

Helsinki



# Art-filled journeys into the future

methods of futures education for children  
in lower stage comprehensive school



Helsinki

tulevaisuuskeskus

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# Introduction

*“A map of the world that does not include Utopia is not worth even glancing at, for it leaves out the one country at which Humanity is always landing. And when Humanity lands there, it looks out, and, seeing a better country, sets sail. Progress is the realisation of Utopias.”*

– Oscar Wilde

Annantalo is a multi-art centre at the heart of Helsinki. Annantalo provides art education, hosts exhibitions and organises performances, events and workshops. It is also a venue for seminars and training courses that promote children's culture. The principle is to create a favourable atmosphere and conditions for children and young people to experience art and culture, and to be able to actively participate and see art and culture in Helsinki. The aim is that children and young people become competent operators within the city's artistic and cultural life. The values of Annantalo include accessibility, equality, child-orientation, openness and the presence of art.

Tulevaisuuskoulu ry (Futures School) offers an artistic and interactive journey into alternative futures, aimed at children and young people of different ages, as well as their teachers and other educators. The goal is to strengthen children's, young people's and their educators' futures literacy, proactive relationship with the future, and ability to imagine alternative futures. The Futures School combines the methods of futures studies and prediction with art education and art-based research in a multidisciplinary manner. In practice, the Futures School organises various workshops, courses, lectures and other events. It also devel-

ops and distributes learning materials and methods for futures education.

In 2019, Annantalo and the Futures School worked together to produce the Futures Laboratory (Tulevaisuuslaboratorio) concept. The concept was created by art teacher Elina Rantasuo, art educators Ilpo Rybatzki and Kati Karvonen, visual artist Nestori Syrjälä and futures researcher Otto Tähkääpää. The Futures Laboratory was a learning space based on art and experience where futures researchers of all ages could expand their views on the future and stretch the limits of their imagination. Building a sustainable future requires the ability to dream of radically different realities. In the Futures Laboratory, the main question was: “What if the impossible becomes possible in the future?”

The exercises presented in this guide are based on the workshops planned and implemented by Annantalo arts teachers Elina Rantasuo, Marjut Maristo and Eliisa Sorvali, together with Ilpo Rybatzki, in May 2019. They are also built on the methods and materials previously developed by the Futures School. The learning materials provide teachers with tools and sample exercises for studying futures and developing futures-oriented thinking.

In art, futures literacy plays a significant role. Art has the ability to point elsewhere; to fool and mess around with things and shake up conventions without needing to achieve measurable benefits (Varto, 2008). Art ensures a solid background for imagining alternative worlds. It is important to support a permissive atmosphere that supports experimentation! From the perspective of art pedagogy, activities focus on the idea of art experience as meeting place (Pääjoki, 2004) where people can see themselves in a new light beside another person's thoughts and imagination. Strengthening futures literacy means supporting transformative learning that aims for change. Through this type of learning, we can question norms, roles, identities and the concept of what is 'normal' (Lehtonen et al., 2018).

When discussing the future, we are always discussing values: what kind of future is desirable for any one person? Artistic activity can produce materials through which human meanings can be communicated from one person to another and questions about values in life can be discussed (Varto, 2008; Valkeapää, 2012). Encounters create opportunities for dialogue and enriching one's perspectives. Important aspects include creating

safe settings, the individual expression of the participants, the courage to open up and thrown oneself into the centre of an experience, as well as the courage to question or even completely let go of presumptions. In the age of the environmental crisis, art has a critical role in all of society. We cannot solve difficult problems using the same kind of thinking that created the problems in the first place.

Welcome to a journey to alternative futures!

**Ilpo Rybatzki**

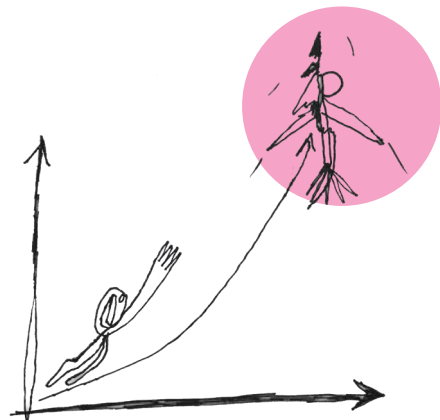
*Art educator*

Futures School / Tulevaisuuskoulu ry

**Otto Tähkäpää**

*Executive Director, futures researcher*

Futures School / Tulevaisuuskoulu ry





# About futures literacy

*“Amidst the current rapid changes, we can’t know what kinds of problems or tasks today’s schoolchildren will face in the future. That’s why it’s important that we strengthen children’s and young people’s ability to imagine and make their own future.”*

– Olli-Pekka Heinonen

Director General of the Finnish National Agency for Education

The future can be influenced with choices made in the present. Pedagogically speaking, these materials are based on the concept of futures literacy, which means a person’s ability to use the future in the present (Miller, 2018). Like other types of literacy, futures literacy is also a skill that can be learned and developed. As a cognitive skill, it consists of several areas that include creative and critical thinking, understanding of causality, the ability to imagine alternative futures, identifying dynamics that shape the future, as well as holistic and systematic thinking, in which artistic studies have an essential role. The goal of developing futures literacy is strengthening individuals’ ability to cope with changes, as well as their proactive relationship with the future, meaning their desire and ability to change things in the desired direction (Puru & Wilenius, 2018).

