

Helsinki

# Helsinki Learns – Future Competences

**Education 2030**

Creating good learning, well-being  
and a sustainable future together.

# Helsinki

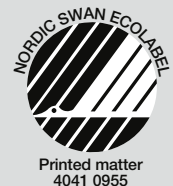
The Helsinki Learns – Future Competences publication was built with strong engagement and cooperation with our 1,000 employees and nearly 4,000 learners and guardians.

Thank you to everyone who took part in the work!

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# Looking far ahead – acting locally

Education builds our future society and its well-being. We are looking at the future with an open and bold mind. We are renewing ourselves wisely so that in the future, we will have creative talents with an ability to develop both their environment and themselves. We value and give the necessary space to learning and growth.

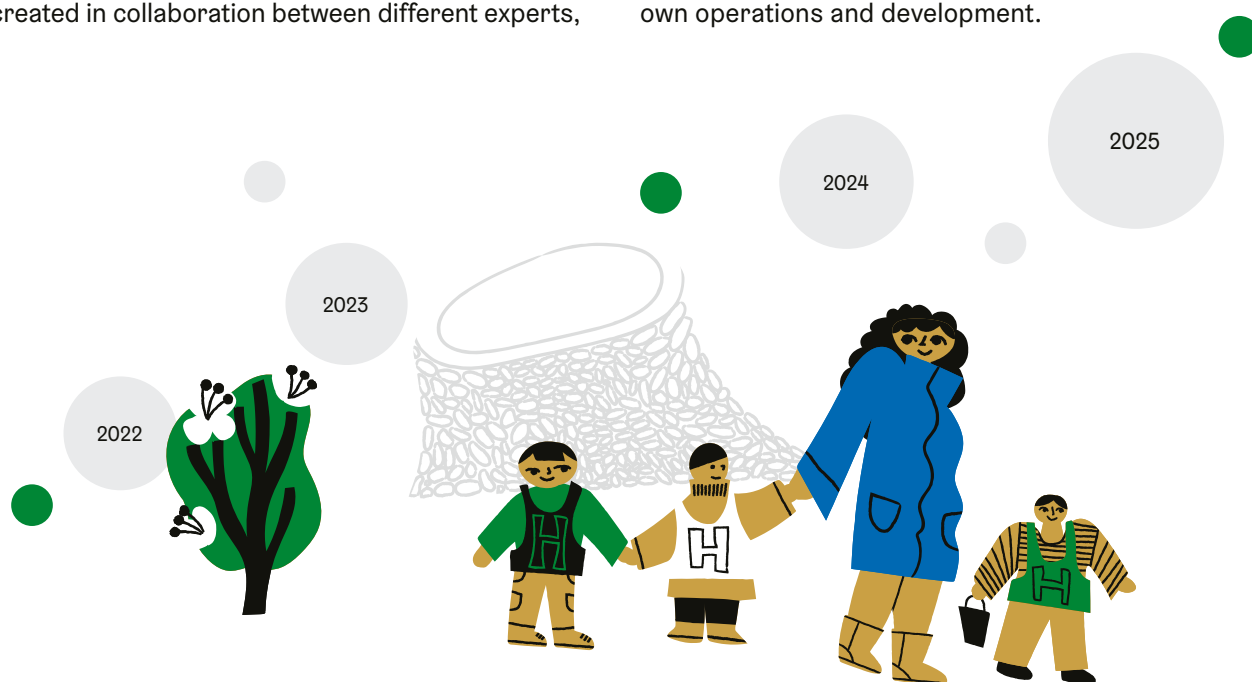
**Education 2030, Helsinki Learns – Future Competences** builds our shared vision of a desirable future. Our objective is to strengthen Helsinki residents' well-being and good learning. We want to build education that is safe and equal and promotes a sense of community. The joy of learning can be seen in our everyday activities.

We take a proactive approach in meeting the needs of learners and reacting to changes in working life by developing cooperation between education levels. We want to increase the educational level of young people. Achieving that will improve Helsinki's employment level and productivity, prevent the risk of social exclusion among young people and strengthen their experience of being part of society.

**Our starting points for development** arise from changes and tensions in our operating environment. Our description of the operating environment was created in collaboration between different experts,

with external networks and research information playing a significant role. The key cornerstone of our view of the future of education is OECD's vision of the future of education. Our view of the future was influenced by a wealth of discussions taking place in 2022 and 2023. These discussions involved Education Division personnel, learners, guardians, municipality residents and decision-makers. We have also collaborated with other divisions and stakeholders.

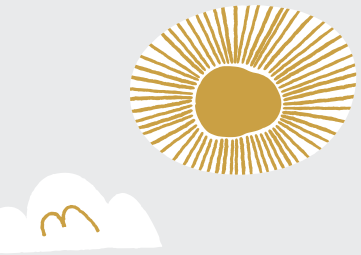
In accordance with the City Strategy 2021–2025, Education 2030 will span across council periods of office as part of the City's strategy, budget, action plans and general development. We will also pick highlights for future curricula and early childhood education plans, as well as qualification requirements and implementation plans of competence assessment. Our guiding principle is that Education 2030 provides shared guidelines while also clearly leaving space for playgrounds, daycare centres, schools and education institutions to make their own choices. Having competent and healthy personnel forms the basis of our operations and is a prerequisite for our success. We want to influence political discourse and future decisions in Helsinki and at the national level alike. We are reinforcing the visibility and significance of education in Helsinki. We are systematically monitoring and assessing our own operations and development.



**We would like to thank everyone** who has already taken part in creating the future of education in Helsinki. We would also like to thank in advance all of you who are now joining our journey. Even though the journey towards our destination may occasionally feel long and distant, let us keep in mind that daily choices make a difference. We encounter people, care and make thought-out improvements – thus taking care of our pride and joy, education in Helsinki.

In order to succeed, we need all of you children, young people, adults, guardians, our personnel and cooperation partners. Let us look far ahead yet act locally – listening to, talking with and helping each other.

*Satu Järvenkallas  
Executive Director,  
Education Division*



## We are building Helsinki together

Participation, sustainability and looking far ahead have played key roles in the creation of the strategic objectives of Education 2030.

Learners, students, our personnel and stakeholders have all taken part in the work. The objectives are based on information and research and emphasise the fulfilment of children's rights.

Helsinki's goal is to be the best and most equitable place to learn for us Helsinki residents. In addition to core competences and skills, we focus on social and emotional skills, as well as future know-how. This enables us to create broad-ranging education and a sustainable future. We now have a clearer direction to follow than before.

With regard to children, these strategic education objectives also contribute to the implementation of the National Child Strategy in Helsinki. Through these objectives, we are working towards building a Helsinki that offers a good place for everyone to live, grow, develop and learn in.

*Johanna Laisaari  
Chair of the  
Education Committee,  
Deputy Mayor*

# How will Helsinki learn in the future?

Helsinki is growing and developing. Changes in the population structure, urbanisation and the development of artificial intelligence are examples of factors that make it important for Helsinki to build the landscape of education in the coming decade more extensively. Education plays a significant role in building the future and intellectual capital.

Our population is ageing and diversifying at the same time. Young people are populating cities that have a diverse background of languages and cultures. AI is expected to radically affect the amount of both reliable and unreliable information available, as well as working life. All this plays a role in what knowledge, skills and competences are essential on different education levels and from the perspective of continuous learning.

In the coming decade, Helsinki residents will be proud of their city, their residential areas and their own skills. We are working together towards these goals:



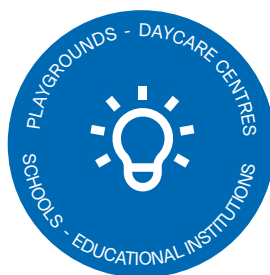
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Helsinki is a world-class learning environment that is building well-being and a sustainable future.



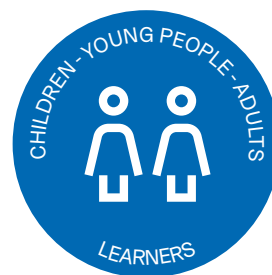
2

The city's neighbourhoods are safe and pleasant, providing good conditions for learning and well-being and promoting a sense of community



3

Every playground, daycare centre, school and educational institution is attractive and inspiring.



4

Children, young people and adults have good future competences and skills. They succeed in everyday life and working life alike, finding solutions to prevalent problems together. Robust core competences and skills, as well as emotional and social skills, lay the foundation for good learning and growth. Everyone experiences the joy of learning and succeeding.

# 1

**Helsinki** is bringing up curious and empathic residents who have trust in the future and want to contribute to building a sustainable future for our city. Helsinki is our shared city that provides everyone with an equal opportunity to be heard and make a difference, learn and develop to one's full potential. We have created an operating environment that is inspiring and encourages a healthy lifestyle.

We are promoting civilisation that creates a basis for well-being, participation, trust and societal peace. We are building shared understanding of the biggest issues of our time, as well as ability to resolve them.



Our goal is for every Helsinki resident to feel that they are part of a safe community. Every person is valued as they are and has an opportunity to participate and make a difference as a member of different communities. At the same time, we respect everyone's individuality and individual needs.

In Helsinki, everyone feels that they are part of a safe community.  
Photo: Jussi Hellsten

## In future Helsinki



Helsinki is a learning city – for all residents.



We learn things alone and together.



We are promoting civilisation and sustainable development and building trust in the future together.



We are promoting learning, which by itself produces well-being.



We are working towards the creation of a sense of community, social interaction and encountering people.



Helsinki is safe to live and learn in.

We learn smartly – we utilise digitality and AI wisely in learning and growth. Pedagogy steers our selection of information systems and tools.



Hobby and exercise opportunities increase well-being and reduce competence differences.



## 2

**Neighbourhoods, i.e. local residents and operators,** are working together towards everyday safety and sense of community that provide everyone with a strong experience of participation and agency. Diversity of cultures and internationality are a natural part of the everyday life of different areas. We understand that a district is healthy only when all the local residents feel that they are part of their neighbourhood and have an opportunity to be heard.

Helsinki's education professionals are collaborating with other actors and residents in the district in order to secure a safe day for every

child and young person. Education facilities serve as meeting points where different representatives of the neighbourhood come together and discuss topical matters related to the area.

Neighbourhoods detect phenomena related to issues such as disorderly conduct, vandalism or bullying as early as possible. Neighbourhoods aim at correctly identifying the problem, enabling them to solve the issue locally. The district is developed from within. Cooperation between residents familiar with the area and experts is an effective way to improve the area, making it lively and safe.

## ”

**The world is changing, and even small acts can have a big impact. Learners take the centre stage.**

Teacher

## 3

**Playgrounds, daycare centres, schools and educational institutions** are attractive and inspiring to local learners.

We provide learners' everyday lives with a smooth learning path, good learning outcomes and high-quality competences and skills regardless of gender, limitations in physical abilities, family or cultural background, or place of residence. We focus on strengthening knowledge and skills that are important from the learner's perspective. Children, young people and adults study and learn alone and together. Pedagogy is planned according to the context and objectives. We invest in upbringing partnership with families.

We improve learning outcomes and well-being through knowledge-based management. We are able to identify learning-related difficulties at the level of the individual and the group alike as early as possible and more accurately than before.



Learners' strengths are supported diversely in all stages of their learning path.  
Photo: Jefunne Gimpel





AI and digitalisation are utilised in learning core competences and skills.  
Photo: Majja Astikainen

## 4

**Our learners – children, young people and adults** – possess key future competences and skills: creativity, resilience, working together, conflict resolution, critical thinking, self-management and anticipation. We guide learners towards persistently learning core competences and skills that form the basis for all learning. For example, conflict resolution and critical thinking require the learner to know the key terms of the topic. Thanks to AI, our learners receive more advice and feedback, as well as exercises that are adjusted to a suitable level of challenge.

