

OUTSTE(A)M Games and Toys

Rain Explorers Game

Title

Rain Explorers

Creator

Technological Institute for Pupils' Products and Leisure (AIJU)

Summary

This outdoor educational game is designed to be played after the rain, in which children become nature explorers. The objective is to gather as many points as possible by finding elements related to water and completing educational challenges about the water cycle, ultimately becoming the "Rain Explorer." During this outdoor adventure, pupils become *Rain Explorers* on a mission to discover nature while caring for the environment. Divided into two teams, children draw element cards to find natural items and complete challenge cards to earn points. Guided by educators, they explore safely within a set area for 30 minutes. When time is up, scores are tallied, and the winning team is crowned "Rain Explorer of the Day."

Keywords

Rain, Water cycle, Exploration, Nature, Outdoor learning

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Overview

Subjects	Natural Sciences, Technology, Engineering, Mathematics, Art, and Interdisciplinary Learning.
Topics	Water cycle, ecosystem, biodiversity, and nature.
Age of Pupils	3-8 years
Indicative preparation time	30 minutes
Indicative game time	30–60 minutes
Materials	Element cards (see Annex 1) Water cycle challenge cards (see Annex 1) Paper and pencils to record points Camera or mobile phone (optional)

Game Objectives

- **Educational:** Pupils explore and understand the natural environment after the rain while developing scientific curiosity. They get to identify and collect elements related to water, connecting them to environmental learning and complete educational challenges about the water cycle, reinforcing knowledge of natural sciences.
- **Playful:** Pupils score as many points as possible during the game. This helps them achieve the goal of becoming the best Rain Explorer and enjoy exploration and active play in the natural environment.

Game Plan (Step by Step)

Establish a safe outdoor perimeter ensuring the space is suitable and risk-free.

Explain to pupils the game objectives and basic rules regarding safe play and care for the environment (do not pull-out plants, do not disturb animals, etc.).

Prompt pupils to create two teams. Every team should have an educator assigned to accompany the players, verify the elements found, and supervise the completion of the challenges.

Then distribute the materials. Each team receives the element and challenge cards, a pen, and a score sheet (see annex: score sheet). When this is done define the duration of the match (in this case 30 minutes).

When the game begins each team draws an element card and goes to look for it within the delimited perimeter. Once the element is found, the educator records the score indicated on the card. Then, they give a challenge card that the team must complete. If the challenge is successfully completed, the points are added to the score sheet and the team receive a new element card. If the challenge is not completed, the team does not earn the points and moves directly to the next element card.

When the set time is reached, both teams return to the starting area. Each team adds up the points earned from elements and challenges. The team with the highest score will be proclaimed "Rain Explorer of the Day."

Variants and Adaptations

- If after 5 minutes an element card is not found, it can be replaced with another one.
- For children over 9 years old, more complex elements and challenge cards can be created.
- The element and challenge cards have been designed in two age-differentiated versions: one for children aged 3 to 5 and another for children aged 5 to 8, facilitating adaptation to the abilities and developmental needs of each stage.
- If mobile devices are available, they can be used to photograph the elements instead of physically collecting them. This alternative contributes to the conservation of vegetation and care for the environment. It also allows documenting elements that cannot be collected, such as rivers, clouds, or other landscape components. In Figure 1, the first two visuals cards are designed to prompt pupils to photograph different elements of the environment, while in the next two cards indicate the collection of objects from the ground.

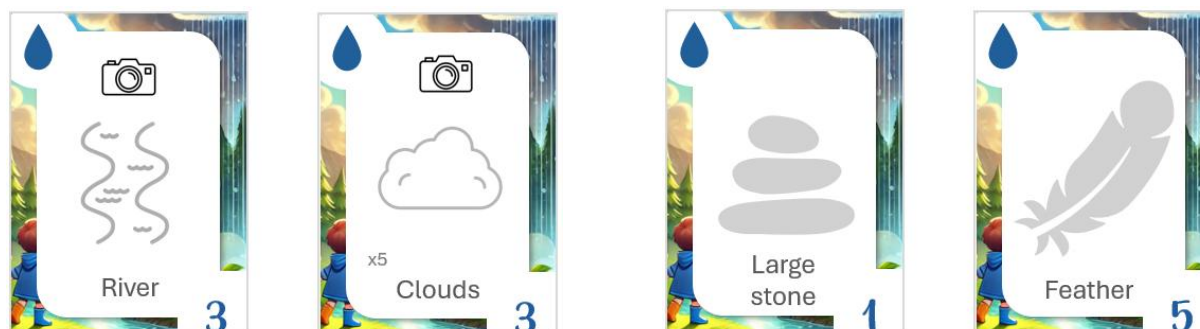


Figure 1. Visual Cards from the Rain Explorer Game. Photographed by AIJU colleagues. Reproduced with permission and explicit approval from the authors.