The purpose of supporting futures literacy is also to strengthen children’s and young people’s faith in the future. The three premises of futures studies are essential:

1. The future cannot be predicted.
2. The future is not pre-determined.
3. The future can be influenced.  
(Amara, 1981.)

The key message of these premises is that there is no one future, but multiple alternative – possible, desirable and probable – futures.

The potential of our futures literacy is restricted by our habit of thinking about the future too vaguely (Gough, 1990). We are using the future with a narrow view limited by the images and concepts we have internalised, as well as our assumptions of what is possible and likely in the present and in the future. The future is conquered with simple thought models that often repeat history. (Puru & Tähtäpää, 2018). This is why we need to specifically broaden our futures to expand our views on possible futures and challenge the presumptions made about the future (Miller, 2018).



The importance of futures thinking can be justified with two factors, above all.

1. The need to imagine alternative, more sustainable lifestyles caused by the eco-crisis. The current actions or gradual changes are not sufficient to stop climate change, impoverishing biodiversity and depletion of natural resources (IPBES, 2019; Hickel et al., 2019). We are required to make fundamental changes as the future of both us and our society as a whole need to fit into the limits of a single planet. We require the ability to imagine alternative futures where the relationship between humans and nature has been redefined.
2. The world has entered an era of unprecedentedly rapid change, where thinking and decision-making must be based on the future, instead of information that is focused on the past.

In futures studies, upcoming changes are anticipated by measuring or observing current dynamics. Some of these dynamic factors are clearer than others. Largely impactful, global changes are called **megatrends**, which have a predominant effect on how the future is shaped. They have a recognisable history, based on which their direction can be anticipated and it can be assumed that the direction will be similar in the future. Examples of megatrends include climate change, urbanisation and digitalisation.

When discussing broadening our futures, it is also interesting to pay attention to phenomena that are not as pre-determined as megatrends. These first flashes of potential changes are called **weak signals**. Weak signals will also play a significant role in our workshops as they open views to alternative futures. The goal is not to 'guess' weak signals 'correctly', but to stimulate our imagination with them. What kinds of possibilities would open up if the weak signal became stronger in the future? Weak signals are used to raise the question 'what if things were different'. What if the impossible becomes possible in the future?

When the themes being discussed are quite heavy, pedagogical responsibility is of utmost importance. The goal of futures thinking is to strengthen children's and young people's faith in the future and broaden their perspectives on the world and society. During the lessons, you should keep in mind that the future may also involve fears and anxiety, and the purpose of the exercises is not to burden individual children or young people with too much responsibility. Instead, you should focus on the future as the source of many opportunities and strengthen children's and young people's faith in that we can influence the realisation of desired futures.

# How to use these learning materials

These materials aim to both offer ready-to-use exercises and also inspire and encourage teachers to modify and experiment with the exercises to make them more suitable for the student group in question.

The materials consist of two sections:

1. Introduction to futures thinking.
2. Two workshops, themed 'Future food' and 'Future work'.

The exercises in the first section also work as warm-ups for the workshops. With the warm-up exercises, you will familiarise yourselves with futures thinking and learn to leave space for imagination in your thinking. You will also find information to support your teaching duties in the 'Weak signals for the teacher' chapters of the workshops. You may also read them out to your students, depending on their level of knowledge. The durations of the exercises are only indicative.

The main character of the stories in the learning materials is Teli Future. Here's Teli's introduction, which you can read to your students before the 'Imaginary journey' section of the workshops.



*Teli Future is a futures researcher and brave explorer who is not afraid to ask 'what if?' What if things weren't like this, but like that? What if the impossible were possible?*

*Teli travels between alternative futures with a time machine powered by dreams and imagination. Utopias are Teli's favourite destinations. They are wonderful places where everyone is doing great. Let's join Teli in exploring future worlds!*



# Introduction to futures thinking

## Discussing futures

You can start working with futures by going through the concept of 'future'. The future can be summarised as things that have not happened yet, for instance. The future is a second, a minute, a day and a thousand years away. The future can also be illustrated with predictable examples, such as 'in the future, cars will drive themselves' and 'in the future, people will grow edible plants on the roofs and walls of buildings' or 'in the future, people can make food out of air'.

It is important to emphasise that the future is not a single pre-determined path; instead, there are many alternative outlooks, the realisation of which we can influence with decisions made in the present. This idea can be structured with the three premises of futures studies:

1. The future cannot be predicted.
2. The future is not pre-determined.
3. The future can be influenced.

You can spend about 15 minutes on the discussion about futures.