Core competences and skills alone are not enough to form a foundation for good learning and well-being. Good social and emotional skills are equally important. Our learners need skills to get

along with different people, control their emotions and resolve conflict situations. Emotional regulation skills improve a person's capacity for good learning. Learners practise, in an instructed manner, identifying emotions, conflict resolution and friendship skills through methods such as play and games.

Learning these skills requires persistence, the development of which we particularly want to strengthen. Our learners' motivation increases when they discover that long-term work yields good learning outcomes. The learner's self-concept as a learner is key. We want every learner to feel competent and important. Promoting well-being and health are prerequisite for good learning.

”

Education always involves change. We must focus on the curriculum and ensure its integration into everyday life.

Daycare centre manager

”

The focus is not on  
success at school,  
but on success in life.

Teacher



# How will our operating environment change?

The future world is increasingly difficult to perceive and manage – we are strongly networked and dependent on each other.

The power of networks is increasing. Digitalisation and development in technology provide new tools for the development of networks and accelerate their strengthening. Networks provide Helsinki with many opportunities in terms of the economy, culture, politics, education and innovations.

Solving complex problems and phenomena requires interaction, learning and global action. Thriving in global competition requires us to have diverse and changing competences.

Helsinki's educational operating environment differs from the rest of Finland in many respects. Our different population structure and urban environment bring about not only great opportunities, but also risks that are partly characteristic of only the largest cities in Finland. Problems and phenomena in the educational operating environment are often long-term in nature, and impacting and resolving them requires persistent work.

Helsinki's population structure and urban environment provide a wide range of opportunities for the City and learners alike. Photo: Maija Astikainen



## Population development in Helsinki

Population development in the Helsinki Metropolitan Area differs from the rest of the country. At present, every tenth Finnish child and young person lives in Helsinki. In 2030, more than 12 per cent of all people under the age of 19 living in Finland will live in Helsinki. The age groups of people aged 12–18 are growing rapidly. The increasing amount of children and young people requires constant investments in education services.

In 2030, nearly half of Finns will be in the age group of working-age people aged 25–64. However, in Helsinki, the equivalent proportion will remain at nearly 60 per cent. In 2030, every fourth Finnish person will be 65 or older. In Helsinki, the proportion of people aged 65 and above will be smaller, less than a quarter.

The population is ageing. In particular, the number of people aged over 80 is increasing in Helsinki. The number of working-age people – young ones in particular – is increasing moderately, and their proportion in the entire population

is decreasing. The need for labour will probably increasingly affect the older age groups. People work increasingly late in life, creating an increasing need for continuous learning and re-education of the adult population.

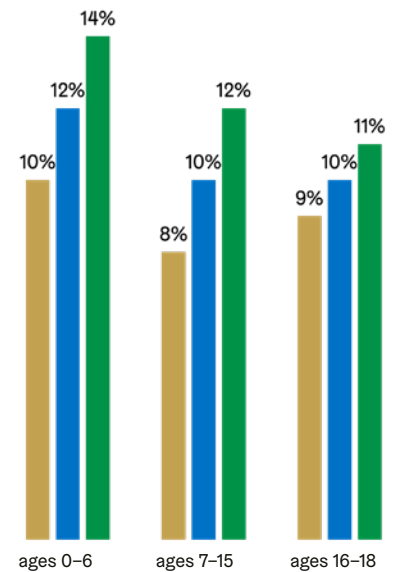
Finland and Helsinki need talents from around the world. The ageing of the population and decreasing birth rates are leading to a need for immigrant labour in order to maintain the Finnish welfare society. As a city, we are competing with other cities in the world for talents, who are a prerequisite for a vital city. Smooth residence permit decision processes and foreign-language services are essential competitive advantages.

Immigration requires us to develop our current education services. That is why we are promoting the guidance of foreign-language families towards education services in Helsinki and allocating resources to identifying prior learning. We utilise the diversity and diverse language skills of the community in education.



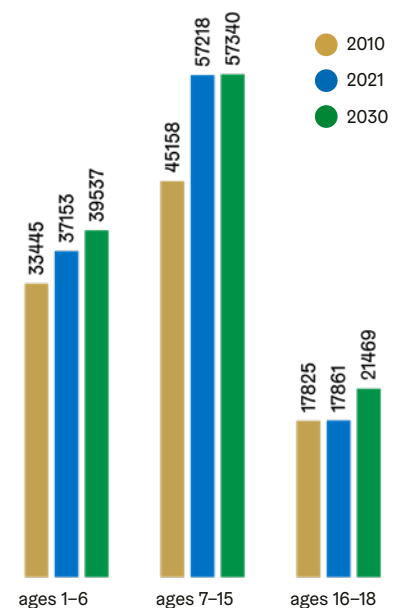
In 2030, every tenth Finnish child and young person will live and learn in Helsinki. Photo: Maija Astikainen

Helsinki's proportion of the entire country's age groups



Population at the end of the year.  
Source: Statistics Finland, Helsinki's population forecast created in 2023, City of Helsinki. The entire country's forecast created in 2021, Statistics Finland.

Education service age groups in Helsinki



Population at the end of the year.  
Source: Statistics Finland, Helsinki's population forecast, City of Helsinki.

The majority of foreign language speakers live in cities and the Helsinki region. Every fourth foreign language speaker under the age of 19 lives in Helsinki. More than 130 native languages are spoken at Helsinki's daycare centres and schools, and native language education is provided in 47 languages. The proportion of foreign language speakers has increased rapidly throughout the 21st century, and the growth continues.

Currently, roughly 20 per cent of children and young people have a native language other than Finnish, Swedish or Sámi. It is estimated that in the 2030s, one third of learners in early childhood education and comprehensive school will speak a native language other than Finnish, Swedish or Sámi. This requires us to assess and develop pedagogic solutions, practices and tools.

Increasingly many foreign language speaking children were born in Finland, have learned Finnish or Swedish and have gone through a Finnish learning path. Helsinki is a common relocation destination among families whose children need preparatory education for basic education and are entitled to Finnish or Swedish as a second language education. Special attention must be paid to young people who come to Helsinki near the end of comprehensive school so that they will have the capacity and language skills to move on to secondary education.

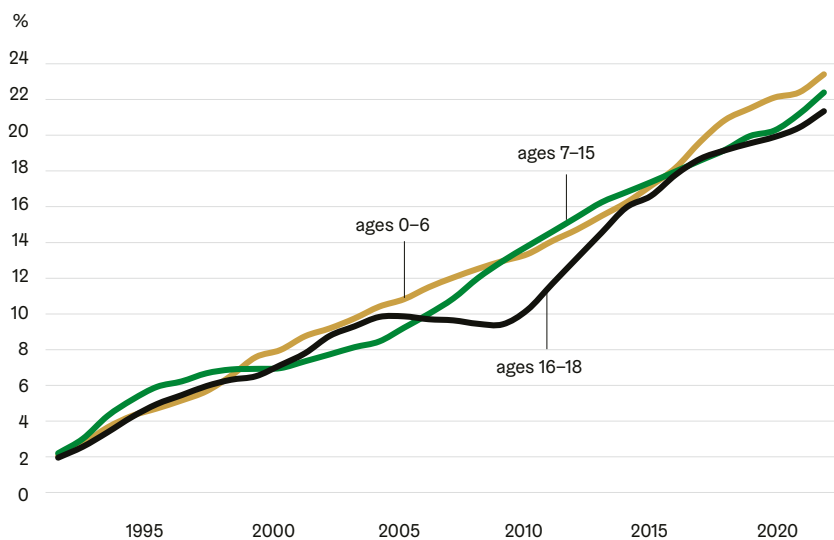
The proportion of Swedish-speaking children and young people among the age groups has remained very even throughout the decades and is expected to remain unchanged. Slightly fewer than seven per cent of children and young people living in Helsinki speak Swedish as their native



language. In 2030, the number of Swedish-speaking residents under the age of 20 would be roughly 8,700. As such, the need for services in Swedish will continue.

In 2030, every third learner in early childhood education or comprehensive school in Helsinki will speak a native language other than Finnish, Swedish or Sámi. Photo: Maija Astikainen

**Proportion of residents speaking a language other than Finnish, Swedish and Sámi**





## Education and employment

In Finland, the increase in the educational level has stopped in relation to other OECD countries. The educational level in Helsinki differs from the rest of the country. More than half of working-age Helsinki residents have a higher education degree. In other parts of the country, working-age people most commonly have an upper secondary level vocational qualification. By contrast, 84 per cent of Helsinki residents aged 25–64 have obtained a qualification after basic education, whereas in the entire country, the corresponding figure is 86 per cent.

The lower level of education among Helsinki residents is partially explained by the fact that the qualification register does not display all qualifications obtained by immigrants. The qualification register primarily only shows qualifications obtained in Finland. In Helsinki, the first generation of young people with an immigrant background tend to select vocational education after basic education. By contrast, second-generation learners with an immigrant background tend to opt for general upper secondary education like other young people.

**The extension of compulsory education to the upper secondary level ensures that young people obtain a qualification.**

In Helsinki, residents who have obtained an upper secondary vocational qualification find employment very well compared to the rest of the country.  
Photo: Justus Hirvi

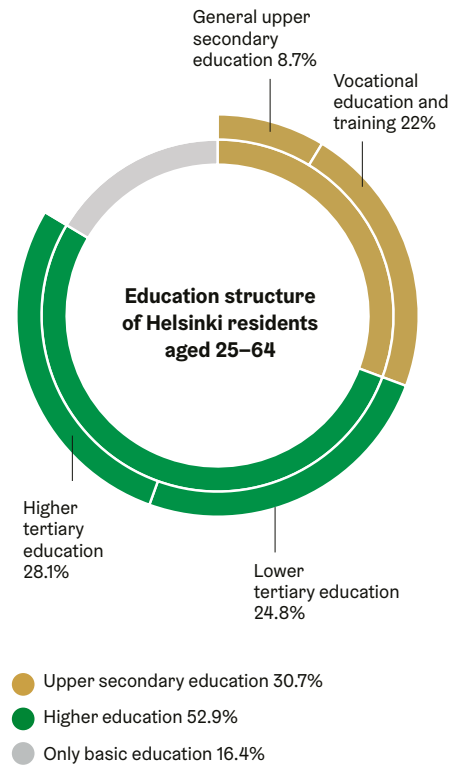
There are also differences in the educational level by gender. In Finland, men have fewer qualifications than women. The differences between genders are major, particularly among young people in Helsinki. Of female Helsinki residents aged 20–24, 85 per cent have a qualification after basic education. Among men, the corresponding figure is 75 per cent. Men obtain more upper secondary education qualifications, while women obtain higher education degrees.

Levels and fields of education are hereditary. If the parents have a higher education background, it increases the likelihood of their children seeking higher education. As the education level of the adult population in Helsinki is focused on higher education, young people also tend to aim at general upper secondary education and higher education. Helsinki needs enough places at general upper secondary schools and higher education institutions to provide the age group with a smooth transition to the next level of education without break years and tight competition. At the same time, we must make

sure that we have enough places in vocational education and training to meet the needs of changing working life.