- The game can be played cooperatively instead of competitively: teams collaborate to reach a minimum overall score and become Rain Explorers together.
- The environment can be simulated with objects inside the classroom (dry leaves, stones, pictures of snails or flowers).

Didactic Keys for Teachers and Families

BEFORE THE ACTIVITY

- **Reinforce the basic rules about respect for the environment and safety during the activity:** It is essential to remind pupils that, during the game, they must act respectfully toward the natural environment. This means not damaging or altering elements they find, avoiding collecting plants or animals, and keeping the space clean and cared for. This attitude not only protects biodiversity but also fosters values of environmental responsibility and ecological awareness from an early age.
- **Review the basic rules of collaboration:** Encourage respect, active listening, and teamwork to achieve common goals.
- **Encourage pupils to observe their natural surroundings with curiosity and attention:** This will be sparking their interest in discovering and exploring what is around them.
- **Make sure pupils know a bit about the water cycle:** Before starting the challenges make sure to give a brief introduction to the water cycle so children understand the context of the activity and feel more motivated to participate.

DURING THE ACTIVITY

- **Teach problem-solving skills:** If a team has difficulty finding an element, encourage them to think together and propose creative solutions.

- **Provide support:** If a team struggles to complete a challenge or identifies an incorrect element help them move past their difficulties.

AFTER THE ACTIVITY

- **Reflection:** Gather the pupils and ask them to share what they learned about the water cycle and the impact of rain on the environment.
- **Provide prompts when needed:** Ask reflective questions to check that they have learned new concepts.

Assessment

ONGOING AND FORMATIVE ASSESSMENT:

- Observe how pupils engage in exploring and collecting natural elements related to water. Examine how tasks are distributed and how they interact with their environment during the game.
- Analyse how children apply key concepts about the water cycle, the importance of water in ecosystems, and sustainability while searching for natural resources such as leaves, flowers, or small animals, and completing educational challenges.
- Observe motor coordination when moving around space and how they use technological tools (such as cameras or mobile devices) to document their findings.

ASSESSMENT OF TEAMWORK AND SOCIAL SKILLS:

- Observe how pupils interact with each other while carrying out tasks of exploration and collection of elements. Evaluate how they communicate to divide tasks, such as finding certain elements or completing challenges about the water cycle.
- Analyse how roles are distributed within the group, such as explorers, collectors, and information narrators. Observe leadership in decision-making situations and how they support each other to overcome obstacles and complete challenges.
- Evaluate how they contribute to teamwork, ensuring that everyone participates actively and collaborates to achieve the objectives of the game, such as completing challenges about the water cycle and ecosystems

POST-ACTIVITY REFLECTION:

Ask guided questions to help children express what they have learned:

- "What natural elements did you find during the game and why are they important for the water cycle?"

- “How did your team help complete the challenges and which strategy worked best to find the resources?”
- “What did you learn about the impact of water on ecosystems and why is it important to conserve it?”
- “How would you apply what you learned in your daily life to take care of water and the environment?”

Comments for Teachers

- Ensure a safe and supervised environment for your pupils. The play area should be hazard-free and under constant supervision.
- You can choose to repeat the game in different seasons to compare the effects of rain.
- Choose locations with varied vegetation to enrich your pupils' learning experience.
- Adjust the difficulty of the challenges according to the age or level of the group.
- Observe skills such as observation, problem-solving, and teamwork.

About OUTSTE(A)M

[OUTSTE\(A\)M](#) is a project funded by the European Union's (EU) Erasmus+ programme under the Grant Agreement (101133868), running from 1 January 2024 to 31 December 2026. Coordinated by European Partnership aislb (EUN), a network of 30+ education ministries, OUTSTE(A)M brings together 3 partners to develop a toolkit that will help teachers and educators promote high quality outdoor learning experiences in the field of STE(A)M, as a means of addressing the insufficient attention given to STE(A)M education in early childhood education and care settings (ECEC) as well as in primary schools.

Annexes

Annex 1. Features of the Rain Explorers game.

The images, visuals and photographs below highlight various features of the Rain Explorers game and scenes of pupils playing the game.

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- o Score sheet.