### Examples of questions you can ask:

- What is the future?
- When is the future?
- What is research?
- Can you study the future?
- Can you predict the future?
- What kinds of things can we know about the future?
- What is a desirable future like?

- What kinds of things can we influence in the future?
- What kinds of things can we not influence in the future?
- What is the future school of my dreams like?
- Does my future feel like my options are open, or is it pre-determined?

## Future decision-makers

The future involves different wishes and ideas. You can illustrate this with an exercise where all students take on the role of experts and vote on the future. They can vote on either images or statements related to the future. In practice, the decision-makers will analyse one statement at a time and vote with their thumbs on the count of three: thumbs up means that this potential future phenomenon is desirable, thumbs down means it is undesirable, and thumbs sideways means something in between.

### Examples of statements:

- In the future, people will eat insects.
- In the future, people will grow plants on the roofs and walls of buildings.
- In the future, a robot will be my best friend.
- In the future, children and young people will make decisions.

You may also use visual materials related to the imaginary future to support the statements and the voting.

# Workshop I: Future food

**Implementation:** Discussion, story, drama activities, visual art (mixed techniques, sculpting, building, collage, drawing)

**Recommended duration:** 2+ hours

**Recommended age:** Grades 2–6

**For the teacher:** Texts ‘Introduction to futures thinking’ and ‘Weak signals for the teacher’

**Materials:** Teli’s introduction (p. 8), recipe templates (p. 15) and, if you wish, mattresses/ gym mats, soft music, drawing paper, pens, plenty of recycled materials, such as parts of fake flowers and plants, cardboard balls, wooden sticks, leather and fabric patches, pieces of wood, pieces of metal, beads and buttons, plates/mats/boxes for food creations, play dough/clay, sculpting supplies

**Workshop focus:** With this exercise, you can think about and analyse the future and potential changes to food and its production. The goal is to invent new, sustainable foods for the future. This workshop is based on positive futures thinking and imagination plays a major role here.

## Weak signals for the teacher: Solein

Carbon dioxide with a side of electricity – sound delicious? It may well be the recipe for future food.

Finnish scientists have invented a new technology with which the atoms in the air can be turned into a powder that contains protein and carbohydrates. This powder, known as solein, has already been pro-

duced in small amounts. It is expected to become available in shops in 2021.

In the future, we will have to invent new ways of producing food, since currently, food production is responsible for as much as  $\frac{1}{3}$  of the world’s carbon dioxide emissions. Yet, at the same time, 700 million people are suffering from malnutrition. According to the UN’s population forecast, the world’s population will grow by 2.5 billion people by 2050. We will also

need 60 per cent more food on this time scale. In other words, we will need to produce much more food in the future with a lower volume of emissions.

The Finnish invention may be a solution to this problem, since the Earth's atmosphere contains nearly unlimited amounts of carbon dioxide and clean electricity can be produced from sunrays, for instance. Perhaps the food of the future will not be grown in fields, but in machines that can produce food almost endlessly and without emissions, anywhere there is electricity – even in the middle of the Sahara.

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#### Further information:

Turning electricity into food?

*LUT University website.*

Retrieved 18 October 2019.

[https://www.lut.fi/web/en/news/-/asset\\_publisher/Igh4SAywhcPu/content/turning-electricity-into-food](https://www.lut.fi/web/en/news/-/asset_publisher/Igh4SAywhcPu/content/turning-electricity-into-food)

Plan to sell 50m meals made from electricity, water and air.

*The Guardian 29 June 2019.*

<https://www.theguardian.com/environment/2019/jun/29/plan-to-sell-50m-meals-electricity-water-air-solar-foods>

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### Gene scissors

Did you know there are some 50,000 edible plant species in the world, but most of our food comes from only 15 plant species? These plants are mostly the same ones people have cultivated since farming was invented 12,000 years ago.

Thanks to the new CRISPR-Cas technology, also called 'gene scissors', it is possible that our meals will contain completely new edible plants in the future. You should remember that all plants we are currently eating have been refined for a long period of time. For example, the wild

original form of the tomato was the size of a pea, and cultivating them into their current form took 3,000 years. With the gene scissors, scientists have now done the same in only three years.

Genome editing should not be confused with genetic modification. With the gene scissors, we can achieve the same types of changes that occur naturally – only they are pre-planned in a laboratory. We may well have completely new edible plants on our plates in the future. This would be ideal as we need to cut down on meat consumption and increase the amount of plant-based food – from species other than the 15 we are currently eating – to slow down climate change.

What could the new edible plants of the future look or taste like?

