>Viaskolan, Naturskolan<br>149 81 Nynäshamn<br>Sweden | Sjöudden<br>At the end of<br>Storeksvägen<br>Ösmo | +46(0)8 520 73709 | +46(0)8 520 38590 | Mats +46(0)8 52073709<br>Robert +46(0)8 52073708 | mats.wejdmark@naturskolan.pp.se<br>robert.lattman@naturskolan.pp.se |
| | | **Homepage:** www.nynashamn.se/natursko | | | |

# Mind-Map


Summer
Autumn
Spring
Winter
Seasons
Mating
Young Ones
Couples
Family
Jumps
Food
Trivia
Records
Organs & Morphology
Herbivore
Omnivore
Role in Ecosystem
Food
In Human Service
Feathers
Illustrated and Learnt Through...
Activities
Undersökningar
Exercises
Maths
Myths
Stories
Language Skills
Games
Painting
Footprints
Tracking
Food Scraps
Cat
Enemies
Touch
Hearing
Senses
Taste
Sight
Smell
Nest
Location
Materials
Food
Insects
Eggs
Seeds
Young Birds

## *Preface*

The distinguishing feature of this learning theme is the combination of learning and physical activity in an outdoor environment. Increased mobility improves all types of future learning and gross motor ability is especially important for learning to read.

Anyone who has ever worked with children will agree that they *want* to learn. This raises the question of *how* children learn. Most children intuitively know the answer to this question—they learn through play and games. Teachers must be able to make use of children's inherent desire to play and learn.

By choosing appropriate games, grown-ups can influence what knowledge children acquire. Children are not fully aware of exactly how they learn which provides room for grown-ups to choose games that develop the right types of skills, knowledge, and values.

This instructor's guide, using the magpie as a common theme, presents ideas for games and exercises suitable for outdoor learning. The purpose of all these activities is to combine learning, physical activity, and spending time outdoors. Let working with the magpie theme take its time, don't hurry through the exercises. If you do one or two exercises each time you visit the forest, it will take five or six visits to work through all the activities.

## The National Preschool Curriculum (Lpfö 98)

It is vital that children are provided the opportunity to learn through playing. Thus, games and activities must be in harmony with the directives of the National Preschool Curriculum (Lpfö 98) which describes one of the preschool's tasks as to:

*"Provide the foundation for a life-long learning. Preschool should be fun, safe and educational for all children who participate. The educational principles of the preschool curriculum build on care and education going hand in hand."*

Paragraph 2.1, Norms and Values, states as goals that:

The pre-school should strive to ensure that each child develops:

- *the ability to take account of and empathise with the situation of others as well as a willingness to help others,*
- *respect for all forms of life as well as care for the surrounding environment.*

It has been shown that activities involving animals improve children's general ability to empathise with others. This is hardly surprising since our first skills in empathy are often developed in the relationship child—stuffed animal. The stuffed animal is the first being with which a child can share thoughts and feelings unaltered and with no sense of obligation.

Paragraph 2.2, Development and Learning, states as goals that:

The preschool should try to ensure that children:

- *develop their motor skills, ability to co-ordinate, awareness of their own body, as well as an understanding of the importance of maintaining their own health and well-being.*
- *develop a rich and varied spoken language and the ability to communicate with others and to express their thoughts.*
- *develop their vocabulary and concepts, the ability to play with words, an interest in the written language and an understanding of symbols as well as their communicative functions.*
- *develop an understanding of their own involvement in the processes of nature and in simple scientific phenomena, such as knowledge of plants and animals.*

## *The Magpie*

The magpie's Latin name is *pica pica*. In Sweden, the magpie was originally called *skjora*, but today the magpie is commonly known by the name *skata* because of its long, slanted tail. Skata is an old Nordic word for something that slants. The magpie belongs to the crow family which in turn belongs to the order Passeriformes which encompasses nearly half of all birds including starlings, swallows, warblers, sparrows, and tits.