THE WATER CYCLE - RAIN EXPLORERS

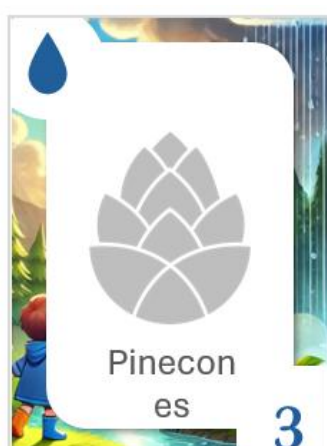
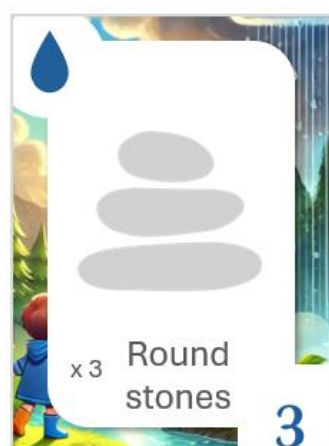
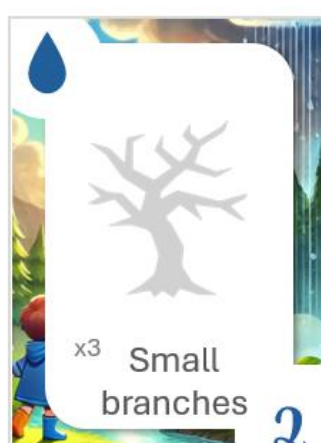
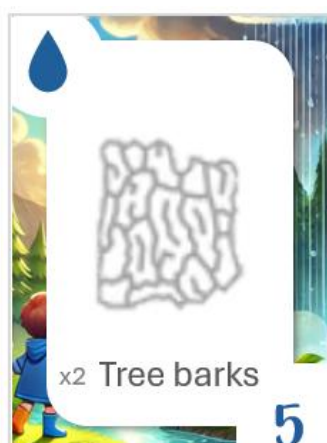
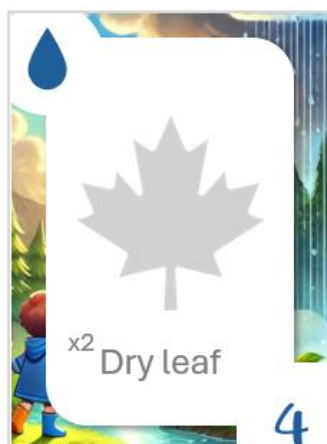
TEAMS 	POINTS
TEAM 1 	
Challenge cards	<!-- 10 empty boxes for Team 1 Challenge cards -->
Element cards	<!-- 10 empty boxes for Team 1 Element cards -->
TEAM 2 	
Challenge cards	<!-- 10 empty boxes for Team 2 Challenge cards -->
Element cards	<!-- 10 empty boxes for Team 2 Element cards -->

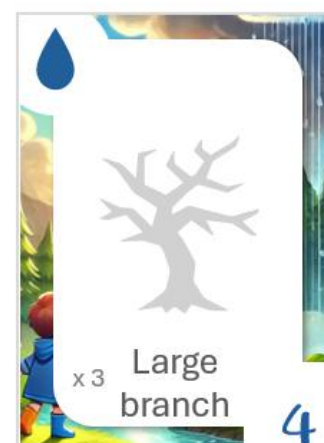
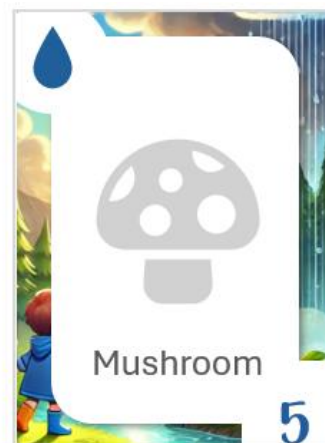
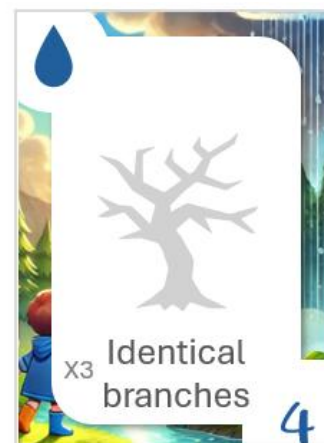
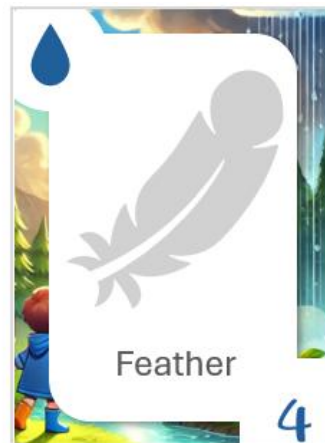
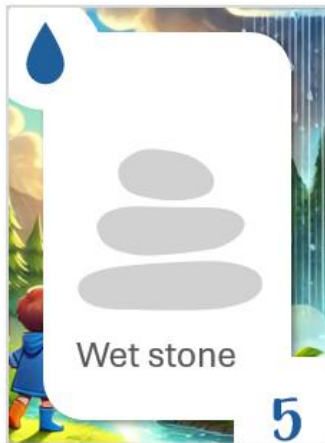
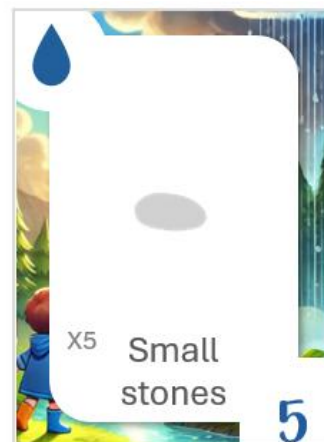
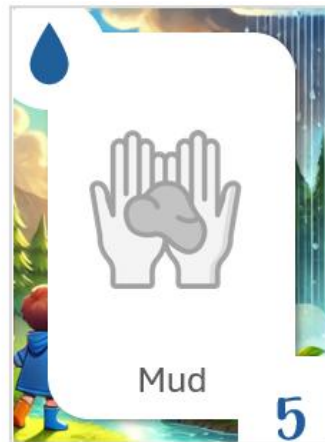
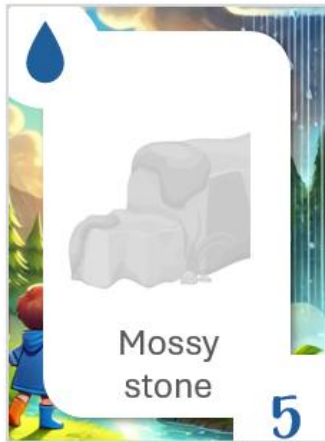