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#### Further information:

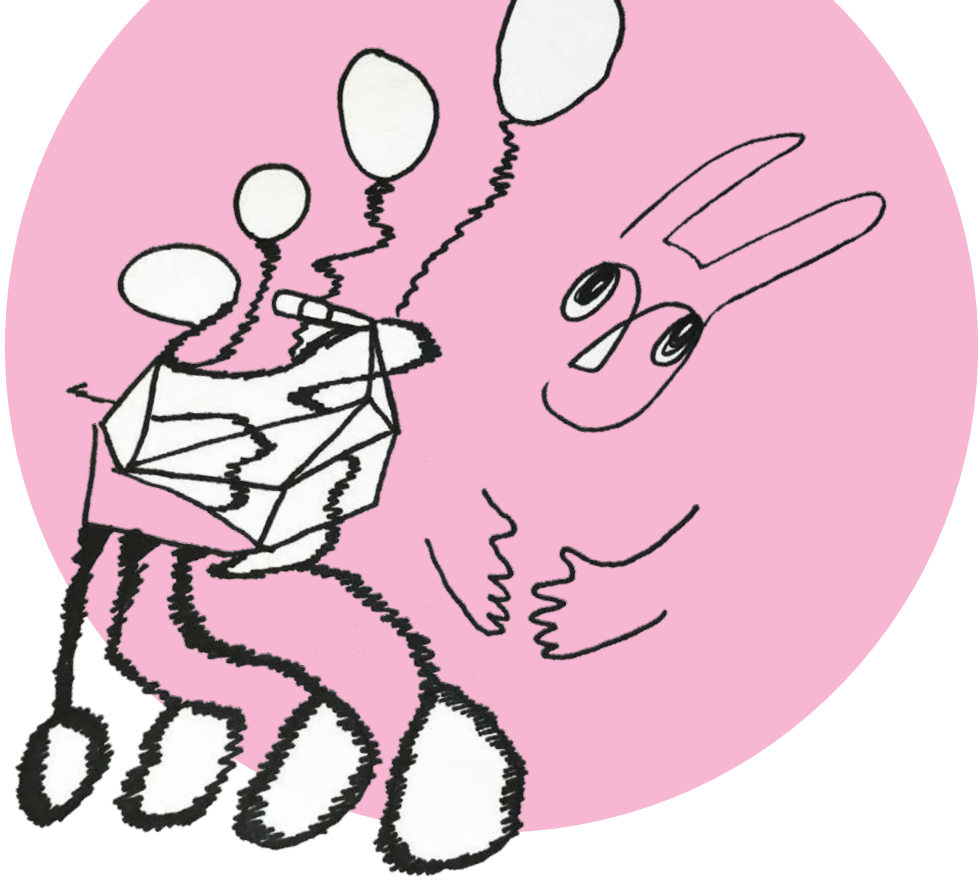
Genome-editing scissors will revolutionise plant breeding, yet a professor fears EU countries will get side-tracked.

*University of Helsinki newsletter*

27 September 2018.

<https://www.helsinki.fi/en/news/life-science-news/genome-editing-scissors-will-revolutionise-plant-breeding-yet-a-professor-fears-eu-countries-will-get-side-tracked>





### **Introduction 15 min**

Discuss the future with the warm-up exercises. The exercises are on page 9.

### **What if... in the future? 15 min**

This exercise focuses on the logics of acceptance. Acceptance is a main principle in improvisation theatre. It enables forward movement in a drama, promotes an encouraging atmosphere and makes the ideas being suggested look brilliant.

At the start of the exercise, students will work in pairs. The students will suggest things related to an imaginary future to each other, such as: what if cars will drive themselves in the future, or what if future food will be in pill form? In the first stage, the students will reject each other's ideas: But that's impossible! Think of how dangerous self-driving cars would be!

The second stage starts the same as the first stage. The pairs will think of ideas or statements about the future. However, this time, the students will excitedly accept each other's ideas and elaborate on them by continuing a thought chain: Yes, and, the cars could also fly! Students may also mime their suggestions.

#### **Questions to discuss with the group:**

- How did it feel to reject your partner's idea?
- How did it feel when your idea was rejected?
- Did the scene move forward?
- How did it feel to accept your partner's idea?
- How did it feel when your idea was accepted?
- How was this version different from the rejection?
- Did the scene move forward?  
(Routarinne, 2005.)

## Imaginary journey 10 min

Next, we will embark on an imaginary journey with a story about future food. Get to know Teli Future by reading Teli's introduction before you read the story. You can deepen the atmosphere of the story with soft background music and by closing your eyes.

Read the story, 'Future food', to your students:

While dreaming of great adventures, Teli suddenly hears a growl. What could that be? It's Teli's stomach! Teli is hungry! What kinds of food will we eat in the future? And what should future food be like? Teli is puzzled. "At the very least, we will need to have enough food for everyone, no matter where they're living. And the food shouldn't pollute the atmosphere or warm up the planet. Sounds like I may need some help!" Through a brain interface, Teli telepathically contacts the central computer system, Nina Newsbroker, who likes to observe new developments, also called weak signals, and is always ready to share them with others.