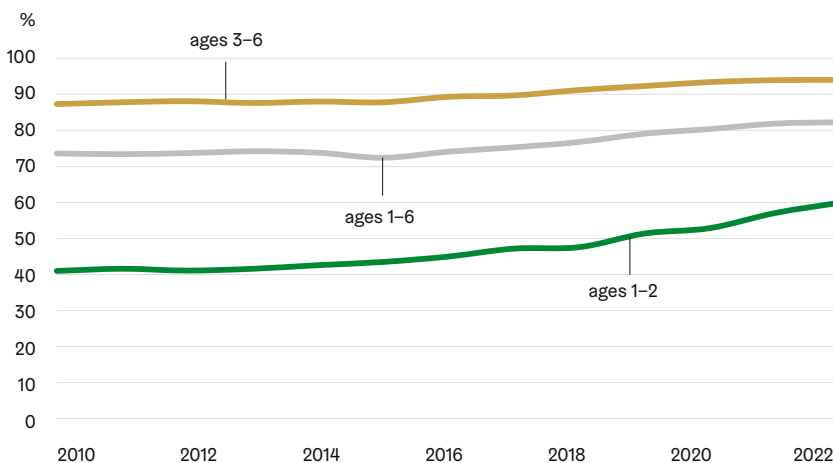
Children in Helsinki have been increasingly attending early childhood education for a long time. More than 90 per cent of children aged 3–6 and 60 per cent of children aged 1–2 attend early childhood education. Among foreign language speaking children over the age of three, the attendance rate is close to that of Finnish and Swedish speakers. There are regional differences in attendance rates, and these differences have increased in 2021 and 2022.

The extension of compulsory education to the upper secondary level ensures that every young person completes upper secondary education. With this change, the risk of social exclusion is shifted more to the period following upper secondary education. A crucial aspect in the phenomenon of social exclusion is whether young people receive a place in further education or find employment after upper secondary education.



*In accordance with the highest qualification obtained. Statistic from 2021. Includes all qualifications obtained in Finland and only a portion of foreign qualifications. Lower tertiary education = lowest tertiary education + lower tertiary education, Higher tertiary education = higher tertiary education + researcher education. Source: Statistics Finland*

**Children attending early childhood education provided by the municipality and private operators**



*Annual percentages of children in municipal early childhood education and children receiving private care support from 31 December onwards. The numbers are proportional to population information from the same period. Source: City of Helsinki and Kela*



In Helsinki, residents who have obtained an upper secondary vocational qualification find employment very well compared to the rest of the country. Another positive statistic is that students of general upper secondary schools in Helsinki move on to university education more commonly than in the rest of the country.



## Segregation and social exclusion

Segregation arises from inequality between individuals and the accumulation of disadvantage in certain areas. The increase of inequality, as well as the accumulated and transgenerational nature of disadvantage, create societal tensions and pose a threat to building a socially sustainable future. They are also a threat to sustainable economy and productivity.

The underlying factor in segregation is the social exclusion of individuals, which can be seen as regional concentrations. The accumulation of disadvantage risks, i.e. the risk of social exclusion, is a process in which the causal relations behind the accumulation of disadvantage are difficult to discern. Social exclusion is often related at least to poverty, employment, social relations, health and well-being.

The differences between districts in Helsinki are clear based on several well-being metrics, even if they remain at a reasonable

level compared to international statistics. Well-being differences are particularly prominent among families with children. More than one in ten children in Helsinki live in a low-income family, and six per cent of families with children are in a prolonged low-income situation. Observed through socio-economic metrics, segregation is slowly increasing. In the Education Division's services, segregation can most often be seen in the best units separating from the rest, not the poorest ones.

Among families with children, segregation can also be seen in education services, e.g. in variance in the proportions of children entitled to free-of-charge service such as daycare due to their parents' income level, and Finnish as a second language pupils between units. In basic education, the proportion of Finnish or Swedish as a second language pupils among all pupils was 24 per cent in the autumn of 2023. This percentage varies from school to school, from zero to 62 per cent. Within Swed-

ish-language basic education, the proportion of students with Swedish as a second language was 2.54 per cent.

Areal differences in the socio-economic and demographic structure of the population are also reflected on other areal dimensions of well-being in Helsinki. For example, areal differences in schoolchildren's learning outcomes, young people's well-being challenges, illness rates of the population and voting behaviour are clear in Helsinki. Internationally speaking, the effect of a person's socio-economic background on their learning outcomes is minor but increasing. In the 2000 PISA survey, the difference in learning outcomes in the literacy of pupils with the poorest and the strongest socio-economic background was equal to slightly over one school year's worth of studies. Over two decades, this difference has increased to nearly two school years.

Even though basic education pupils exhibit segregation in terms of



Basic education pupils exhibit segregation in terms of well-being and learning outcomes, while little segregation can be observed among personnel members. Photo: Aki Rask

well-being and learning outcomes, little segregation can be observed among personnel members. No statistic connection has been discovered between comprehensive school and early childhood education personnel's experiences with their own work community, management and occupational well-being, and their school's operating environment. However, some connections have been discovered in personnel members' relationship with their operating environment, e.g. in the sense of managing their work or the proportion of qualified early childhood education personnel. Even though the differences are minor, they should be monitored because spatial segregation among personnel members is particularly problematic, as it causes a risk of cascading educational disadvantage among learners.

In recent years, increasing spatial segregation has been clearly observable in Helsinki. Finland and Helsinki have been largely able to prevent the impact of areal segregation by having highly educated and knowledgeable education personnel. They can operate in different environments and support learners coming from different starting points. Segregation development will continue to be considered at the city level in terms of developing personnel competence and allocating resources.

Education tackles social exclusion and segregation in our everyday work. We are responding to the root causes of segregation by ensuring that all learners have equal opportunities.

**Radicalisation and extremism** are a cause for societal concern. They remain marginal phenomena in

Finland, and there is relatively little criminal activity related to them. However, interest in extremist movements and ideas is increasing. Radicalisation can be prevented through education, and a radicalisation process already under way can be intercepted through multidisciplinary cooperation.

Radicalisation is a process in which an individual's attitudes and worldview become black-and-white and hostile. It may ultimately lead to extremism. Extremism is strongly based on 'us versus them' thinking, i.e. antagonism between internal and external groups. An external group is seen as a threat to the identity of the internal group, causing the internal group to see violence against the external group as justified. As such, radicalisation and extremism are threats to democracy, people's sense of security and social peace.

We are strengthening learners' sense of security, participation and belonging, as well as their agency. Schools and educational institutions are preventing radicalisation and extremism effectively in cooperation with other operators. We in the Education Division are carrying out effective preventive work. We are developing a collective and inclusive operating culture. Learners are provided with the support they need for learning and well-being. They practise democratic influencing and conflict resolution skills.

Our aim is for learners to develop a sense of belonging in their community. We encounter and see every learner every day and promote encountering learners in a valuing manner.



**Education targets the root causes of segregation by ensuring equal opportunities for each learner.**

## Well-being and health

Mental health serves as the foundation of a person's well-being, health and ability to function. Most children and young people are happy with their lives and enjoy school. However, many young people consider their state of health to be average or poor. A decline in young people's mental well-being could already be observed before the COVID-19 pandemic. The pandemic caused the situation to grow significantly worse. Now, up to a quarter of young people are having issues with their psychological well-being.

In the School Health Promotion study, ten per cent of fourth and fifth graders reported having experienced bullying on a weekly basis. Young people's experiences with weekly bullying at school diminish when moving to upper secondary education. Online bullying and sexual harassment have become considerably more common since 2013. Psychological domestic violence towards children has increased. The study shows that concerns regarding vi-

olence related to children and families and how stressed families are, have been brought up in recent years. Other phenomena highlighted in the School Health Promotion study include school burnout becoming more common because of schoolwork-related stress, the experience of loneliness, depression symptoms and anxiety.

Based on the aforementioned trends, it seems that in the future, mental well-being challenges among children and young people will increase unless we are able to make remedying adjustments. The COVID-19 pandemic increased our well-being deficit. Remedying the situation continues to require expertise, time and resources.

The results of the School Health Promotion study show that long-term work carried out at schools and educational institutions to strengthen well-being among children and young people is effective when it is implemented in a systematic and multidisciplinary manner.

Daycare centres, schools and educational institutions have a front row seat in terms of changes in children's and young people's well-being, as well as an important role in supporting their well-being. Good cooperation between early childhood education providers, schools and parents promotes children's well-being. We are strengthening our upbringing partnership with families. In addition to learning, the mental health and well-being of children and young people at large can be promoted by everyone in the early childhood education, school and educational institution community, and the matter concerns the entire community.

We are promoting well-being and health comprehensively. The key aspects include residents' quality of life experiences and individuals' physical ability to function, as well as their psychological and social well-being.

The learning environment influences one's mental health. Strengthening social and emotional skills has been identified as a factor that protects mental well-being. For this reason, we have made the strengthening of social and emotional skills part of teaching and learning. We are supporting the formation and maintenance of friendships, as well as preventing and acting against bullying. The significance of student welfare services is greater than before.

Well-being and health are prerequisites for learning. We want our learners to be physically active and feel good. They are surrounded by friends and reliable adults. They have good conditions for learning and developing.



A large proportion of children and young people are happy with their lives. Playgrounds, daycare centres, schools and educational institutions can provide learners with reliable adults and opportunities for physical activity. Photo: Maija Astikainen



## An ecologically sustainable future

Strengthening learners' eco-social civilisation is part of their learning path in Helsinki. Photo: Aki Rask

Responding to the ecological sustainability crisis is a key duty that we are working towards.

Ways of thinking arising from people's values and attitudes form a basis for sustainable lifestyles. Creating a sustainable future has to do with learning and renewal related to worldviews. Our operations take into account that the well-being of our nature and ecological sustainability lay the foundation for our existence, societal well-being and all development.

We are strengthening Helsinki residents' eco-social education. An eco-socially educated person has a comprehensively responsible relationship with the world. They understand how the well-being of other people and nature is connected to themselves. Another aspect at the centre of future competence is broad-ranging and diverse sustainability capability, which learners are able to apply

in practice in changing environments. We need education for sustainable development that takes into account emotions, knowledge and skills. Images of the future related to ecological sustainability often give rise to concerns as well, which is important to acknowledge. For example, climate anxiety is often brought up in the verbalisations of learners in Helsinki. It is therefore important to remember that education creates hope for a good future.

A lot is already being done at the global level to promote the well-being of nature. The objectives of Agenda2030 are making progress, UNESCO is promoting transformative learning and the EU has published its GreenComp competence framework that outlines twelve future competences. These form a good foundation for sustainability education in the coming decade.

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In the future, there would be plenty of forests and animals: You could climb trees and play with sticks in the woods. You could look at flowers in the woods. You could watch foxes and squirrels. There would be horses in a stable.

Daycare-aged child



## Digitalisation, data and artificial intelligence

Our society and the business sector are largely digitalised, which affects future economic structures and professions, as well as participation and influencing in society. Digitalisation has spread into all areas of society and life one way or another. Technology has a significant presence in everyday working life and leisure time alike. Data is being collected and utilised at an increasing rate to provide new tailored services for both individuals and organisations to use. At the same time, there is plenty of debate regarding rules for the digital world, the resources required by new technology and technological development in general. Challenges are posed by technology giants' current dominance and the sufficiency of critical resources alike. Helsinki is taking these into account by structuring the digital future in close collaboration with scientific communities.

Digitalisation plays a key role in terms of the availability and accessibility of information. Education is keeping up with the constant development of digitalisation and anticipates how society will change. The ability of education to act in a changing digitalised world is determined by factors such as the education system's concept of technology (concept and understanding of digitalisation and AI), conception of learning, teaching practices, up-to-date competence and resources.