Unfortunately, the magpie has had a rather bad reputation due to its role in myths and folklore. The magpie was associated with bad luck and believed to be a servant of the devil himself. Many illnesses were blamed on the magpie but it also had healing powers. If you suffered from boils, you could smear some of the puss on a piece of bread and throw it to the magpie. If the bird ate the bread, it would carry away the source of the boil as it took flight.

During the middle ages, it was believed in Germany that eating the meat of a magpie would give you good eyesight. It was also believed that harming any magpies living on the farmstead would bring bad luck. An old saying goes:

*Where the magpie nests, the farmer may rest.*

Furthermore, the magpie's behaviour was believed to foretell the weather and coming events. If the magpie built its nest in the tree tops, the summer would be rainy. If the magpie built its nest close to the ground, the summer would be warm and dry. If there were many magpies chattering loudly on the farmyard, this was a signal that visitors were approaching.

As most birds of the crow family, the magpie is attracted to shiny objects. However, the magpie alone has had to bear the bad reputation associated with such behaviour, reflected in expressions such as "the thieving magpie". Furthermore, there is some debate as to the question if birds of the crow family actually are attracted to shiny objects or not.

Exercise

- Perform an experiment to see if magpies really do like shiny objects. If there are a couple of magpies close to your preschool, put out some aluminium foil on the ground to see if the magpies will try to steal it.

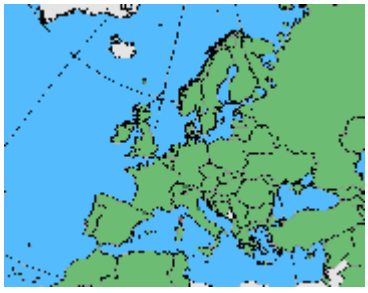
All of these old myths and beliefs have contributed to the word magpie having rather negative connotations in Swedish. This is reflected in idioms such as[1]:

*Ugly as a magpie—an unattractive woman.*
*What a magpie—a mean, nagging old lady.*
*What a magpie's nest—a home that needs cleaning up or a messy hair style.*
*…like magpie—talkative or thieving.*

In China, however, the magpie is considered a bringer of good luck and a symbol for Yin and Yang, the two primal forces, due to its white and black colouring.

Tai-Chi, the symbol of Yin and Yang.

## Distribution



The magpie can be found in most European countries but not on Island. In Sweden the magpie is found from Skåne in the south up to the middle of Norrbotten in the North. It is common to find the magpie close to human settlement. The magpie is a resident bird and stays close to where it was born all its life. The furthest distance a magpie has been known to move is 110 km. Since the magpie is found throughout nearly the whole of Sweden, often close to human settlement, the magpie is one of the birds that children first learn to recognize.

[1] All of these idioms do not have English counterparts. They have been translated for illustrative purposes.

## *Preparation Activities at the Preschool or on the Preschool Yard*

A suggested programme can be found at the end of the instructor's guide!

### Rhymes and Movement

My feathers are both white and black
I fly hither, thither, here and back.
Collect some sticks to build my nest,
in which five eggs are laid to rest.
For 18 days I brood my eggs,
I rest my weary wings and legs.
After 20 days the young ones fly,
what bird am I? I'm a…

White as chalk
Black as ink
Jumps as dancing maid
Neighs like a horse

(from the archives of Nordiska Muséet)

Exercise

- Let the children clap the syllables/rhythm or the pulse while you read these rhymes together. Reading rhymes, songs, and poems enhances the children's sense of rhythm which is a prerequisite for distinguishing syllables. Clapping the syllables/rhythm at the same time as reading the rhyme also helps the separate halves of the brain to work together.

The difference between syllables/rhythm and the pulse of a rhyme is illustrated below.

| | My feathers are both black and white | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Syllables/rhythm | * | * | * | * | * | * | * | * | (all vowels) |
| Pulse | | * | | * | | * | | * | (emphasized vowels only) |

Performing slow body movements are good for the blood circulation. It can also have calming effect on children suffering from stress. The magpie sometimes makes a croaking sound that sounds a lot like Tai-Chi.