Nina: "Dear Teli, I'm happy to tell you that a group of Finnish inventors and scientists have come up with an electrical device that makes food out of thin air, the very same air that we breathe! This delicious new food is called solein. It may very well be the answer to your question, since air is all around us! With this new invention, people could make solein endlessly anywhere in the world – even in the Sahara desert! Also, it doesn't pollute the atmosphere or cause emissions that warm up the climate! Our planet will be happy, and people will have their stomachs full of healthy solein."

"Solein, you say? That sounds exciting! But what could you have as a side dish for solein? The plate still looks pretty empty.

Nina, are there any other weak signals for our dinner table?"

Nina: "But of course, Teli! Please wait while I go through my archives. There. I've just analysed 6 million news articles in all the languages in the world. This took me 0.001 seconds. Apologies for making you wait! I'm a little slow today because I haven't been able to enjoy my morning bit coffee in peace. There is an enormous number of edible plants in the world – as many as 50,000! But Teli, do you know how many of them we are using? Only 15 or so! We've been eating these 15 plants since we started cultivating fields. Our dear planet feels better when we eat more plants than meat. This is because plant production needs less water and causes less pollution. And if people of the future grow vegetables on the roofs and walls of buildings, or underground, in places such as old metro tunnels, we can replace the old fields with forests, which will be good for the planet! Anyway, about the plants. Scientists have invented a new device called the gene scissors. With it, our meals could include brand new dishes and vegetables, such as blue carrots that taste like hamburgers and are really healthy, and don't need any water to grow!"

"Thank you, Nina Newsbroker, what an interesting message from the future! Gene scissors and solein sound like the future table is nearly set. There's only a tiny problem: how could we help scientists and inventors see what future food could look like?"

Teli's thoughts start bubbling: "So, now we should think about what future food could look like, and also invent new vegetables with the gene scissors, with a solein relish!" Teli decides to host a future-themed dinner. Teli invites you, a group of chefs including robots, futures researchers and other creatures. Welcome, all solein bakers, flavour designers, food laboratorians, 3D chefs and plant inventors!



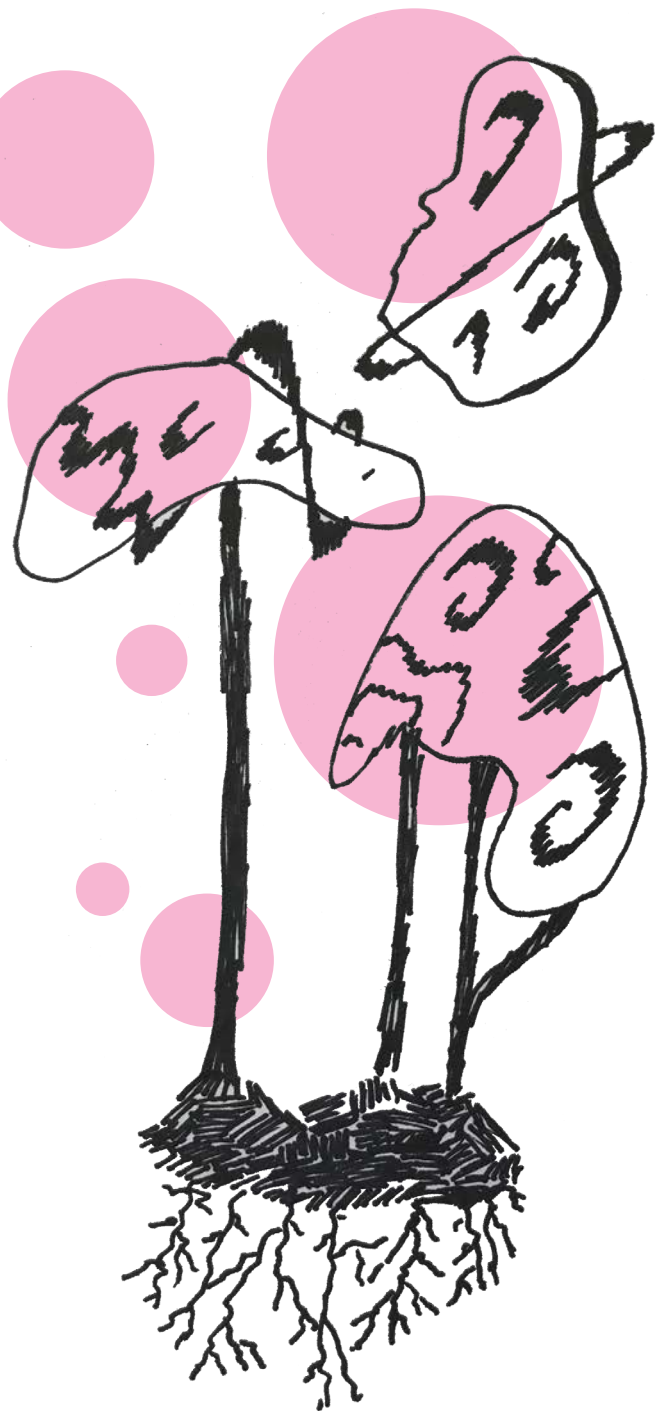
Imagine what the vegetables and other food of the future could look like. What could they be like? What colour, shape or size could they be? What would vegetables and other food taste like, or would they have any flavour at all? Get your ideas going, grab the gene scissors, put the solein buns in the oven and the 3D printed veggie burgers on the grill. Now, let's cook the dinner of the future!

