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ERASMUS+ PROJECT: "Development of selected key competences of pupils in lessons and extracurricular activities at school" No. 2024-1-PL01-KA220-SCH-000247484/2

Lesson plan

Subject: Biology

Year: 5.A

Time allocation: 45 minutes

Teacher: Mgr. Miroslava Tomíková

School name: Smolenice Primary School and Nursery School

Lesson topic: Forest trees and the importance of forests (revision)

Subject: Biology,

Lesson objectives: Year: 5, Lesson topic: Forest trees and the importance of forests (revision)

- The pupil will distinguish between the main types of forest trees (coniferous and deciduous) and will be able to distinguish between their fruits (pine cones, beechnuts, acorns).
- They will learn about the structure of a tree (roots, trunk, crown) and explain the function of each part.
- They will understand the importance of forests for humans, animals and nature (ecological, economic, recreational).
- The student observes and compares the characteristics of different tree species (shape of leaves, needles, fruits, bark).
- They can identify selected trees based on their characteristic features.
- They express in their own words how forests affect the climate and air quality.
- They work with pictures, atlases or natural objects and create a simple classification of trees.
- The pupil is aware of the need to protect the forest and behave responsibly in nature.

- Develops respect for nature and understands the importance of sustainable forest management.

Content standard:

- knows the basic parts of a tree (roots, trunk, branches, crown) and their function
- distinguishes between **coniferous and deciduous trees**, knows some of their representatives (e.g. spruce, pine, oak, beech, birch),
- knows that a forest is **a plant community** – trees, herbs, mosses, fungi, animals,
- understands **the importance of forests** for nature and humans (ecological – oxygen, climate, water; economic – wood; recreational and aesthetic),
- knows that forests must **be protected and used in a sustainable manner**,
- is aware of the negative impacts of humans on forests (e.g. logging, fires, pollution, invasive species).

Performance standard:

- **identify selected types of forest trees** according to their typical characteristics (leaves, needles, bark, fruit),
- **compare** deciduous and coniferous trees according to their appearance and characteristics,
- **justify** the importance of forests for humans and the environment,
- **give examples of proper behaviour in the forest** and ways to protect the forest,
- **works with natural materials, pictures or an atlas of trees** to identify tree species

Teaching methods:

- Concept map with guided discussion
- Instruction
- Short video with quiz
- Observation of trees, leaves and fruits and work with worksheets in groups

- Activating methods – pupils work in teams, divided into 4 groups of 5 pupils. Each group has its own number. The results are written on the board.

Teaching aids:

- ICT – playing a short video
- Worksheets
- Writing materials
- Samples of trees, their leaves and fruits
- Tree atlas
- Tablet

Instructions for working with pupils with specific educational needs and differentiated tasks:

Checking the level of understanding of instructions, individual approach to the student, clear and concise instructions for the student, placing the student in a group with classmates who will help and support him/her in the group, ongoing monitoring of the student, help and guidance.

Lesson plan:

Introduction (5 minutes): The pupil is introduced to the topic and objective of the lesson. This is a block lesson. Pupils will work in teams.

Specific points:

1. Welcome and organisational activities – attendance, the teacher checks whether the pupils have their learning aids.
2. Introduction to the topic – the teacher explains the topic of the lesson to the pupils and discusses the objectives of the lesson in the context of everyday life (5 min).
3. Concept map with a short discussion (5 min.) I ask the pupils several questions on the topic, e.g. How do we classify plants according to the type of stem? Name representatives of each group. The pupils answer my questions.
4. Screening of a short video entitled: Forest Trees (5 min.)
5. Short quiz for groups (5 min.)

6. Practical part of the lesson (15 min.). Each group will have a sample with a worksheet. Pupils in each group will work together, exchange opinions and attitudes, work as a team and answer questions from the worksheet.

7. Evaluation (10 min.)

Instructions for the teacher:

- I make sure that the technology is working properly and that the image and sound for the short video are working.

- Pay attention to the pupils, encourage the less active pupils, reward correct answers with praise to motivate the pupils to continue trying.

Instructions for pupils:

- Watch the video carefully and concentrate on the information.

-log in and share your opinions, attitudes and knowledge with your classmates during the discussion.

-During teamwork, students collaborate with individual classmates and discuss their opinions and attitudes.