Exercise

- Let the children imagine that they are watchful magpies. All movements must be made very, very slowly. This exercise can be seen as a form of Tai-Chi for children. Involve movements that require the children to stand on one leg while letting arms and legs cross the line of symmetry running down the centre of the human body. Doing this stimulates communication between the separate halves of the brain and thereby facilitates future learning.

### Painting

Ideas in the area of natural sciences, perhaps also in other areas, created before the age of five are often difficult to change. One way of altering such preconceived notions is by creating an obvious conflict between the child's mental model and observable reality. In practice, this can be done by letting the child paint or sculpt an object according beliefs held before the intake of new information, for instance before doing the exercises of this theme. After the intake of information is completed, the child once again paints or sculpts the object and the differences between the two images are used as an observable proof that the mental model must be changed. Furthermore, the difference between the images is also a measure of how much the child has learnt.

Exercise

- Let the children paint pictures of magpies. Compare the pictures and discuss similarities and differences. Most children will have drawn a beak, two legs, two wings, and a tail in black and white colours. Save the pictures so that they can be compared with the magpie sculpture made as the final exercise of the theme.

## *Magpie Facts and Outdoor Exercises*

### Keeping Your Balance

The magpie uses its tail to keep its balance in air and on ground. This is very similar to how a tightrope walker uses a pole to keep his balance.

Exercise

- For this exercise you will need a log. Let the children improve their balance by walking along the log. Let the children compare the difficulty of balancing when holding their arms tightly down their sides as opposed to stretching their arms out in the air (equivalent to the magpie's use of its tail). Remember that a wet log and boots makes this exercise extra slippery.
- Add to this exercise by letting the children find long sticks which can be used as balancing poles while walking along the log.
- Another way of illustrating the function of the magpie's tail feathers is to let the children balance a long stick on their finger. The longer the stick, the easier it is to keep balanced.

Keep the sticks for magpie's nest exercises on page 8.

### Jumping

When on ground, the magpie often moves by jumping. The tail feathers are used as a balancing aid here also.

Exercise

- Redo the exercises above but let the children jump back to the beginning of the log.

### Food

The magpie is an omnivore which means that it can eat both vegetation and animal protein. Magpies eat insects, worms, snails, grain, berries, eggs, and young or small birds. Magpies have even been found to wait patiently close to other birds' nests in order to prey on fledglings. Small birds, field-mice, and young hares also run the risk of become a magpie's meal. Since the magpie is an omnivore, it can adapt to whatever food is available—even rubbish or spilling of different kinds. Areas with many dogs often have large magpie populations since the magpies can live off dog spilling during the winter.

During the autumn, magpies eat a lot of grain and seeds but they also live off household rubbish. When there is a rich supply of food, the magpies, like other birds of the crow family, like to hide food for later consumption. Magpies often pile up their stock on ground level; close to tree trunks, in a tuft of grass, among leaves, close to walls, etc. During the winter, magpies hide food under the snow.

**The Magpie Game**

Game

This game is played on a small open area or a field. Divide the class into two groups that start on opposite sides of the field. One group of pupils will play magpies and the other group will play environmental factors such as food, nesting places/warmth, and water. Each environmental factor has a specific signal: to signal food you place both hands on your stomach, to signal nesting place/warmth you make a roof over your head using both arms, to signal water you put your thumb in your mouth. A magpie with the need for a specific environmental factor will use the same signal to communicate this.

At the beginning of each round, magpies and environmental factors stand on opposite sides of the playing field facing outward so that they cannot see each other. Each pupil playing an environmental factor chooses to be food, a nesting place/warmth, or water and signals appropriately. Likewise, each magpie chooses a specific need and signals appropriately.



On a given signal, all pupils turn around and the magpies fly to an environmental factor matching their need, i.e. someone showing the same signal. Those magpies that have their needs satisfied bring the pupil playing "their" environmental factor over to the magpie side for the next round. Those magpies that do not have their needs satisfied play environmental factors in the next round. Redundant environmental factors stay environmental factors during the next round.

Once the pupils have gotten the hang of this, the game can be made more complicated by adding a cat that can catch magpies as they try to satisfy their needs.

