

Educator's Guide

Creative Technology Education Outdoors

Welcome to the educational materials of the Ruoholahti computer-themed playground. This package is designed to support early childhood and primary school teachers, particularly in technology education. You can select individual activities or build a customized learning module based on the provided materials.





Preparing for the visit

Ruoholahti Playground is an excellent destination for daycare and school groups. Groups can visit independently and use the activities available on the website.

You can also book a guided tour, "Discover the Themed Playground," through the Ruoholahti Playground website: <u>hel.fi/en/childhood-and-education/playground-</u> ruoholahti.html

Reservations can be made by contacting **lp.ruoholahti@helsinki.fi.** We recommend setting aside at least two hours, including travel time, to allow for both guided activities and free play.

The teacher is responsible for the group throughout the visit. The playground staff cannot supervise the children during the visit.

The goal of the visit is to provide personal experiences and memories that enhance students' understanding of technology. Teachers and group leaders play a vital role in ensuring the success of the visit.



Basics of the Visit

Include in your message: the name of your school or daycare, the number of children and adults, the ages of the children, the time reserved for the visit, activities you are interested in during the visit, and whether you plan to have a snack or lunch. Propose at least two potential dates and provide a contact phone number.

The playground's main entrance is at Laivapojankatu 8.

The playground is easily accessible by **metro, tram (lines 7, 8, 8H, 8T, 9, 9H, 9N),** and **bus (26)**. There is no parking available for cars or buses directly at the playground.

Opening hours: Mon–Fri 9:00–17:00. Outside these hours, the playground is open but unstaffed.

The playground can be visited in any weather, so ensure students are dressed accordingly.

There are designated areas for eating packed lunches.

Restroom facilities are available.

The playground has outdoor play equipment and games, including Mölkky, balls, floorball sticks, a chessboard, and chalk.

You can borrow computer-themed activity cards, photo passes, and laminated maps from the playground.



Before the visit:

Get familiar with the Ruoholahti Playground together with your group beforehand.

Early Childhood and Pre-Primary Education:

Search for pictures or additional information about the playground online. You could, for example, print out the playground map. What does the map reveal? What details can you notice?

Plan a route to the playground using simple coding: clap when you see a red car, stomp your feet at a yellow car, and shout at a green car. Observe any computer-related objects along the way.

Grades 1-2

Search for pictures or additional information about the playground online. Print or explore the playground map together.

What signs and symbols can be found on the map? Are there any references to computer elements? Are there symbols you don't yet recognize?

Grades 3-6:

Search for pictures or additional information about the playground online. tour together beforehand.

Plan the route to the playground using the map. How long will the trip take? What modes of transport can be used to reach the playground?

What does the playground look like from a bird's-eye view using a map app or aerial photos?

Grades 7-9:

What images and ideas do the stu-

dents have about the playground in advance?

Discuss what a computer-themed playground could be like. How could it reflect technology concepts like programming, algorithms, or cybersecurity?

Listen to the episode of the audio

Themed Buddy Class Activity: The playground visit works well as part of a buddy class program. Could the visit be linked to collaborative learning? Older students can guide younger ones through various activities. They can also be tasked with documenting exercises, such as the Computer Tower, Robot Remote, or Flowchart activities.

Leikkipuisto



Teacher's Tasks

If desired, reserve a guided playground tour and agree on the visit's schedule.

Plan the Excursion Program

Create a basic structure for the program and select 1–2 activities from the materials section to do at the playground.

Materials and Documentation

Print the necessary materials and plan how to document the visit. Consider how to discuss and reflect on the experience with students afterward.

Identify the educational goals and how the experience connects to them.

Meals, Transportation, and Safety

Plan meals and transport if needed, and ensure there are enough adults for the trip.

Inform guardians of the visit and request permission for photography if necessary.





During the Visit

During the visit, the main focus is on play, exploring the playground, trying things out together, and discovering new ideas. The playground guide will introduce the area and provide assistance with practical matters. The teacher remains responsible for the group and any hands-on tasks during the visit.

Example schedule for a guided "Introduction to the Computer-Themed Playground" visit (approximately 1.5 hours):

- Arrive with the group well before the scheduled start time.
- The playground guide will meet the group at the Laivapojankatu 8 entrance. Together, the group will agree on the rules and visitor etiquette. (5 min)
- Running is allowed, but leaving the playground area is not. Other children or visitors may be using the play equipment, so everyone must respect each other's play space. When sliding down the Computer Tower's slide, it's polite to call out "all clear" to the next slider. The afternoon school group at Ruoholahti has created the playground rules, which all users must follow.

Ruoholahti Playground Rules:

I'm a good friend to everyone. I behave nicely and kindly. I give everyone space to play, climb, slide, cycle, and enjoy the playground. I use the climbing structures and play equipment for their intended purpose. I put trash in the bins and take care of the toys and equipment. I can build things out of snow — but snowball fights belong somewhere else.

- Bathroom visits are supervised by an adult.
- The use of mobile phones is decided on a group-by-group basis.
- There are no lockers for personal

belongings, but items can be left at your own risk, for example, near the outdoor storage area.

- The guide will introduce the playground, tailoring the content to the group's age level. (5-10 min)
- The students will explore the playground independently before gathering back at the main gate. (5-15 min)
- Students will complete 1-2 teacher-selected activities, either together or in smaller groups. (20 min)
- Time is reserved for students' questions and reflections. (10 min)
- The guide provides a brief summary of the visit. (5 min)



After the Visit

Activities to do together:

Early Childhood Education and Pre-primary

Discuss the experiences from the visit together. What thoughts and emotions did the playground evoke? Follow-up projects can be created based on the students' reflections and tips provided in the materials. In early childhood education, the theme can be extended through guided play and material suggestions.

Example: Build a computer using blocks or natural materials. How would this computer work in this world?

Grades 1–2

Follow-up projects can be created based on students' reflections and tips from the materials. In basic education, the theme can be expanded using the tips from the materials or integrated into a larger project or phenomenon-based learning unit.

Example: How do computers affect everyday life? Interview parents or other family members.

Grades 3-6

Reflect together on what was learned and how students can apply their knowledge in practice. How do the visit's themes, like algorithms or cybersecurity, appear in their daily lives?

Example: Design a game or activity that incorporates themes from the playground, such as algorithms, breaking problems into smaller parts, or even antivirus defense.