### Planning a future dish 60 min

What kinds of food will we eat in the future? What could the vegetables and other food of the future look like? What colour, shape or size could they be? What would vegetables and other food taste like, or would they have any flavour at all? What kind of future food would your team create? What makes this dish special? How do people enjoy it, and with whom?

Help Teli and create, draw, sculpt or build your idea of future food.

You can create the dishes of the future from the available materials, for example as sculptures made of recycled materials. Create the dishes on your own or in small groups. If you wish, you may also use plates or coasters for the food creations.



### Conclusion 20 min

Let's set the dinner table with the future foods. We will look at all future dishes created by the groups. We will discuss what kinds of thoughts arose when thinking about future food and working on the dishes.

**Extra exercise 1:  
Coming up with your chef name**

Participants can think of a chef name for themselves, either freely or using the recipe below:

**Recipe for a chef name:** Your middle name + a food you'd like to eat right now + a nature themed suffix (pick one), such as -hill, -wood, -dale, -way, -reed, -berry.

For example: Emily Wafflehill, Alex Crispsea, Helen Bananawood

**Extra exercise 2:  
Writing a recipe for the invented dishes**



WHAT IS THE NAME OF THE DISH? .....

WHAT ARE THE INGREDIENTS? .....

HOW WAS IT PREPARED? .....

WHAT DOES IT TASTE LIKE? .....

WHAT IS THE SECRET OF THE DISH? .....

# Workshop II: Future work

**Implementation:** Discussion, story, drama activity  
(dressing up as your character, roleplay)

**Recommended duration:** 2+ hours

**Recommended age:** Grades 4+

**For the teacher:** Texts 'Introduction to futures thinking' and 'Weak signals for the teacher'

**Materials:** Teli's story (if needed, p. 8), both slow and upbeat music, a playful attitude, a flip chart (or similar), a marker, paper, pens, idea templates for characters (p. 21), costumes and props for roleplaying, mattresses/gym mats (if needed)

**Workshop focus:** Thinking about the future and the transformation of work, as well as the following questions: What kind of an adult would you like to be in the future? What kinds of professions will we need in the future? What is the future job of your dreams?

## **Weak signals for the teacher: Basic income**

We are used to thinking that work and income are inseparable. When we work, we earn our wages, which we use to pay our living expenses: food, housing, and so on. However, not everyone has a job, or money to even pay for the bare necessities. Why not solve the problem by giving people enough free money?

In recent years, many countries, including Finland, Canada, the Netherlands, India, Namibia and Kenya, have tested what will happen if people receive a basic income,

meaning a specific monthly sum, regardless of their employment status or income level. The pilots have been used to find out how receiving free money impacts people's behaviour. Will it make people lazy? Will they stop working?

According to the results, receiving free money does not reduce people's willingness to work – sometimes, it does the opposite. It has also been noted that giving out free money has a positive impact on reducing crime, improving education levels, accelerating economic growth and strengthening equality.

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### Further information:

A California city gave some residents \$500 a month, no strings attached. Here's how they spent it.  
*Vox 8 October 2019.*

<https://www.vox.com/future-perfect/2019/10/8/20902839/universal-basic-income-stockton-trial>

Testimony of Kenya's basic income beneficiaries.

*Basic Income News 14 May 2019.*

<https://basicincome.org/news/2019/05/testimony-of-kenyas-basic-income-beneficiaries/>

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## New indicators for progress

You probably have heard of GDP, gross domestic product. However, you may not have heard of GPI, the 'genuine progress indicator', or HPI, the 'happy planet index'.

The gross domestic product is used to measure economy in the same way a tape measure is used to measure length. Economic growth is measured because people think of it as a sign of progress – the same way growth is considered a sign of a child's physical development. However, in the future, we will need new indicators for progress, to replace economic growth, ones that also take the well-being of both people and the planet into account. GDP does not take either of these into consideration. For example, when a factory is producing goods, it will surely add to the economy, but at the same time, its pollutants may ruin the environment and make people sick. Similarly, we cannot tell if we are happy or sad by measuring how tall we are.

GDP is a human invention, and it only became commonly used in the 1950s. Lately, people have been trying to develop a replacement for GDP, so that both people

and the planet feel better in the future. As an example, the genuine progress indicator focuses on human well-being and also takes the economy's effects on the environment into account. Similarly, the happy planet index also takes people's experience of well-being into account.

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### Further information:

New Zealand's world-first 'wellbeing' budget to focus on poverty and mental health.