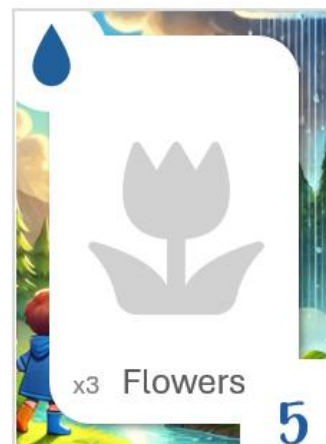
TOTAL TEAM 1	
TOTAL TEAM 2	
WINNING TEAM	



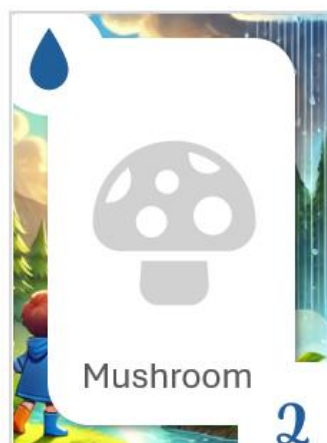
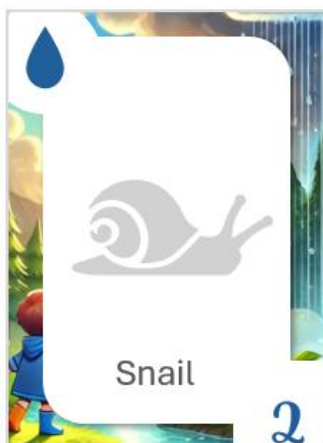
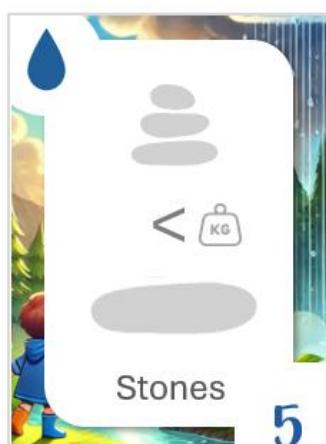
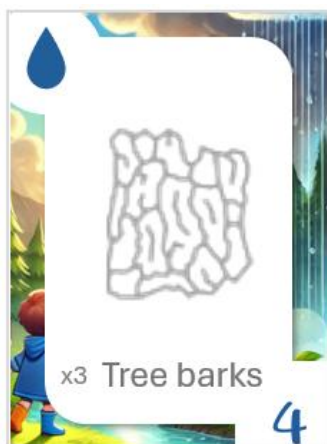
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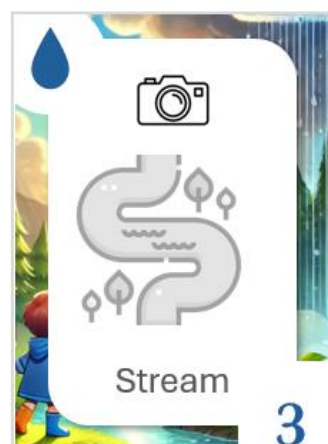
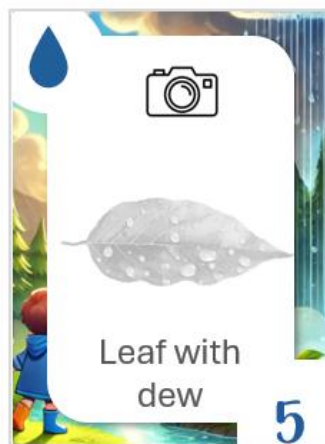
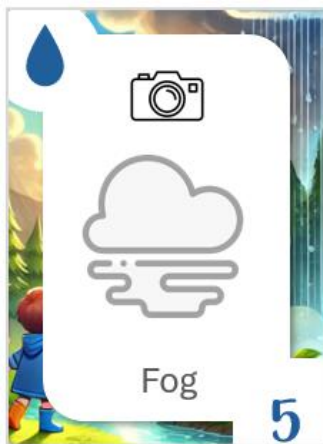
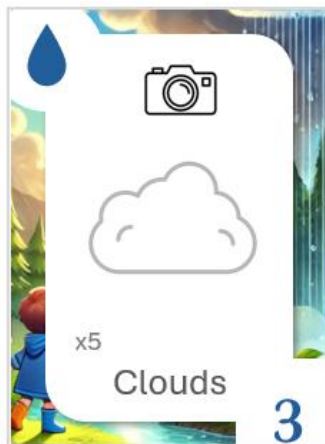
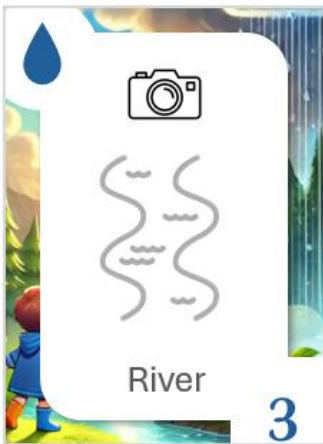
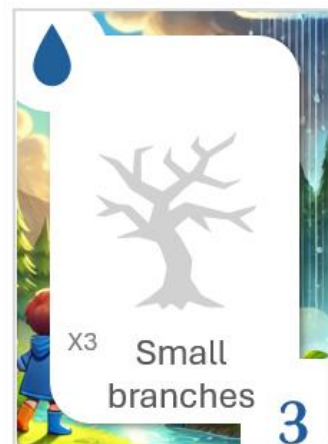
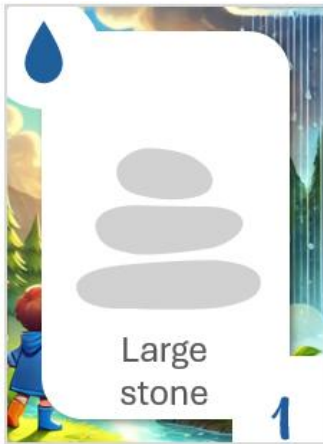