Grades 7–9

Reflect on how technology, mathematics, and design were integrated during the visit. What new perspectives were gained on the role of technology in society?

Example: Are there any parents or guardians in the group who work in the tech industry and could visit the class to discuss their work?

Teacher's Tasks:

Reflect on your experiences and observations of the group's activities in the new learning environment. What worked well? What could be improved? Share your feedback at lp.ruoholahti@ helsinki.fi.

You can also share photos and experiences (with permission) on social media using the hashtag #leikkipuistoruoholahti or tag @leikkipuistoruoholahti. Remember to get permission for any photos taken by students.



Sample Program for a Playground Visit

Here are three ideas for exploring the playground.

Early Childhood Education and Pre-primary

Preparation. Explore the cards *Sandbox*, *Spring Swings, Computer Screen, Programmer Says, Screen* and *Keyboard*. You can also use the worksheet during or after the visit.

Pre-Activity. With younger learners, use coloring pages to introduce the computer theme. Discuss what computers do and which playground equipment seems most exciting.

Activities. After a short introduction, the group splits in two. One team starts with *Programmer Says* at the trampolines, the other with the *Screen* activity at the small computer hut. Then they switch. Afterward, children are free to explore the rest of the playground with the worksheet.

Post-Activity/Assessment. Return to the coloring pages. What did they predict correctly? What surprised them? Children can describe their visit while the teacher documents their thoughts.

Grades 1–6

Preparation. Explore the cards *Programmer Says, Computer Tower, Flowchart, Keyboard, Asphalt Code,* and *Phone.* You can also use the worksheet during or after the visit.

Pre-Activity. The playground has a rotating phone carousel. Students can plan a dance for it in advance and teach it to their classmates.

Activities. After a short introduction, the class divides into three groups: one starts with the *Phone* activity, one with *Asphalt Code*, and one with the *Computer Tower* exercise. Groups rotate between stations, with free time to explore other equipment.

Post-Activity/Assessment. Create a flowchart together to describe the day's events.

Grades 7–9

Preparation. Explore the cards *Computers in the City, Binary Calculator, Phone,* and *Audio Tour.* The worksheet can be used during or after the visit.

Pre-Activity. Listen to the episode of the audio program before the visit for an introduction to key ideas.

Activities. During the visit, students complete worksheet tasks in small groups, exploring the play equipment and computer science concepts at their own pace.

Post-Activity / Assessment. After the visit, return to the worksheet to reflect on what students discovered.

Materials

The following materials support your visit to the playground. Please review them before your trip.



Park map (PDF) A printable map to explore the playground or even organize your own treasure hunt.



Playground Routes (PDF)

Print a pre-planned route to help your group explore the playground and its various play structures. Bring along pencils! The worksheet can also be completed after the visit to focus on finding different locations and completing tasks within the playground.

Routes for different age groups: Early Childhood Education & Preschool – Sandbox, spring riders, screen, and keyboard (PDF) Grades 1–6 – Trampolines, computer tower, server hut, keyboard, phone (PDF) Grades 7–9 – Keyboard, computer

tower, phone (PDF)



Coloring pages (PDF)

Downloadable coloring pages suitable for all ages to familiarize themselves with the playground.



Activity cards

The Computer-Themed Activity Cards offer an engaging and hands-on way to support technology education. They are designed especially for early childhood education, preschool, and primary school students (Grades 1-6). The set includes 20 different exercises, formatted for double-sided A4 printing. Each A4 sheet contains two cards, with an image of the play structure on the front and activity instructions on the back.Print double-sided (duplex printing), with long-edge binding. Cut along the guideline to separate the cards. Laminate for durability. Trim again, leaving a safety margin around the edges. Round the corners for safety.

Alternatively, you can borrow a ready-made set of cards from the playground. Please remember to contact us in advance.



Jakso 1: Puiston suunnittelu ja rakentamin 11 min

Kuullaan, miten idea puistosta alkoi muotoutua ja mitä kaikke suunnittelussa tuli huomioida. Lisäksi tutustutaan siihen, mite puistossa yhdistetään leikki ja oppiminen luoden ainutlaatuine

kokemus lapsille ja perheille.

Audio Tour (MP3, approx. 10 minutes) The Ruoholahti Playground was renovated as Helsinki's first themed playground. Listen to the podcast episode to learn about:

How the idea for the world's first computer-themed playground came about

The design and development process How children can learn about computers and programming through play

A pedagogical guide for Grades 7–9 is available for download.



Posters & Image Bank

You can print A3-sized posters for your use:

Early Childhood Education & Preschool (PDF)

Primary School (PDF) Middle School (PDF) You can also download illustrations of the playground equipment for educational use here. Illustrations are drawn by Riku Ounaslehto.



hel.fi/en/childhood-and-education/playground-

ruoholahti.html





FAQ

How can I book a guided visit to the playground?

You can book a guided "Get to Know the Themed Playground" tour through the Leikkipuisto Ruoholahti website. For available times, please contact lp.ruoholahti@helsinki.fi. We recommend reserving at least two

lessons' worth of time (90–120 minutes) for your visit to allow time for free play as well.

Is the playground closed in winter or in the evenings?

The playground is open 24/7 yearround. The indoor facilities, including toilets, are open Mon–Fri from 9:00 to 17:00 (during school holidays 9:00 to 16:00).

Where can I park nearby? Leikkipuisto Ruoholahti does not have

dedicated parking for cars or buses. However, the playground is easily accessible by public transport: Metro Tram lines 7.8.8H, 8T, 9.9H, and 9N

Tram lines 7, 8, 8H, 8T, 9, 9H, and 9N Bus 26

Is the playground accessible?

Many areas of Leikkipuisto Ruoholahti are accessible.

Are there toilets at the playground?

During opening hours (9:00–17:00), there are toilet facilities available, including an accessible toilet, a changing table for babies, and a potty.

Can we bring our own snacks?

Yes, there are picnic tables in the park and a sheltered area suitable for small groups.

For International Visitors

International groups can request a visit using the form at the bottom of the Visits and International Cooperation page. Please mention Leikkipuisto Ruoholahti in your message.

https://www.hel.fi/en/decision-making/city-organisation/divisions/ education-division/visits-and-international-cooperation



hel.fi/en/childhood-and-education/playgroundruoholahti.html

> Helsinki Leikkipuisto Ruoholahti



How to Use the Activity Cards

The activity cards are designed to inspire students to explore, play, and learn through activities that combine math, technology, design, and physical movement. The cards support curriculum goals and offer engaging tasks for all age groups.