*The Guardian 14 May 2019.*

<https://www.theguardian.com/world/2019/may/14/new-zealands-world-first-wellbeing-budget-to-focus-on-poverty-and-mental-health>

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## Urban mining

Landfills may be the gold mines of the future – literally. A tonne of outdated disused smart phones contains a hundred times more gold than a tonne of gold ore from a mine.

There already are companies that scour old landfills for scrap electronics from the past decades. In the hands of companies, scrap electronics turn into valuable, reusable resources. There are plenty of resources to discover, since we produce more than 50 million tonnes of scrap electronics each year – this amount equals the weight of 4,500 Eiffel Towers. Since we are constantly buying new devices, the amount of scrap electronics is expected to double, at the minimum, by 2050.

Only a small percentage of electrical waste ends up in recycling, which is why enormous amounts of gold, silver and other valuable and rare resources end up in landfills every year. In the future, we will not be able to afford to leave them laying about in landfills, since we will need these resources to make wind farms and bat-

teries for electric cars, for instance. Less valuable waste, such as plastic, can also be converted to a reusable form, such as biofuels.

So, if you want to be a treasure hunter in the future, you should head to the landfill! There may not be waste in the future, only valuable resources, and it would be stupid to leave them in a landfill.

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#### **Further information:**

The world's e-waste is a huge problem. It's also a golden opportunity.  
*World Economic Forum 24 January 2019.*  
<https://www.weforum.org/agenda/2019/01/how-a-circular-approach-can-turn-e-waste-into-a-golden-opportunity/>

A ton of mobile phones contains more gold than a ton of ore from a gold mine.  
*South Florida Reporter 24 April 2018.*  
<https://southfloridareporter.com/a-ton-of-mobile-phones-contains-more-gold-than-a-ton-of-ore-from-a-gold-mine/>

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### **Introduction 15 min**

Discuss the future with the warm-up exercises. The exercises are on page 9.

### **Statue park of the future 15 min**

In this drama exercise, students will work in small groups to create human statues of the subjects provided, using their own bodies.

#### **Exercise stages:**

1. At the start of the exercise, students will move about the space while music plays. The instructor will stop the music and shout out a random number. The participants will form small groups based on the number with the people closest to them.

2. The instructor will provide a subject for the statue – for example, a robot bus – and the small groups will form a statue together using their bodies. The statues can be made sitting or laying on the floor or standing up, or with mix of both. You may emphasise the importance of accepting others' suggestions in teamwork. The small group's first member to react will suggest a pose and create the base for other members to build on. As a result, the group will form a single entity. When the statues are finished, the instructor and the group may spend a moment observing the statues created.
3. After this, the music will continue until the next pause and the students will again form new groups and create a statue of a new subject.

### **Imaginary journey 15 min**

We will learn more about the theme of future work with the help of Teli and friends. If necessary, get to know Teli Future by reading Teli's introduction from page 8 before you read the story. You can deepen the atmosphere of the story with soft background music and by closing your eyes.

Read the story, 'Future work', to the students:

Lately, Teli Future has been thinking hard about future jobs. Teli sees constant flashes of possible futures and weak signals. Teli feels tired. There are so many important questions about future work: How will robots impact future jobs? Will there be less work? What kind of work will be important in the future? Luckily, Teli knows that thinking is easier when you take little breaks, and lies down on a yoga mat. "If I just close my eyes for a moment and take a tiny nap in the middle of all this research." Teli falls asleep in no time and dreams of a world twenty years from now.



I'm walking to school. It's 2039. Electric skateboards, operated telekinetically via a brain interface, swoosh past me. It's May, but I won't need a spring coat. I sense a pungent smell from the landfill that I pass on my way to school. More and more people are working at landfills. My neighbour is also working there as a treasure hunter of sorts for one of the many urban mining companies. He's always making great sales pitches to get me to join: "Teli, the landfills are gold mines – literally! Did you know that a thousand kilograms of outdated smart phones contain a hundred times more gold than the same amount of gold ore dug from a mine? We are digging for electronics thrown away in the past decades. For us, scrap electronics are valuable and reusable resources. Can you imagine how silly people were in the past? In 2019, the electronics thrown away weighted as much as 4,500 Eiffel Towers. Imagine having that much gold! We can't afford to leave it laying about in landfills, since we need these resources to make wind farms and batteries for electric cars, for instance. Think about it, Teli! This work is really important, and a great way to make a living!"



My neighbour is passionate about collecting raw materials. I understand him, but I think my place is somewhere else, maybe working with people? My aunt is a chieftain. She takes care of the well-being of her neighbourhood. I could imagine being like her, a chieftain, or maybe a friendship assistant.

My way to school goes through an old shopping centre where people used to sell goods. Not many new products are sold now. Instead, I see many repair services, sharing services, a bicycle repair shop, co-working spaces for co-entrepreneurs, a writing school for bloggers, a social media PR company, a co-op of professional complimenters and distribution point for local food. I was in such a rush that I forgot to eat breakfast. I go to a bakery to pick up a freshly-baked bread roll, a blue tomato and pour some oat milk into my own cup. I always carry a cup and cutlery in my backpack. It feels so crazy that people used to use disposable tableware that they threw away immediately. Almost all of the raw materials of the products being sold are from the plots on the roof and walls of the shopping centre or underground, or in the nearby food lab. I arrive at the school. The garden patches in the yard are already turning green. Our class also planted the newest plants created with the gene scissors into cultivation boxes. These plants withstand the local climate particularly well.