## Sound

Like other birds of the crow family, the magpie sings in a low-pitched chirping manner. Intermixed with this, the magpie sometimes makes whining noises and of course has its characteristic load, harsh chatter.

Magpies communicate using sounds like "cha-ka" or "chi-ah-cha". These sounds are very similar to that made when you shake a box of matches.

Exercise

- Let the children close their eyes. Pick up a box of matches and shake it at regular intervals. Let the children guess what birds makes a similar noise.
- Listen for other bird sounds and try to identify as many different sounds as possible. Do you know which birds you are listening to?

## Nesting

During late winter or early spring, large groups of magpies sometimes meet to participate in mating rituals. The courtship display consists of jumping into the air with tail feathers fanned out and making croaking noises.

However, as early as in mid-winter the magpies begin preparing their nests. They collect twigs from the ground, break twigs from trees, and even steal twigs from other magpie nests. Magpies often continue building on last year's nest, but the cup in which the eggs are laid is rebuilt each year. The cup is held together by clay and lined with finer material to provide a soft texture. Usually, the male magpie will collect materials and the female magpie will do the actual building. The nest is often situated close to ground level, e.g. in bushes. However, it does happen that magpies build their nests high up in trees.

In April or May, the magpie lays 5-8 eggs. The eggs have light blue colour with grey and brown speckles. The female broods on the eggs for about 18 days. The young magpies leave the nest, often before they are fully fledged, after 20 days.

Magpies nest for the first time at the age of one year. They live in couples and the magpie stays with the same partner during its whole life. New offspring is produced every year.

The following exercises are to be done in groups of two.

Exercise

- Let each child fetch a stick. Now let the children line up in order of the length of the sticks. Children standing beside each other are paired together to create a magpie couple. Each couple tries to assess how many sticks they think they can fetch in a minute. They tell the teacher their guess and get a minute to fetch as many sticks as possible. Did they fetch more or fewer sticks than they expected?
- Let each magpie couple use the sticks they have collected to build a magpie's nest. This is done by placing the sticks in a circle large enough to fit both children inside. Five of the sticks are saved and placed in the middle of the nest. Each magpie couple must now fly to the other couples' nests to steal sticks. Only one stick may be carried at once. When the game is finished, let each couple count their sticks to see if they have more or fewer than when they started.
- Place sticks in a large circle on the ground. This circle represents a magpie's nest. Make two openings in the nest and let 5-8 children curl up inside the nest pretending to be magpie eggs. Count to 18 together, at which point the eggs hatch (the children stand up and slowly spread their "wings"). Now count to 20 while the young magpies run around in the nest. The magpies are now fully fledged and fly out through the two openings.
- Re-use the sticks from the balancing exercise. Put the sticks in a pile, representing a magpie's nest, and play pick-up sticks. The object of the game is to pick up one stick at the time without moving or touching the others. A player may continue until he moves a stick he is not currently picking up. The winner is the player who has the most sticks when the game is over. The game can also be played in pairs to practice collaboration.

## Appearance

The Magpie is 45-50 cm in length, of which the tail makes up 23-25 cm (half the total length). The magpie has a black and white plumage and a metallic green shade on the tail. The black feathers are glossy and often have a metallic shine in several different colours. Males and females are identical. The common conception of what the magpie looks like is the strong contrast between black and white.

Exercise

- Let each magpie couple search for objects that are similar to a bird. This could be a rock, a twig, or a root. Similarity and equality are some of the basic building blocks of maths.
- Let one magpie close his or her eyes while the other "flies" off to fetch an object from the forest. The magpie that has his or her eyes closed gets to touch the object and must try to figure out what it is. After this, the magpie "flies" off and to find an identical object. Invite neighbouring magpies and play memory with all the objects collected!
- Let the children try to find outdoor opposites. Collect all objects representing opposites in an empty egg carton. An example of an opposite might be a white piece of chalk and a black stone.