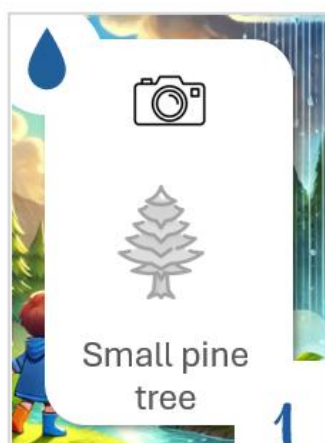
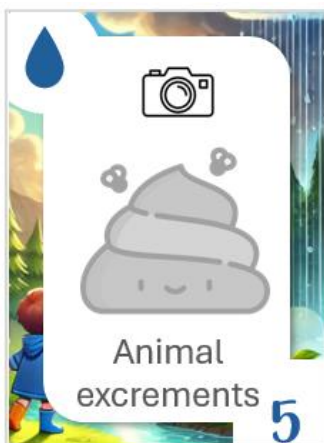
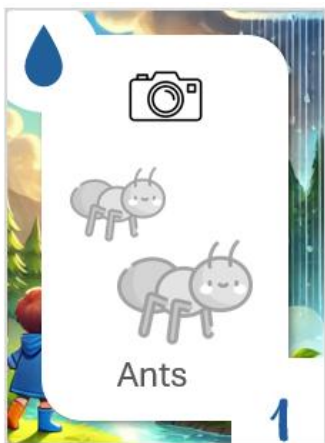
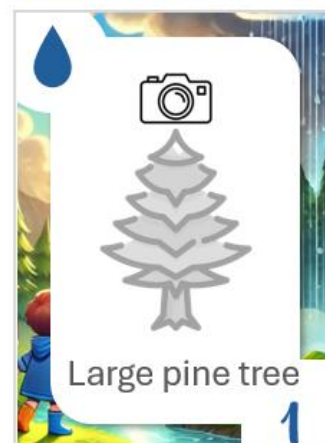
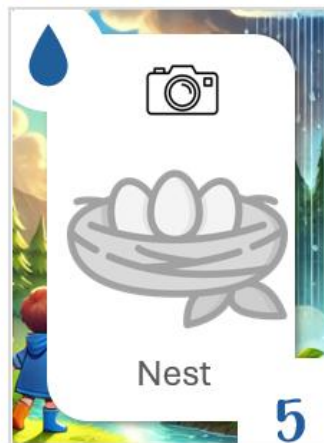
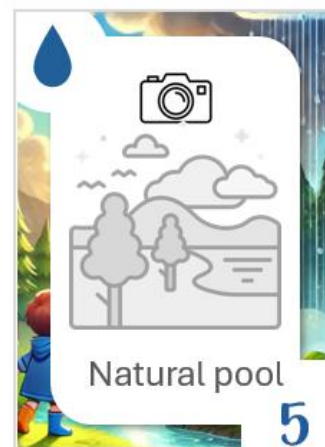
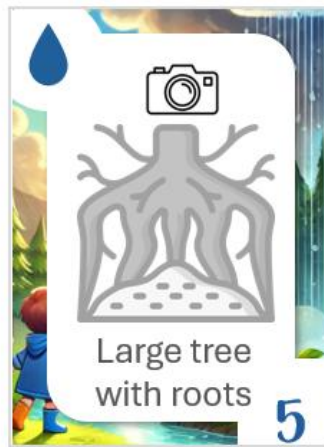
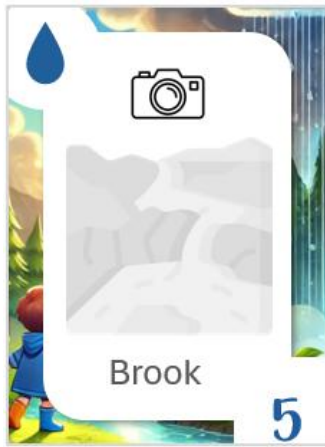