### **The significance of data and AI in society is increasing**

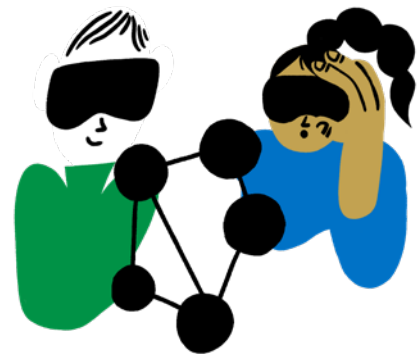
Modern society is largely relying on advanced and constantly developing technologies, such as cloud technology, AI and data analytics, as well as robotisation. Learners need computational thinking skills, which are prerequisites for

perceiving and understanding AI and how it works. These skills enable us to understand automated decision-making and the use of machine learning in areas such as social media, hybrid influencing, internet search services or the banking and financial sector. Computational thinking is based on the creation of abstractions, linguistic problem-solving and mathematical thinking. Technology competence is based on having robust core skills, particularly in terms of linguistic competence and mathematics.

Pedagogy is steering the use of digital tools. We are reflecting on the ethics and ethical use of AI. Photo: Maija Astikainen



# AI is providing new opportunities in terms of building personalised learning paths.



AI cannot be approached merely as a technology, as it is a key factor determining societal democracy and freedom of speech.

AI can be used for different purposes: the formation of knowledge, automatic censoring and hybrid influencing. Examples of the threats of AI include misinformation becoming accepted as true and the prevalence of false contents and distortions.

The task of education is to provide learners with critical thinking, problem-solving and creativity skills, which are related particularly to understanding AI and utilising it in our future society.

In a digitalised and globalised world, these skills are a prerequisite for active participation, freedom of speech and the assurance of democracy. In terms of education, key aspects to observe are the ethics and ethical use of AI.

Digitalisation plays a significant role in environmentally friendly development, i.e. the green transition. Digitalisation helps with aspects such as the promotion of energy efficiency, the integration of renewable energy, smart traffic and buildings, remote working and digital services, as well as recycling and waste management. In these contexts, environmental friendliness is based particularly

on correctly timed energy use and reducing energy waste.

## **Artificial intelligence in education**

The rapid development of technology and AI encourages education professionals to develop pedagogy, assessment of learning and educational contents.

AI provides tools for individual guidance in teaching and learning that make it easier to meet learners' different needs. AI will not eliminate the need to learn skills such as reading, calculation and knowing the core terminology of different subjects, but it will diversify methods of learning. AI is impacting the future of work, which can be seen particularly in upper secondary education.

AI-based learning analytics is a key tool in learning and teaching. We can support learners' learning by means such as automated guidance and feedback. Learning analytics facilitates correctly timed and targeted learning support, as well as the development of talents. AI provides a tool for personalising every learner's learning process in accordance with their individual needs. Data analytics facilitates the appropriate targeting of measures that support well-being.

We are strengthening teachers' competence regarding the oper-

ating principles, limitations and problem areas of AI. It is possible for information to be distorted in some regards and learners to use the tools provided unethically. It is likely that technology will resolve some of the currently identified threats, but teachers should understand the deficiencies of AI in addition to the opportunities it provides.

We are working to make sure that the development of AI will not increase social exclusion in the digital realm. At its best, AI can help people whose digital skills have room for improvement. However, it is equally possible that the development of AI will increase the risk of digital exclusion among adults, particularly the elderly.

AI is not only a tool for teaching and learning, but also a subject of learning. We use digital tools so that they reinforce people's sense of belonging in their community and participation.

## Personnel

The City of Helsinki's Education Division is a major employer. In 2022, our number of personnel was 14,520. As the population of Helsinki increases, the City's number of personnel is expected to increase as well.

Our division has a shortage of personnel particularly in the positions of early childhood education teachers, early childhood education special needs teachers and special needs class teachers. We also have a shortage of Finnish as a second language teachers, vocational education teachers in certain technical fields and student welfare psychologists. There has been a slight decrease in the number of people applying for class teacher positions.

The number of basic education pupils and upper secondary education students in special needs education is increasing, as is the number of pupils speaking a native language other than Finnish or Swedish, which increases needs for learning support. In turn, this increases the need for special needs class teachers, special

needs teachers and Finnish or Swedish as a second language teachers.

The labour situation is critical in early childhood education. The level of pedagogic know-how is endangered when the number of non-qualified workers increases. Approximately 2,700 new qualified early childhood education teachers and bachelors of social services are needed in early childhood education by 2030. The need for early childhood education teachers and bachelors of social services increases as the number of children attending early childhood education increases and the personnel structure is changed in accordance with the Act on Early Childhood Education and Care (540/2018).

The qualification of early childhood education personnel is supported by granting pay subsidies and paying course fees related to training. Comprehensive school class teachers are supported with a paid leave of absence when they complete separate special needs teacher studies. Personnel mem-

bers are also supported in obtaining qualifications for extensive bilingual education and language immersion education.

The Education Division's positive image as an employer is being reinforced through systematic communication and recruitment marketing. Cooperation, internship practices and communication with universities is being intensified, recruitment events are being attended more extensively, and marketing is being aimed more comprehensively beyond the Helsinki Metropolitan Area as well.

The operating environment of Helsinki requires us to take into account the wide range of needs related to personnel competence. We must ensure that our personnel are sufficiently competent and that we are able to retain and attract trained personnel. It is essential to ensure that our personnel have the know-how required for promoting learning and growth in accordance with inclusive principles and learners' needs.



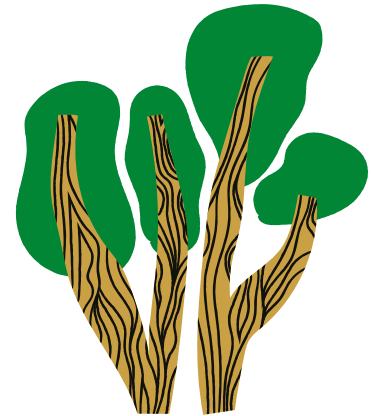
## Transformation of working life

The transformation of working life is closely connected to Helsinki's special characteristics and the diversity of the city. There is a labour shortage in several fields, so there is a great need for increasing the number of available student places and foreign labour. The proportion of foreign language speaking Helsinki residents is increasing rapidly. In 2030, more than 23 per cent of Helsinki residents will be foreign language speakers. By that time, not all jobs will require Finnish or Swedish language skills anymore, which is important to take into account in the provision of education services. Our education system will create possibilities for immigrants and international talents to find their place in Finnish society and working life.

Work is increasingly often defined through meaning. For example, salaried work intersects with unpaid volunteer, family care and household work in people's lives.

The number of personnel in the Education Division is expected to increase in the future while personnel competence needs are also undergoing a change.  
Photo: Maija Astikainen

Competence needs are undergoing a process of change. Going forward, important areas of competence will include meta skills that promote change management, such as problem-solving skills, self-regulation, learning skills and the development and management of personal know-how. The significance of platform economy and digital competence is increasing. Duties requiring only a low level of competence are decreasing, while expert duties are increasing. Digitalisation and technological development are reflected on the competence needs of working life in the future.



”

Education is seen from a broader perspective. One profession is no longer enough – development is that rapid.

Principal

At comprehensive school pupils' dream school, the learning environments are interesting and exciting and inspire physical activity.





# How will education develop?

Societies are put to the test when crises pile up. Global and national inequality and the ecological sustainability crisis will affect our operations throughout the coming decade. The status of democracy will be questioned and informational influence will increase. Education must have the capacity to resolve issues related to democracy education, informational influence, and the management of digitalisation with strategic choices.

These phenomena require Helsinki to be strongly anticipating, be able to identify risks and engage in robust network cooperation with other operators.

Digitalisation is changing the way we act, think, communicate, and influence matters. The staggeringly rapid development of generative AI is opening entirely new opportunities for learners and education. However, it also entails risks and ethical tensions. Technological development has historically been one of the most significant factors affecting people's knowledge concept and education. The development of AI will probably be a new significant milestone that will challenge education to make changes.

Information is everywhere and available to everyone – and the amount of information is increasing at an unprecedented pace. It is our duty to make sure that in the future, Helsinki residents will have good conditions for adapting to

their changed operating environment.

Our goal is for children, young people and adults to possess future skills and competences, i.e. competences that will enable them to succeed in everyday life and working life and solve problems together with others. Key future competences include creativity, resilience, working together, conflict resolution, critical thinking, self-management and anticipation.

The future competences are based on robust core competences and skills, as well as social and emotional skills, the practice of which we dedicate time to. Well-being forms the core of good learning, which is why education is promoting everyone's well-being, safety and sense of belonging to the community. This enables us to ensure good conditions for learning and growth for everyone.



We must ensure that no child is socially excluded, that everyone has resources and opportunities to be part of society.

Principal

The education of children and young people takes into account factors such as the impacts of informational influence on learning. Photo: Aki Rask

Learners practise future skills and competences for working life, as well as building a sustainable and good future. Photo: Jefunne Gimpel



## Working together

We value the teaching and learning of key competences and skills. We raise social and emotional skills to the same level of importance as key competences and skills. Together, we are creating an operating culture that supports the development of future competences.

Key competences and skills, as well as social and emotional skills, lay the foundation for learning and serve as tools for all other learning processes. Future thinking, anticipation, continuous learning and transformative competence can develop when the foundation is robust and sound. The skills are not hierarchical, as they develop simultaneously and in interaction with one another.

Future competences are needed in everyday life and working life alike in order for us to be able to build a sustainable and good future together. Trust and faith in the future comes from our ability to face uncertainty and even difficult problems, as well as our ability to find solutions, make a difference and build a different kind of future.

Future competences involve the ability to think about the future in a creative and anticipatory manner and find alternative solutions together. Such transformative competence is needed particularly in situations in which old operating models no longer suffice. This requires shaking up established thinking patterns and operating models, as well as courage to engage in activities the success or result of which is not guaranteed.

The role of education is to strengthen not only competences and skills, but also values and attitudes needed in order to build a sustainable and just future. We will generate a desire and a need to understand and modify the world around us to make it more functional. Continuous learning is the