Opposites for the children to collect:

*Small—Large*
*Dark—Light*
*Blunt—Sharp*
*Hard—Soft*
*Wet—Dry*
*New—Old*
*Smooth—Rough*
*Long—Short*
*Thin—Thick*
*Living—Dead*

## Enemies

During winter, you sometimes find magpies gathering in the same thicket or bush, night after night. Come twilight, the birds fly in from all different directions. This habit, to gather in large groups during the night, is common among birds in the crow family and is a way of enhancing the groups defence against enemies.

The predator that has the most magpie lives on its conscience is probably the domestic cat. When a cat passes by, the magpies sound the alarm with a characteristic “tche-tche-tche-tche-tche…”

**The Cat**

The cat is a predator with large jaws. The long canine teeth help in holding on to the prey once it is caught. The sharp premolars can cut or rip flesh or skin and the sharp spines, or papillae, on the cat’s tongue help in licking the last meat and blood from the bones of a killed animal.

**Cat Tag**

Game

Choose an area in which there are trees. One child plays a cat and must try to tag the others. The other children play magpies who must avoid being tagged. Magpies standing around a tree holding hands cannot be tagged. When the cat is not close by, the magpies fly out to tease the cat. Anyone who gets tagged plays a cat from then on.

# *Follow-up Activities at the Preschool*

## Magpie sculptures

Exercise

- The final exercise of this theme is to sculpt a magpie using steel wire and papier-mâché. This final image of the magpie can be compared with drawing the child made before working through this theme. This way, the development of the child’s perception of the magpie is made clear.

**Materials needed:**


- 1 metre of steel wire (can be bought at lumber yards, hardware stores, and gas stations).
- Papier-mâché (can be prepared before the exercise by mixing strips of paper with wallpaper adhesive. Craft small balls and let them dry. When you need papier-mâché, simply bring out some balls and put them in water).
- Colours for painting the model and tinsel for decoration.

Help the children in shaping the foot of the magpie at one end of the steel wire. After this, the children can start shaping the contour of the magpie.


This contour will be filled with papier-mâché. Make the sculpture approximately one centimetre thick, add some extra papier-mâché to the wings to make them bulkier. Paint the magpie using black and white colours and use blue and green tinsel on wings and tail.

## Crow Family Memory

Game

Print the birds of the crow family on the following page and cover with adhesive plastic to make the playing cards last longer. Which birds do the children recognize?

**Jackdaw**

**Raven**

**Crow**

**Spotted nutcracker**

**Eurasian Jay**

**Magpie**

## Additional Games

### Magpie School


Old magpie wants to teach all the young magpies to count. She names an object and a number, for instance 3 pine cones, 5 stones, a short stick, a stick that is longer. All the young magpies must "fly" out in the forest to find the correct number of the requested object.

### Pica Pica

Old magpie stands with her back turned to the young magpies that start about 15 m away. The young magpies try to come as close as possible to old magpie. However, when old magpie shouts "pica pica" and turns around, all young magpies must stand completely still. Anyone who moves has to go back to the 15 m starting point and begin all over again.

### Birds Fly High

Gather in a ring. Old magpie shouts that some bird flies high, e.g. "the magpie flies high" or "the crow flies high". Each time a real bird name is used, the young magpies must jump as high as they can in the air. When old magpie uses an incorrect bird name, e.g. "the trout-gull", "the canary islands", or "the sitting duck", the children are not to jump. This is a good game for practicing bird names and it also gets you warm on cold days.