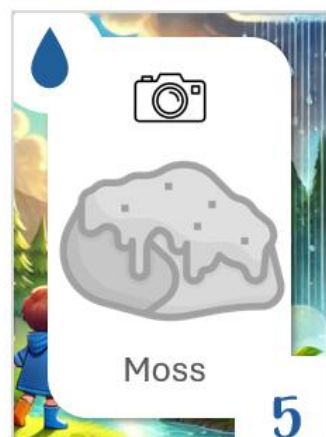
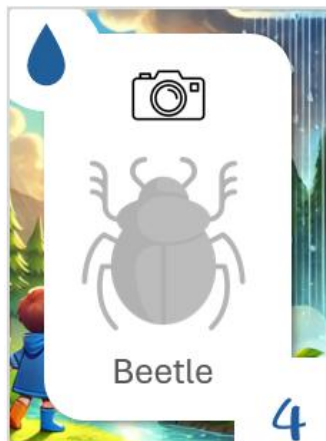


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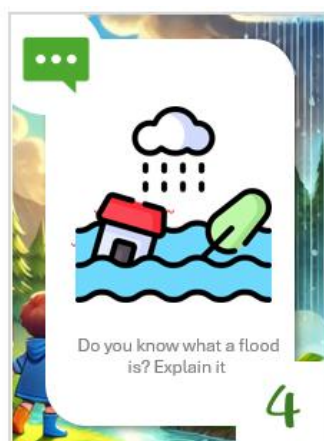
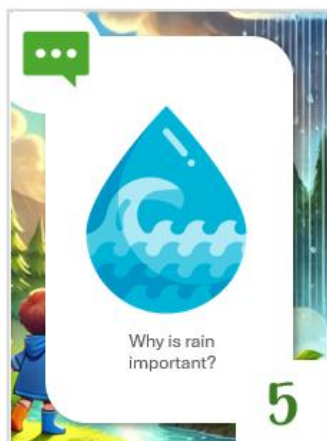
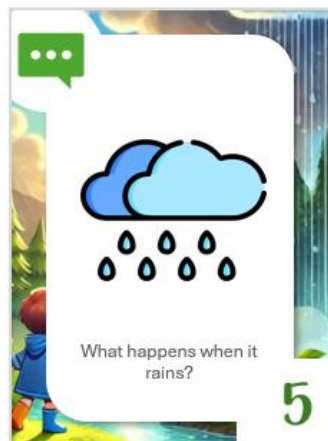
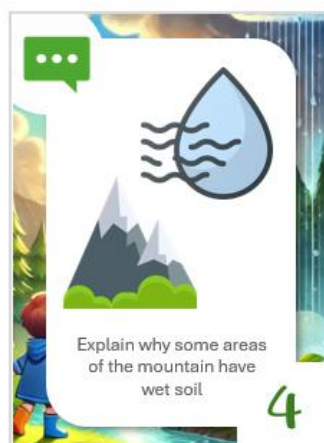