How to Start?

Print the Cards. The cards are designed for double-sided A4 printing. One side shows an image of the play equipment, the other has instructions for the activity. Select double-sided (duplex) printing with long-edge binding. Cut along the guideline, laminate the cards, and trim again, leaving a safety margin. Finally, round the corners for safety.

Choose the Cards. Pick cards that suit your group's age and learning goals. The cards can be used individually, as a themed set, or as part of a longer project.

Groups or Individuals. Decide whether students will complete the tasks alone, in pairs, or in small groups.

Guide and Encourage. Pick a card together — for example, *Keyboard*. Read the task aloud and give students time to complete it. You can add your own twist, like a time challenge or creativity bonus. Afterwards, reflect together: what did they learn, and what was the most fun?

What the Cards Include

Target group: The main target audience for the card (early childhood, pre-primary, grades 1–6, grades 7–9)



Task description: Clear instructions for what the student should do

Objectives: Skills developed through the task, such as algorithmic thinking, communication, or technology us.

Tips: Additional ideas to enrich the activity

List of Cards:

- Sandbox
- Emoji
- Image Hunt
- Computer Mouse
- Pixel Play
- Overheated Pixels
- Battery Tag
- Keyboard
- Phone
- Internet Cat
- Pixel Artwork
- Screen
- Coder Says
- Asphalt Code
- Robot Remote
- Computer Tower
- Flowchart
- Binary Calculator
- Algorithm Dance
- Map Task
- Virus Tag
- Audio Tour
- Computers in the City

Curriculum Connections



Early Childhood Education

- Various forms of expression
- Mathematical thinking
- Motor skills and movement
- Language and communication
- Exploring the environment and technological thinking
- ICT skills
- Play and interaction
- Cooperation and teamwork
- Emotional and social skills
- Observation of the environment
- Creative and logical thinking



Pre-Primary

- Thinking and learning to learn
- Mathematics
- Communication and expression
- · Basic ICT skills
- Mother tongue and literature
- Collaborative learning
- Motor skills
- Visual expression
- Logical thinking and organization
- Basic technology concepts



Grades 1–2

Mathematics

- Practicing understanding of quantities and basic calculation skills
- Learning to solve simple mathematical problems in everyday situations
- Practicing comparing and ordering numbers
- Learning measurement and basic geometric concepts
- Developing mental arithmetic skills and understanding basic operations
- Deepening understanding of number sequences and patterns
- Exploring simple statistics and drawing conclusions from

them

- Learning to use units of time, weight, and length
- Practicing problem-solving and reasoning skills

Finnish Language and Literature

- Developing listening and discussion skills in a group
- Practicing basic reading and writing skills
- Building vocabulary and understanding basic text structures
- Learning to write short stories and messages
- Exploring the world of fairy tales and narratives

Environmental Studies

- Observing and exploring
 nature and the environment
- Learning safety skills and practices
- Understanding the cycle of seasons and its effects
- Practicing the use of simple maps and routes
- Reflecting on the relationship between humans and the environment
- Exploring the role of technology in everyday life

Physical Education

- Practicing basic motor skills such as balance and coordination
- Learning to act safely in physical environments

Visual Arts

- Exploring colours, shapes, and patterns
- Practicing self-expression through art



Grades 3–6

Mathematics

- Learning to solve multi-step mathematical problems
- Deepening understanding of numbers and calculations
- Practicing geometric visualization skills
- Developing mathematical reasoning and problem-solving ability
- Exploring the interpretation and presentation of statistics
- Practicing percentage calculations and unit conversions
- Learning precise measurement
 and use of units
- Deepening understanding of mathematical structures
- Exploring the basics of functions and formulas

Finnish Language and Literature

- Practicing interaction skills in different situations
- Developing understanding of literature and texts
- Practicing producing texts for different purposes
- Deepening expression skills through literature and performances
- Exploring different genres of literature

Environmental Studies

- Understanding natural cycles
 and phenomena
- Learning safety practices in nature
- Exploring the interaction between humans and the environment
- Reflecting on energy use and sustainable development
- Learning about the importance and use of natural resources
- Deepening understanding of technology in the environment
- Understanding the impact of technology on society
- Exploring the principles of environmental protection

Physical Education

- Practicing teamwork and fair play
- Developing endurance, strength, and other physical abilities

Visual Arts

- Deepening the creation and evaluation of personal artworks
- Learning to use different materials and techniques
- Exploring different art styles and their cultural significance



Grades 7–9

Mathematics

- Exploring statistical analysis and presentation methods
- Deepening understanding of functions and their applications
- Reflecting on mathematical models and their use in decision-making

Finnish Language and Literature

· Deepening ecological

digital environment

tools in project work

everyday life

environmental impacts

Geography

ICT Skills

 Practicing argumentation and expressing personal opinions

thinking and understanding

· Learning to act responsibly in a

Understanding the significance

of technology in society and

· Practicing the use of digital



END VeRI 😞 😺 👽 **{** ו× 😞 👦 👡 **€** ← ĭoĭ START



This activity supports the development of students' algorithmic thinking and problem-solving skills through group work, encouraging them to tell stories and use their imagination to enhance learning.

Asphalt code

The group is divided into seven small groups. First, each group chooses a section of the grid and creates a movement code using actions like "step right," "jump forward," or "walk backward." Practice performing your code within the grid.

Next, groups teach their code to others and demonstrate how it works. Once all groups have shared, the whole class completes the full track together, performing each section in order.

> Tip: Choose a comfortable spot in the playground to tell a story related to your asphalt code,

Digital Competency Path Objectives:

- I can give simple instructions to a classmate or robot and follow the instructions given by others (Grades 1-2).
- · I can use loops in a graphical programming environment (Grade 4).
- I can break problems into smaller parts, give step-by-step instructions, and follow them **(Grade 4)**.
- I can give step-by-step instructions to a robot (Grade 5).

Curriculum connections:

- Early Childhood Education: Various forms of expression, Mathematical thinking, ICT skills
- **Pre-primary:** Thinking and learning to learn, Mathematics, Communication and expression, ICT readiness
- **Grades 1-2:** Students learn basic arithmetic and express ideas clearly (Mathematics, Mother Tongue and Literature).
- **Grades 3-6:** Students apply mathematical skills and develop their linguistic expression (Mathematics, Mother Tongue and Literature).