## References

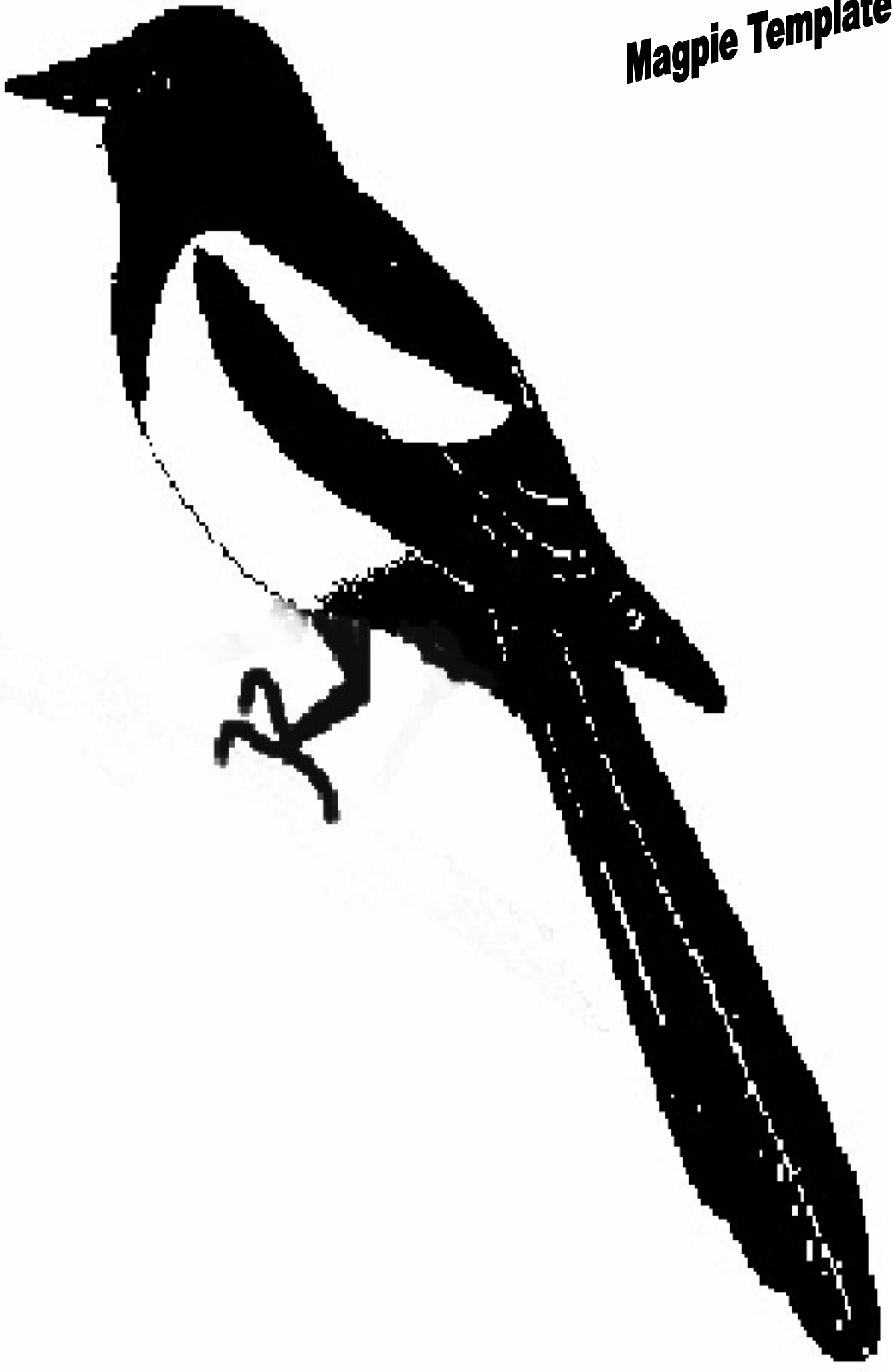
Molander, Kajsa; Hedberg, Per; Bucht, Mia; Wejdmark, Mats & Lättman-Masch, Robert (2005): *Outdoor Maths*, the Association of Nature Schools in Sweden.

Doverborg, Elisabeth & Emanuelsson, Göran (2006): *Maths for Small Children*, Göteborg University.

Doverborg, Elisabeth & Emanuelsson, Göran (2006): *Maths for Pre-schools*, Göteborg University.

Doverborg, Elisabeth & Pramling Samuelsson Ingrid (1999): *Pre-school Children in the World of Maths*, Liber.

# Magpie Template



## *Suggested Programme*

### Day 1

09.00 Assembly in the forest

- Let the children close their eyes. Pick up a box of matches and shake it at regular intervals. Let the children guess what birds makes a similar noise.