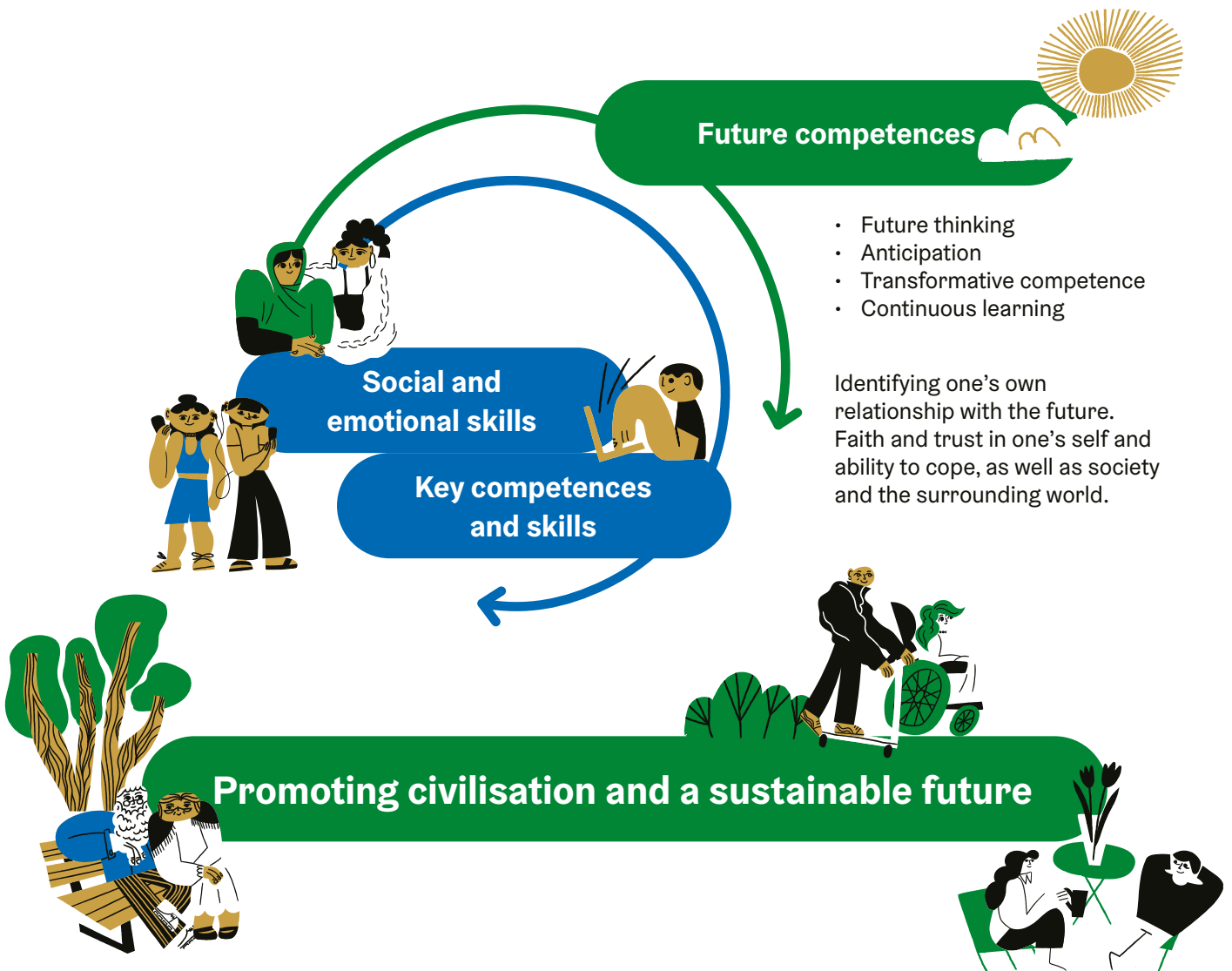
starting point and a prerequisite for sustainable development at the level of the individual and society alike. Collaborative competence and dialogue are important.

We focus on teaching and learning future competences throughout the entire learning path. We are strengthening learners' agency and providing space for facing current problems and reflecting on alternative futures. We are strengthening learners' trust in the future. We already have methods and tools available for this purpose. We are developing them together to support everyday work.

The key principles of our operating culture:



## Well-being and good learning in Helsinki



# 1

## We bring safety and a sense of belonging to everyday life

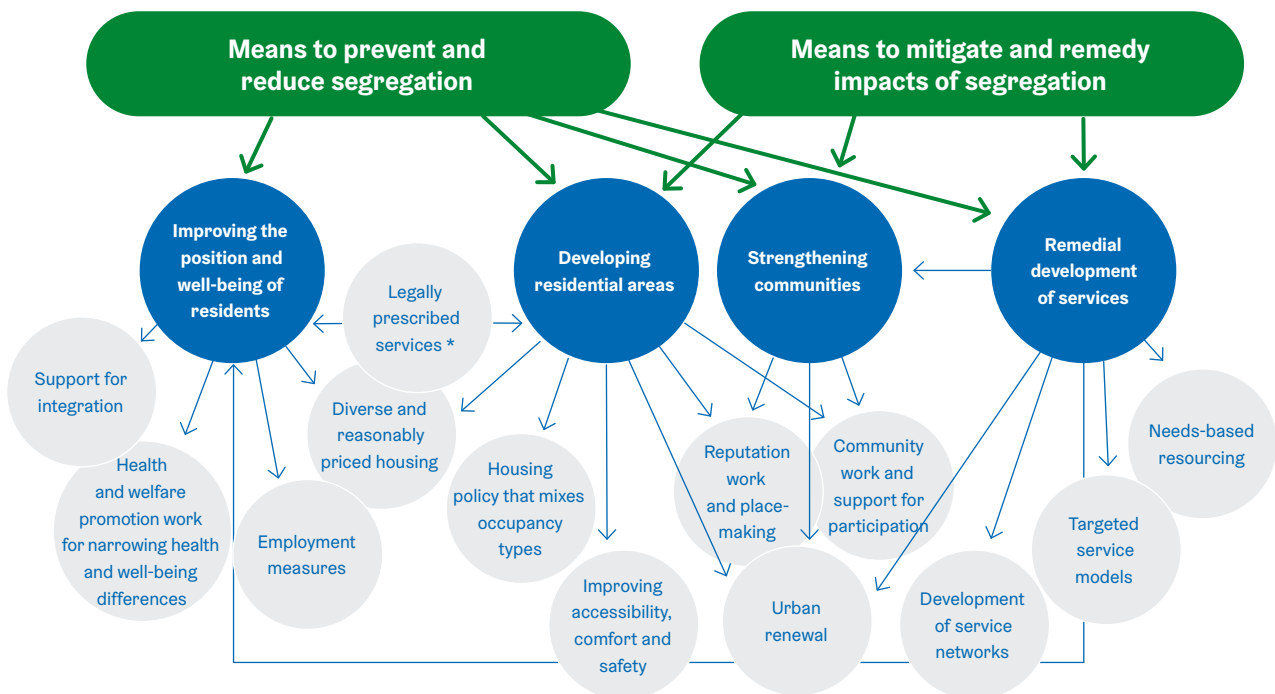
We see a sense of community as a key factor in education in the future. Helsinki residents' good mental health, learning and happiness, as well as success in responding to the segregation phenomenon, require a sense of community and functional networks. Our democracy education is based on participation and a sense of community. It is the foundation of the stability of our society. Communitarity resolves issues caused by loneliness. We are strengthening the sense of belonging and community in the everyday operations of playgrounds, daycare centres, schools and educational institutions.

By investing in the community, we are promoting everyday

safety. Thanks to a strong sense of belonging to the community, increasingly few Helsinki residents feel like outsiders. In turn, this prevents social exclusion and disorderly conduct caused by insecurity, such as gang activity. We are collaborating and working together with neighbourhoods to increase safety. We are monitoring the development of areas through district and phenomenon data, providing neighbourhood actors with the information needed for planning activities such as work for the safety of the area.

A sense of community is one counterforce against segregation development. The image below forms a comprehensive picture of means to prevent and reduce segregation, as well as means to mitigate and remedy the impacts

of segregation. It must be noted that education alone is not capable of resolving the issue of segregation. We take part in preventing and mitigating segregation and remedying its impacts at the level of the entire city and as part of our cooperation with neighbourhoods.



City of Helsinki 2023. Helsinki's objectives and measures for preventing segregation.

\* e.g. education, social welfare (and healthcare, youth and urban environment services)



We learn by doing, embracing experiences and trying things alone and together with others. Photo: Jefunne Gimpel

## 2

### **We are creating learning communities where everyone learns from each other**

Learning is a lifelong process. It is not bound to time, place or system. Our facilities support pedagogic activities, and the entire city serves as a learning environment. We learn by doing, embracing experiences and trying things alone and together with others.

As society changes, so do needs regarding competences. The phenomena we encounter in everyday life are complex, and resolving them calls for transformative com-

petence, as well as collaborative knowledge construction and problem-solving. We want our learners to have the ability to see connections between things and find new innovative solutions. Transformative skills, such as critical thinking, creativity, problem-solving and working together, are emphasised alongside academic knowledge. Key competences required in the future society also include global citizenship skills and cultural competence.

As AI develops and the amount of information available increases, the learner's role as a producer of

information becomes more prominent and the significance of critical reading skills increases. This calls for shifting from the teaching of information to its application, assessment and critical examination. The teacher researches and searches for information together with the learners and guides the learning process. Learners are provided with support where needed in the different stages of their studies. As learners accumulate skills, their need for support – also called cognitive scaffolding – decreases.

In a dream school envisioned by comprehensive school pupils, everyone is invited to take part in play, conversations and learning. The atmosphere is characterised by empathy, fairness and respect for others.



How learners develop social and emotional skills plays a key role in the development of their academic skills.  
Photo: Emilia Kangasluoma



### **We are building a city for everyone that emphasises non-discrimination and equality**

We identify factors that enable us to develop equal education in Helsinki. For example, we want to make sure that people who have moved to Finland at a late point of basic education obtain all necessary skills before moving on to further studies or working life. We are also working towards narrowing the current gender differences in learning.

A learner's background affects the development of their academic skills and their learning outcomes. The same background factors often also affect the development of social and emotional skills, which in turn play a key role in the development of the learner's academic skills and their well-being. For this reason, we are promoting equality by also focusing on the learning of social and emotional skills.

# 4

## **We make everyone's potential flourish**

We want a motivating learning environment where everyone has an opportunity to work on suitably demanding exercises. Our goal is for no one to repeatedly lose their self-confidence over exercises that are too difficult and, on the other hand, for no one's motivation to be undermined by exercises that are too easy. In other words, we are enabling everyone to reach their full potential.

The starting point for planning education is the big picture, the

class or the group. At the same time, developed technology and AI facilitate more personalised and equal learning and growth paths for learners.

Data analytics facilitates better information regarding groups and individuals. We can use the data for purposes such as monitoring the development of learners' well-being and skills at a more detailed level. We are utilising the information at the level of the entire city, the area, the unit, the group and the individual. The purpose is for the information provided by data analytics to be

connected to everyday activities. This functionality supports and clarifies operations.

We focus on continuous learning and the development of competences. The rapid development of technology and changes in working life require continuous learning and flexible development of competences. Our continuous learning education services respond to the transformation of working life, individuals' career development needs and maintaining Helsinki's overall competitiveness.



In Helsinki, all learners obtain equal skills before moving on to further studies and working life. Photo: Jefunne Gimpel

## Key competences and skills, and social and emotional skills

Good key competences and skills, as well as social and emotional skills, form the basis for all other learning processes, which is why they are given enough space in learners' everyday activities. Key competences and skills are relatively permanent, even though our understanding of them is constantly increasing. For example, we have broadened our view on literacy.

Competence and skill requirements are being updated to meet current requirements. The significance of digital skills will increase and expand in the coming decades while AI is reducing the need for expertise in certain fields.

We emphasise the significance of play and gamification. Play has positive impacts on children's de-

velopment, well-being and learning. Play is a key work method and activity in early childhood education and pre-primary education. Play combines key elements that promote learning: inspiration, insight, self-expression, working together and challenging one's own skills. We defend play as part of growth and development.

We give space for creative use of technology and gamification in learning. Gamification and making games develop thinking skills and connect learners' everyday experiences to the content being studied. Gamification and creative use of technology as a work method is suitable for learners of all ages; it motivates and inspires innovative action.