This activity enhances students' expression skills, independent planning of presentations, and understanding of digital forms of opinion expression, such as likes and comments.

Phone

Design your own dance performance, advertisement, or other phonerelated presentation and perform it for others. Think about how phones are used for fun, communication, or advertising. After the performance, discuss together: What kind of media makes you happy? What was the purpose of your performance? What kind of messages do we see on our phones every day?

> Tip: What are different ways to express opinions online, such as sharing, liking, thumbs up, or commenting?

Digital Competency Path Objectives:

- I can recognize which media content brings me joy (Grade 2).
- I know that media content serves different purposes, such as entertainment, advertising, or sharing information (Grade 4).
- I understand that the media content I consume influences my opinions **(Grade 6).**
- I understand the difference between commercial, public, and social media **(Grade 7).**

- Early Childhood Education: Various forms of expression, Interaction and emotional development, ICT skills
- **Pre-primary Education**: Thinking and learning to learn, Communication and expression, ICT readiness
- **Grades 1-2:** Students practice expressing their ideas and improving interaction skills (Mother Tongue and Literature).
- **Grades 3-6:** Students deepen their expression skills and analyze messages from different perspectives (Mother Tongue and Literature).
- **Grades 7-9:** Students develop critical media literacy and apply technological skills in various contexts (Mother Tongue and Literature, ICT).







This activity supports students in planning and presenting their ideas, understanding the role of media, and giving and receiving constructive feedback. It also enhances communication, collaboration, and technological skills through playful learning.

Screen

Students design their own video show. Discuss what types of videos are available on the internet (e.g., skits, daily vlogs, unboxing videos, challenge videos). Students can use props such as stuffed animals for their presentations. Perform the live videos for each other. Viewers can encourage the performers by giving thumbs up or forming a heart shape with their hands. Afterward, share positive comments.



Digital Competency Path Objectives:

- I experiment with different devices and programs or apps to produce media **(Grade 3).**
- I can distinguish between factual and fictional content (Grade 2).
- I recognize unreliable websites (Grade 4).
- I understand that personal data is collected when I use the internet and apps **(Grade 6)**

Curriculum Connections:

- Early Childhood Education: Various forms of expression, Development of emotional skills
- Pre-primary: Communication and expression, Technological readiness
- **Grades 1-2:** Students develop their communication and interaction skills and practice expressing ideas (Mother Tongue and Literature).
- **Grades 3-6:** Students analyze texts in greater depth and improve their linguistic expression (Mother Tongue and Literature).
- **Grades 7-9:** Students combine critical literacy with technological skills in diverse contexts (Mother Tongue and Literature, ICT)



This activity supports students in recognizing letters, forming words, and understanding language structures while enhancing motor skills and ICT readiness, such as understanding basic commands like copy, cut, and paste.



Ask students to select a letter, for example, from the letters in their own names, and stand on its corresponding spot. If necessary, assign multiple letters to some students. The teacher or a student reads a word or sentence one letter at a time. When a student hears their letter, they sit on the letter spot quickly and then stand back up. Pay attention to spaces, capital letters, etc.

Follow along together and see what word or sentence appears!



Digital Competency Path Objectives:

- · I can write text using a word processor (e.g., Word or Docs) (Grade 2).
- I know various keyboard commands (e.g., copy, cut, paste) (Grade 3).

- Early Childhood Education: Language and communication, Motor skills
- Pre-primary: Mother Tongue and Literature, Interaction and collaboration
- **Grades 1-6:** Students practice expressing ideas and storytelling (Mother Tongue and Literature).





COMPUTER TOWER

1-6

This activity supports students' understanding of the concepts of input and output, introduces them to basic technological processes, and encourages the use of imagination to visualize how technology works.

Computer Tower

Input and Output: Students act as the input and output of a computer. When entering the computer, they represent the input, and when exiting through the slide, they become the output. Before climbing the computer tower, discuss the types of programs found in computers. Each student selects a program, such as a favorite game, TV show, or video call app.

The facilitator "starts" the computer, and students move inside the tower, simulating their chosen program.

Tip: Add an update to the game – the instructor can shout "update in progress," and everyone must move slower or faster.

Digital Competency Path Objectives:

- I can log in and out of computers, programs, and apps (Grade 1).
- I can turn on and off computers and tablets (Grade 1).
- · I have used different programs or apps at school (Grade 2).
- I actively try different devices and programs or apps for media production **(Grade 3).**

Curriculum Connections:

- Early Childhood Education: Environmental exploration and technological thinking
- Pre-Primary: Mathematical and logical thinking, ICT readiness
- **Grades 1-2:** Students learn to observe and understand basic environmental structures (Environmental Studies).
- **Grades 3-6:** Students deepen their understanding of environmental phenomena and interconnections (Environmental Studies).



This activity enhances students' algorithmic thinking, understanding of conditions and loops, and motor and teamwork skills in a playful and physical setting.

Programmer Says

Students stand in line near the trampolines. The teacher gives a command that the first three students perform. After completing the task, participants move forward, allowing a new student to join the first trampoline. The teacher varies the commands, such as:

Round 1 (simple commands): Jump three times.

Round 2 (loops): The teacher indicates the number of repetitions with hand signals.

Round 3 (conditions): The teacher sets conditions—students with a specific letter in their name or a certain clothing color can jump while others wait.

Subsequent rounds: Students create their own commands.

Digital Competency Path Objectives:

- I can give simple instructions to a classmate or robot and follow instructions given by others (Grades 1-2).
- I can use loops in a graphical programming environment (Grade 4).
- I can break problems into smaller parts and provide step-by-step instructions to a classmate or robot (Grade 4).
- I can give step-by-step instructions to a robot (Grade 5).

- Early Childhood Education: Motor skills, Play and interaction
- Pre-Primary: Mathematics, Physical Education
- **Grades 1-2**: Students learn basic arithmetic and motor skills through physical activities (Mathematics, Physical Education).
- **Grades 3-6:** Students deepen their mathematical skills and develop physical coordination (Mathematics, Physical Education).





1-6

This activity develops teamwork and collaboration skills, introduces students to key cybersecurity concepts such as viruses and antivirus measures, and enhances physical coordination and rule-following through active play.



This activity supports students' linguistic skills and listening comprehension through the game of telephone. It also introduces them to digital culture phenomena, such as memes, and encourages the use of humor in communication.