09.10 Rhymes and rhythm

- Let the children clap the syllables/rhythm or the pulse while you read the rhymes on page 5 together.
- Let the children imagine that they are watchful magpies. All movements must be made very, very slowly. This exercise can be seen as a form of Tai-Chi for children. Involve movements that require the children to stand on one leg while letting arms and legs cross the line of symmetry running down the centre of the human body.

09.30 Morning snack

10.00 Forest walk with a story and exercises

*Once upon a time there was a little magpie called Pica. He used to fly between the great oaks that surrounded an old house. Pica thought himself quite an able flyer, but sometimes he wobbled a bit in mid-air. When this happened, Pica would spread his tail feathers to regain his balance.*

- For this exercise you will need a log. Let the children compare the difficulty of balancing on the log when holding their arms tightly down their sides as opposed to stretching their arms out in the air (equivalent to the magpie's use of its tail). Remember that a wet log and boots makes this exercise extra slippery.
- Let the children jump back to the beginning of the log.

*One day, Pica was feeling a little lonely. However, he quickly found a magpie wife and they began building a nest so that they would have somewhere to lay their eggs.*

- Let each child fetch a stick. Now let the children line up in order of the length of the sticks. Children standing beside each other are paired together to create a magpie couple. Each couple tries to assess how many sticks they think they can fetch in a minute. They tell the teacher their guess and get a minute to fetch as many sticks as possible. Did they fetch more or fewer sticks than they expected?
- Let each magpie couple use the sticks they have collected to build a magpie's nest. This is done by placing the sticks in a circle large enough to fit both children inside. Five of the sticks are saved and placed in the middle of the nest. Each magpie couple must now fly to the other couples' nests to steal sticks. Only one stick may be carried at once. When the game is finished, let each couple count their sticks to see if they have more or fewer than when they started.

*Once Pica and his wife had finished building the nest and the eggs were laid, they began to wonder what a young magpie might look like. Perhaps they should fly into the forest and look for objects that resemble a magpie.*

- Let each magpie couple search for objects that are similar to a bird. This could be a rock, a twig, or a root. Similarity and equality are some of the basic building blocks of maths.

*While Pica and his wife were flying around in the forest, they suddenly saw a cat. The cat looked up at Pica with a hungry look in his eyes. Pica and his wife decide to tease the cat but they had to be careful so that the cat would not catch them.*

- Finish off the day with **cat tag**. Choose an area in which there are trees. One child plays a cat and must try to tag the others. The other children play magpies who must avoid being tagged. Magpies standing around a tree holding hands cannot be tagged. When the cat is not close by, the magpies fly out to tease the cat. Anyone who gets tagged plays a cat from then on.

11.00 Return to the preschool for lunch

The programme for the following days is not as intense as day 1. This provides time for repeating exercises or spontaneous play. Remember that all children learn at different rates.

## Day 2

09.00 Assembly in the forest

09.10 Repetition of rhymes and rhythm exercises

09.30 Morning snack

10.00 Discuss the exercises you did on day 1

*Would Pica be better at keeping his balance if he had longer tail feathers?*

- Add to the balancing exercise by letting the children find long sticks which can be used as balancing poles while walking along the log.
- Another way of illustrating the function of the magpie's tail feathers is to let the children balance a long stick on their finger. The longer the stick, the easier it is to keep balanced.

*Keep the sticks for future exercises!*

11.00 Return to the preschool for lunch

## Day 3

09.00 Assembly in the forest

09.10 Repetition of rhymes and rhythm exercises

09.30 Morning snack

10.00 Discuss the exercises you did on day 1

*How many days do you think Pica and his wife had to wait for the eggs to hatch?*
*How many young magpies do you think hatched?*

- Place sticks in a large circle on the ground. This circle represents a magpie's nest. Make two openings in the nest and let 5-8 children curl up inside the nest pretending to be magpie eggs. Count to 18 together, at which point the eggs hatch (the children stand up and slowly spread their "wings"). Now count to 20 while the young magpies run around in the nest. The magpies are now fully fledged and fly out through the two openings.
- Finish off the day with the **Magpie School** game. Old magpie wants to teach all the young magpies to count. She names an object and a number, for instance 3 pine cones, 5 stones, a short stick, a stick that is longer. All the young magpies must "fly" out in the forest to find the correct number of the requested object.