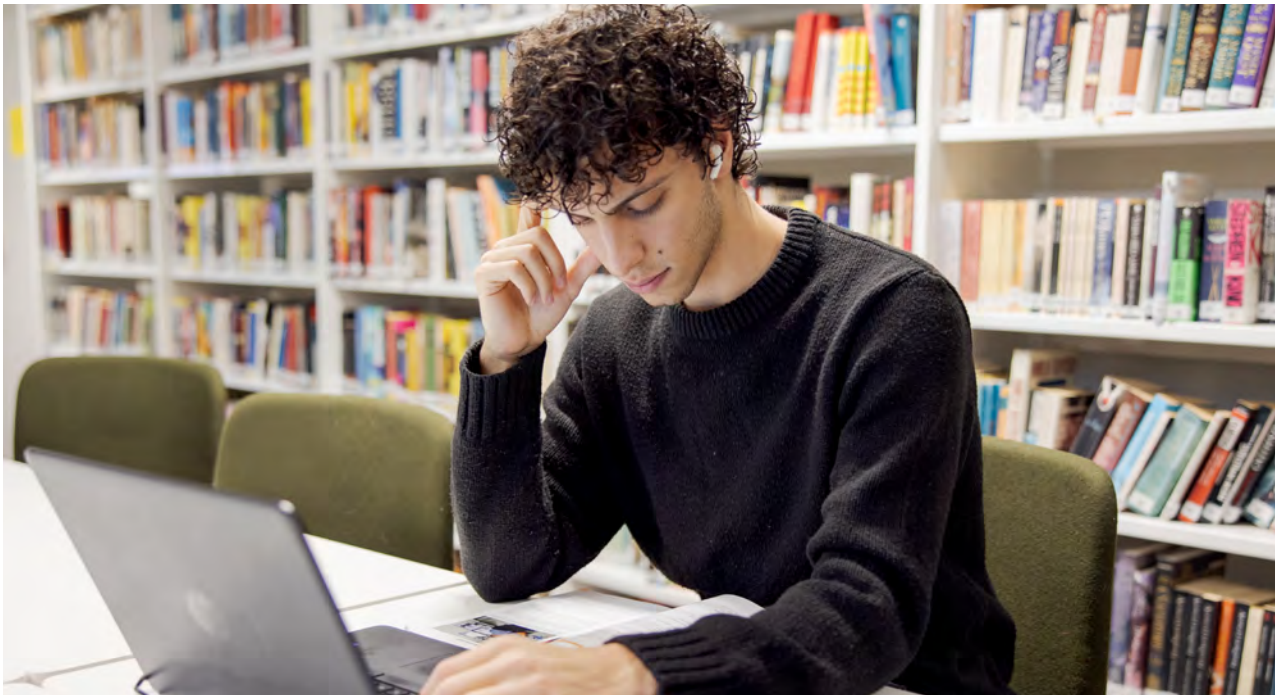
We use play and gamification to imbue learning with inspiration, insight, self-expression and working together.



Play plays a key role in early childhood education and pre-primary education, as it combines all key elements that promote learning.

Photo: Emilia Kangasluoma





Good reading and writing skills form a robust basis for learning future competences and skills. Photo: Maija Astikainen

### Key competences and skills

Key competences and skills are practised diversely in different situations with the learners' age level and skills taken into consideration. In Helsinki, the learning of key competences and skills is strengthened systematically in the different stages of the learning path.

#### *Literacy and the development of language*

Robust literacy skills form the basis for all other learning processes and the development of other literacy skills. The starting point for learning literacy skills is multiliteracy, which includes areas such as basic literacy, visual literacy, media literacy and critical reading skills. In the fast-paced field of text, skills related to obtaining, combining, producing and assessing different kinds of information play a major role. A digitalising society calls for increasingly diverse literacy skills.

The development of language skills begins in early childhood

and continues as a lifelong process. In early childhood education, activities are planned so that every child has an opportunity to be understood and understand what is happening around them. The activities always have linguistic objectives, and the fulfilment of these objectives is ensured through play, singing, talking, stories, narratives, listening and asking questions. Literacy work emphasises playfulness and cooperation with families. We examine, read and produce different types of texts together. Literature education is documented, and every unit uses Reading Wheel materials to support their assessment and development processes.

The first two grades in basic education form a cornerstone of actively practising literacy skills. Finnish and Swedish are not only a teaching subject, but also a tool in studying other subjects, due to which it is extremely important to focus on studying them in the early stages of basic education.

We are connecting literacy skills increasingly closely to different

subjects. We describe the linguistic objectives of different subjects alongside their content-related objectives in a more visible and obligating manner than before. Our goal is to make practising literacy skills a visible part of all subjects.

In upper secondary education, literacy work is diverse from basic education for adults to general upper secondary education. For example, more students whose native language is not the study language are applying for general upper secondary education every year, posing a challenge to general upper secondary studies and the function of the general upper secondary school.

#### *Logical-mathematical thinking*

For many learners, mathematics is little more than a set of rules that needs to be learned and is detached from their everyday experiences and practices. They do not find learning mathematics inspiring, nor has it become a tool of thinking for them. At best, the teaching and learning of mathematics strengthens the learner's

flexible mathematical thinking and use of mathematical skills in everyday life. Resources must be allocated to developing the teaching and learning of mathematics at all levels, from early childhood education to basic and further training for teachers.

In the best-case scenario, learners gradually adopt elements of computational thinking that are part of today's transformative skills even before school age. Examples of these elements include information structuring, differentiation, reasoning, modelling, decision-making mechanisms and system thinking. Learners utilise computational thinking skills as a tool of abstract and critical thinking, in problem-solving, when interpreting media, in creative work, etc. They understand how today's digital technology is based on the automation of abstractions by means of algorithms.

#### *Science, technology and design skills*

We aim at reinforcing learners' scientific thinking, problem-solving skills, planning and design competence and innovative utilisation of technology, starting from early childhood education. We want to promote experimental and testing culture in operation and renew our

operating culture towards more multidisciplinary pedagogy. Examining contents related to mathematics, environmental studies, natural sciences and technology as comprehensive phenomena by means such as art subjects and design increases learners' enthusiasm for studying mathematics and natural sciences. This also improves learners' self-regulation, interaction and critical thinking skills.

#### *Digital competence*

Acting in both the present and the future society requires digital skills and their systematic practice. Digital competence is a prerequisite for equal participation. Our goal is to prevent segregation and provide learners with equal capabilities for innovative learning now and in the future. There are major differences in learners' digital skills that play a part in their learning and agency as active members of society. We are strengthening learners' digital skills and the practice thereof better than before through their entire learning path. Appropriate utilisation of information and communication technology supports learning and facilitates individualised learning paths, more diverse ways of learning and teaching, and learning that is independent of time and place.

#### *Language skills and cultural diversity*

Helsinki is becoming more international, increasing its diversity of languages and cultures. We want everyone to be proud of their own language skills and culture. In the Education Division, we take into account all languages spoken in Helsinki and all cultures and beliefs side by side. We understand their significance to the construction of learners' identity in Helsinki.

Learners naturally use their own home languages in their learning. Cultural diversity is a factor that enriches all learners' worldview. We apply language-aware pedagogy in Helsinki. A core aspect of language-aware pedagogy is that learners are allowed to use all languages that they know, as well as all skills and contents, when learning and studying. Every teacher is a linguistic example and serves as a language specialist in their own field of knowledge.

In the future, we will better take into account the learners' different levels of language skills. We will develop foreign language and interaction skills. We will support the development of diverse language proficiency in international cooperation virtually and through physical meetings.



We want to renew our operating culture and promote trial and testing culture in education.  
Photo: Juho Kuva

### *Global citizenship skills*

The changing population structure requires new ways of thinking in the field of education as well. At best, the diverse range of languages, cultures, religions and ethics in Helsinki creates new connections between people and broadens their thinking.

A responsible global citizen respects and values others. They are empathic and support a sense of community through their actions. They also acknowledge the global impacts of their actions that promote the construction of a sustainable future. Responsible global citizenship requires us to take social, cultural and ecological sustainability into account in all activities. We understand the richness and diversity of the world's languages and utilise it in learning. Language-aware pedagogy that utilises multilingualism supports all learners' growth into global citizens.

International activities promote the development of global competences and enable persistence and empathy to grow. This means an ability to understand local and global phenomena and intercultural dynamics. A key aspect is the ability to act in appreciative interaction in situations that involve opinions and worldviews that differ from one's own.



Education also considers global citizenship skills, a master of which acknowledges the global impacts of their actions. Photo: Maija Astikainen

### *Design and art Artistic and practical skills*

Artistic and practical subjects develop thinking skills, such as creativity, problem-solving, critical thinking, crisis resilience and empathy. They also provide an opportunity to see the world from a variety of perspectives and support learners' growth into humanity and responsible members of the community. The knowledge and skills obtained from artistic and practical subjects can play a significant role in future problem-solving.

Every day, learners face various physical situations related to everyday life and play that call for motor skills. Motor skills are connected to many factors essential to development, such as cognitive skills, experiences of competence, the development of physical capacity and learning at large. The majority of young people are not sufficiently physically active, and differences in physical capabilities have increased. Many children's physical capacity to act is at such a low level that it can adversely impact their well-being.





Practising entrepreneurial skills will continue to be part of education. Even though not everyone becomes an entrepreneur, such skills are needed in life at large. Photo: Jefunne Gimpel

It has been established that motor skills and physical activity have a connection with aspects such as mathematical skills, dyslexia and attention deficit disorder. Problems with motor skills are often brain-based, and identifying them and arranging appropriate support measures is important. Early support can have a positive impact on a child's overall development.

Craft-making is bodily information acquisition, the significance of which cannot be entirely substituted with information acquired through abstract thinking. Working with two hands activates both brain hemispheres and increases their cooperation. This strengthens cognitive learning. Craft-making and making three-dimensional objects also develop three-dimensional perception, problem-solving and creativity, and they improve persistence and concentration. The autonomous stage of motor learning can help a person concentrate on listening, for example,

thus promoting learning. Artistic and practical skills contribute to hand-eye coordination, which is needed in many everyday tasks and professions.

#### *Participation and influencing*

Helsinki is a child-friendly municipality where every child and young person is heard and encountered every day. We want all Helsinki residents to be active participants who know how to influence matters in their home city. They learn in childhood that their opinions are valued and significant. Experiences of participation and influencing create a basis for democracy skills and entrepreneurship.

Our young people have robust societal skills, but we have plenty of room for improvement in participation skills and enthusiasm. We are strengthening democracy skills by creating an operating culture that promotes participation and communality, as well as supporting structures for it. This is an

important measure to prevent the growth of anti-democratic forces that incite conflicts in our society.

#### *Entrepreneurship*

Developing entrepreneurial skills will continue to be a cornerstone in education, the role of which becomes more significant when moving from children to young people and adult students. Not everyone becomes an entrepreneur, but it is important to strengthen entrepreneur-like competences, as they are needed in society and life at large. In the future, working life will probably develop at an increasing pace, expedited by factors such as the development of AI. Because of this, those who enter working life or become entrepreneurs must be able to flexibly develop their know-how and modes of operation. In the future, work will be flexible and network-like, and increasingly many people will be self-employed.

## Social and emotional skills

Social and emotional skills form a basis for good learning, growth and well-being. They are skills that are learned and developed in everyday life, and it is important to focus on learning and practising them at different ages.

Social and emotional skills are important for success in studies, employment and active citizenship. They also support mental health and the construction of a secure identity. A positive and confident perception of one's own place and direction in life supports an individual's well-being. Key skills affecting a learner's trust in the future include persistence, curiosity and optimism.

Negotiation skills are important interaction skills. Good negotiation skills strengthen constructive

interaction and prevent radicalisation.

A child's or young person's socio-economic background affects their development of social and emotional skills. There are also gender differences in skills. We focus on systematically practising these skills so that everyone can have the capacity for a good life and good learning regardless of their background.

We encourage teachers and other personnel to engage in positive interaction and to understand, encourage and focus on the learners. This has an impact on the development of social skills. Positive experiences in the pupil-teacher relationship help with the formation of a positive self-image. At best, positive interaction experiences can help learners break a cycle of negative life events.

## Social and emotional skills form a basis for good learning, growth and well-being.

We already have systematic and research-based programmes in place to strengthen the development of emotional and interaction skills. However, social and emotional skills form a broader whole than emotional and interaction skills. Going forward, we will develop and apply tools and operating models that support the teaching and practice of social and emotional skills more comprehensively.