Virus Tag

Some students play viruses, while others play antivirus programs. The goal of the antivirus players is to "catch" the viruses and take them to the "trash bin," a pre-determined area. A second virus can "rescue" a caught virus from the bin. Viruses must stay within the computer's boundaries.

Extra challenge: Invent different types of viruses to make the game more challenging. Antivirus players can get one software update per round — for example, a verbal command — to temporarily freeze a virus. Viruses might have special abilities, like self-healing malware that requires two tags to stop. Can you come up with game versions of a rootkit, trojan, or ransomware attack? How would they work in tag?



Curriculum Connections:

- Early Childhood Education: Play and physical activity
- Pre-Primary: Mathematics and basic technology, Interaction
- **Grades 1-2:** Students practice basic motor skills and diverse physical activities (Physical Education).
- **Grades 3-6:** Students deepen their understanding of environmental phenomena and develop physical skills in different environments (Environmental Studies, Physical Education).



Internet Cat

Many people share memes, which are funny or clever videos and images, because they are often humorous and insightful. Anyone can create a meme, and they frequently change.

Play a game of "telephone," where one student whispers a phrase to the next person in the circle. The message travels around the circle until the last player, sitting on the "cat," repeats what they heard aloud.

- · Early Childhood Education: Language expression and listening skills
- Pre-primary: Mother Tongue and Literature, Cultural competence
- **Grades 1-2:** Students practice their interaction skills and learn to express themselves in different ways (Mother Tongue and Literature).









This activity enhances students' ability to give and follow simple instructions, understand step-by-step instructions and loops, and develop problem-solving and teamwork skills. It also builds foundational algorithmic thinking. This activity supports students' ability to recognize emotions, use symbols, and develop expression and verbalization skills.

Remote Control Robot

Gather near the computer tower. One student acts as a robot, and another as a remote control. Set the rules for movement and jumping. The remote control guides the robot along the visible motherboard paths and components (lines and dots).



One student stands in the playground's phone-shaped play area, while the others sit on the keyboard steps. The student selects an emoji from the task card and acts it out silently (pantomime). The other students try to guess or describe the emoji being presented.

Digital Competency Path Objectives:

- I can give simple instructions to a classmate or robot and follow instructions given by others (Grades 1-2).
- I can use loops in a graphical programming environment (Grade 4).
- I can break problems into smaller parts and give step-by-step instructions to a classmate or robot (Grade 4).
- I can give step-by-step instructions to a robot (Grade 5).

Curriculum Connections:

- · Early Childhood Education: Interaction and collaboration, Motor skills
- Pre-primary: Mathematical and logical thinking, Communication and expression
- **Grades 1-2:** Students develop collaboration skills and practice expressing ideas (Mother Tongue and Literature).
- **Grades 3-6:** Students apply mathematical skills and strengthen their collaborative abilities (Mathematics).



- Early Childhood Education: Various forms of expression, Emotional and interaction skills
- Pre-primary: Interaction and expression
- **Grades 1-2:** Students develop expression skills and practice clear interaction (Mother Tongue and Literature).
- **Grades 3-6:** Students deepen their linguistic expression and strengthen their ability to collaborate in groups (Mother Tongue and Literature).







This activity supports students in understanding computer controllers and their functions while promoting interaction with peers through active play. It develops foundational digital interface knowledge.



This activity supports students' understanding of the concept of charging through play. It also enhances their collaboration, attention, and motor skills.

Mouse

Gather around the mouse-shaped play structure and discuss different ways to control a computer (e.g., mouse, touchpad, arrow keys, pen, touchscreen, voice).

Students take turns riding the mouse or other spring rockers while the facilitator "controls" them by playing music. The student swings until the facilitator pauses the music, representing the end of a computer input.

Battery Tag

The battery is an essential component of many digital devices and is usually hidden inside the device. It needs regular charging to keep the device running.

Students gather around the phone play structure. The "it" player acts as a program that "drains" the others' batteries by tagging them. Tagged players freeze and count down from 10. Other students can "recharge" them by forming a chain between the frozen player and the phone while making a wave motion with their hands. If the frozen player is not recharged before reaching zero, they also become "it."



Digital Competency Path Objectives:

· I can use a touchpad, touchscreen, and mouse. (Grades 1-2).

Curriculum Connections:

- Early Childhood Education: Introduction to basic technology, Interaction and physical activity
- Pre-primary: ICT readiness, Motor skills

- Pre-primary: Collaborative learning, Motor skills
- **Grades 1-2:** Students learn to collaborate and practice interaction skills through physical activities (Physical Education).
- **Grades 3-6:** Students enhance their observational skills and develop physical abilities in group activities (Environmental Studies, Physical Education).







This activity supports students' observational skills, linguistic expression, and photography abilities. It also enhances their ability to identify and understand elements in their environment and use ICT tools for documentation.

Photo Scavenger Hunt

Borrow laminated photos from the playground instructor. The pictures show details of the playground that students need to find. Some photos are easy, while others are more challenging.

Early Childhood Education and Pre-primary:

Students search for the location shown in the picture and bring the card back. They can also use a shared iPad for photo-taking.

Primary School (Grades 1-6):

Students take photos that match the cards using a phone or tablet. They return the cards to the instructor/teacher and show the captured image.

Digital Competency Path Objectives:

- · I can compare objects based on size or shape. (Grade 1)
- I can send messages, audio messages, photos, or videos using a school device. (Grade 3 and 4)
- · I can combine images, text, and sound in my creations. (Grade 5 and 6)

Curriculum Connections:

- Early Childhood Education: Observing the environment and various forms of expression
- Pre-primary: Recognizing images and photography skills, Interaction
- **Grades 1-2:** Students learn to observe and understand environmental phenomena while developing their ability to collaborate in groups (Environmental Studies).



This activity enhances students' understanding of robots and their functions, introduces key concepts like sensors, and encourages imaginative and technology-focused thinking.

Robot

Gather around the robot play area and discuss different types of robots.

What robots have you seen?

What type of robot would you like to invent?

Explore how robots sense the world by relating them to human senses. For example:

Video camera: Vision

Pressure sensor: Touch

Humidity sensor: Moisture detection

Microphone: Hearing

Speaker: Voice output



- Early Childhood Education: Observing the environment and technology, Imagination and creative thinking
- Pre-primary: Basic technological concepts, Interaction and collaboration



SANDBOX





This activity supports logical thinking, creativity, and an understanding of order. It also fosters cooperation and visual organization.