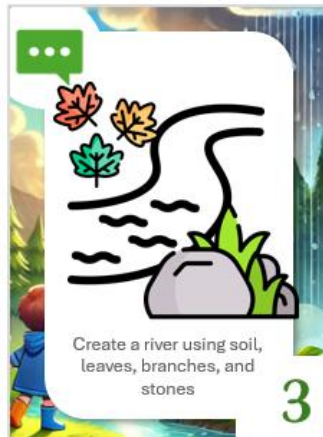
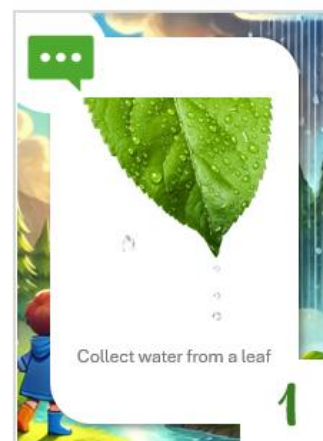
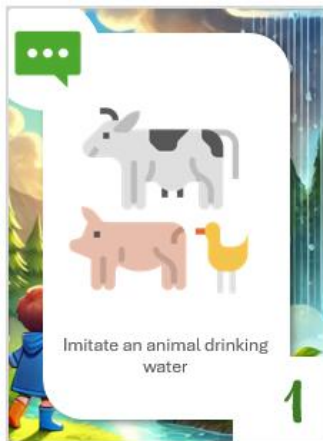
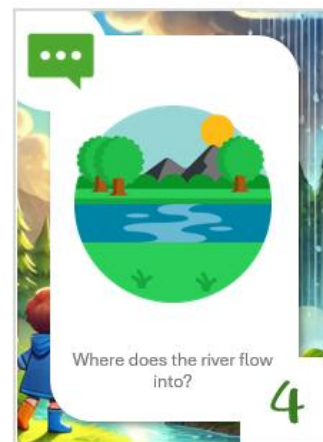




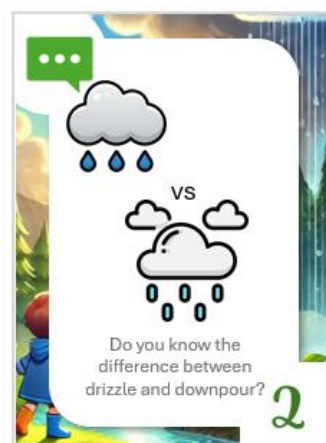
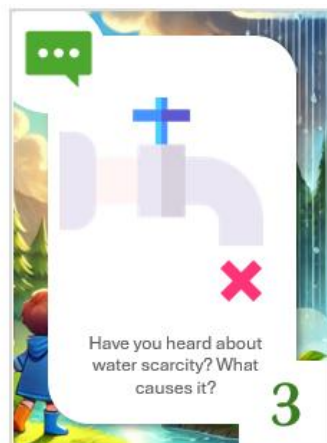
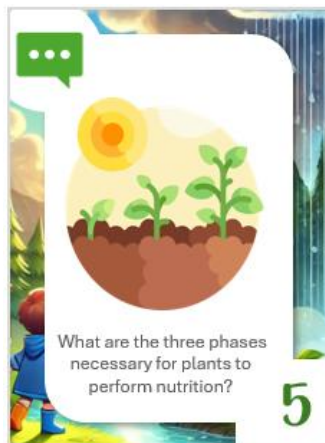
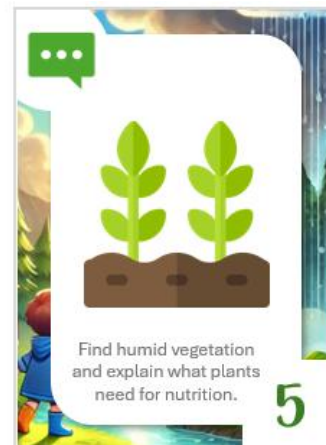
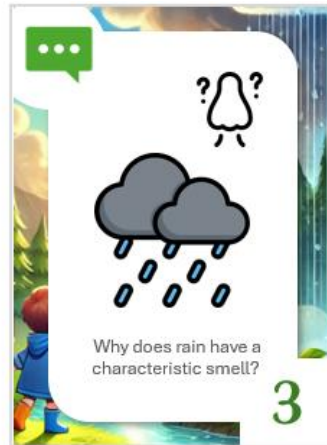
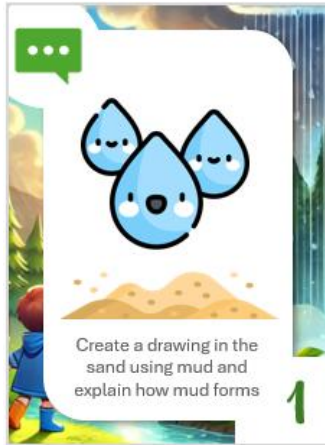