Exposure:

1. 5-minute knowledge quiz (students are divided into groups)

Students receive worksheets and work together. The worksheet contains 10 questions, which they must answer after mutual discussion and cooperation.

After the time is up, we will evaluate the quiz and announce the most successful team.

2. Tree card index (15 min.)

The class will be divided into 4 **groups**.

Each group will receive samples of trees (coniferous and deciduous), their leaves/needles, fruits (the fruits must also be correctly named).

Task: correctly name and the name of the tree and its fruits.

When finished, the groups check each other's work and the teacher adds/repeats the facts.

Fixation:

Improving teamwork skills. Developing students' communication skills, as well as critical thinking, more space for discussion, problem solving in groups, linking theory with practical knowledge, improving students' creativity and effort.

Students will achieve concrete results based on cooperation, which they will record in their work .

Evaluation and summary:

We will evaluate the students' results, write them on the board, and determine which group was the best.

Of course, the students are eager to learn, and the other teams should also be commended for their efforts and good teamwork.

Reflection and conclusion:

We will evaluate what we have learned and what we have used from our theoretical knowledge in the practical lesson. The students' own reflection is important.

Self-assessment (questions for pupils):

What did we learn in class today?

What new things did we learn today?

What positive things did today's lesson offer us for our lives?

How can I apply the knowledge I have gained in practice?

Competencies	Their implementation in the classroom
Communicating and working with information	Students communicate with each other in teams. They search for information on their mobile phones or in the Atlas of Coniferous and Deciduous Trees.
Scientific	They search for information, discover new knowledge, and learn actively based on practical lessons (real samples of deciduous and coniferous tree leaves).
Digital	They can also use tablets during the lesson
Personal and social	Pupils form bonds while working with other pupils and discover the personality traits of their classmates with whom they work in a team.
Cultural	Students communicate politely with each other and with the teacher, using cultured and distinguished language. Students form relationships with each other and behave in a cultured manner , as friends, classmates and researchers.
Competence to learn	They will learn to combine theoretical knowledge with practice.
Civic	They will learn how to treat nature, how to protect it, respect it and cultivate it.

Entrepreneurship	Students can start a company where they will grow trees and sell them (), and once they learn about different types of trees, they can also make products from wood (art, handicrafts).
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Knowledge quiz

1. How do we classify plants according to their stems?
2. How do we classify trees?
3. What coniferous trees do you know? Name two examples.
4. What deciduous trees do you know? Name two examples.
5. Name 3 parts of a tree.
6. What forms the crown of a tree?
7. Where do coniferous trees grow?
8. Which coniferous tree is an exception and loses its needles in autumn?
9. What is a forest?
10. What is the importance of a forest?

Worksheet

Group:

Activity – Tree card index (15 minutes)

- Sample No. 1 Name.....
- Sample No. 2 Name.....
- Sample No. 3 Name.....
- Sample No. 4 Name.....
- Sample No. 5 Name.....

Methodological evaluation

The objectives of the lesson are set comprehensively and meet the requirements of the educational standard. The lesson focuses on repetition, consolidation of knowledge, and development of practical application of knowledge; the pupil should learn to distinguish between plant samples.

The lesson meets the requirement for the development of scientific competences. Pupils observe, sort, evaluate, draw conclusions and verify their correctness. They reflect on the importance of protection, set value goals and develop an attitude towards nature.

The teacher uses both frontal and group work. They use a variety of methods, including concept maps, discussions, videos and research activities. The chosen methods have the potential to engage pupils of this age and motivate them to learn.

The pupil is motivated to develop reading and digital skills, as well as personal and social skills. Joint group activities develop a team approach to learning. In discussions, they are encouraged to formulate arguments and think critically. The development of environmental responsibility is also significant.

Conclusion: The lesson is methodologically well prepared, with clear objectives, appropriate methods and a varied combination of activities (video, quiz, work with tree samples). Practical activities and positive motivation promote environmental awareness and critical thinking among pupils. The connection with practice and research activities is appreciated.

Methodological evaluation prepared by: PhDr. Ivana Štibraná, PhD.

APPROVED

Mgr. Magdaléna Eliášová, school principal

10 October 2025, Smolenice, Slovak Republic