This activity supports students' coordination, focus, and rule-following in a group setting. It also promotes teamwork and playful interaction.

Sandbox

Sorting Algorithm

Can you sort sandbox toys, leaves, or other objects from the yard from largest to smallest? Can you build three cakes of different sizes? What about stacking them on top of each other?

Creating Patterns

Use sticks, stones, or leaves to create repeating patterns (for example: stone – leaf – stone – leaf). Can you guess what rule is guiding the pattern?

Overheated Pixels

Yellow pixels represent lava! Only gray pixels are safe to step on. Navigate the path without stepping on yellow pixels.

Divide the students into two teams: gray and yellow. Each team can only move on their assigned pixels. The goal is to complete the course as quickly as possible.



Curriculum Connections:

- Early Childhood Education: Creativity, Conceptual and motor development
- Pre-primary: Logical thinking and organizing, Collaboration skills



- Early Childhood Education: Motor skills, Physical activity and play
- Pre-primary: Collaboration skills, Motor development
- **Grades 1-2:** Students practice motor and coordination skills through physical play (Physical Education).
- **Grades 3-6:** Students deepen their physical skills and understanding of environmental phenomena (Physical Education, Environmental Studies).







This activity supports students' ability to follow instructions, change roles, and interact with peers in a playful environment. It also improves reaction time and teamwork.



Pixel Game

Gather near the pixel-shaped seats next to the keyboard play area.

Divide players into color groups: yellow, purple, and gray. There should be one more player than there are available pixel seats. Mark the extra seats with leaves or stones as "off-limits."

Players sit on the pixel seats, and the leader shouts a color, such as "Yellow!" Players with that color must quickly switch seats. The leader tries to take one of the empty seats. The leader may also call out "Update resolution!" where everyone switches seats. The player left without a seat becomes the new leader.



• Early Childhood Education: Collaboration and physical activity, Attention and interaction

- Pre-primary: Motor development, Collaboration and rule-following
- **Grades 1-2:** Students develop motor and collaboration skills through physical tasks (Physical Education).
- **Grades 3-6:** Students deepen their physical abilities and understanding of environmental phenomena (Physical Education, Environmental Studies).



This activity enhances students' creativity and ability to organize and arrange visual elements. It also teaches the use of digital tools like cameras and supports the development of expression skills.

Pixel Artwork

You'll need a phone or tablet for taking photos, scissors, paper, and glue.

Create pixel art by cutting out small, equally-sized squares from magazines or leaves (adults can help younger students). Students can arrange the squares into their own designs, such as a heart, rabbit, smiley face, tree, or letters. A phone can be used to search for inspiration.

Take a picture of the final artwork.

- · Early Childhood Education: Various forms of expression, Motor skills
- Pre-primary: Visual expression, Technology skills
- **Grades 1-2:** Students explore visual expression and creativity through different art activities (Visual Arts).







This activity supports cross-disciplinary learning and collaboration, using the environment as an active learning space.

7-9

This activity supports students' observation skills, technological understanding, and critical thinking. It also fosters the ability to apply knowledge in real-world contexts.

Map Activity

Print map sheets or borrow laminated maps from the playground.

Divide students into pairs or small groups, assigning each pair/group a task from the list below. Assign different tasks to ensure groups explore different areas. After completing a task, students return to the teacher to report their findings and receive a new task. At the end, students can compare and discuss their results.

- Find the game controller. How many buttons does it have?
- Count the pixel chairs and report them as fractions (e.g., number of yellow, gray, and purple pixels).
- Find the asphalt code and design a quick game with three rules using human game pieces.
- How many holes can you count on the computer tower, and what colors can you find inside it?
- Use the binary abacus near the computer tower to represent the

- number 7 in binary (use a phone if needed).
- Identify five different shapes or patterns (e.g., circles, squares, triangles, stripes).
- Which playground equipment:
- Makes you think?
- Helps you relax?
- Makes you laugh?
- Changes with the seasons?
- Casts interesting shadows?

Computers in the City

How do computers impact urban planning? List different types of computers or technology you can spot around the playground and its surroundings. Look for examples of computers used in urban infrastructure, such as traffic lights, parking systems, public transport displays, city bikes, trash monitoring systems, surveillance cameras, elevators, escalators, and lighting systems.

Record your observations and discuss how technology is used to improve everyday life in the city. As a follow-up, brainstorm new technological solutions that students would add to city planning.



Curriculum Connections:

- **Grades 1-2:** Students explore environmental phenomena and learn to make observations and explanations (Environmental Studies).
- **Grades 3-6:** Students understand interactions in nature and develop problem-solving skills using mathematical concepts (Environmental Studies, Mathematics).

Curriculum Connections:

• **Grades 7-9:** Students develop an understanding of environmental phenomena, strengthen their linguistic expression, and broaden their thinking (Biology and Geography, Mother Tongue and Literature).





BINARY CALCULATOR



This activity supports students' understanding of the binary system, logical reasoning, and numeracy. It also promotes technological proficiency through the use of digital tools for calculations.

Binary Calculator

Find the green computer tower and the binary abacus nearby. What decimal number does the binary sequence below represent? Can you create your birthdate using the abacus or add numbers together? Use a phone as needed..

0101110100000111

Binary is a number system that uses only two digits: 0 and 1.

When you want to convert a binary number to a decimal number, follow these steps:	$2^2 = 4$ $2^3 = 8$	Subtract that value from the number.
Write down the binary number. Example: 0101110100000111 Assign a place value to each bit,	$2^7 = 128$ $2^9 = 512$ $2^{10} = 1024$ $2^{12} = 4006$	Repeat the process for the remaining value: Largest ≤ 7 is 4 (2 ²) $\Rightarrow 7 \cdot 4 = 3$
The place values are powers of 2: The rightmost bit: $2^0 = 1$ The second bit from the right: $2^1 = 2$ The third bit: $2^2 = 4$ The fourth bit: $2^3 = 8$	Add together all these values: 4096 + 1024 + 512 + 128 + 8 + 4 + 2 + 1 = 23,431	Largest ≤ 3 is 2 (2 ¹) $\Rightarrow 3 - 2 = 1$ Largest ≤ 1 is 1 (2 ⁰) $\Rightarrow 1 - 1 = 0$ Write down the binary number, starting from the largest power of 2: 16 (2 ⁴) \Rightarrow bit 1 8 (2 ³) \Rightarrow bit 0
And so on.	Converting a decimal number to a binary number:	$4 (2^2) \rightarrow bit 1$ 2 (2 ¹) $\rightarrow bit 1$
Go through the binary number and add together only the values where the bit is 1	number to binary, follow these steps: Start with the decimal number.	1 (2º) → bit 1
For example, in 0101110100000111: $2^{0} = 1$ $2^{1} = 2$	Example: 23 Find the largest power of 2 that fits into the number.	Thus, the decimal number 23 = binary number 10111

Curriculum Connections:

• **Grades 7-9:** Students deepen their mathematical thinking and develop skills in applying ICT concepts (Mathematics, ICT).