I leave my technological devices in the box in the hall, since our school is a technology-free zone. This week, my timetable includes meditation, cultivation, repair and self-awareness classes. I step into a room with mossy walls and take my place on a cushion. We are now in the self-management class. Today, we will talk about dream jobs. The meditation instructor asks us to close our eyes and focus on the meditation by observing our breathing. You can also close your eyes now.

The instructor starts: “Focus on your breathing. Breathe in slowly while counting to two in your mind, and then breathe out while counting to four. Repeat this a couple of times. Become aware of the rhythm of the breath and where in your body you can feel the breath. You’re in 2059. You’re about to start in your dream job in the morning. Where is your workplace located? Do you work from home, or do you have a place you need to travel to? How do you travel there? What are the colours like there? What materials is the environment made of? What does the place smell like? Do you work with other people? Which future problem are you working to solve? What is your relationship with technology like? What about robots? And how do you relax after work? What do you like to do when you’re not actively working?”

I let my imagination run wild and I dream of all kinds of things I don’t know exist. The instructor of the futures class has told us to dream so that we can jump into all kinds of worlds, no matter how utopian. That’s how all great changes and inventions have been made in the history of humanity, why wouldn’t future changes be the same?

Teli is fast asleep, smiling. I wonder what future job Teli’s dreaming of. What about you: what is the future job of your dreams?

### **Discussion about jobs 10 min**

What kinds of jobs were mentioned in the story? Which jobs were particularly memorable for you? What kinds of jobs that improve the well-being of the Earth and its inhabitants could exist in the future?

1. Which things in life are especially important to you? The designated recorder will write the ideas of the group down on the blackboard/whiteboard or a piece of paper.

The ideas may include family, sleep, freedom, food, friendship, nature, etc.

2. On another piece of paper, write down suffixes of professions, such as educator, laboratorian, officer, dancer, assistant, trainer, nurse, fighter, instructor, chef, farmer, collector, researcher...
3. Combine things that matter to you and suffixes of various professions to create new jobs, and write them down, as well. Examples: sleep laboratorian, freedom farmer, friendship assistant...

### **Character creation 30+ min**

Let’s help Teli learn more about future jobs! Based on the previous discussion, the participants create a future character and a job for the character. You may base the imaginary jobs on the idea of sustainability and improving the planet’s well-being. What are the qualities of a job that is good for the environment and the people living there?

You can use the idea template included in the learning materials and write or draw the character’s most important qualities (name, job, workplace, dreams) on the template.

When the characters are finished, you can build props, costumes, accessories and work supplies for the character or use existing props if available. What kind of a uniform or outfit would tell others who you are and what you do?

Note! If you wish, you may customise the characters using props made of cardboard, face paints or masks.

### **Interviews with characters 30+ min**

Teli the futures researcher is very curious about future jobs and wants to have a lit-

tle interview with your group. You may do the following interview exercise with the whole group or, if you have a larger group, in two groups.

1. Each participant will have the opportunity to dress up as Teli and interview their peers dressed up as their original characters. Pick a suitable accessory for Teli the interviewer (such as sunglasses or a microphone). The goal is to do the short interview through improvisation and provide more information about the characters created by the students. If students are feeling shy, the teacher can also act as the interviewer.
2. The Teli interviewer may come up with their own questions or use the following sample questions:

- Who are you?
  - What is your profession?
  - Why is your work important?
  - What are your workdays like?
  - What are the best parts of your job?
  - What are the most difficult/unpleasant parts of your job?
  - What are you dreaming of?
3. Switch roles so that everyone gets to be the interviewee, and, if they wish, the interviewer.

At the end, you can take a group photo of the future experts.

NICKNAME - FAVOURITE THING TO DO - FAVOURITE PLACE

WHO ARE YOU? .....

WHAT IS YOUR PROFESSION? .....

WHY IS YOUR WORK IMPORTANT? .....

WHAT ARE YOUR WORKDAYS LIKE? .....

WHAT ARE THE BEST PARTS OF YOUR JOB? .....

WHAT ARE THE MOST DIFFICULT PARTS OF YOUR JOB? .....

WHAT ARE YOU DREAMING OF? .....

+ POSSIBLE QUESTIONS FROM THE AUDIENCE

I AT MY FUTURE JOB. DRAW OR WRITE

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**Art-filled journeys into the future – methods of futures education for children in lower stage comprehensive school** offers tools for studying futures and developing futures thinking. The learning materials have been created by the arts teachers of Annantalo and Futures School/Tulevaisuuskoulu ry as a part of the Futures Laboratory concept.

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