11.00 Return to the preschool for lunch

## Day 4

09.00 Assembly in the forest

09.10 Repetition of rhymes and rhythm exercises

09.30 Morning snack

10.00 Discuss the exercises you did on day 1

*Pica is not the only bird in the forest. What other birds can you hear?*

- Listen for other bird sounds and try to identify as many different sounds as possible. Do you know which birds you are listening to?
- Finish off the day with the **Birds Fly High** game. Gather in a ring. Old magpie shouts that some bird flies high, e.g. "the magpie flies high" or "the crow flies high". Each time a real bird name is used, the young magpies must jump as high as they can in the air. When old magpie uses an incorrect bird name, e.g. "the trout-gull", "the canary islands", or "the sitting duck", the children are not to jump. This is a good game for practicing bird names and it also gets you warm on cold days.

11.00 Return to the preschool for lunch

## Day 5

09.00 Assembly in the forest

09.10 Repetition of rhymes and rhythm exercises

09.30 Morning snack

10.00 Discuss the exercises you did on day 1

*For Pica, it is very important to be able to recognize approaching danger, for instance a cat. Pica is very good at spotting cats and warns all other magpies when he sees one. But what if you cannot see? Could you identify forest objects only by touching them?*

- Let one magpie close his or her eyes while the other "flies" off to fetch an object from the forest. The magpie with his or her eyes closed gets to touch the object and must try to figure out what it is. After this, the magpie "flies" off and to find an identical object. Invite neighbouring magpies and play memory with all the objects collected!
- Finish of the day with **the Magpie** game. This game is played on a small open area or a field. Divide the class into two groups that start on opposite sides of the field. One group of pupils will play magpies and the other group will play environmental factors such as food, nesting places/warmth, and water. Each environmental factor has a specific signal: to signal food you place both hands on your stomach, to signal nesting place/warmth you make a roof over your head using both arms, to signal water you put your thumb in your mouth. A magpie with the need for a specific environmental factor will use the same signal to communicate this.

  At the beginning of each round, magpies and environmental factors stand on opposite sides of the playing field facing outward so that they cannot see each other. Each pupil playing an environmental factor chooses to be food, a nesting place/warmth, or water and signals appropriately. Likewise, each magpie chooses a specific need and signals appropriately.

  On a given signal, all pupils turn around and the magpies fly to an environmental factor matching their need, i.e. someone showing the same signal. Those magpies that have their needs satisfied bring the pupil playing "their" environmental factor over to the magpie side for the next round. Those magpies that do not have their needs satisfied

play environmental factors in the next round. Redundant environmental factors stay environmental factors during the next round.

Once the pupils have gotten the hang of this, the game can be made more complicated by adding a cat that can catch magpies as they try to satisfy their needs.

11.00 Return to the preschool for lunch

## Day 6

09.00 Assembly in the forest

09.10 Repetition of rhymes and rhythm exercises

09.30 Morning snack

10.00 Discuss the exercises you did on day 1

*We have learnt that Pica's feathers have more colours than black and white. But black and white are opposites. What other opposites can we find in the forest?*

- Let the children try to find outdoor opposites. Collect all objects representing opposites in an empty egg carton. An example of an opposite might be a white piece of chalk and a black stone.

  Opposites for the children to collect:

| | |
|---|---|
| *Small—Large* | *New—Old* |
| *Dark—Light* | *Smooth—Rough* |
| *Blunt—Sharp* | *Long—Short* |
| *Hard—Soft* | *Thin—Thick* |
| *Wet—Dry* | *Living—Dead* |

- Finish the day off with the **Pica Pica** game: Old magpie stands with her back turned to the young magpies that start about 15 m away. The young magpies try to come as close as possible to old magpie. However, when old magpie shouts "pica pica" and turns around, all young magpies must stand completely still. Anyone who moves has to go back to the 15 m starting point and begin all over again.

Good luck and remember to have fun in the forest!