This activity supports creativity, collaboration, and technological understanding. It also promotes critical thinking and expression skills.

Algorithm Dance

Students design and perform their own dance or presentation on the phone carousel play structure. They consider key factors like repetition, rhythm, and visual appeal to create a presentation that could gain popularity through social media algorithms. Performances are recorded and reviewed together. The group then discusses how algorithms influence content creators and viewers and reflects on ethical issues.

Curriculum Connections:

• **Grades 7-9:** Students enhance their expression skills in language studies, apply ICT tools, and develop physical and visual arts skills while practicing interdisciplinary collaboration (Mother Tongue and Literature, ICT, Physical Education, Visual Arts).





MY OWN ACTIVITY



This activity develops media literacy, critical thinking, and a deeper understanding of technology's role in society and urban spaces.

Audio Tour

The podcast episode serves as an audio tour and as material for comprehensive learning. The podcast covers the creation of Helsinki's first thematic playground, believed to be the world's first computerthemed playground. It discusses the development process, how the playground uses play to teach about computers and programming, and includes children's feedback on the completed park. The podcast is hosted by author-illustrator Linda Liukas, who developed the playground concept.

There is a printable worksheet to accompany the episode. Bring a portable speaker or suitable listening device.



Curriculum Connections:

• **Grades 7-9:** Students practice information retrieval, critical thinking, and multimodal literacy while producing and editing media content. They also gain an understanding of the impact of technology and urban planning on the environment (Mother Tongue and Literature, Geography, Biology, ICT).

Ruoholahti Playground – Teacher's Guide to the Audio Episode

The Ruoholahti Playground audio episode (English version) introduces Helsinki's first computer-themed playground — a unique public space where children learn about computers, programming, and problem-solving through physical play. In this episode, author and designer Linda Liukas shares the story of how the playground was imagined, planned, and built together with the City of Helsinki, architects, and local residents. The episode also explores how technology and play come together in the playground's design and what children themselves think about this new kind of learning environment.

How to Get Started?

This audio episode is designed to be listened to in the classroom before your visit to Ruoholahti Playground. It introduces the story of the playground from an urban planning and design perspective and helps students understand how public spaces are created.

Before listening, set clear goals with your students: What is this episode about? What should they pay attention to? Encourage them to take notes on key ideas, people involved, or anything they find interesting or surprising.

After listening, discuss the episode together. You can use the worksheet questions to guide the conversation or let students reflect in small groups. During the playground visit, students will explore the equipment, look for technology-inspired design elements, and complete observation tasks. After the visit, return to the classroom to reflect, compare experiences, and discuss technology, play, and creativity in everyday environments.

1. Pre-visit (Classroom)

Goal: Learn about city planning & technology in public spaces.

Introduce the Ruoholahti computer-themed playground. Set listening goal: How was the playground designed? Play the audio episode (about 15 minutes). Students take notes. Questions to discuss (or use worksheet):

- How long did the design take?
- Who was involved?
- How could people participate?

Mini Research Task: How can young people influence decisions in their city? (Youth councils, participatory budgeting, suggestion websites, etc.)

2. During visit (Playground)

Goal: Explore the playground and link technology & play.

Tasks:

- Find 2 special themed equipment.
- Scan a QR code, learn something new.
- $\boldsymbol{\cdot}$ Compare physical play vs digital play.

3. Post-visit (Classroom)

Goal: Reflect & compare digital vs physical experiences.

Discussion Questions:

- What did you learn?
- What makes playing on a computerdifferent from a playground?
- How are kids users vs creators?

Creative Task:

Pick your favourite place in the city-How could it be a learning place?



More info & materials:

"How Helsinki's First Themed Playground Was Created" – English audio (~15 min). Finnish 4-episode series available at:

www.helsinkikanava.fi/en/ podcasts/313857713

Materials needed:

- Audio episode (12 minutes)
- Student worksheet
- Pens and paper
- Device for listening to the podcast in classroom or outdoors, for example a porable speaker
- Device for scanning QR codes
- Outdoor clothes

Duration

• 2 lessons + playground visit

- Listening skills
- Summarising and analysis
- Discussion and teamwork skills
- Urban planning
- Technology skills
- Design education

Ruoholahti Playground -Student Worksheet

Before the Visit (Listening Task)

Listen to the audio episode about Ruoholahti Playground. Write short answers based on what you hear.

- 1. Who helped design the playground? (List 2 people or groups)
- 2. Why did they want to create a computer-themed playground?
- 3. How could local people and kids give their ideas?
- 4. How long did the planning and building take?

During the Visit (Exploring the Playground)

Work in small groups. Look around the playground and complete these tasks:

1. Find 2 things in the playground that are inspired by technology or computers. Describe them.

2. Scan a QR code or look closely at one piece of equipment. What is something interesting you learned?

After the Visit (Reflect & Discuss)

1. What surprised you the most about the playground?

2. Linda said: "On a computer, kids are users. In the playground, they are creators." What does this mean to you?

3. Think of your favourite place in the city. How could you turn it into a learning place? Use the other side of the paper for your ideas and sketches.

Explore the Park

The Ruoholahti Playground offers many sights and activities to explore. You can complete the tasks in any order. At the end, you can color in the map.

1. Sandbox

EC

Can you organize the sandbox toys, leaves, or something else you find around the playground from the largest to the smallest?

2. Spring Swings

Find the spring swings near the sandbox. Try moving around the swings like a robot. Imagine what kind of sounds internet cats would make. Try making those sounds! A computer mouse usually doesn't swing. What is it used for instead?

3. Computer Screen

Design your own program and present it to others. How many likes did you get?



4. Keyboard

Find your favorite letter on the keyboard located on the slope. Write that letter on your sheet.