A sense of belonging and the ability to work together and collaborate

Self-knowledge: trust and faith in oneself, confidence in social situations

Interaction and negotiation skills

Stress resistance, optimism

Empathy, trust

Responsibility, persistence

Sociability, assertiveness, energy

Open-mindedness, curiosity, creativity

Emotional skills and regulation

Goal orientation, self-efficacy



\*Source: OECD social and emotional skills study, 2021

## Continuity of the learning path

A view of the future is built with slightly different weightings in different stages of the learning path. The common starting point and objective is to ensure the best possible growth and learning for all learners.

### The future of early childhood education

Early childhood education and pre-primary education play a significant role as the first step in equal learning and on the learning path. The significance of early childhood education to children growing up in unfavourable socio-economic conditions has been identified as a particularly important factor.

We are strengthening the significance of early childhood education as part of the education system by creating opportunities for every child to attend it. Knowledge and understanding of the significance and quality of early childhood education contribute to increasing the attendance rate. Other

methods identified to be effective include lowering early childhood education fees, shortening the child home care allowance period and childcare leave, and expanding pre-primary education into a two-year period.

We are further developing the quality of early childhood education and pre-primary education. We are strengthening the pedagogic competence of our personnel in the implementation of individual early childhood education plans and curricula for pre-primary education. High personnel competence creates conditions for the realisation of high-quality early childhood education and pre-primary education, as well as children's good learning, growth and well-being. We pay attention

to resourcing, other structural factors and assessing the quality of operations.

The large proportion of non-Finnish-speaking children can be seen in different needs among children and families, due to which we must allocate resources to personnel competence and new tools. We use assessments that chart the children's language skill levels in order to be able to identify support needs as early as possible from the perspective of language development and plan our pedagogic activities so that they meet the children's language development needs.

We are strengthening skills and opportunities of our personnel to promote children's development, learning and well-being – we utilise correctly timed and individually targeted support in accordance with inclusive principles and the children's needs.

We give space, time and peaceful play conditions for children's play initiatives, trials and experiences. Through play, children learn interaction skills, build peer relationships and form friendships. With play and other goal-oriented pedagogic activities, we are also supporting the development of early mathematical skills. Children's typical ways of operating – play, physical activity, artistic experiencing and examination – are at the core of pedagogic planning work.



Every child is provided with an opportunity to attend early childhood education, where children's play and experiences are given space and time. Photo: Jefunne Gimpel



Pre-primary and basic education form a unified and predictable learning path that ensures the learner's correctly timed support and development. Photo: Jefunne Gimpel

### The future of basic education

We tackle educational equality challenges, such as the increasing learning differences between both pupils and schools, by implementing effective measures across division boundaries. We exert influence at both the national and local level to ensure that basic education receives sufficient funding. We target our needs-based funding at disadvantaged children. What is essential is that we are strengthening equal opportunities for pupils and working towards narrowing the differences in learning outcomes and increased well-being. Our goal is for children to be able to achieve good learning outcomes at their neighbourhood school, which is a safe and inspiring environment for learning, hobby activities and everyday growth.

We are developing a unified and predictable pre-primary and basic education learning path. We ensure that learners develop well and receive correctly timed support, and we create conditions

for continuous learning. In the cooperation between pre-primary and basic education, it is essential to have shared objectives that support learning and growth, such as the promotion of reading. On the learning path, a sustainable future is built by strengthening children's well-being and learning through long-lasting and effective measures in a multidisciplinary manner together with different operators.

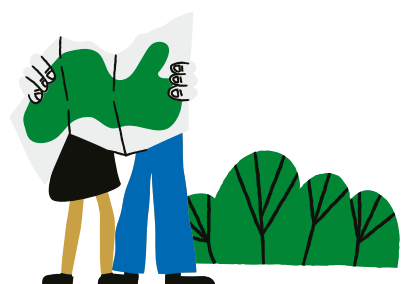
We are assessing and renewing the teaching of literacy skills and the practices of Finnish and Swedish as a second language education, and developing tools for identifying learners' language skill levels. We are also paying special attention to developing the pedagogy of mathematics and natural sciences and thereby improving pupils' level of competence.

The rapidly changing digital learning environment and AI provide new solutions to support teaching and learning. We identify positive and negative factors affecting the learning of digital devices and

well-being. Modes of operation are being developed in basic education to ensure that digital devices are used appropriately and in a goal-oriented manner.

We are developing the quality of basic education with a learner-oriented approach. We focus on children's well-being and learning. We are educating and training a new generation of eco-social thinkers to be part of a society that values equality and non-discrimination.

Renewing basic education strengthens future thinking skills and activities, which supports learners on their learning path after basic education as well. We are working towards everybody having good conditions for further studies after basic education.



Upper secondary education presents better opportunities than before to implement flexible education combinations in accordance with the learner's interests.  
Photo: Maija Astikainen



### **Upper secondary education and the future of continuous learning**

Educational organisations are creating new modes of operation and renewing competence and the economic structure nationally and regionally in close cooperation with the labour sector. For example, the transfer of Public Employment and Business Services (TE Services) to municipalities brings the services closer to clients and contributes to expediting responses to the know-how needs of the labour sector, as employment and business services are under the same organiser's responsibility as education services.

We are developing a service for Helsinki-based businesses that

operates on a one-stop shop principle. The purpose of the service is to meet the minor and major education needs of businesses in Helsinki. We will coordinate a programme to meet the education needs of the labour sector, covering the upper secondary level and liberal adult education. In addition to a guidance model, we will create a method for predicting know-how needs.

In order to support service provision and Helsinki residents' competence needs, we are developing smaller competence modules suitable for continuous learning alongside upper secondary education. This will facilitate developing working-age people's competence and the prediction

thereof, as well as targeting education and guidance at fields undergoing a structural change and groups that are underrepresented in education.

Upper secondary education will continue to be developed alongside society and the labour market. The transformation of working life requires renewing upper secondary education and liberal adult education and enhancing cooperation. In the future, the upper secondary level will enable learners to combine educational contents more flexibly than today. In turn, this will enable learners to develop their competence more appropriately and meet the competence needs of working life and further studies more accurately.





At the heart of everything are the students and the development of their competence. Students can make choices in accordance with their own potential, whereby the course selection can be wider than that of general upper secondary education, a degree programme or partial degrees, regardless of the form of education or the degree being studied for. General upper secondary school students can select vocational education courses, while vocational education students can select general upper secondary education courses. Courses can also be selected from the offerings of liberal adult education.

In its current state, the regulation of vocational education and

training (study years, degree programme authorisations) does not serve the needs of different areas from the perspectives of the pertinence of the education provided, dynamic cooperation with the labour sector or the prediction of education and labour needs. We are actively exerting influence to renew this aspect.

We are making education more equal so that more students studying Finnish or Swedish as a second language will choose general upper secondary education and advance to higher education. The role of liberal adult education will be even more significant due to factors such as the new Act on the Promotion of Immigrant Integration.

We are creating new solutions, structures and interfaces to support learning at the upper secondary level. We provide every learner with the service or skill development that they need at that exact time in order to find employment. We make sure that every student receives the support that they need during their studies. We focus on support for learning and strengthening well-being so that learners can receive support in matters such as their ability to study.

## Five objectives

### We are strengthening key competences and skills, and the development of social and emotional skills

Everyone will believe that their success in life will be the result of practice and work.

Learners will experience the joy and excitement of learning.

### We are working towards equal learning

The learning path is solid and of high quality.

Everyone's potential can flourish.

Our diverse education services strengthen Helsinki's attractiveness.

### Our work is steered by research and data

We use data to promote learners' growth and development.

We encourage our educators not only use teaching methods diversely, but to assess and develop pedagogic resources by utilising the collected data.

The key starting point for our objectives is ensuring that Helsinki residents have trust in the future. Trust in the future is a key to success.

PREREQUISITES

### We allocate resources to personnel competence and well-being

Our leadership style is interactive and respectful of the competence of our personnel.

Our personnel are able to utilise their potential in the best possible way. They have a strong sense of their work being manageable.

### We are ensuring a sense of community, safety and well-being in everyday life

Our learning environments are motivating and safe.

We ensure participation and a sense of belonging. Learners have many opportunities to influence their environment, communities, work methods and work contents.

”

Our ethos of leadership is about being present and helping when needed.

Teacher



Our depiction of the future of education in Helsinki is broad but worth pursuing. Some readers may feel that certain aspects are already fine in their own area or, conversely, that other aspects require a lot of work. This is undoubtedly the case – the situation does vary within Helsinki. Every playground, daycare centre, school and educational institution has its own special characteristics, strengths and areas of development. The future we depict gives us shared development guidelines so that the emphases, methods and schedules of development have space for playgrounds’, daycare centres’, schools’ and educational institutions’ own choices.

The objectives guide our joint activities, leadership and quality development. We will integrate contents of Education 2030 into our orientation processes, the development of competence and the performance leadership. Overall, we will renew structures and modes of operation to make them support development in terms of our objectives. Our vision can come true if we work together and promote our shared objectives.

We are strengthening everyone’s trust in the future and building a sustainable future.



”

Future Helsinki would have a golden tree shining on everyone. There would be boats transporting people, unicorns that people could ride and cats that would illuminate Helsinki at night.

Daycare-aged child



# Emphases of the objectives

The emphases of our objectives will help with our work in the coming years and concretising our views of the future. The emphases presented will give us guidelines for joint activities and development work. We will be able to pick carefully considered highlights for action plans based on the emphases. In this context, the emphases will first and foremost provide elements for building our envisioned future.

We will build this future together and with careful consideration.

”

We believe that the education system could work more for the environment, as young people of our age are quick to adapt.

Upper secondary education student

We want to reserve time for encountering children and young people in everyday life and activities. Photo: Maija Astikainen



## We are strengthening key competences and skills, and the development of social and emotional skills



### Key competences and skills

We are developing the learning paths of all key competences and skills. We give space particularly for reading, writing and the development of mathematical skills.

We are lightening and clarifying Helsinki's local curriculum. We are influencing future curricula so that the learning of key competencies and skills, as well as social and emotional skills, will be strengthened and clarified.

We are contributing to increasing reading and enthusiasm for reading by developing cooperation between the Education Division and library services. We will introduce an application that inspires reading for all age groups to use.

We will create research-based tools and digital assessment services for regularly assessing learners' literacy skills.

We will expand adult literacy work at general upper secondary schools for adults and improve the teaching of reading and writing skills for immigrants and the teaching of stay-at-home parents in liberal adult education.

We will add sustainable development to the list of key competencies and skills. We are committed to the promotion of sustainable development, which is involved in all learning processes in a cross-cutting manner.

Through education and learning, we are strengthening the value base of eco-social civilisation and will apply the new EU competence framework regarding sustainable development in practice.

We will strengthen the learning path of gross and fine motor skills by creating tools, models and materials for different education levels for observing and practising motor skills. To this end, we will cooperate with the Urban Environment Division and the Culture and Leisure Division.

We describe objectives that guide the practice of digital skills, suitably concrete for each age period.

We strengthen the learners' algorithmic thinking skills. We use robotics and artificial intelligence in teaching.

We pay special attention to competence in mathematics and natural sciences, particularly the observation and development of early mathematical skills.

We are proud of our diversity of languages and cultures. We will continue to focus on studying and supporting languages: Finnish, Swedish and Sámi, as well as sign language, learners' own native languages, and foreign languages. We will increase Helsinki-based learners' Nordic cooperation and reach by starting to provide education in accordance with the Nordiska skolan model. We continue to develop opportunities to study in English.

