Teacher: Viezure Luminița
Subject: Play and movement

<table>
<tr><td>Title:</td><td>Duck - Duck - Goose</td><td>Time:</td><td>20 minutes</td></tr>
<tr><td colspan="2">Subject:</td><td colspan="2">Play and Movement</td></tr>
<tr><td colspan="2">Aims:</td><td colspan="2">General competence[1]: 1. Participating in movement games, organized or spontaneous, according to individual psychomotor ability and interests.
Specific competence[2]: 1.3 Using basic motor skills to perform playful activities, with complex character and different efforts.
Aim of the activity: Explore sequences and follow instructions in a game.</td></tr>
<tr><td colspan="2">Key CS elements:</td><td colspan="2">Decomposition; Pattern recognition; Abstraction; Algorithm design.</td></tr>
<tr><td colspan="2">Age group:</td><td colspan="2">6-7 years old</td></tr>
<tr><td>Learning situationships:</td><td>outdoor</td><td>Activity type:</td><td>physical activity - outdoor game</td></tr>
<tr><td colspan="2">Resources/Materials:</td><td colspan="2">A puppet</td></tr>
<tr><td colspan="4">Learning development:</td></tr>
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I. **Decomposition -** Breaking down the problem into smaller, manageable components

- Identifying the game rules
- Describing the participants
- Explaining the game mechanics
- Determining the winning conditions

Components:
Players: Seated children forming a circle, one child as the "picker" walking outside the circle.
Actions:
The "picker" taps players' heads, saying "duck" each time.
The "picker" says "goose" and tags the selected player.
The "goose" chases the "picker" around the circle.
Rules:
The "picker" walks around the circle, tapping each player's head while saying "duck."
When the "picker" says "goose," the tapped player (goose) stands up and chases the "picker."
The "picker" must run around the circle and sit in the "goose's" spot before getting tagged.
If the "picker" is tagged before sitting down, they remain the "picker."
If the "picker" successfully sits down, the "goose" becomes the new "picker."
Winning conditions:
The game continues until a predetermined time or number of rounds is reached.

II. **Pattern Recognition -** Identifying patterns and similar elements

- Players sit in a circle
- The runner selects a player by saying “duck” or “goose”
- Chasing and role-switching between players

Patterns
Picker behaviour:
Often, the "picker" speeds up after saying "goose" to gain a head start.
The "picker" might say "goose" to a player they believe will not be fast enough to catch them.
Goose behaviour:
The "goose" usually stands up and runs immediately after being tagged.
The "goose" might try to anticipate the "picker's" movement to tag them quickly.
Strategies
The "picker" might choose a "goose" who appears less agile.

[1] According to the National Curriculum for Play and Movement, grades PG-II, approved by Order of the Minister of National Education no. 3542 /27.03.2015
[2] Idem.

The "goose" might try to fake out the "picker" by pretending to go one direction but then quickly switching.	
III. **Abstraction -** Reducing complexity by ignoring non-essential details - Focusing on the basic structure of the game - Simplifying the selection and chasing - Concentrating on player rotation and role-switching conditions **Key elements** Roles: Picker, ducks, goose. Actions: Tapping, saying "duck" or "goose," running, chasing. Rules: The sequence of taps, the chase, and the outcome based on tagging or sitting. **Simplified model** The "picker" walks around the circle, tapping heads and saying "duck" until they say "goose." The "goose" chases the "picker." The game revolves around speed and strategy in tagging or evading.	
IV. **Algorithm Design -** Developing a step-by-step set of instructions for the game **Step 1 (for the Picker):** 1.Walk around the circle tapping players' heads while saying "duck." 2.Select a player to be the "goose" by tapping their head and saying "goose." 3.Run around the circle in the opposite direction of the "goose." 4.Attempt to sit in the "goose's" spot before being tagged. **Step 2 (for the Goose):** 1.Stand up immediately after being tapped and called "goose." 2.Chase the "picker" around the circle. 3.Try to tag the "picker" before they sit in your spot. **Step 3 (for Ducks, the other players):** 1.Remain seated in the circle. 2.Pay attention to the "picker" and be ready to react if chosen as the "goose."	
Assessment:	**Performance levels** Outstanding Performance: Demonstrates excellent understanding and application of all computational thinking steps. Provides clear, detailed, and insightful answers and reflections. Develops a well-structured and effective algorithm for the game. Proficient performance: Shows good understanding and application of most computational thinking steps. Provides thoughtful and relevant answers and reflections. Develops a clear and logical algorithm, with minor areas for improvement. Basic performance: Shows basic understanding and application of computational thinking steps. Provides simple answers and reflections with some gaps in understanding. Develops a basic algorithm that may need more detail or clarity. Needs improvement: Struggles with understanding and applying computational thinking steps. Provides minimal or unclear answers and reflections. Develops an incomplete or unclear algorithm.
Notes:	By applying computational thinking to "Duck, Duck, Goose," students can systematically understand the game's dynamics, improve their strategies, and enhance their problem-solving skills. This approach fosters critical thinking and systematic problem-solving abilities in a fun and engaging context.