Explore the Park

The Ruoholahti Playground offers many sights and activities to explore. You can complete the tasks in any order. At the end, you can color in the map.

1. Trampolines

Design your own program code. Test in small groups whether your code works.

- > Use commands (e.g., jump, spin, or do a jumping jack).
- > **Design a condition** (e.g., everyone wearing red jumps).
- > Design a loop (e.g., how many times or until a certain point).

2. Computer Tower

Convert the first letter of your name into a binary number. Then, try out the slide.

3. Flowchart

Tell a story about your day using a flowchart. For example:

Go to school. Is it raining outside?

> If yes, bring an umbrella.

> If no, go straight to school.

Move the ball along as the story progresses.

4. Keyboard

Do you know the copy-and-paste shortcut (Ctrl+C, Ctrl+V)? Pair up and act out these keyboard commands on the large keyboard. What other shortcuts do you know?

5. Phone

Perform a little victory dance! Great job playing.



A: 01000001	I: 01001001	Q: 01010001	Y: 01011001
B: 01000010	J: 01001010	R: 01010010	Z: 01011010
C: 01000011	K: 01001011	S: 01010011	
D: 01000100	L: 01001100	T: 01010100	
E: 01000101	M: 01001101	U: 01010101	
F: 01000110	N: 01001110	V: 01010110	For more binary
G: 01000111	O: 01001111	W: 01010111	codes, check online.
H: 01001000	P: 01010000	X: 01011000	



Leikkipuisto Ruoholahti





1-6



Explore the Park

The Ruoholahti Playground offers many sights and activities to explore. You can complete the tasks in any order.

1.Computers in the City

How are computers visible in urban planning? List the types of computers you find around the playground.

2. Binary Calculator

Find the green computer tower and the binary abacus next to it. What decimal number is represented by the binary number in the image below? Can you create your birthdate using the abacus? Or add numbers together using it? Use your phone as a helper.



3. Phone

Design and perform your own dance or performance on the phone-themed area. Do you know how apps recommend videos to you? What ethical challenges can algorithms cause?

Helsinki











Laivapojankatu 8 Skeppsgossegatan 8

hel.fi/fi/kasvatus-ja-koulutus/leikkipuisto-ruoholahti





Laivapojankatu 8 Skeppsgossegatan 8

hel.fi/fi/kasvatus-ja-koulutus/leikkipuisto-ruoholahti





Laivapojankatu 8 Skeppsgossegatan 8 hel.fi/fi/kasvatus-ja-koulutus/leikkipuisto-ruoholahti





hel.fl/fl/kasvatus-ja-koulutus/leikkipuisto-ruoholahti





Laivapojankatu 8
 Skeppsgossegatan 8
 hel.fi/fi/kasvatus-ja-koulutus/leikkipuisto-ruoholahti





Laivapojankatu 8 Skeppsgossegatan 8

hel.fi/fi/kasvatus-ja-koulutus/leikkipuisto-ruoholahti





Laivapojankatu 8 Skeppsgossegatan 8

hel.fi/fi/kasvatus-ja-koulutus/leikkipuisto-ruoholahti

Can you climb inside a computer?



EC PP

What can you do at the playground?

Climb the Computer Tower and figure out how input and output work.

Play *Programmer Says* on the trampolines.

Design your own online store in the Computer Hut.

Ready-made materials and tips for planning your visit: hel.fi/en/childhood-andeducation/playground-ruoholahti

Technology education at the playground encourages

curiosity, experimentation, and problem-solving. Children are guided to observe technology in their surroundings, ask questions, and come up with creative solutions – together.

And much more!

The playground activities support many goals from the Finnish early childhood and pre-primary education curricula, such as:

- Exploring and interacting with the environment
- Growth, movement, and development
- Multiliteracy
- Learning environments
- Digital skills

Contact

Leikkipuisto Ruoholahti Laivapojankatu 8, 00180 Helsinki

Trams 8, 9 Buses 22, 22K, 26 Metro: Ruoholahti



Can you climb inside a computer?

Yes you can!

In the new computer-themed Ruoholahti Playground, technology learning becomes an adventure — students get to experience, explore, and create for themselves!





What can you do at the playground?

Practice designing algorithms through gridbased games

Climb the Computer Tower and uncover the secrets of binary numbers

Jump on a giant keyboard, recognize letters, and build words



Ready-made materials and tips for planning your visit can be found in Opehuone or at: hel.fi/en/childhood-andeducation/playgroundruoholahti The aim of technology education in primary school is to introduce students to everyday technology, develop their observation and problem-solving skills, and encourage creativity and collaboration through play and exploration. And much more!

Links to the Finnish Primary School Curriculum

- Grades 1–2: Students practice basic math skills, language expression, observing their environment, and developing creativity through visual arts (Mathematics, Environmental Studies, Finnish Language and Literature, Visual Arts)
- Grades 3–6: Students deepen their mathematical skills, learn about their environment and society, and develop their communication abilities (Civics, Mathematics, Environmental Studies, Finnish Language and Literature, Visual Arts)

Contact

Leikkipuisto Ruoholahti Laivapojankatu 8, 00180 Helsinki Trams: 8, 9 Buses: 22, 22K, 26 Metro: Ruoholahti



Can you climb inside a computer?

Yes you can!

The new computer-themed Ruoholahti Playground offers challenges and activities even for older learners (Grades 7–9). Dive into the world of technology, mathematics, and algorithmic thinking through playful, hands-on tasks! The park is also perfect for buddy class activities.





What can you do at the playground?

Practice algorithmic thinking and coding fundamentals through activities

Explore themes like urban planning, technology, and environmental impact

Develop teamwork and communication skills through buddy class collaboration



Ready-made materials and tips for planning your visit can be found in Opehuone or online: hel.fi/en/childhood-andeducation/playground-ruoholahti **The goal of technology education** is to encourage students to use technology creatively and to reflect on its impact on the environment and society — and much more!

Curriculum connections:

Students develop skills in communication, mathematical thinking, and applying technology. They explore phenomena in biology, geography, and civics, while also practicing self-expression through visual arts and physical education.

(Finnish Language and Literature, Mathematics, Biology, Geography, Civics, Visual Arts, Physical Education, Student Guidance)

Contact

Leikkipuisto Ruoholahti Laivapojankatu 8, 00180 Helsinki

Trams: 8, 9 Buses: 22, 22K, 26 Metro: Ruoholahti