During early childhood education and pre-primary education, children will familiarise themselves with the languages studied in Helsinki. Guardians will be provided with comprehensive information about the benefits of early language learning, multilingualism and support for the development of learners' own native language. Before school enrolment, guardians and children will familiarise themselves with language learning.

We are working to make the several home languages of children, young people and adults a natural part of everyday operations. We are also building language awareness activities based on research.





We are strengthening the principles of sustainable development in teaching and learning.

### Social and emotional skills

We will create a toolkit to support everyday operations from operating models that support the development of social and emotional skills. To facilitate this, we will build the necessary cooperation networks. We will ensure the functionality of the operating models through piloting.

We are creating favourable conditions for the growth of learners' curiosity and pedagogy that reinforces this curiosity.

We are strengthening social cohesion and responsibility.

We are developing our operations so that every learner can feel competent and important.

We are strengthening all learners' emotional, interaction and empathy skills.

We are strengthening learners' experience that their success in life is the result of continuous practice and work.

We utilise play and gamification in the development of social and emotional skills.

We work to prevent loneliness and invest in the grouping process throughout the learning path.

We encourage learners to engage in long-term and persistent work.

## We are working towards equal learning



### Different stages of the learning path

We are focusing on increasing attendance rates in early childhood education and pre-primary education and paying attention to regular attendance in areas with a lower attendance rate.

We are developing a solid and predictable learning path for the pre-primary and early childhood education.

We are establishing principles and operating models for inclusive education. We are facilitating flexible learning support arrangements so that children, young people and adults can receive the support that they need. We plan individual learning paths and smooth transitions for learners in a multiprofessional manner.

We implement teaching in a way that makes individual paths a natural part of the group's activities.

We work to ensure that everyone is in a good position to continue to study further after completing their basic education.

In the final phase of basic education, we strengthen the working life-oriented teaching and transition to the upper secondary level.

We are creating new solutions, structures and interfaces to support learning. We are strengthening group instruction.

At the upper secondary level and in preparatory education for general upper secondary education, we will introduce a support model that will provide support and help for students suffering from issues such as exhaustion or social anxiety.

We are strengthening opportunities for continuous learning and creating flexible learning paths. We are developing upper secondary education learners' opportunities to simultaneously study contents of general upper secondary education, liberal adult education and higher education institutions.

We will create structures for cross-studying and develop the study models. We will start a youth study programme at general upper secondary school for adults.

We are responding to Helsinki-based businesses' competence needs by creating competence ecosystems between the labour sector and different levels of education. We are enhancing cooperation with the Economic Development Department and the labour and business sectors.

In addition to degree programmes, we are developing smaller competence modules and micro qualifications suitable for continuous learning.

We are supporting working-age people's ability to work. We are improving Helsinki residents' professional competence and opportunities to stay in working life longer. We will build a smooth learning path for those with partial work ability.





Let us make every school attractive and inspiring by brainstorming and developing together.

#### Attractiveness and inspiration

We are assessing and renewing the communication strategy for an attractive local school. We are strengthening the schools' reputation and attractiveness. We are developing communications regarding emphasised curriculum education, particularly for non-Finnish speakers. We will renew aptitude test practices and contents.

We are strengthening learning from the perspective of both the individual and the community. We are working towards narrowing the current differences in learning outcomes.

We are building learning environments that are inspiring and motivating for all and in which learners have many opportunities to influence aspects such as the comfort, collaborative activities and work methods and contents of schools.

#### Finnish or Swedish as a second language

We want everybody to have good opportunities for further studies after basic education. We are strengthening language-aware teaching and monitor the development of language skills. We allocate teaching and linguistic support according to the learner's needs.

We will develop tools and digital assessment means for identifying learners' language skill level to help learners transition from preparatory education to general education at a sensible time. We will ensure that language skills are charted and linguistic support is provided in early childhood education as well, as the basis for language skills is formed in early childhood.

We are facilitating a smooth transition from preparatory education to basic education.

We are assessing and renewing the current practices for guiding learners with regard to Finnish and Swedish as a second language education. We will make sure that all our professionals have unified and obligating modes of operation to guide pupils, guardians and teachers in the selection of an appropriate Finnish or Swedish language syllabus.

In particular, we will provide pupils who have recently moved to the country with interesting summer activities to support the strengthening of their Finnish or Swedish skills in connection with leisure time activities. We will start from first and second graders and survey the needs of pupils in grades 3–9.

We will make sure that all subjects have a sufficient amount of differentiated and digital learning materials that support different levels of Finnish and Swedish skills. The materials will be motivating and designed to be used seamlessly alongside general education contents. We will utilise AI to introduce more personalised learning solutions than before.

We will make sure that all schools have access to enough plain-language and multilingual literature. We will also have high-quality translation programmes to ensure that the contents of learning modules are understood in depth.

## We are ensuring a sense of community, safety and well-being in everyday life



### A sense of community, safety and well-being

We are instructing children and young people to take health and well-being into account in their use of digital devices. The objective is to increase genuine interaction and communality. We will have clear instructions for using and utilising personal digital devices.

We will strengthen dialogue, joint discussions and talking about well-being in everyday contexts.

We invest in upbringing partnership with families.

We acknowledge the significance of the entire neighbourhood to having a sense of community. We will strengthen playgrounds', daycare centres', schools' and educational institutions' role as gatherers of communities and facilitators of cooperation between families.

We will promote the transparency of decision-making process and establish in the planning phase whom the preparations concern.

We are strengthening all learners' participation in everyday activities. We will create and utilise a wide range of places for encounters.

We will support young people's after-school activities in co-operation between different parties, such as the Education Division, Youth Services and the police.

We will strengthen the schools' inner security culture.

We will maintain and strengthen joint activities in the area between divisions (the Culture and Leisure Division and the Social Services, Health Care and Rescue Services Division) and with other local actors and the neighbourhood.

Playgrounds, daycare centres and schools will collaborate with other professionals and residents in the area in order to secure a safe day for every child. A safe day is free of racism, bullying or anything else that causes fear or danger.

Local actors will tackle challenging phenomena in the area and find solutions together. Neighbourhoods will cooperate to reduce loneliness and promote physical activity.

We will make sure that parents who have moved to Finland get to be part of early childhood education and school communities and feel a sense of togetherness.

We will cooperate with the third sector and other divisions.

We are taking part in the development of city-level area phenomenon reporting. We use data in the management of operations.



## Hobbies and physical activity

Hobby activities are an essential part of well-being and participation, as well as the integration of new Helsinki residents. With hobby activities, we support pupils' strengths and self-esteem, and thus prevent social exclusion.

We are closely collaborating with the Culture and Leisure Division, hobby activity providers and guardians. Hobbies are provided not only to individuals, but to families and communities as well.

The City of Helsinki's divisions are implementing the Finnish model for leisure activities together in Helsinki. We provide free-of-charge hobby opportunities based on the wishes of children and young people in connection with school days.

We are developing hobby opportunities for the adult population and the elderly in cooperation with the Adult Education Centre and Arbis, as well as the Culture and Leisure Division. In particular, the objective is to activate elderly residents and those in danger of social exclusion. The planning of hobby activities is participatory.

We will develop physical activity opportunities by engaging children and young people. Together with guardians, we encourage children and young people to be physically active in their leisure time as well. We will target development measures for promoting physical activity in an information-based manner to reduce segregation and narrow well-being differences.

We provide culture and art for all education levels and operating environments. We take the cultural diversity of our personnel and learners into account in study materials.

We support learners at all educational levels in finding enjoyable ways to make and experience art and culture and thereby utilise the positive effects of culture and art on well-being.

## We allocate resources to personnel competence and well-being



### Prediction of personnel needs, management, and the operating culture

We are exerting influence to ensure that we have a sufficient number of knowledgeable personnel. We are developing tools for predicting personnel needs and have quantitative and qualitative influence over educational institutions. We are bringing out Helsinki's special characteristics.

We will establish clear modes of operation for international newcomers and jobseekers. We will build flexible paths for obtaining training for jobs with labour shortages and make job seeking more agile. We will increase the division's diversity competence in the recruitment of people with different language and cultural backgrounds as part of the permanent personnel's duties.

We focus on leadership. We are strengthening a community-oriented operating culture that increases employees' participation, opportunities to influence matters in the work and the work community and responsibility to make decisions locally. The core of our operating culture is formed of ideas of trust and appreciation.

In 2030, our leadership style and operating culture will make it possible for every employee of ours to use their strengths for the benefit of learners.

We will work towards making work suitably challenging and ensuring that it is found manageable, facilitating a strong experience of competence, development and commitment to work.

We will actively develop our operating ways with a better working life as our goal. We will address and remedy issues with the work community together and solve work challenges through innovative co-development. We will take care of our ability to work both as individuals and as a community.

#### Our principles

- common direction and framework
- space for playgrounds', daycare centres', schools' and educational institutions' choices
- support for the work of units
- structures that support our operations

#### Our means

- action plan
- leadership and support
- cooperation
- competence development
- orientation process
- competence and performance management
- quality framework
- communication

## Development of competence

We want our personnel to have an opportunity to develop and harness their own potential. We are developing competence in an information-based manner.

We focus particularly on support in the early stages of personnel members' careers.

We will target the development of competence at the emphases of 'Helsinki Learns – Future Competences (e.g. language awareness, well-being, mathematics and computational thinking, digitality and an anti-racist approach to work).

We are developing the structures of learning at work to support community-oriented learning and organising.

We will allocate resources to our personnel members' work language education and curriculum competence.

We will provide our multilingual personnel with education in Finnish or Swedish as the work language, contributing to the development of learners' Finnish or Swedish language skills.

We will make sure that our personnel have adequate know-how with regard to learning analytics.

Everyone will know what type of learning data is collected, why that data in particular is collected and how it is used to support everyone's work.

We will further strengthen cooperation with universities, higher education institutions and vocational education and training providers in the development of competence.





### Development of pedagogy and learning environments

We strengthen learners' creativity and innovativeness.

We encourage diverse use of teaching methods and learning strategies. We will assess and develop the pedagogic equipment of playgrounds, daycare centres, schools and educational institutions based on collected data.

We provide teachers with real-time learning analytics: information tools for purposes such as monitoring learners' progress, absences, well-being, and support needs and personalising their learning.

We are actively monitoring the development of learning environments in both national and international networks. We systematically collect user feedback regarding facilities, which we then utilise in the development of planning instructions and processes. We strengthen the participation of the personnel.

We facilitate experiential, gamified and playful learning in new kinds of environments. Extended reality (XR) provides us with learning environments that would not be accessible otherwise. In this context, we utilise virtual reality (VR), augmented reality (AR) and mixed reality (MR).

Our practices, information systems and other tools support everyday activities.

AI is changing working life and the competences needed in the future. We are proactively monitoring the transformation of working life, which will impact vocational education and training in particular. We will keep our modes of operation concerning AI up to date. We take AI into account as a tool and work partner in teaching and learning. This further increases the importance of critical media literacy and ethical consideration.

We facilitate diverse and high-quality implementation of art and physical education in digital and physical learning environments. Our goal is for the entire city to serve as an environment for cultural education. We are building cooperation via different cultural education forums.

### Monitoring of progress

We use dashboards to monitor the real-time situation regarding learning, well-being and segregation-related phenomena at the level of the entire city, areas and individuals, as well as the effectiveness of measures. We allocate resources in a data-based and effective manner.

We use data analytics to monitor our progress and the impact of our measures on learning and well-being. We improve our operations based on knowledge. We monitor and assess the effectiveness of needs-based funding.



We encourage  
diverse use of teaching  
methods and learning  
strategies.

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- Extensive discussion with division staff, learners, guardians and municipality residents. And cooperation with other divisions and stakeholders.

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