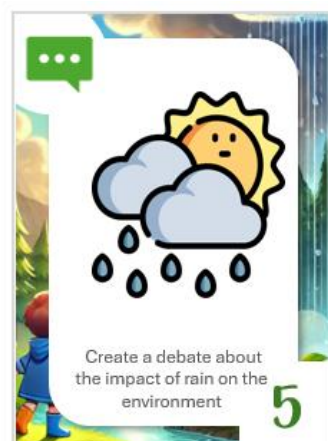
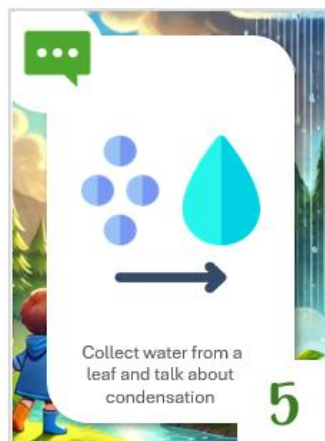
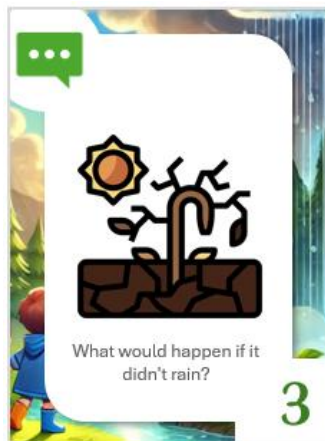
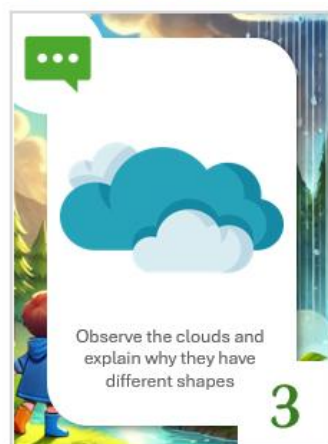
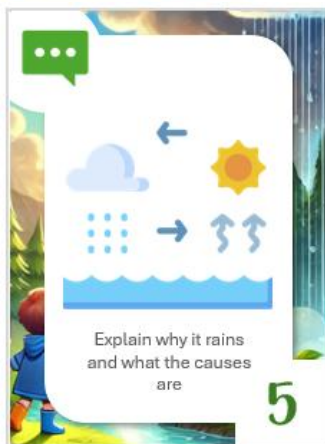
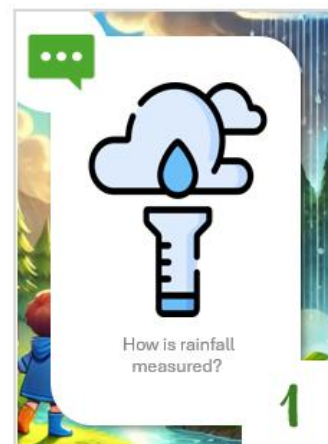
o Challenge Card 3-5 years.

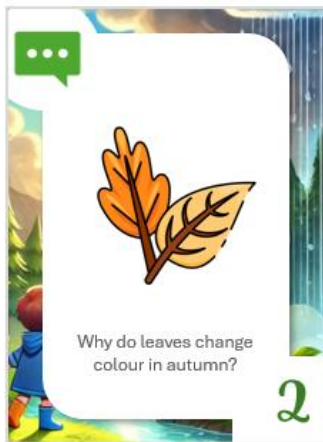




o Challenge Card 3-5 years.







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- Photos of the Activity.



